

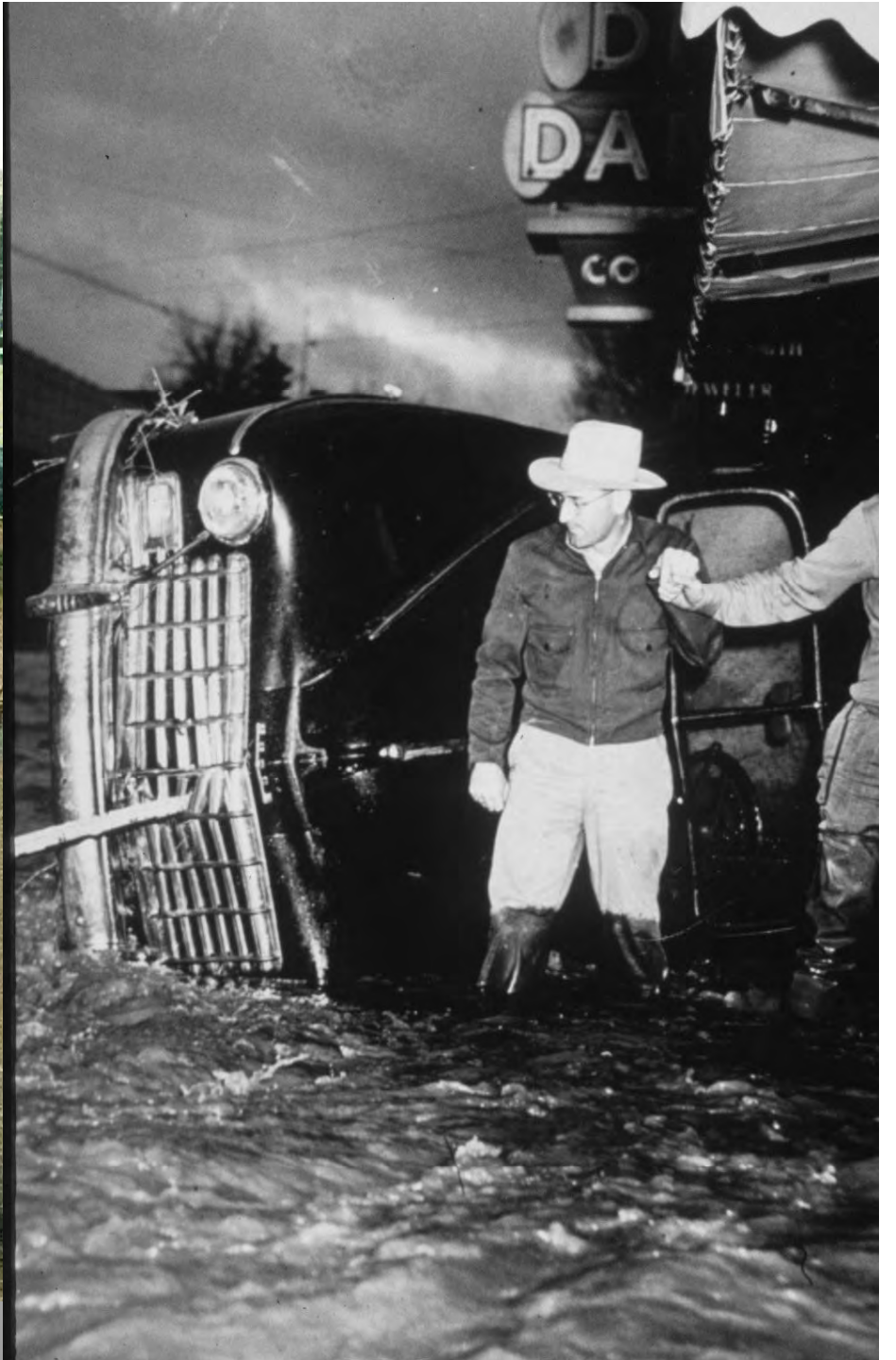
Local Rate Plan Update



Jay Aldean | *TRFMA Executive Director*

Combined Preliminary Engineering Contract

- ◆ TRFMA hired HDR to design/engineer the Local Interest Plan (LIP) to provide 100-yr level of flood protection.
- ◆ Value Engineering (VE) workshop was held to brainstorm and evaluate design improvements to add value and lower project costs.
- ◆ Over 140 initial VE suggestions were narrowed to 10 recommendations to carry forward in the LIP design.
- ◆ HDR completed the LIP documentation April 2013.





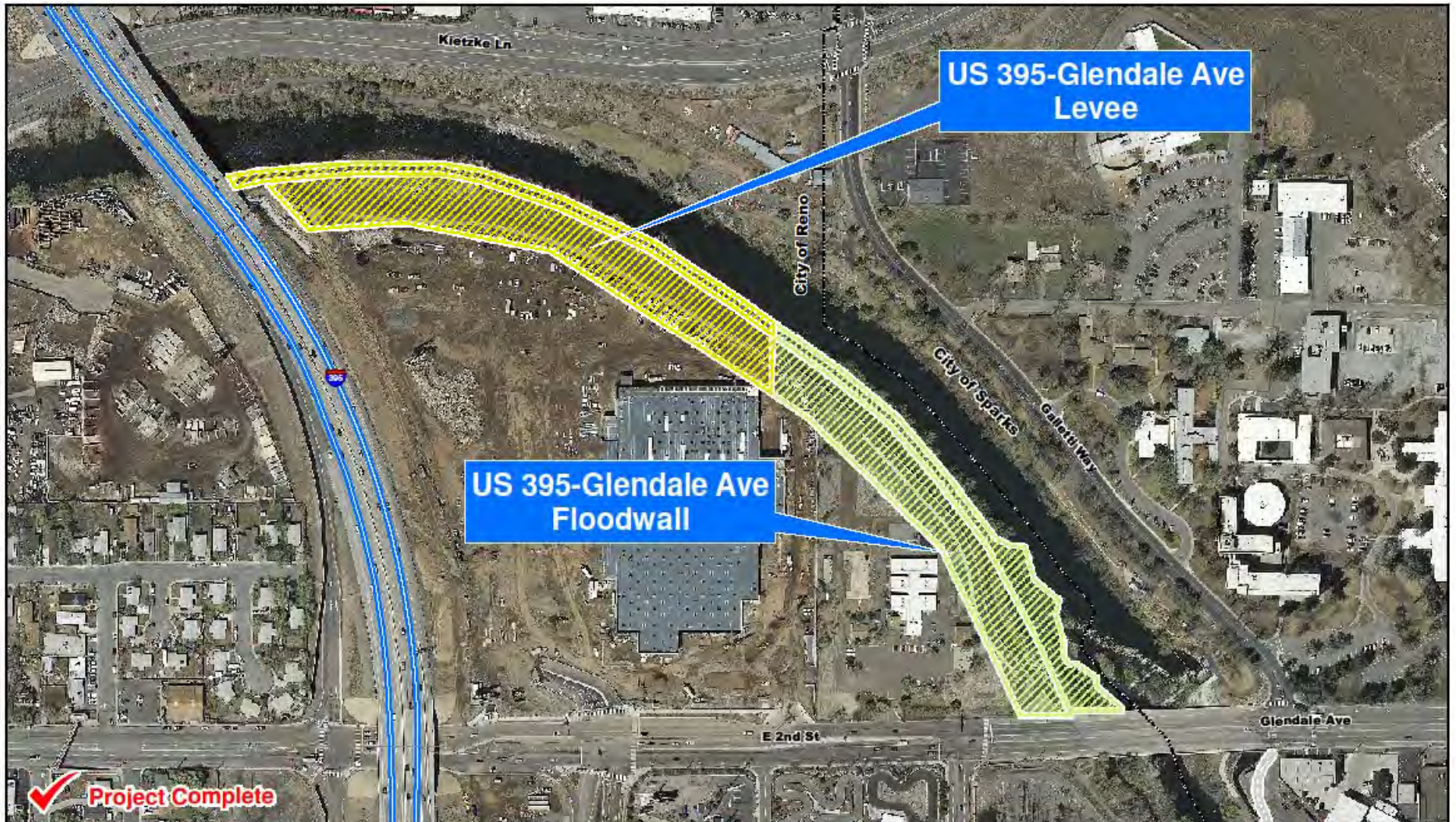
Design Criteria for Project

- ◆ Provide a minimum of 100-year flood protection,
- ◆ Adhere to FEMA design principals
- ◆ Limit the project cost to a practical and affordable level,
- ◆ B/C ratio greater than 1,
- ◆ Maintain the new 100-yr floodplain as close as possible to the existing 100-yr floodplain,
- ◆ Plan limited recreational facilities within the footprint of proposed flood facilities,
- ◆ Minimize neighborhood disturbances,
- ◆ Mitigate for environmental and hydraulic disturbances, and
- ◆ Seek eligibility for Federal funding through the Corps process.

