Appendix: CTF Meetings #4 and #5 Outcomes

Interest and Values Identification

In meetings #4 and #5, CTF members worked to identify interests and values that would help inform the early development of the evaluation criteria. To achieve this, CTF members responded to the following questions:

- *What interests and values does our community feel strongly about that must be considered?*
- *Finish the statement: We care about…?*
- *Are there interests and values missing?*
- *What else needs to be considered?*

The outcomes from those discussions are listed below. Additions or edits to the prompts appear in red.

Note: These are CTF comments as scribed with spelling errors, short-hand abbreviations and symbology expanded for ease of reading.

Interest and Values were summarized under the following topic areas:

- Historic Resources
- Visuals and Aesthetics
- Natural Resources
- Sustainability
- Business and Economy
- Indirect Impacts to Uses or Buildings
- Social Services
- Community Resources
- Parks
- Active Transportation and ADA
- Cost
- Emergency
- Motor Vehicles and Freight
- Personal Safety and Non-Transportation Safety
- Seismic Resiliency
- Transit
- Utilities
- River Navigation

HISTORIC RESOURCES

What you said	• Protect historic resources and the character of historic districts and neighborhoods (from direct and indirect impacts) + existing bridges
What we heard	**Alternatives** • Displacement • Context • Indirect impacts **Construction** • Access • Displacement
Additional input from Team	**Construction** • Displacement • Indirect Impacts o Need examples

CTF discussion	• "Historic character" of existing bridge and impacts to that – protected historic aspects
	• Elements of the historic bridge
	  o Operating machinery
	  o Relation to the history of the city
	• SHPO permitting
	  o ID the qualified historic elements
	• Ability to temporarily move historic resources during construction as mitigation
	• Consider staging needs for alternatives and temp bridge
	• Historic nature contributes to the history of the city
	• Clarify examples of temporary displacement of historic resources
	• Preserve historical elements of the existing bridge – columns
	• Relocation of historical elements as mitigation
	• Vibration impacts during construction
	• Loss of historic resources

VISUALS AND AESTHETICS

What you said	• Consider views from the bridge, the esplanade and the water • Enhance the visual look and feel - up close and far away, not obstructing
What we heard	**Alternatives** • View sheds/ corridors
Additional input from Team	**Construction** • Intrusion of temporary structures

CTF discussion	• "Pretty" aesthetically pleasing
	• Bridge design and aesthetics
	  o The bridge should age well
	• Temporary structure aesthetics – not a concern
	  o Aren't as important as usability and cost
	• Futureproofing of aesthetics; percentage of cost going to aesthetics as measure
	  o Futureproofing = age well
	  o Percent of costs to aesthetics – specific set-aside
	  o Thoughtful design Denoting importance to Portland. Not just pretty but well-designed
	  o Well-designed, not through ornamentation necessarily
	  o Clarity of view from the bridge
	• Bridge defines Portland, engineering, Importance to Portland
	• Don't visually overwhelm

NATURAL RESOURCES

What you said	• Protect air quality • Protect environmental quality and water quality for fish and recreation
What we heard	**Alternatives** • Air quality • Water quality • Aquatic species **Construction** • Air quality • Water quality • Aquatic species
Additional input from Team	[none]

CTF discussion	• Diversion Bridge: increased use of materials (less sustainable) longevity of the material
	• Birdlife impacts: variable?
	• Air quality and diversion bridge:
	  o More impacts?
	• Impact on light pollution
	  o Glare
	  o Shading
	• Impact on fish migration (in/out)
	• Limits on fill in the river
	  o Size of pier
	  o Hydraulics
	• Impact on flooding (bridge height)
	• Loss of natural light (under the bridge)
	• Columns of bridge and impacts on uses below
	• Impact on stormwater treatment
	• Impact on marine mammals (sea lions gather)
	• Pollution from deconstruction
	• EPA offsets of replacing old pilings

SUSTAINABILITY

What you said	• Balance short-term need and long-term legacy of the project - be smart and wise
What we heard	[none]
Additional input from Team	[none]

CTF discussion	• Greenhouse Gas Emissions
	• Disturbance of contaminated soil or water
	• Possibility for:
	  o Solar power
	  o Wind power
	  o Use of recycled materials (steel)
	• For other Gp:
	  o Noise pollution
	  o Pile driving noise/damage
	• Ability to use "green"/low carbon concrete
	• Local sourcing
	• Impact on active transportation networks (including transit)
	• Drawbridge vs. Fixed span:
	  o Longevity of materials
	  o Energy used to build
	• Impact on the amount of use by bridge users (active, etc.)

