(1) INTRO SLIDE

Hello everyone and welcome back to the second Public Informational meeting for the NEPA/Design phase of the Arlington Avenue Bridges Project. I am Judy Tortelli, Project Manager for the RTC and here to share information with you and get your feedback. This is our second step to engage the public in this exciting Project. For those of you that don't know, RTC started the process of getting the two bridges on Arlington Avenue replaced back in 2019. We kicked of the NEPA/Design phase at the end of 2021, and anticipate starting construction 2025

You are watching a pre-recorded presentation that will run until September 16th. RTC will also be holding an in-person meeting on August 11th, from 5-7, at the McKinley Arts Center, 925 Riverside Drive. The material you are viewing will be presented at that meeting where team members will be available to provide explanations, answer questions, and get your feedback. This Public Informational Meeting includes a survey giving you an opportunity to vote on what these bridges are going to look like. Please take the survey so we can get your comments and feedback. We need your input to help shape the design of these bridges.

(2) PURPOSE OF THIS PRESENTATION

The purpose of this presentation is to get your feedback so we can move into final design and get construction underway. The team has been busy and there is a lot of information to cover; however, to be sensitive of your time I have structured this presentation to start with what we need from you and the background information of how we got to the options presented follows. We have a cool Build-A-Bridge tool that you can use to see what the various bridge aesthetic options are going to look like before you vote. The survey is where you can vote on bridge railing, lighting and pylon options.

I will give you an overview of the major impacts accompanying the bridge construction, provide some history and background of what we have been up to, update you on the Landscape, Aesthetics, and Design, go through the Environmental and Permitting requirements we have to meet and end with where we go next.

(3) PURPOSE AND NEED

Review of the purpose and need of the Project happened throughout the Feasibility Study. Initially, FHWA, NDOT, and the City of Reno agreed on the content. It was also vetted with the Reno City Council, Technical Advisory Committees, Stakeholder Working Group, and the Public. The purpose and need statement – describes the intention of the project and states the problems. Ultimately, it sets the stage for developing and evaluating possible improvement alternatives but is NOT mode specific or biased toward a particular solution.

The project needs to maintain a functional bridge over the river, improve safety and multi-modal access to the park area, meet flood-capacity requirements, and coincide with adopted regional and community plans.

(4) WE NEED YOUR INPUT

I can't stress enough that we need your input – you can provide your feedback taking our survey. The Build-A-Bridge tool displays the various aesthetic choices together in a photo simulation.

(5) LANDSCAPE AND AESTHETICS - RAILING

Let's jump right into it! Based on design goals and elements three bridge railing options were developed. All three railings are required to be vehicular rated, meaning crash resistant from vehicles, and must meet accessibility requirements for openings in the railings. All three options have an overlook on both sides of the north bridge, a place where pedestrians can view the Truckee River and surroundings looking east and west. The south bridge will be designed using the same railing type as the north bridge. Also note that these views do not include bridge lighting.

The three bridge railing options are:
Option 1) A concrete railing system based on a Texas Department of Transportation vehicular rated design. The concrete railing would be used in both the straight and overlook railing sections.
Option 2) A metal railing system that is more transparent so viewers on the street and sidewalk can have more open views of the Truckee River and surroundings.
Option 3) A hybrid of options 1 and 2 with a metal railing system at the overlook and a concrete railing system at the straight railing sections.

(6) LANDSCAPE AND AESTHETICS - RAILING

Here is an overall view of Option 1, photo simulated at the actual location. It's a concrete railing system based on a Texas Department of Transportation vehicular rated design.

(7) LANDSCAPE AND AESTHETICS - RAILING

Here is a photo simulation of Option 2. You can see this one is a metal railing system that is more transparent so viewers on the street and sidewalk can have more open views of the Truckee River and surroundings.

(8) LANDSCAPE AND AESTHETICS - RAILING

And here is Option 3, A hybrid of options 1 and 2 with a metal railing system at the overlook and concrete railing system along the straight sections.

(9) LANDSCAPE AND AESTHETICS - LIGHTING

Pedestrian scaled lighting is planned to be used on the bridges to illuminate the sidewalks, overlooks and the street. Two options for pedestrian lighting are shown, one type will be chosen for final design:

Option 1) Pole with LED Post-Top Luminaire. The pole with post top light could be used with any bridge railing type, all concrete, metal, or concrete with metal overlook railing. The photos over on the right show several types of post top lights. The final choice of post tops will be determined at the next phase of design with detailed lighting studies.