Local Interest Plan

Summary of LIP features

Truckee Meadows: HWY 395 to Glendale Ave



LRP (100 YR - Feasibility): 395 to Glendale Ave



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StatePlane, Nevada, West, FIPS_2700_Feet
NAD, 1983 Printed: October 2013

Projects	
Terracing & River Parkway	Replaced In-Channel FW
River Park Lands	Seiback Floodwall
Bridge Replacements	Levee
Bridge Extensions	Closed Conduit
New On-Bank Floodwall	Erosion Protection
	Flood Proofing
	Detention Facility
	Road Realignment
	Ditch Realignment
	On Adjacent Shoal
	Restoration Area
	Reclaimed Water Pip
City/County Boundaries	Pump Station
Property to be Acquired	Flood Gate
On-Site Spoil Area	



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Truckee Meadows: Glendale Ave to Greg St



2011 LPP 117 YR: Glendale-Greg



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NAD_1983 Printed: Nov 29, 2012

Projects	
Terracing & River Parkway	Replaced In-Channel FW
River Park Lands	Setback Floodwall
Bridge Replacements	Levee
Bridge Extensions	Closed Conduit
New In-Channel Floodwall	Erosion Protection
Flood Proofing	Flood Proofing
Detention Facility	Road Realignment
Creek Realignment	On Adjacent Sheet
Restoration Area	Flood Gate
City/County Boundaries	Fish Passage
FP Elements	FP Access Road



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Truckee Meadows: Glendale Ave to Greg St



LRP (100 YR - Certified): Glendale Ave to Greg Street



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Projects	
Terracing & River Parkway	Replaced In-Channel FW
River Park Lands	Setback Floodwall
Bridge Replacements	Levee
Bridge Extensions	Closed Conduit
New On-Bank Floodwall	Erosion Protection
	Flood Proofing
Detention Facility	Road Realignment
Ditch Realignment	Fish Passage
On Adjacent Sheet	FP Elements
Restoration Area	FP Access Road
Reclaimed Water Pipe	Flood Gate
City/County Boundaries	



Truckee Meadows: Greg St to Rock Blvd



LRP (100 YR - Certified): Greg-Rock



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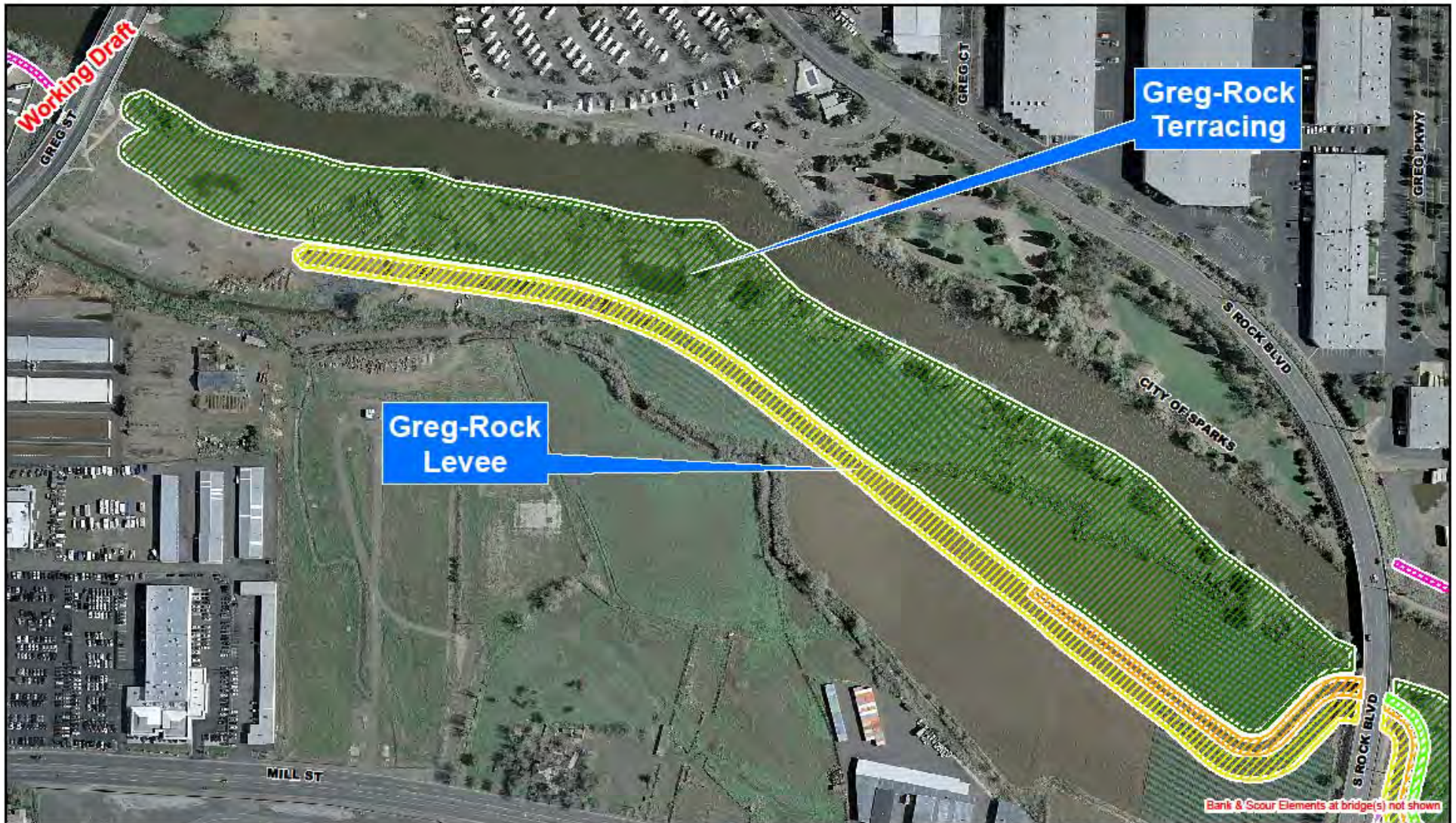
Projects

- | | | | | |
|---------------------------|--------------------|------------------------|-------------------|------------------------|
| Terracing & River Parkway | Seaback Floodwall | Replaced In-Channel FW | Road Realignment | City/County Boundaries |
| River Park Lands | Levee | Bridge Replacements | Creek Realignment | Fish Passage |
| Bridge Extensions | Closed Conduit | Bridge Replacements | On Adjacent Sheet | FP Elements |
| New In-Channel Floodwall | Erosion Protection | Flood Flooding | Restoration Area | FP Access Road |
| | Flood Flooding | Flood Gate | | |



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Truckee Meadows: Greg St to Rock Blvd



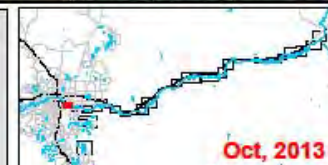
LRP (100 YR - Certified): Greg Street to S Rock Blvd



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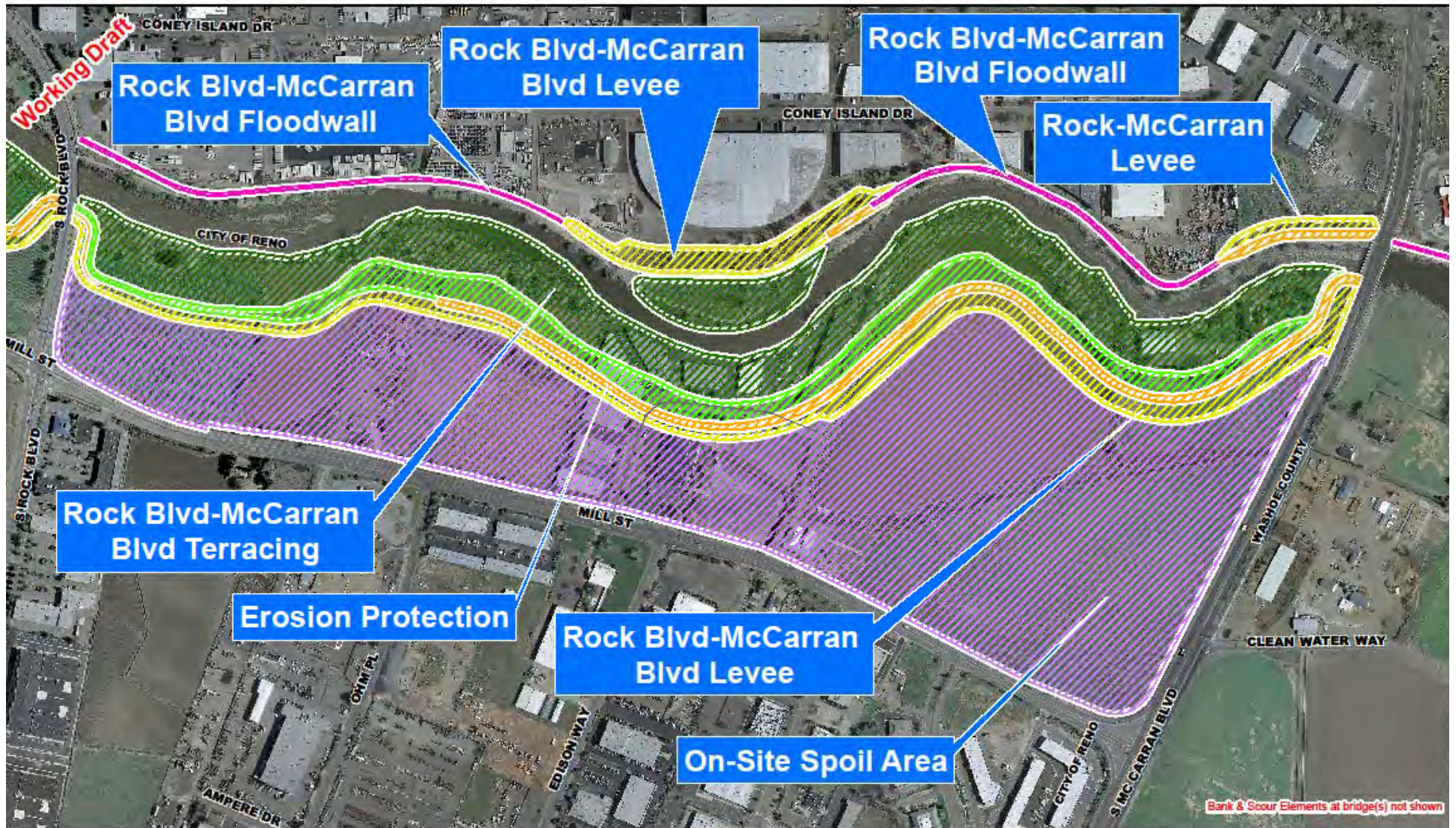
Projects	
Terracing & River Parkway	Replaced In-Channel FW
River Park Lands	Setback Floodwall
Bridge Replacements	Levees
Bridge Extensions	Closed Conduit
New On-Bank Floodwall	Erosion Protection
	Flood Proofing
	Detention Facility
	Road Realignment
	Ditch Realignment
	On Adjacent Sheet
	Restoration Area
	Reclaimed Water Pipe
	City/County Boundaries
	Fish Passage
	FP Elements
	FP Access Road
	Flood Gate