BUSINESS AND ECONOMY

What you said	• Minimize harm to local businesses • Avoid displacement of any buildings • Consider usability of area under bridge (i.e., American Medical Response) • Maintain access for customers to visit local businesses during construction and long-term
What we heard	**Alternatives** • Access • Displacement **Construction** • Access • Displacement
Additional input from Team	**Alternatives** • Redevelopment potential **Construction** • Regional and local economy
CTF discussion	• Alt and con: relocating sat. Market and skate park – how to mitigate? o Skidmore and Ankeny Markets o All need to return to where we came • Does this impact pride and rose festivals, Cinco de Mayo, staging for marathons? • Detour vs diversion bridge o Impacts on local businesses • Parking access • Physical impacts and local businesses and organizations • Improved under-bridge environment

INDIRECT IMPACTS TO USES/BUILDINGS

What you said	[none]
What we heard	[none]
Additional input from Team	**Alternatives** • Noise • View and light/shadow

CTF discussion	• Agree with w/ noise and view impacts to be considered
	• Alt and con: Bridge height vs. Cost
	• Alt and con: frequency of lifts
	• Permanent utilities access w/ new bridge
	  o In general and in case of emergency
	• Mitigating all impacts possible?
	• Vibrations caused by construction
	• Lighting: want to consider light pollution
	  o Dark sky criteria
	  ▪ Starwatchers
	  o Motion lights
	• Making bridge sustain buildings falling on it
	• Lighting and perceived public safety
	• Suicide rate and impacts
	• Parking access

SOCIAL SERVICES

What you said	• Minimize disruption and relocation during construction of social services and their clients • Avoid displacement of any buildings • Minimize permanent, adverse access impacts • Minimize disruption and relocation during construction • Maintain access to social services during construction
What we heard	**Alternatives** • Access • Displacement **Construction** • Access • Displacement
Additional input from Team	**Alternatives** • Level of Service maintained

CTF discussion	• Consider use by transient community and homeless
	  o Tents, displacing transient folks
	  o The population is transient by nature; may take care of itself
	  o Plan to work w/ providers of services to relocate services, they follow
	  ▪ During construction (business as well)
	  o A small percentage of the population – do not prioritize this population
	  ▪ Disagree
	  o Most vulnerable groups are most impacted
	• Building affected is AMR, if AMR, for the good of all, I understand
	  o Access for temporary bridge helps emergency services
	  o Restructuring staging locations and needs
	• Buildings on National Historic register, depending on alternative chosen, may impact

COMMUNITY RESOURCES

What you said	• Consider usability of area under bridge (i.e. Skatepark, Saturday Market) • Minimize impacts to festivals and events such as Rose festival • Maintain access to buildings during construction
What we heard	**Alternatives** • Access • Displacement **Construction** • Access
Additional input from Team	[none]
CTF discussion	• Importance of prioritizing interests/impacts • Businesses/ community organization impacts (for biz/org. Topic) o Waterfront events (Cinco de Mayo/ shamrock run, Blues Festival) • Parking for community resources like Saturday market • Being a resident without a local employer, Eastside gets forgotten and there are underserved communities there. • Consider Central Eastside, don't want to minimize momentum: o Don't want stacking, obstructed space, limiting parking

PARKS

What you said	• Minimize impacts to parks on both sides of the river • Support access to parks and the esplanade from the bridge, and in general • Promote usability of area under the new bridge
What we heard	**Alternatives** • Access – north/south and east/west • Displacement **Construction** • Access • Displacement
Additional input from Team	**Alternatives** • Functionality • Multi-use/ADA/Ramps versus stairs **Construction** • Functionality
CTF discussion	• Visual impacts of trying to access parts from new businesses Bridge; wayfinding • Alternatives o Aesthetic impacts (I.e. if esplanade is impacted – make sure to restore it to its same look/feel or better) • Travel bike/ped uses through parks – both in alternatives and construction • Avoid impacting established structures (alternatives and construction) • Maintain as much parking as possible (other topic area) • Opportunities to improve park spaces/uses if they are being impacted • Access to the whole area

