

**Arlington Avenue Bridges Project Feasibility Study
Stakeholder Working Group Meeting 1 Notes**

ENVIRONMENTAL DESIGN CRITERIA	ENVIRONMENTAL DESIGN CONSTRAINTS	NOTES
PERMITTING		
<ol style="list-style-type: none"> 1. City of Reno Special Use Permit -City of Reno to confirm if required 2. USACE 408 Permit -application required to be completed/submitted before 404 permit application. -need to establish ordinary high water mark (OHWM) 3. USACE 404 Permit 4. Nationwide Stormwater Permit 5. State Lands Encroachment permit 6. 401 water quality certification 	<ol style="list-style-type: none"> 1. Conditions and schedule -City of Reno Special Use Permit – conditions/schedule TBD (by City of Reno) -408 – per CTWCD 18 month schedule -per USACE, 408 needs to precede 404 permit – USACE will work with CTWCD and USACE civil works 	<p>-408 and 404 permitting process can proceed in parallel.</p> <p>-access to river bed for debris removal is very important</p> <p>-need to determine who is lead federal agency (USACE or FHWA)</p> <p>-USACE will have to do their own Sect. 106 consultation w/ tribes</p> <p>-the river is a traditional cultural property (TCP) for Reno Sparks Indian Colony – need to determine how the TCP is evaluated and adverse effects documented and mitigated</p> <p>-per CTWCD, model survey/LiDAR sufficient for bathymetry beneath the bridge structure (e.g., no survey needed); construction prohibited during flood season (Nov thru Jun) or flows over 14K cfs</p> <p>- determine 100-year WSEL/cfs and confirm OHWM w/ TRFMA</p>
HISTORIC (SECTION 106)		
<ol style="list-style-type: none"> 1. Bridges are not eligible for any registers 2. Confirm purpose and need for Programmatic Agreement 	<ol style="list-style-type: none"> 1. Define Area of Potential Effects <ol style="list-style-type: none"> a. Direct and Indirect Effects 2. Identify and document resources 3. Determine effects <ol style="list-style-type: none"> a. If adverse, produce agreement document b. Implement monitoring program 4. Implement mitigation 5. Proceed with Project 6. Programmatic Agreement 	<p>Standard Section 106 process should be appropriate for Project</p> <p>Programmatic Agreement – needed if no adverse effects (direct or indirect)</p> <p>-need to confirm (with NDOT, USACE/NV SHPO) that bridges are not eligible for registers</p> <p>-confirm (with NDOT, USACE/NV SHPO) the need for and purpose of the PA</p> <p>-direct and indirect (e.g., viewshed of surrounding historic properties) effects need to be evaluated to complete section 106</p>

**Arlington Avenue Bridges Project Feasibility Study
Stakeholder Working Group Meeting 1 Notes**

ENVIRONMENTAL DESIGN CRITERIA	ENVIRONMENTAL DESIGN CONSTRAINTS	NOTES
SECTIONS 4(f) and 6(f)		
<p>1. Section 4(f) provides for consideration of park and recreation lands, wildlife and waterfowl refuges, and historic sites during transportation project development</p> <p>a. Applies to U.S. DOT and implemented by FHWA</p> <p>2. Section 6(f) Land and Water Conservation Fund (LWCF) preserves, develops, and assures accessibility to outdoor recreation resources</p> <p>a. Provides funds and authorizes federal assistance for planning, acquisition, and development of land, water areas and facilities</p> <p>b. Provides funds for federal acquisition and development of lands and other areas</p>	<p>1. Section 4(f) includes publicly-owned recreational and historic properties</p> <p>a. Truckee River Trail detours during construction</p> <p>b. Pedestrian traffic detours</p> <p>c. Impacts to property features, attributes or characteristics</p> <p>2. Section 6(f) includes public & private properties that have received LWCF funding</p> <p>a. Impacts to properties or property elements purchased using LWCF</p> <ul style="list-style-type: none"> - Includes temporary closures during construction - Applies to Truckee River Greenbelt, Wingfield Park and Reno Whitewater Park - Potentially applies to Barbara Bennett Park <p>b. If yes, mitigate by replacing property or property element</p> <p>c. If work enhances property feature/attribute and is part of property management plan, can be covered under Enhance Exception</p>	<p style="color: red;">-per City of Reno Parks Dept. (Jeff Mann, Parks Manager) none of the parks used LWCF funding – mitigation per Section 6(f) not required</p>
HAZARDOUS MATERIALS		