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Truckee Meadows: Rock Blvd to McCarran Blvd



LRP (100 YR - Certified): S Rock Blvd to S McCarran Blvd



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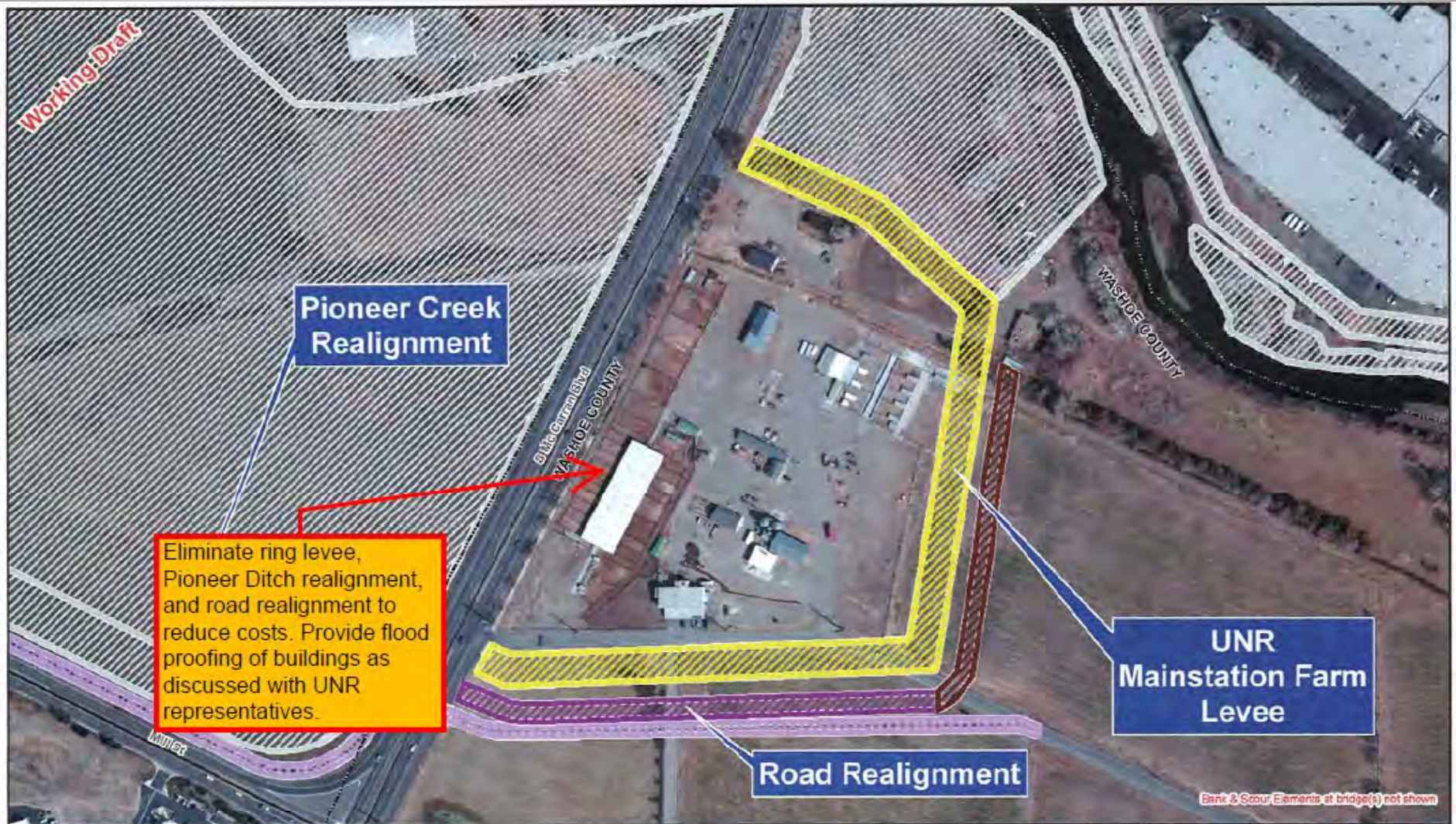
Projects	
	Terracing & River Parkway
	River Park Lands
	Bridge Replacements
	Bridge Extensions
	New On-Bank Floodwall
	Replaced In-Channel FW
	Setback Floodwall
	Levee
	Closed Conduit
	Erosion Protection
	Flood Proofing
	Detention Facility
	Road Realignment
	Ditch Realignment
	On Adjacent Sheet
	Restoration Area
	Reclaimed Water Pipe
	City/County Boundaries
	Storm PIPE
	Property to be Acquired
	Flood Gate
	On-Site Spoil Area



Oct, 2013

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Truckee Meadows: UNR Main Station Farm



LRP (100 YR - Certified): UNR Farm



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NAD_1983 Printed: Nov 29, 2012

Projects	
Tiersborg & River Parkway	Replaced In-Channel FW
River Park Lands	Setback Floodwall
Bridge Replacements	Levees
Bridge Extensions	Closed Conduit
New In-Channel Floodwall	Erosion Protection
Flood Proofing	Ditch Realignment
Detention Facility	Road Realignment
Creek Realignment	On Adjacent Street
Restoration Area	Fish Passage
City/County Boundaries	FP Elements
Fish Passage	FP Access Road



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Truckee Meadows: UNR Main Station Farm



LRP (100 YR - Feasibility): UNR Mainstation Farm



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NAD, 1983 Printed: October 2013