ACTIVE TRANSPORTATION AND ADA

What you said	• Maintain and improve access and connections for bikes, peds, ADA:
	  o Esplanade
	  o Riverbanks
	  o Businesses
	  o Services
	  o Parks
	• Ensure accessibility for different users
	  o Ease of use, particularly for people in a wheelchair/disabled.
	  o Make the bridge accessible, comfortable and inviting for all ages
	• Have places for bikes and peds to linger
	• Design should avoid need to regularly block bike and ped for maintenance
	• Promote efficiency for all modes
	• Maintain routes for pedestrian commuters during construction, but don't sacrifice long term benefits
	• Safety/comfort:
	  o Ensure safe, comfortable, and welcoming pedestrian and bike facilities
	  o Ramps should not be too steep (consider icy conditions and emergencies) even to the esplanade
	  o Bridge grade allows all to cross
	  o Wide sidewalk and bike lanes
	  o Separate bike from ped and all from motor vehicles

What we heard	**Alternatives** • Access / connectivity • Capacity • Travel time • Safety/Comfort (thinking about surfaces, slippery, traction, materials) **Construction** • Access/connectivity
Additional input from team	**Construction** • Travel time

CTF discussion	• Pullouts
	  o For safety/ comfort- after an earthquake
	  o Seating
	• Where do scooters and new modes fit into this?
	• Think about how other bridges will address active transportation and what we can learn
	• Universal design/accessibility

	o full range of considerations include sound impaired (vision/hearing) or people with untypical ADA needs • Accessibility of fixed bridge is a large concern for people in wheelchairs and with disabilities due to slope • Avoid impacts/conflicts for bike-ped, scooters-bikes, ped-scooters, etc. o Provide sufficient space for different modes to travel safely- bike and pedestrians • Transportation during construction o Ferry's, water taxis, alternative modes/options outside of TDB ▪ how does that impact riverboat traffic? o Utilizing shuttle or other means for transportation • Travel paths/routes for pedestrian during construction • Safety for ped/bike with dividers, not just a curb • S-curve bike/ped safety off-tracking • Consider Rose Festival activities o floats, recreation • Materials used o Availability after earthquake • Connections: o ADA access challenges and feasibility o What's the easiest?

COST

What you said	• Promote ease of long-term maintenance, lower maintenance costs and construction cost
What we heard	**Alternatives** • Long-term maintenance • Direct construction
Additional input from team	**Construction** • Temporary direct - materials staging, tempt bridge, detours • Temporary indirect - Local business

CTF discussion
 	
(Natural Resources)
	• Cost factors: fixed vs. lift vs. rise, long-term effects, longevity, alternative modes, vision zero
	• Liquefaction resiliency
	  o Design and alternatives costs
	• Value of temporary diversion bridge
	  o Subsidize/reallocate to impacted business and organizations
	• Use local materials
	• Construction cost vs. height
	• Operational cost vs. height
	  o Wait time impact of life and ops
	  o Tug assist cost during construction
	• Till fee to help pay for it
	• Cost of moving emergency services relocation (AMP)(ROW)
	  o Cost of moving Saturday Market
	• ROW cost (AMR, Saturday Market, Mercy Corps)
	• Cost < boats can get through post-earthquake
	• Ask TriMet to pitch in
	• Explore mitigation cost (bus bridge)
	  o Cheaper than regular temp bridge? (no)
	• Funding sources- who pays for it helps choose an alternative
	  o Construction and maintenance costs
	  o Don't want to count out alternatives yet
	  o Cost vs. Benefits
	  o Taxes for voters to help pay

EMERGENCY VEHICLES

What you said	• Minimize traffic pinch points to reduce emergency travel times • Ensure first responders can cross the river after the project • Smooth and unencumbered access for emergency vehicles during construction • Minimize choke points like I-84 and I-205N; ensure shoulders are available.
What we heard	**Alternatives** • Access • Travel time **Construction** • Access • Travel time

CTF discussion	• A temporary bridge will displace EM services in the area, ambulance services and communications
	• Shoulders and potential bike lanes/bus lanes used for EM services
	• Choke points- on Burnside make viable
	• Access points w/ curve of bridge entrance can create more choke points
	• One option, series of lights in one location, isn't enough
	• Opticom
	• EM + Transit
	• Plenty of shoulder space
	• Freight to use bus/ EM Lanes
	• Ambulatory services- Talk w/ vocal EM services (fire, ambulances)
	• Inventory of E-W services
	  o Understanding port services
	• Fixed bridge adds time to get across
	  o Lift bridge can cause reroute as well
	• Divider to prevent U-turns when the bridge lifts
	• Consider the placement of bridge access points
	• S-curve redesign- it's scary w/ cars and bikes
	• The shoulder is for EM, not cars or bikes
	• Dividers can be good if removable
	• Shoulder space- wide shoulders encourage speeding
	• Emergency Vehicles
	  o S-curve: affect all vehicles especially EM vehicles
	  ▪ Not good for people in a hurry
	  ▪ Maybe straight rode would be better