**Arlington Avenue Bridges Project Feasibility Study
Stakeholder Working Group Meeting 1 Notes**

ENVIRONMENTAL DESIGN CRITERIA	ENVIRONMENTAL DESIGN CONSTRAINTS	NOTES
	<p>Hazardous material assessment did not reveal any sites that would pose a risk to the Project</p> <p>Bridge structure could have asbestos or lead, requiring surveys and abatement (as needed)</p> <p>1. Inspections for ACM and LBP will be required for structures, utilities, and guards prior to demolition – could require special handling, abatement and disposal</p>	<p>Adjacent buildings and structures were not inspected for the possible presence of asbestos-containing materials (ACM) or lead-based paint (LBP)</p> <p>-petroleum contaminated soil (PCS) detected and managed in connection with Virginia St. bridge – need to evaluate potential for PCS at AAB (NDEP could be consulted) and/or may have been remedied with white water course.</p>
BIOLOGICAL / NATURAL RESOURCES		
<p>1. Natural Resources</p> <p>2. Waters of the U.S. (WOUS / Wetlands)</p>	<p>1. Natural Resources - Protected special status (state or Federal) species</p> <p style="padding-left: 20px;">a. 11 species with some potential to occur within/adjacent to Project</p> <p style="padding-left: 20px;">b. Biological surveys and monitoring during construction</p> <p style="padding-left: 20px;">c. Minimize adverse effects to birds, bats and fisheries</p> <p>2. WOUS / Wetlands - Perennial waterway (Truckee River)</p> <p style="padding-left: 20px;">a. Highly modified (fully cemented / riprap/cement fill banks)</p> <p style="padding-left: 20px;">b. Implement mitigation (as-needed) for adverse effects</p> <p>3. Wetlands/Riparian</p> <p style="padding-left: 20px;">a. Wetlands/riparian delineation</p> <p style="padding-left: 20px;">b. Streambank modification/alteration</p>	<p>-the 11 species based on a 2 mile radius search – likely less than 11 species within AAB project extents</p> <p>-environmental memos are being prepared and will be appended to FS report</p> <p>-need concurrence from USACE on ordinary high water mark (OHWM) through Jurisdictional Determination (JD) - takes 8-10 months</p>

**Arlington Avenue Bridges Project Feasibility Study
Stakeholder Working Group Meeting 1 Notes**

ENGINEERING DESIGN CRITERIA	ENGINEERING DESIGN CONSTRAINTS	NOTES
BRIDGE / ROADWAY		
<ol style="list-style-type: none"> 1. Access vehicular (including rescue vehicles), pedestrian, & bicycles, as well as access to existing park) 2. Design hydraulic event and associated freeboard 3. Flood conveyance 4. Scour 5. Alignment 6. Design Speed (vertical curves, sight distance, etc.) currently signed for 15 mph 7. Meet NDOT and ASHTO design standards 8. Evaluate existing drainage structures and out-falls 9. Evaluate superstructure for lighting and impacts to view shed 10. Evaluate superstructure for potential aesthetic and architectural treatments 	<ol style="list-style-type: none"> 1. Cost 2. Constructability (including construction access) 3. Foundation Type (including permitting implications of foundation type) 4. Bridge Type (including material type i.e. steel vs. concrete, style and aesthetic treatments) <ol style="list-style-type: none"> a. Accommodate numerous special events b. Provide access to Wingfield Park and Truckee River c. Accommodate numerous pedestrians on, surrounding and beneath bridge structure 5. Surrounding property impacts? <ol style="list-style-type: none"> a. Floodwalls, right-of-way, drainage, infrastructure, park improvements, etc. b. Roadway profile 6. Maintenance of Traffic (Staged construction vs. Full closure vs. New Alignment) primarily during construction <ol style="list-style-type: none"> a. events b. Island Avenue access 7. Bridge superstructure access for ease of future biennial inspections. 8. Channel access for maintenance and debris removal during flood events (and before) 9. Superstructure height impacting view shed 	
RIGHT-OF-WAY / ACCESS		