Projects

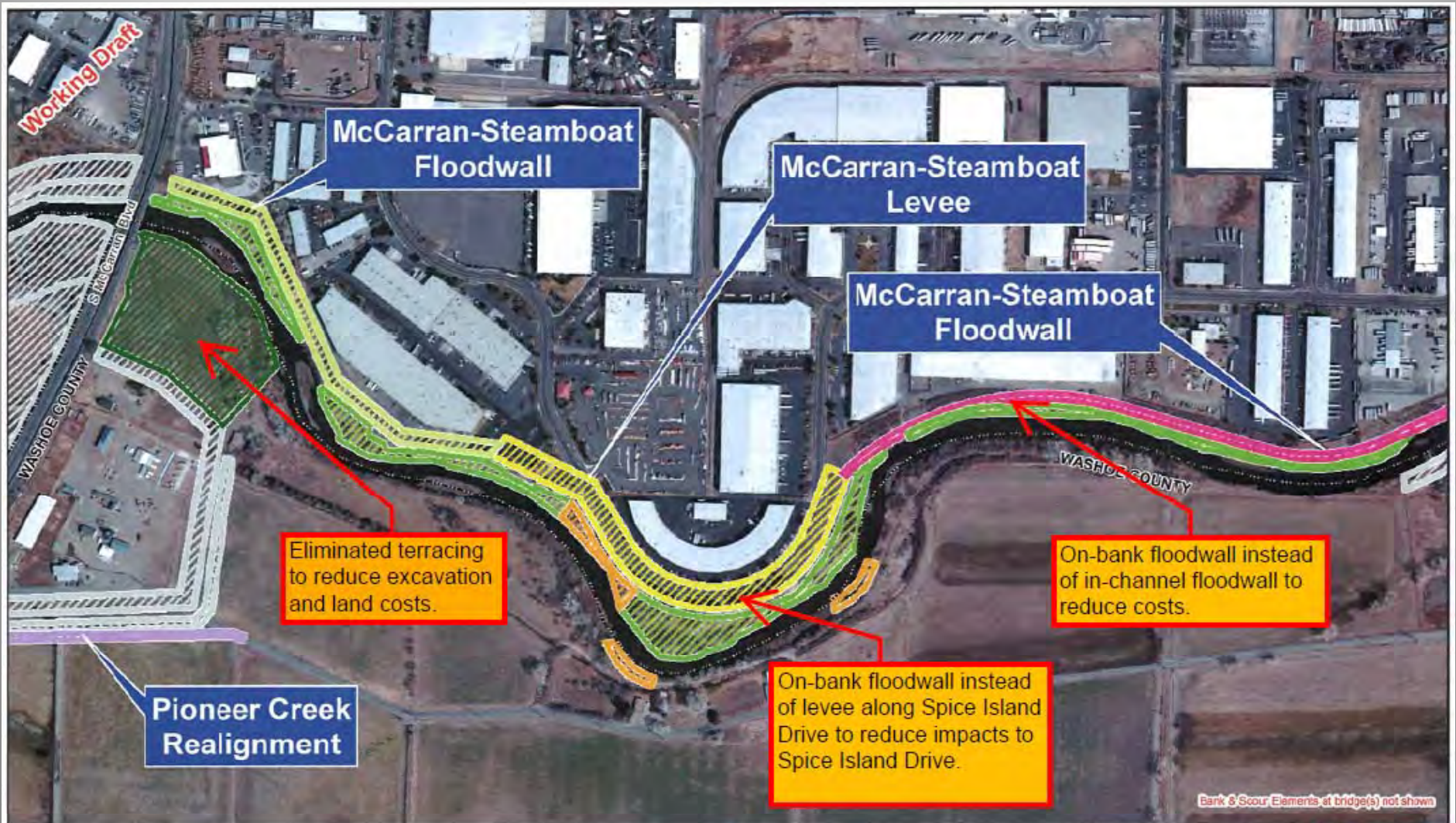
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River Park Lands	Seiback Floodwall	Road Realignment	Pump Station
Bridge Replacements	Levee	Ditch Realignment	Property to be Acquired
Bridge Extensions	Closed Conduit	On Adjacent Sheet	Flood Gate
New On-Bank Floodwall	Erosion Protection	Restoration Area	On-Site Spoil Area
	Flood Proofing	Reclaimed Water Pipe	



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Truckee Meadows: McCarran Blvd to Steamboat Ck



LRP (100 YR - Certified): McCarran-Steamboat A



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 NAD_1983 Project: Nov 29, 2011

Projects

- | | | |
|---------------------------|------------------------|--------------------|
| Terracing & River Parkway | Replaced In-Channel FW | Detention Facility |
| River Park Lands | Setback Floodwall | Road Realignment |
| Bridge Replacements | Levee | Creek Realignment |
| Bridge Extensions | Closed Conduit | On Adjacent Sheet |
| New In-Channel Floodwall | Erosion Protection | Restoration Area |
| | Flood Piling | Ditch Realignment |



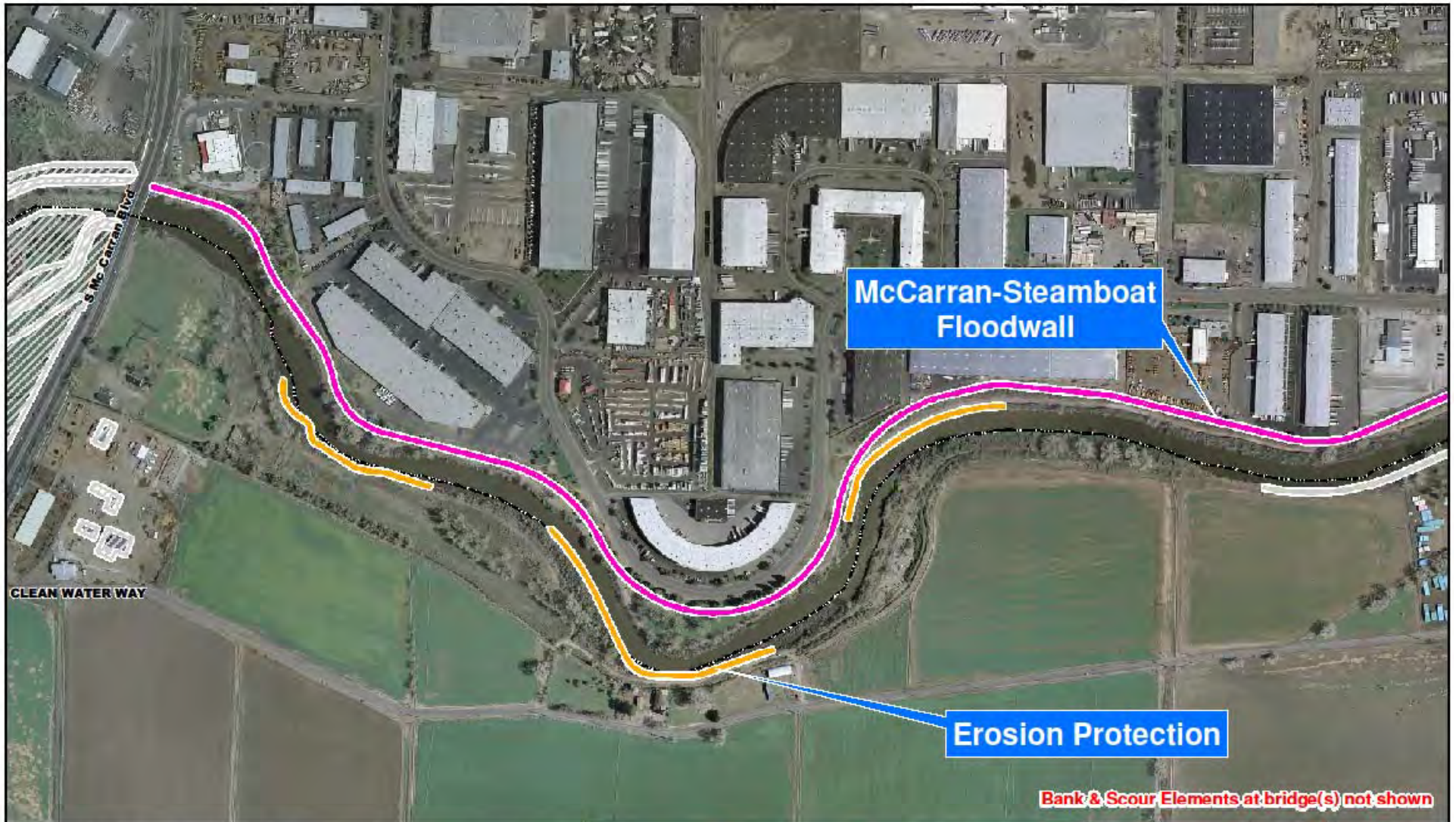
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Truckee Meadows: McCarran Blvd to Steamboat Ck