Option 2) Custom Light Column with Bridge Rail Motif. The column light could be used with a metal bridge railing type, metal or concrete with metal overlook railing. The layered metal features in the column would also be used in the metal railing detailing.

(10) LANDSCAPE AND AESTHETICS – ACCENT LIGHTING

Lighting is planned beneath the railings. This will illuminate the sidewalks for pedestrians. You can see from these photos accent lighting can be provided with either Option 1, the concrete bridge rail , the photo on the left or Option 2, the metal bridge railing, the photo on the right.

(11) LANDSCAPE AND AESTHETICS – PYLON

Pylons will be placed at the ends of the bridges and at the mid span/overlook on the north bridge. Three pylon design group options are shown for consideration, one pylon group will be chosen for final design. These include:

Group A (photos on the upper left): Tall end pylon and shorter mid span pylon with cascading sides.

Group B: (photos on the upper right) Shorter end pylon and mid span pylons similar to those on the Virginia Street Bridge.

Group C: (photos on the bottom) Mid size end pylon and mid pylons with cascading sides.

(12) LANDSCAPE AND AESTHETICS – EXAMPLE

Here is an example showing pylon group A placed on the north bridge with all metal railing. This shows the pole with LED post top light at the mid span pilasters and a custom light at the tall end pylon. The photo on the bottom right is a blow-up showing the metal pedestrian fence. These are vertical, strips of metal spaced to meet pedestrian accessibility requirements.

(13) PIER AND ABUTMENT WALL TEXTURE

This image highlights the abutment walls and the pier on the north bridge by green arrows. As shown, they will have a texture. The pattern is designed to coordinate with the overall bridge design. Textured surfaces typically deter graffiti.

(14) STREETSCAPE ELEMENTS

This figure shows the streetscape elements along Arlington Avenue over the Truckee River between Island Avenue and First Street with North pointing to the right. Sidewalk areas between First Street and Island Avenue will be reconstructed as part of the project. Elements included with this work are:

1) Large canopy shade trees placed at approximately 30 feet on center spacing between existing trees and between the bridges. These are indicated by the lighter green tree symbols. This is based on the City of Reno goal to increase the shade tree coverage, meet City code requirements, and reduce the urban heat island within the City limits.
2) Existing trees will be protected and maintained where possible. Several trees require removal because they are extremely close to either the sidewalk, abutment, or flood wall reconstruction areas. These trees will be replaced with shade trees. Here are the existing trees we anticipate being replaced due construction of the bridge abutment walls.
3) Sidewalks are planned to have diagonal joint patterns and medium gray concrete color. The diagonal joint patterns are accents that compliment the bridge railing designs. The sidewalks will be designed for a smooth transition from the street to the sidewalk and into the park to maintain accessibility during special events.
4) The goal for street and pedestrian lighting is to use pedestrian scaled lights as much as possible to light sidewalks and the street. Lighting on the bridges can be provided either with the LED Post-Top Luminaire, custom column light, and/or custom end pylon light combination. Taller streetlights may also be required along the street. The lighting design will be finalized in the next phase of work.

(15) WHAT ARE THE IMPACTS?

Now I would like to move into discussing the impacts of construction. (read from slide)

The environmental team has been working hard to define the affects this project will have on Wingfield Park. Based on coordination with the City of Reno Parks department, Wingfield Park and the Whitewater Park will be closed to public access during construction. This is a big impact because it will be closed for up to 2 years during the bridge replacement. Serious consideration was given to keeping a portion of the Park open for public access; however, public safety being the utmost priority, followed by a positive park user experience

led to the decision to temporarily close the park. I would like to highlight some of the key points that led to this decision: Mainly, significant safety concerns for the public associated with: de-watering controls, heavy construction equipment next to park and river users, water-flow diversions of the Truckee River and various construction activities that would all have a negative effect on the park user experience, ability for access in the event of an emergency, and challenges with park maintenance. This temporary closure is intended to mitigate risk to park users. Extended park closures for construction projects have occurred in the past and include City Plaza and portions of the Riverwalk for the Virginia Street Bridge, and Fisherman's Park for the NDOT Spaghetti Bowl project.