	o A divider is a problem for EM vehicles ▪ In case they need to go in the opposite lane ▪ Wouldn't stop people from crossing o Bus lane divided off and shared w/ EM vehicles o Dividers for sidewalk/pedestrians can be safer instead of curb o EM access on the fixed bridge is a benefit ▪ If lift-bridge can create a barrier for EM ▪ Fixed-bridge is a pro

MOTOR VEHICLES & FREIGHT

What you said	**Access/Connectivity** • Maintain access and connections for motor vehicles to neighborhoods and other uses. • Provide approaches that promote access and safety • Ensure bridge allows for freight and large truck use in both directions **Capacity/Congestion** • Provide travel capacity for commuters and all modes - balance for all modes • Consider future traffic volumes • Consider traffic impacts caused by bridge lifts • Promote efficiency for all modes • Safety for traffic on bridge, avoid S- curve • Provide adequate width for car lanes (e.g., Hawthorne bridge has too narrow car lanes) • Preserve on-street parking in the vicinity • Traffic flow across river isn't harmed during construction • Travel speed for all modes • Traffic flow disruptions during construction: timelines, lift times • Maintain access to the neighborhoods during construction
What we heard	**Alternatives** • Access / connectivity • Capacity • Travel time • Safety • On-street Parking **Construction** • Access • Travel time
Additional input from team	**Construction** • Safety • On-street Parking • Capacity
CTF discussion	• Streetcars readiness and potentials shared w/ bus lanes • Don't increase vehicle capacity-> promote active Transporation and alternative modes o Also discourage about maintaining capacity (including for freight) • Don't encourage speed increase- reduce it

	o Design in a way that slows people down and encourages people to drive safer • Construction- what are the detours routes that are available, and where is traffic going, how is it being accommodated? • How will alternatives affect access to cross streets or existing travel patterns o Maintain existing traffic/access patterns, bus routes, bikes routes, and how does it impact business and related services (garbage, deliveries) • Potential for freight to utilize bus only lanes • Separate freight from bikes (site lines are too difficult for freight driver to see bikes) • Space for emergency vehicles to pull of shoulders • Opportunity to improve traffic or do something better to address capacity/ traffic needs, future readiness, ready to flex for • Motorized vehicles- reversible lanes • Comparisons to other crossing for success metrics

PERSONAL SAFETY AND NON-TRANSPORTATION SAFETY

What you said	• Promote safety and comfort through lighting, visibility, connection points: o crime prevention through environmental design (CPTED) Techniques – ensure bridge doesn't encourage crime • Make areas below the bridge on land safe for everyone - crime and during construction (falling debris)
What we heard	**Alternatives** • CPTED principles

CTF discussion	• Suicide prevention
	  o Height of bridge matters (or not, cry for help)
	  o Signs with physical helpline phone numbers
	  o Physical barriers (Vista Bridge)
	  ▪ Concern for preserving aesthetics
	  ▪ Plexi-glass
	  ▪ Net extending out to sides
	  o Might be less of a concern for emergency management personnel
	  ▪ People jump from all bridges
	  ▪ Not strong differentiator
	• Activation of space- comfortable lingering- also designed to keep traffic moving
	  o Use of proper lighting- solar/LED
	  o Cameras
	  o keeping "nooks and crannies" in mind-> clear line of sight to help deter crime
	  ▪ Have the main bridge be wider so they are not under the bridge in an enclosed space
	  o Elevators- cause for concern
	  ▪ Mixed options regarding elevators/ramps/ escalators- depending on the height of the bridge
	  ▪ Cost
	  ▪ Hygiene
	• Fall Risk
	• Skate parks as an example-> self-policed, always active
	  o Spaces that are less active are less comfortable
	  o Make spaces under bridge more of a community space at all hours (night markets, grassroots community- can seed it but not replicate downtown)
	  o Consider houseless communities- create deliberate space for them
	  ▪ This can facilitate networks and friendships
	  ▪ Provide facilities like showers, bathrooms
	  ▪ More incentives to self-police than a parking lot