LRP (100 YR - Feasibility): McCarran to Steamboat Creek A



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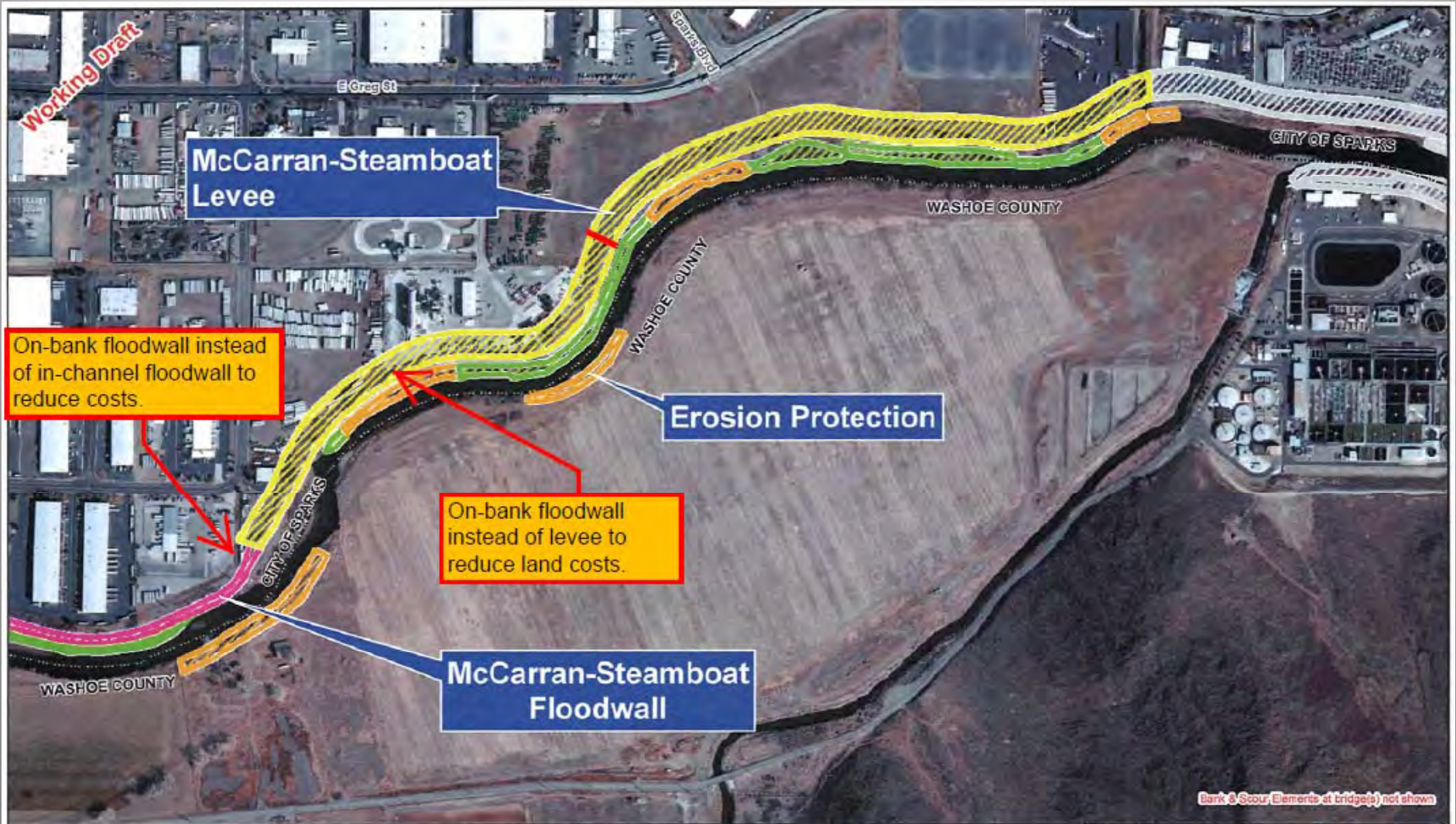
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NAD_1983 Printed: October 2013

Projects		City/County Boundaries	
Terracing & River Parkway	Replaced In-Channel FW	City/County Boundaries	Pump Station
River Park Lands	Subback Floodwall	Property to be Acquired	Flood Gate
Bridge Replacements	Levees	Road Realignment	On Site Spoil Area
Bridge Extensions	Closed Conduit	Ditch Realignment	
New On-Bank Floodwall	Erosion Protection	On Adjacent Shoal	
	Flood Proofing	Restoration Area	
		Reclaimed Water Pipe	



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Truckee Meadows: McCarran Blvd to Steamboat Ck



LRP (100 YR - Certified): McCarran-Steamboat B

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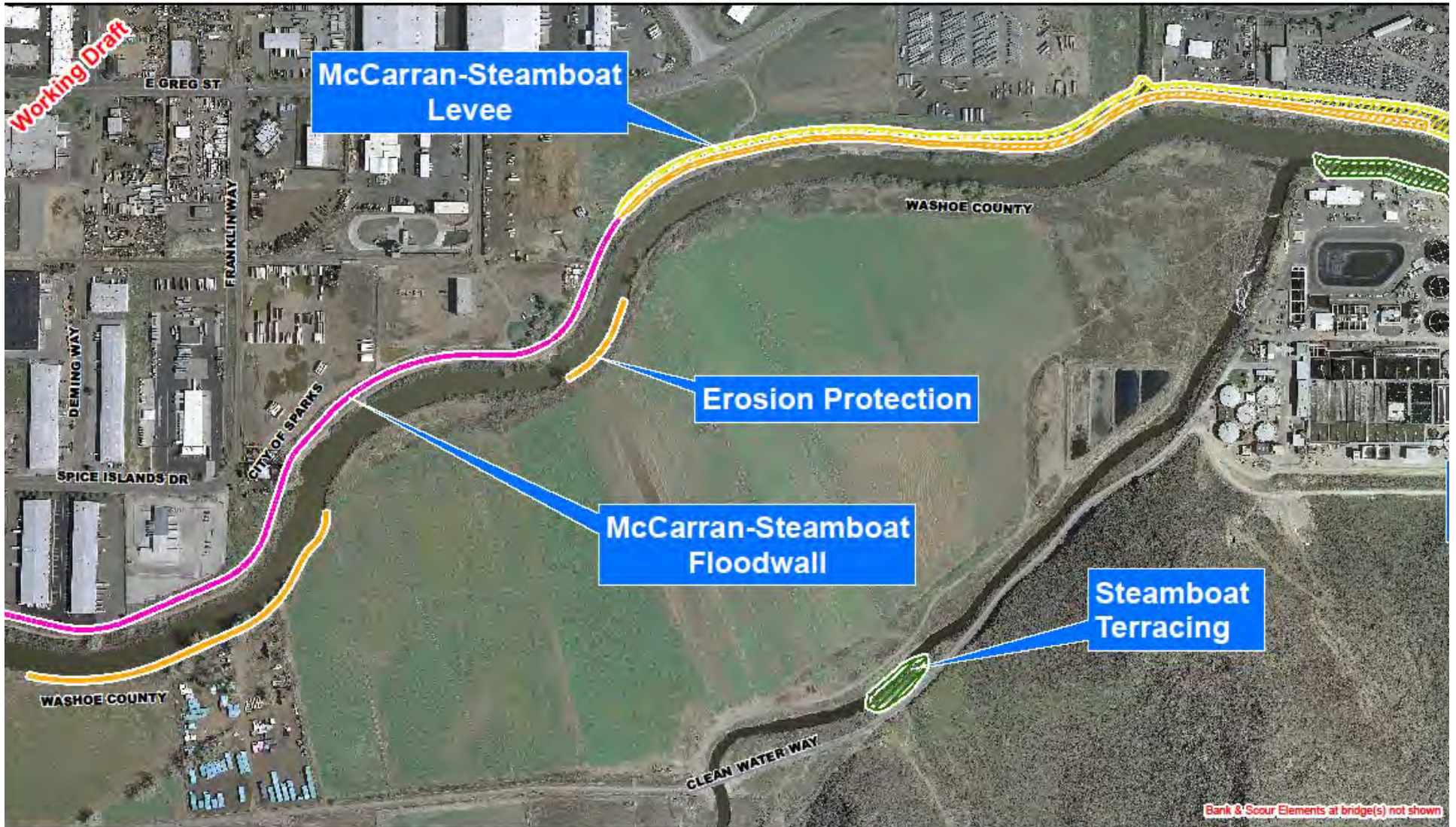
Projects	
Trenching & River Parkway	Replaced In-Channel FW
River Park Lands	Setback Floodwall
Bridge Repacements	Levees
Bridge Extensions	Closed Conduit
New In-Channel Floodwall	Erosion Protection
Flood Proofing	Detention Facility
Ditch Realignment	Road Realignment
City/County Boundaries	Creek Realignment
Fish Passage	On Adjacent Sheet
FP Elements	Restoration Area
FP Access Road	

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Truckee Meadows: McCarran Blvd to Steamboat Ck



LRP (100 YR - Certified):S McCarran to Steamboat Creek B



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StatePlane_Nevada West_FIPS_2203_Feet
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Projects	
	Terracing & River Parkway
	River Park Lands
	Bridge Replacements
	Bridge Extensions
	New On-Bank Floodwall
	Replaced In-Channel FW
	Setback Floodwall
	Levee
	Closed Conduit
	Erosion Protection
	Flood Proofing
	Detention Facility
	Road Realignment
	Ditch Realignment
	On Adjacent Sheet
	Restoration Area
	Reclaimed Water Pipe
	City/County Boundaries
	Fish Passage
	FP Elements
	FP Access Road
	Flood Gate
	On-Site Spoil Area



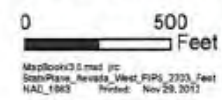
Oct, 2013

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Truckee Meadows: North Truckee Drain Relocation