(16) CONSTRUCTION LIMITS

Here is that Construction Limits map. (Explain Figure)
The red dashed line shows our anticipated limits of construction. We are going to have to dig some pretty big holes at Island Avenue and First Street to construct the bridge abutments. This figure assumes a 1.5:1 grading from the abutments. This area at Island Avenue is really tight and we are anticipating that shoring will be required so one-way access to Island Avenue can be maintained.

Some assumptions the design team discussed based on constructability review of the 30% design submittal included:

- Construction staging on Arlington,
- Build 2 bridges within one construction site,
- river diversions
- dewatering

I would like to caution that this is all a guess of how the contractor will phase and build this project. We don't have a contractor on-board yet and once the project is awarded this approach may change. There will be specific limitations placed on the contractor, mainly dealing with traffic control, staging restrictions, and the time allowed for work within the river.

During construction, Arlington Avenue will be closed to thru traffic at Court Street but allow local traffic in to access Island Avenue which will be one-way. Access to Park Tower, Barbara Bennett Park, and the residences at the west end of Island Avenue has to maintain.
Maintain WB traffic on West First Street

On the other side, one-way traffic on First Street will be provided to provide the contractor room to build this abutment. During construction the contractor will be required to maintain emergency access at all times. During the north bridge construction, that access will be from the south – and during construction of the south bridge, that access will be from the north.

(17) WINGFIELD PARK CLOSURE

Here is a map showing what the temporary Wingfield Park closure will look like. (explain map)

The temporary closure of the park lessens risks to park users during construction. Fortunately, the parks system within the vicinity is robust and park users will still have the opportunity to enjoy green space at Bicentennial Park, Barbara Bennet Park, and West Street Plaza.

(18) PROJECT HISTORY AND BACKGROUND

Now I will move into a bit of project history and background information. Our first Public Informational Meeting ran live earlier this year from March 14th through April 18th. With that meeting RTC conducted a survey and received 164 responses and 8 email comments. I will touch on a few of the survey questions in the next few slides.

The team has been busy with a ton of meetings! Here I have summarized out outreach efforts with the stakeholder working groups developed earlier this year. Agency and utility coordination meetings focus on keeping members of the group informed on environmental issues and design decisions. These meetings have also helped engage the utility companies so we get relocations and upgrades included early on as the design moves forward. Technical discussions digging into the details of design are happing at our Design Review Committee meetings.

Our Aesthetic Stakeholder Working Group has put a lot of time and effort into developing the aesthetic options that you will be voting on when you take our survey. I am excited to see good attendance throughout this process and think the team has done a great job developing the design to a 30% stage. Later on, in the presentation I will highlight some of the key decisions that these groups have made based on compiling ALL of the input received. Materials from these meetings is posted on our website and available for review. We also have the survey results and responses to comments posted on the website from our first Public meeting.

(19) PUBLIC INFORMATIONAL MEETING #1

Let's get into some questions from our first survey. (read question from slide)
You can see here that about 42% of people crossing the bridges on Arlington Avenue do it access Wingfield Park for recreation purposes. The Park really draws in members of our community and this project will improve access. This connection over the Truckee River helps connect people to shopping, medical, and work.

(20) PUBLIC INFORMATIONAL MEETING #1

(read question from slide)
You can see here 58% of people who took our survey noted maintaining pedestrian access to Wingfield Park as the most important element to consider. Next in line were minimizing river disturbances, maintaining a certain "Look" of the bridges, and minimizing the construction timeframe.

I realize access to Wingfield park is a priority, but as discussed earlier we going to have to close the park down for construction. Precast Box Girders will be used for bridges to minimize construction schedule – this reduces construction from 4 years to 2 years and minimizes river disturbance compared to using a cast-in-place superstructure.

Regarding the "Look" of the bridges, you get to shape that piece within the Modern Art-Deco theme chosen to compliment the history of the Project area.

(21) PUBLIC INFORMATIONAL MEETING #1

(read question from slide)
Here we see a little over half of the folks that responded to our survey want protected micro mobility lanes. There has been much discussion around this topic and the current design provides buffered bike lanes along Arlington Avenue. Micro mobility discussions keyed in on several items which included:

- Special event access and utilizing Arlington Avenue as plaza
- Tripping hazards with various curb height elevations
- Creating a conflict between walking pedestrians, bikers, scooter, and transit riders
- Overall geometry and pedestrian/vehicle separation.