	▪ More sustainable o Higher bridge means more deactivated space ▪ Accessibility of lower bridge o Connection points- distance on a higher bridge will likely be longer ▪ Nearby businesses/homes would be in the dark o Toxins from construction- air quality, dust, vehicles emissions

SEISMIC RESILIENCY

What you said	• Expedite project to be in place before an earthquake • Emergency response will be improved with a wider bridge • Ensure that bridge components have post-event reparability • Emergency response will be improved with a fixed bridge • Travel for motor vehicles post-earthquakes - immediate use
What we heard	**Alternatives** • Duration to resilient bridge completion • Post-earthquake operability and reparability confidence • Post-earthquake emergency vehicle access **Construction** • Duration to resilient bridge completion
Additional Input from Team	• Debris falling on the bridge?

CTF discussion	• Likelihood of earthquakes
	  o Intensity, distance, etc?
	• Post-event reliability
	• Flooding as a result of an earthquake
	• Movement of river bottom and fill
	  o Preventing(?) water navigation post-event?
	• Stability of bridge users during an earthquake (or displacement)
	• Orange:
	• Best-ling-range decision re: quality of construction material
	• What investments are necessary to keep the bridge operable (useable by vehicles to cross not lift) soon after an event?
	• Liquefaction resiliency- pilings under the bridge
	• Emergency response time impacts
	• Performance during and after an earthquake (not falling)
	• “Regular” bridge shape (rectangle) vs. Irregular bridge shape
	• Design plex foundations to resist lateral spread

TRANSIT

What you said	• Maintain routes for transit commuters during construction, but don't sacrifice long term benefits
What we heard	**Construction** • Access
Additional input from Team	**Alternatives** • Streetcar readiness • Bus accessibility **Construction** • Travel times

CTF discussion	• Options w/ streetcar be considered- get stuck in traffic though
	  o Pedestrian access to the bridge
	  o Buses
	• The bridge has a lot of traffic-transit could help
	  o Ferry-in lieu of transit access
	• Comes down to time. Prioritize bridge for ped, bike, bus not cars, auto
	  o Temp bridge bus focus to relieve congestion
	• Shuttle services taking people around to temp bridge (not comfortable with temp)
	  o Impacts to business w/ loss of transit
	• Not a form of diversion bridge
	  o Pedestrian access
	  o In favor of temp bridge
	• High bridge- have different access points
	  o Transit lanes in the center, streetcar and bus shared
	• SC is a great idea if it's ready
	  o Bus routes around the bridge to other bridges
	• Diversion bridge will have more impacts- the volume of vehicles
	• Work w/ TriMet to see what will be best for and can add 20 minutes
	• Transit
	  o Access to business
	  o Streetcar- which angle is needed?
	  o Determine ridership data, changing condition
	  o Scooter in bike lanes or sidewalk
	  o Add a bus lane- is it a possibility

UTILITIES

What you said	[none]
What we heard	[none]
Additional input from Team	**Alternatives** • Major utility impacts (e.g., Ankeny Pump Station) **Construction** • Major utility impacts (e.g., Ankeny Pump Station)

CTF discussion	• Access to power bridge life post-event
	  o Generator
	• Solar power as an option?
	  o Light
	  o Alternative energy
	  o Wind turbine
	• Is there a need for more utility crossing?
	  o A fixed bridge could serve this
	• Emergency radio tower
	  o Allows for redundancy in communications
	• Considers other uses that could be served by earthquake ready bridge
	• Audio and visual signals for bike and ped-universal accessibility
	• Taking advantage of the construction period to build a trench for utilities- in the case of movable
	• The new bridge needs to accommodate major pipes on both sides of the current bridge

RIVER NAVIGATION

What you said	[none]
What we heard	[moved to design criteria]
Additional input from Team	**Construction** • Temporary direct • Temporary indirect

CTF discussion	• Access to power bridge life post-event
	  o Generator
	• Solar power as an option?
	  o Light
	  o Alternative energy
	  o Wind turbine
	• Is there a need for more utility crossing?
	  o A fixed bridge could serve this
	• Emergency radio tower
	  o Allows for redundancy in communications
	• Considers other uses that could be served by earthquake ready bridge
	• Audio and visual signals for bike and ped-universal accessibility
	• Taking advantage of the construction period to build a trench for utilities-in the case of movable
	• The new bridge needs to accommodate major pipes on both sides of the current bridge