LRP (100 YR - Certified): North Truckee Drain Relocation

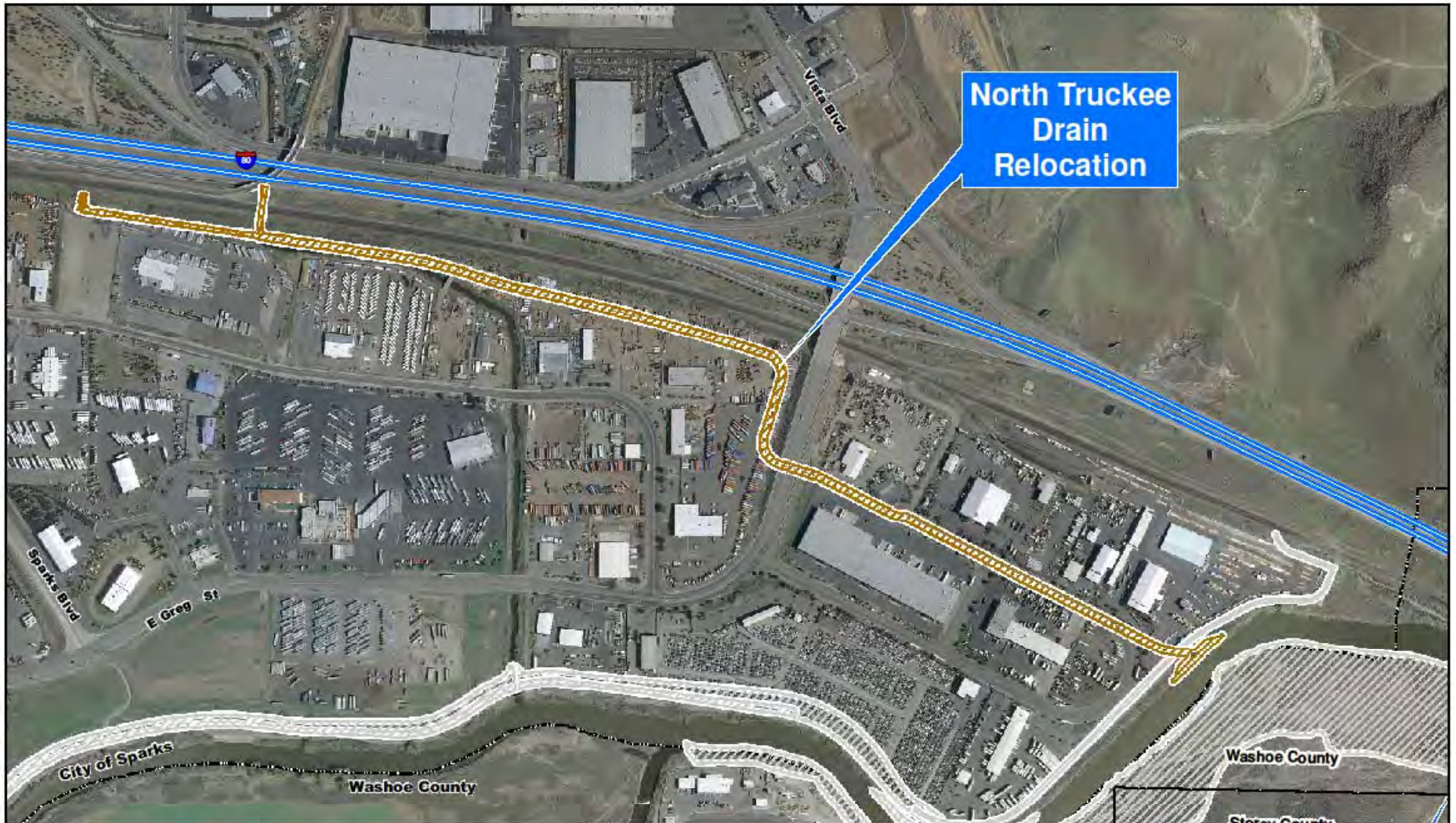


Projects	
Terracing & River Parkway	Replaced In-Channel FW
River Park lands	Setback Floodwall
Bridge Repairs/Extensions	Levees
Bridge Extensions	Closet Conduit
New In-Channel Floodwall	Erosion Protection
	Flood Proofing
Detention Facility	Road Realignment
Creek Realignment	On Adjacent Sheet
Restoration Fees	Ditch Realignment
City/County Boundaries	Fish Passage
FP Elements	FP Access Road



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Truckee Meadows: North Truckee Drain Relocation



LRP (100 YR - Feasibility): North Truckee Drain Relocation



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NAD_1983 Printed: October 2013

Projects	
Terracing & River Parkway	Replaced In-Channel FW
River Park Lands	Subback Floodwall
Bridge Replacements	Levees
Bridge Extensions	Closed Conduit
New On-Bank Floodwall	Erosion Protection
Detention Facility	Flood Proofing
Road Realignment	Restoration Area
Ditch Realignment	Reclaimed Water Pipe
On Adjacent Sheet	City/County Boundaries
Flood Gate	Pump Station
On Site Spoil Area	Property to be Acquired