**Arlington Avenue Bridges Project Feasibility Study
Stakeholder Working Group Meeting 1 Notes**

ENGINEERING DESIGN CRITERIA	ENGINEERING DESIGN CONSTRAINTS	NOTES
<ol style="list-style-type: none"> 1. ROW impacts to adjacent properties 2. Public access to adjacent properties 3. Future maintenance access for river, while maintaining existing white water features (downstream) 4. Maintain/improve whitewater rescue access 5. Maintain access to river during winter for debris removal 	<ol style="list-style-type: none"> 1. Permanent ROW acquisitions from adjoining properties <ol style="list-style-type: none"> a. Wingfield Park or other properties 2. Temporary construction easements on adjoining properties 3. Duration and intensity of adjacent property access during construction 4. Property access changes post-construction 5. Construction staging and access 	<p>-access to river channel required during and post construction</p> <p>-whitewater rescue from Whitewater Park – access cannot disturb park</p> <p>-incl. ROW/access considerations for stormwater outfalls</p> <p>-incl. input from CoR Fire Dept. on park and river rescue</p>
BIKE / PEDESTRIAN USE		
<ol style="list-style-type: none"> 1. ADA and/or Public Right-of-Way Access Guidelines (PROWAG) requirements 	<p>Compliance with RTC Bicycle and Pedestrian Master Plan</p> <p>Pedestrian and bicycle safety</p>	<p>-incl. lighting design criteria separately for 1) events and 2) pedestrian/bicycle safety</p>
LAND USE		
<p>Compatible with local and regional plans</p>	<ol style="list-style-type: none"> 1. Reimagine Reno (City of Reno 2017) 2. Washoe County Master Plan, Land Use and Transportation (Washoe County Department of Community Development 2011) 3. Bicycle and Pedestrian Master Plan (Regional Transportation Commission 2017) 4. Complete Streets Master Plan (Regional Transportation Commission 2016) 5. 2012 Truckee Meadows Regional Plan (Truckee Meadows Regional Planning Agency 2017) 	<p>Project is not expected to change existing or future land use in the area, with downtown mixed-use properties dominating the surrounding area and existing land uses are expected to remain generally unchanged in the future</p> <p>Project will continue to support and provide access to the recreational areas along the river, with roadway and pedestrian improvements supporting economic investment, redevelopment and improving accessibility and safety of recreational users and the public</p> <p>-Research One Truckee River Management Plan for use/reference</p>

**Arlington Avenue Bridges Project Feasibility Study
Stakeholder Working Group Meeting 1 Notes**

ENGINEERING DESIGN CRITERIA	ENGINEERING DESIGN CONSTRAINTS	NOTES
	<ul style="list-style-type: none"> 6. City of Reno Sustainability Plan 7. Downtown Action Plan (City of Reno 2017) 8. Downtown Streetscape Master Plan (First Street intersection), view shed 	
TRAFFIC		
	<ul style="list-style-type: none"> 1. Year 2015 Field Daily Traffic Volume (from NDOT) along/near Arlington Avenue Bridge = 8,800 vehicles per day (vpd) 2. Year 2040 volumes developed using the RTC Washoe’s travel demand model and according to NDOT’s Traffic Forecasting Guidelines 3. Year 2040 Forecast Daily Traffic Volume along/near the Arlington Avenue Bridge = 10,900 vpd 4. Used Transportation Research Board’s (TRB) Highway Capacity Manual (HCM) 6th Edition to determine a planning-level automobile Level of Service (LOS) for the roadway segment on the bridge 5. Planning-level automobile LOS likely to be experienced on the bridge by year 2040 is LOS E <ul style="list-style-type: none"> a. Constrained by Arlington Avenue north and south of the Truckee River 	<ul style="list-style-type: none"> -consider non-standard vehicle traffic weight/load -consider RTP update elements, updated traffic model (2050 plan) -consider future RTC bus types
UTILITIES		
<ul style="list-style-type: none"> Existing utilities (electricity, natural gas, water) Existing utilities (stormwater) Future utilities (fiber-optic / 5G network) 	<ul style="list-style-type: none"> Include constraints for future utilities (fiber-optic for 5G networks) Evaluate and consider prior rights 	<ul style="list-style-type: none"> -confirm existing (and future) utility network with NV Energy, Verizon, Sprint, etc. and City of Reno

**Arlington Avenue Bridges Project Feasibility Study
Stakeholder Working Group Meeting 1 Notes**

ENGINEERING DESIGN CRITERIA	ENGINEERING DESIGN CONSTRAINTS	NOTES
<p>Acronym definitions:</p> <p>NVSHPO – Nevada State Historic Preservation office</p> <p>FHWA – Federal Highways Administration</p> <p>USACE – US Army Corp of Engineers</p> <p>NDOT – Nevada Department of Transportation</p> <p>CTWCD - Carson-Truckee Water Conservancy District</p> <p>ASHTO – the American Association of State Highway Transportation Officials</p>		<p>-confirm existing (and future) utility network with NV Energy, Verizon, Sprint, etc. and City of Reno</p>