Based on these competing interests, crash data, posted speed limit, and continuity of existing bike lane infrastructure, the Aesthetic Stakeholder Working Group, Design Team, and City of Reno has recommended buffered bike lanes.

It's important to note that Parks/Recreation was ranked #1 as an environmental resource concern also. The Park is heavily used and people want to be able to continue to enjoy this area.

(22) KEY DECISIONS

(read from slide)

(23) LANDSCAPE AND AESTHETIC DESIGN GOALS

Landscape and aesthetic design goals were developed during the earlier feasibility study phase of the project to guide the development of bridge and streetscape design. These were developed through stakeholder and public input. The goals are: (read the design goals)

(24) LANDSCAPE AND AESTHETIC ELEMENTS

Building upon the landscape and aesthetic design goals, the elements of bridge and streetscape design were described during the earlier feasibility study phase of the project also. Again, these were developed through stakeholder and public survey input. The landscape and aesthetic elements are: (read the elements)

(25) DESIGN UPDATES

Let's look at this figure again to talk through design updates: You can see here proposed striped bike lanes along Arlington Avenue that will tie into existing infrastructure both north and south of the project limits. We are widening the sidewalks indicated by this gray hatched area. You can see the overlooks proposed on both sides of the north bridge with nothing on the south bridge.

We are improving the existing loading zones and increasing concrete pads to accommodate transit riders, this one on the west side and this one here on the east. This east side loading zone will be connecting to the existing sidewalk path.

The traffic lane configuration at the First Street Intersection has been adjusted to provide the additional room that we need to fit in the bike lanes. The existing thru and right turn pocket have been combined to a single thru/right lane.

Let's talk a bit about pedestrian circulation because it's really important with the Park setting. The existing pedestrian path under the north bridge will be improved with the Project. As discussed earlier, a pedestrian path under the south bridge is not feasible. We are maintaining the existing pedestrian paths within Wingfield Park. These paths will continue to come up to road level. A big improvement to pedestrian circulation will be here at Island Avenue. This proposed crosswalk will be relocated from the south side of the intersection and an overhead, pedestrian activated, rapid flashing beacon will be incorporated into the south bridge abutment.

(26) NORTH BRIDGE SECTION

Here is a typical section of the north bridge (read from slide)

(27) SOUTH BRIDGE SECTION

An here is a typical section of the south bridge (read from slide)

(28) ENVIRONMENTAL REQUIREMENTS

There are a number of environmental regulations that RTC must comply with as we design and construct this project.
A few of the key requirements are listed here.
I'm going to summarize our recent activities and next steps to coordinate with the relevant state and federal regulatory agencies.

(29) NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) CLEARANCE

Because we received federal funding for this project, we are required to comply with the National Environmental Policy Act – referred to as NEPA. NEPA is a framework for environmental planning and decision-making by Federal Agencies. The lead federal agency overseeing this project is the Federal Highway Administration – or FHWA. FHWA determines what type of environmental study is needed to comply with NEPA. It's anticipated that a categorical exclusion will be needed for this project.

As part of this process, we will conduct analyses of how the project would affect various community and natural resources in the vicinity. These analyses will be documented in technical reports prepared this fall. We anticipate NEPA clearance from FHWA in spring 2023.
I'll review a few key topic areas that require approvals from other state and federal agencies.

(30) CULTURAL RESOURCES

First, let's talk about cultural resources, which includes historic resources, archaeological resources, and tribal resources.
Resources that are listed or eligible for listing on the National Register of Historic Places are subject to Section 106 of the National Historic Preservation Act. To comply with this federal regulation, we consult with the State Historic Preservation Officer – referred to as SHPO, Native American tribes, and other participating parties such as the City of Reno.

The intent is to identify and consider project effects on significant cultural resources, and seek ways to avoid, minimize or mitigate any adverse effects. We started this process during the feasibility study and are continuing to coordinate with consulting parties to establish

the area of potential effects and prepare an Architectural History Survey Report. Ultimately, we will prepare an effects determination for significant resources and seek concurrence from the consulting parties.

(31) PARK AND RECREATION RESOURCES

Another resource that we know is important to many of you are the park and recreation facilities in the project area. This map shows the parks, trails, and other recreation properties in the project area. We don't expect any impacts to West Street Plaza, and we only expect minor temporary access restrictions for Riverside Drive Park, Bicentennial Park, and Barbara Bennett Park. We will also need to temporarily re-route Truckee Riverwalk users near the bridges during construction, and we will maintain access using detours. We likely need to remove a tree at Fulton Corner near the north bridge.