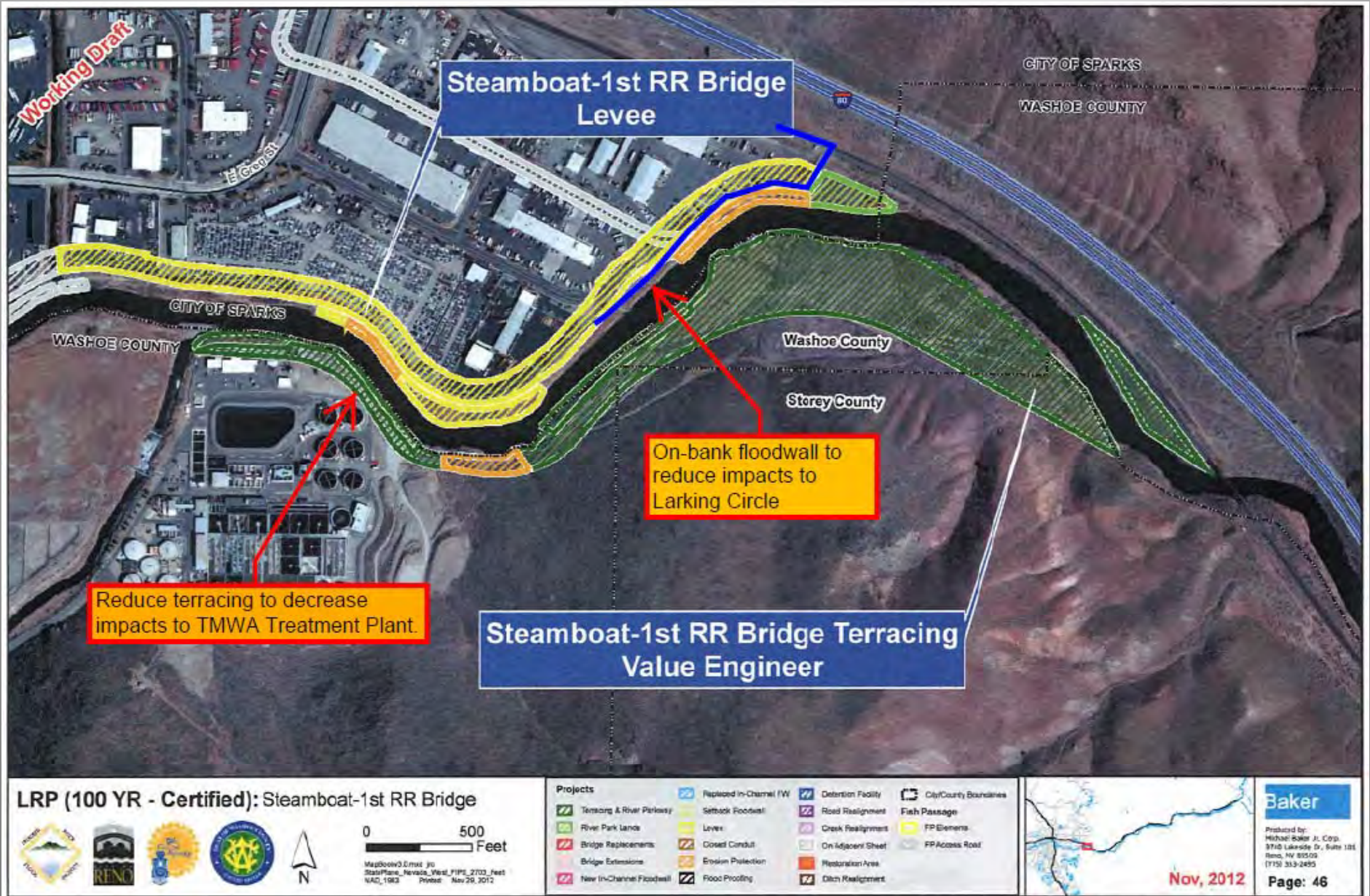


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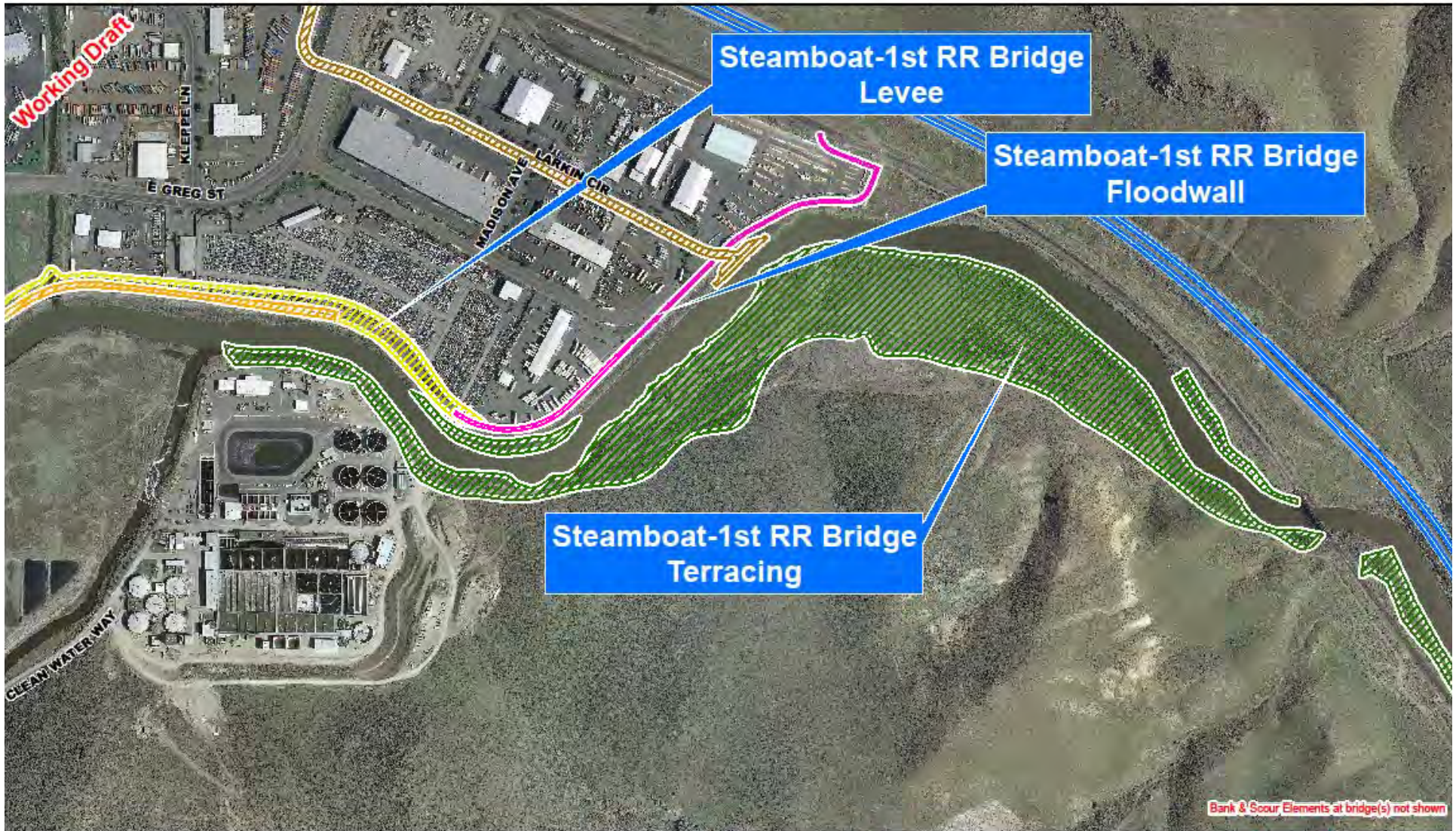
HDR

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Truckee Meadows: Steamboat Ck to 1st RR Bridge



Truckee Meadows: Steamboat Ck to 1st RR Bridge



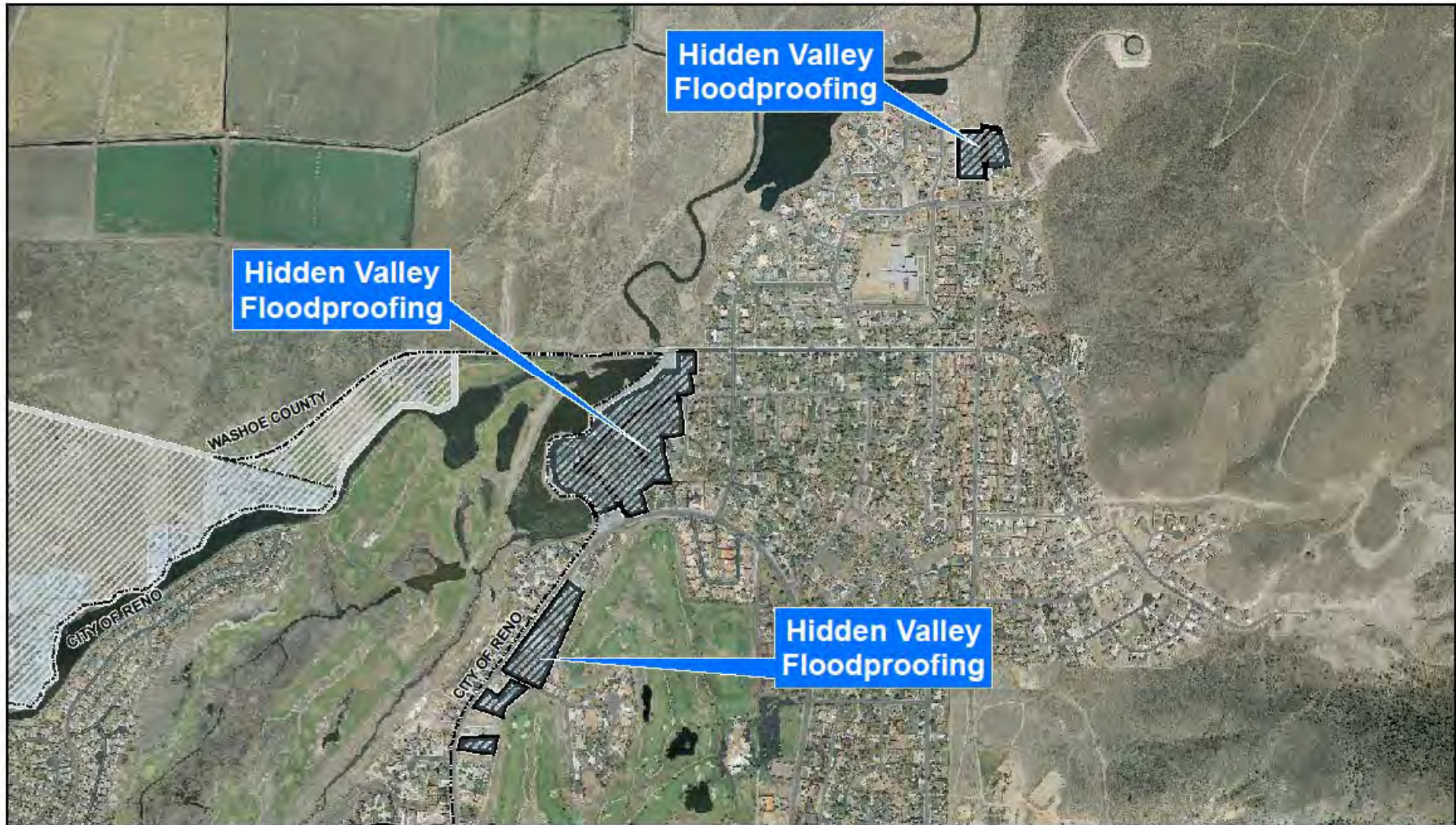
LRP (100 YR - Certified): Steamboat Creek to 1st RR Bridge



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 NAD_1983 Printed: October 2013

Projects	
Terracing & River Parkway	Replaced In-Channel FW
River Park Lands	Setback Floodwall
Bridge Replacements	Levee
Bridge Extensions	Closed Conduit
New On-Bank Floodwall	Erosion Protection
	Flood Proofing
	Detection Facility
	Road Realignment
	Ditch Realignment
	On Adjacent Sheet
	Restoration Area
	Reclaimed Water Pipe
	City/County Boundaries
	Fish Passage
	FP Elements
	FP Access Road
	Flood Gate
	On-Site Spot Area





2011 LPP 117 YR: Hidden Valley



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NAD_1983 Printed: Nov 29, 2012

Projects

- | | | | | |
|---------------------------|--------------------|--------------------------|--------------------|-----------------------------|
| Terracing & River Parkway | Setback Floodwall | Replaced In-Channel FW | Detention Facility | City/County Boundaries |
| River Park Lands | Levee | Bridge Replacements | Road Realignment | Fish Passage |
| Bridge Extensions | Closed Conduit | Bridge Replacements | Creek Realignment | FP Elements |
| Bridge Extensions | Erosion Protection | Bridge Extensions | On Adjacent Sheet | FP Access Road |
| Bridge Extensions | Flood Proofing | New In-Channel Floodwall | Restoration Area | Potential Elevation Paroisi |



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Additional survey needed to determine specific structures to be elevated

LRP (100 YR - Feasibility): Hidden Valley



0 500 Feet

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StatePlane Nevada West_FPS_2793_Feet
MID_1983 Printed: October 2013

Projects	
Terracing & River Parkway	Replaced In-Channel FW
River Park Lands	Saltback Floodwall
Bridge Replacements	Levee
Bridge Extensions	Closed Conduit
New On-Bank Floodwall	Erosion Protection
	Flood Proofing
	Detention Facility
	Road Realignment
	Ditch Realignment
	On Adjacent Sheet
	Restoration Area
	Reclaimed Water Pipe
	City/County Boundaries
	Pump Station
	Property to be Acquired
	Flood Gate
	On-Site Spoil Area



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2011 LPP 117 YR: East Side Subdivision



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Projects	
Terracing & River Parkway	Setback Floodwall
River Park Lands	Level
Bridge Replacements	Closed Conduit
Bridge Extensions	Erosion Protection
New In-Channel Floodwall	Flood Proofing
Replaced In-Channel FW	Detention Facility
Road Realignment	Creek Realignment
On Adjacent Sheet	Restoration Area
Potential Elevation Parcel	



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LRP (100 YR - Feasibility): East Side Subdivision

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Projects	
Terracing & River Parkway	Replaced In-Channel PW
River Park Lands	Detention Facility
Bridge Replacements	Road Realignment
Bridge Extensions	Ditch Realignment
New On-Bank Floodwall	On Adjacent Sheet
Setback Floodwall	Restoration Area
Levee	Rock-lined Water Pipe
Closed Conduit	Flood Gating
Erosion Protection	On-Site Spot Area
Flood Proofing	City/County Boundaries
	Pump Station
	Property to be Acquired



Lower Truckee River: 1st RR Bridge to 2nd RR Bridge



Incorporate terrace benches to improve hydraulics.