Earlier in the presentation, I reviewed the temporary closure of Wingfield Park, including the whitewater park, that is necessary for public safety during construction. We understand this is not ideal, but we need to maintain safety during construction, and we encourage people to use the other surrounding recreation facilities while Wingfield is closed.

(32) SECTION 4(F)

A federal law that we comply with regarding park and recreational resources is Section 4(f) of the Department of Transportation Act. We are coordinating with the City of Reno on how best to protect the five significant recreation resources they own and manage in the project area. It is anticipated that the RTC will request the FHWA to determine that the effects of the project on Wingfield Park (including the Whitewater Park) is a de minimis impact.

A de minimis impact finding may be made if the project does not adversely affect the features, attributes, or activities qualifying the property for protection under Section 4(f).

We must also have agreement from the City of Reno and provide an opportunity for public input. For more information on this regulation, please visit https://www.govinfo.gov/content/pkg/FR-2008-03-12/html/E8-4596.htm. More details regarding impacts to Wingfield Park, including the whitewater park, are available on the website at ArlingtonBridges.com.

(33) THREATENED AND ENDANGERED SPECIES

Another federal law that we are complying with on this project is the Endangered Species Act, which is administered by the US Fish and Wildlife Service. We are preparing a Biological Assessment to evaluate potential impacts to protected species, particularly two protected

fish species. One step we will likely take to minimize impact to these species is to conduct in-water work between July and November to avoid spawning periods. Other necessary measures will be established through consultation with the US Fish and Wildlife Service.

(34) PERMITTING – SECTION 401, 404, AND 408

Permits are driving the schedule of this project. We have to obtain a section 401, 404, and 408 permit. Each of these permits come with different regulations, requirements, and review times. (read from slide)

(35) CTWCD INUNDATION MAP

Here is a map showing the Carson-Truckee Water Conservancy District's jurisdiction (as the local sponsor for the USACE) for a flow of 14,000 cubic feet per second. This equates to approximately a 50-year storm event. The area shown in blue is underwater during flows of 14,000 cfs. You can see both the bridges and Wingfield Park flood during a 50-year storm event.

Currently, there is no existing freeboard at the bridges during major flood events. Freeboard is the distance between the high waterline and the bottom of the bridge deck. The design criteria requires no increase in the water surface elevation to ensure any future flooding is constrained to the current inundation limits. The elevation at the adjacent Island Avenue and First Street intersections combined with multiple nearby buildings prevent the ability to raise the bridge profiles. The hydraulic capacity in the north channel will be slightly improved by the use of a single pier north bridge compared to the two piers of the existing bridge. Design of the bridge deck thickness will be optimized to maximize the available area for hydraulic flows under the bridges.

(36) TRFMA INUNDATION MAP

In addition to the 50-year storm event, the City of Reno requires the 100-year storm event, a flow of 20,700 cfs to be analyzed. The Truckee River Flood Management Authority also referred to as (TRFMA) maintains an extensive and comprehensive hydraulic model for the 100-year flood event. The inundation limits for the 100-year storm event are shown here.

(37) PROJECT TIME LINE

Project Time Line (read from slide)

(38) NEXT STEPS

I want to briefly touch on our next steps. There are some upcoming opportunities for you to see how design is progressing. At our 3rd Public Informational Meeting, we will present the design and show you what the final aesthetic package looks like. I am anticipating having a 4th Public Meeting, but think I will move it closer to construction. The intent of the that meeting was to notify the public of what construction is going to look like. We won't award the construction contract until Fall 2024. I think it will be best to have our 4th Public meeting after we have a contractor on board because then we will really know what construction is going to look like.

The Design and Environmental team will continue moving forward to 60% design. We need to hit utility coordination hard, finalize our lighting analysis, do the bridge design, finalize the aesthetics based on your input, finish environmental technical memos, and push hard to get our permits reviewed as quickly as possible.

(39) SURVEY QUESTIONS

Check out Build-A-Bridge, TAKE our survey, and give us your feedback. The survey will be open until September 16th – once it's closed the team will compile the information and responses to comments received will be posted on the website.

(39) THANK YOU

Thank you for your participation and please join us on August 11th at the McKinley Arts Center for the in-person version of this presentation.