LRP (100 YR - Certified): 1st RR Bridge to 2nd RR Bridge



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Projects	
Terminus & River Parkway	Replaced In-Channel FW
River Park Lands	Setback Floodwall
Bridge Replacements	Levee
Bridge Extensions	Closed Conduit
New In-Channel Floodwall	Erosion Protection
	Flood Proofing
Detection Facility	Road Realignment
Road Realignment	Creek Realignment
Creek Realignment	On Adjacent Sheet
On Adjacent Sheet	Restoration Area
Restoration Area	Potential Elevation Parcel
City/County Boundaries	Fish Passage
Fish Passage	FP Elements
FP Elements	FP Access Road
FP Access Road	



Lower Truckee River: 1st RR Bridge to 2nd RR Bridge



LRP (100 YR - Certified): 1st RR Bridge to 2nd RR Bridge



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Projects	
	Terracing & River Parkway
	River Park Lands
	Bridge Replacements
	Bridge Extensions
	New On-Bank Floodwall
	Replaced In-Channel FW
	Setback Floodwall
	Levee
	Closed Conduit
	Erosion Protection
	Flood Proofing
	Detention Facility
	Road Realignment
	Ditch Realignment
	On Adjacent Sheet
	Restoration Area
	Reclaimed Water Pipe
	City/County Boundaries
	Fish Passage
	FP Elements
	FP Access Road
	Flood Gate
	On-Site Spoil Area



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Lower Truckee River: Rainbow Bend



LRP (100 YR - Certified): Rainbow Bend



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RAD_1983 Plotter Nov 21, 2012

Projects	
Terracing & River Parkway	Replaced In-Channel FW
River Park Lands	Siltback Floodwall
Bridge Replacements	Levees
Bridge Extensions	Planned Wetland Area
New In-Channel Floodwall	Closed Conduit
	Erosion Protection
Flood Proofing	Detention Facility
Road Reassignment	Creek Reassignment
Ditch Reassignment	Planned River Alignment
	Restoration Area
	City/County Boundaries
Fish Passage	
FF Elements	FF Access Road



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Lower Truckee River: Rainbow Bend



LRP (100 YR - Certified): Rainbow Bend Restoration



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NAD_1983 Printed: October 2013

Projects			
	Terracing & River Parkway		Replaced In-Channel FW
	River Park Lands		Setback Floodwall
	Bridge Replacements		Leaves
	Bridge Extensions		Closed Conduit
	New On-Bank Floodwall		Erosion Protection
			Flood Proofing
			Retention Facility
			Road Realignment
			Ditch Realignment
			On Adjacent Sheet
			Restoration Area
			Reclaimed Water Pipe
	City/County Boundaries		Storm PIPE
	Property to be Acquired		Flood Gate
	On-Site Spoil Area		



Lower Truckee River: Painted Rock Bridge



LRP (100 YR - Certified): Painted Rock Bridge



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Projects	
	Tearing & River Parkway
	River Park Lands
	Bridge Replacements
	Bridge Extensions
	New In-Channel Floodwall
	Replaced in-Channel FW
	Silback Floodwall
	Levees
	Planned Wetland Area
	Closed Conduit
	Erosion Protection
	Flood Pooling
	Detention Facility
	Road Realignment
	Creek Realignment
	On Adjacent Sheet
	Dish Realignment
	Planned River Alignment
	Restoration Area
	City/County Boundaries
	Fish Passage
	FP Elements
	FP Access Road



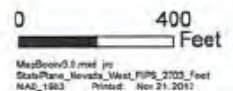
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Restoration Withdrawn
 Bank & Scour Elements at bridge(s) not shown

Lower Truckee River: Wadsworth



LRP (100 YR - Certified): Wadsworth Floodwall



Projects	
Terrace & River Parkway	Replaced In-Channel FW
River Park Lands	Setback Floodwall
Bridge Replacements	Levees
Bridge Extensions	Planned Wetland Area
New In-Channel Floodwall	Closed Conduit
	Brown Protection
Flood Proofing	Deterioration Facility
Road Realignment	Creek Realignment
On-Adjacent Street	Ditch Realignment
Planned River Alignment	Restoration Area
City/County Boundaries	Fish Passage
FP Easement	FP Access Road



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Lower Truckee River: Wadsworth



LRP (100 YR - Feasibility): Wadsworth



0 400 Feet

MapBook3.0.mxd jrc
StatePlane_Nevada_West_FIPS_2705_Feet
NAD_1983 Printed: October 2013

Projects			
	Terracing & River Parkway		Replaced In-Channel PW
	River Park Lands		Levee
	Bridge Replacements		Closed Conduit
	Bridge Extensions		Erosion Protection
	New On-Bank Floodwall		Flood Proofing
			Detention Facility
			Road Realignment
			Ditch Realignment
			On Adjacent Sheet
			Restoration Area
			Reclaimed Water Pips
	City/County Boundaries		Pump Station
			Property to be Acquired
			Flood Gate
			On-Site Spot Area



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HDR

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Local Rate Plan

1. Includes all LIP features,
2. Downtown Improvements,
3. Fully compliant with the Design Criteria



2011 LPP 100 YR: 2nd-Booth



MapBook2.2.mxd
 StatePlane_Nevada_Weak_FIPS_2702_Feet
 NAD_1983 Printed: Nov 29, 2012

Projects

- | | | | | |
|---------------------------|--------------------|------------------------|--------------------|------------------------|
| Terracing & River Parkway | Setback Floodwall | Replaced In-Channel FW | Detention Facility | City/County Boundaries |
| River Park Lands | Levee | Road Realignment | Fish Passage | FP Elements |
| Bridge Replacements | Closed Conduit | Creek Realignment | On Adjacent Sheet | FP Access Road |
| Bridge Extensions | Erosion Protection | Restoration Area | Flood Gate | |
| New In-Channel Floodwall | Flood Proofing | | | |

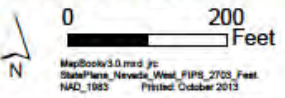


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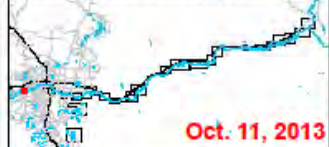


Bank & Scour Elements at bridge(s) not shown

LRP (100 YR - Feasibility): 2nd Street to Booth Street



Projects	
Terracing & River Parkway	Replaced In-Channel FW
River Park Lands	Setback Floodwall
Bridge Replacements	Levee
Bridge Extensions	Closed Conduit
New On-Bank Floodwall	Erosion Protection
	Flood Proofing
	Detention Facility
	Road Realignment
	Ditch Realignment
	On Adjacent Sheet
	Restoration Area
	Reclaimed Water Pipe
City/County Boundaries	Pump Station
	Property to be Acquired
	Flood Gate
	On-Site Spoil Area





2011 LPP 100 YR: Booth-Ralston



0 200 Feet

MapScale2.2.mxd.gx
StatePlane_Nevada_Mile_FIPS_2703_Feet
NAD_1983 Printed: Nov 29, 2012

Projects	
	Terracing & River Parkway
	River Park Lands
	Bridge Replacements
	Bridge Extensions
	New In-Channel Floodwall
	Setback Floodwall
	Levee
	Closed Conduit
	Erosion Protection
	Flood Proofing
	Replaced In-Channel FW
	Detention Facility
	Road Realignment
	Creek Realignment
	On Adjacent Sheet
	Restoration Area
	City/County Boundaries
	Fish Passage
	FP Elements
	FP Access Road
	Flood Gate



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Page: 3



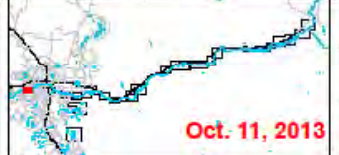
Flood Proofing Areas not shown on Map
Bank & Scour Elements at bridge(s) not shown

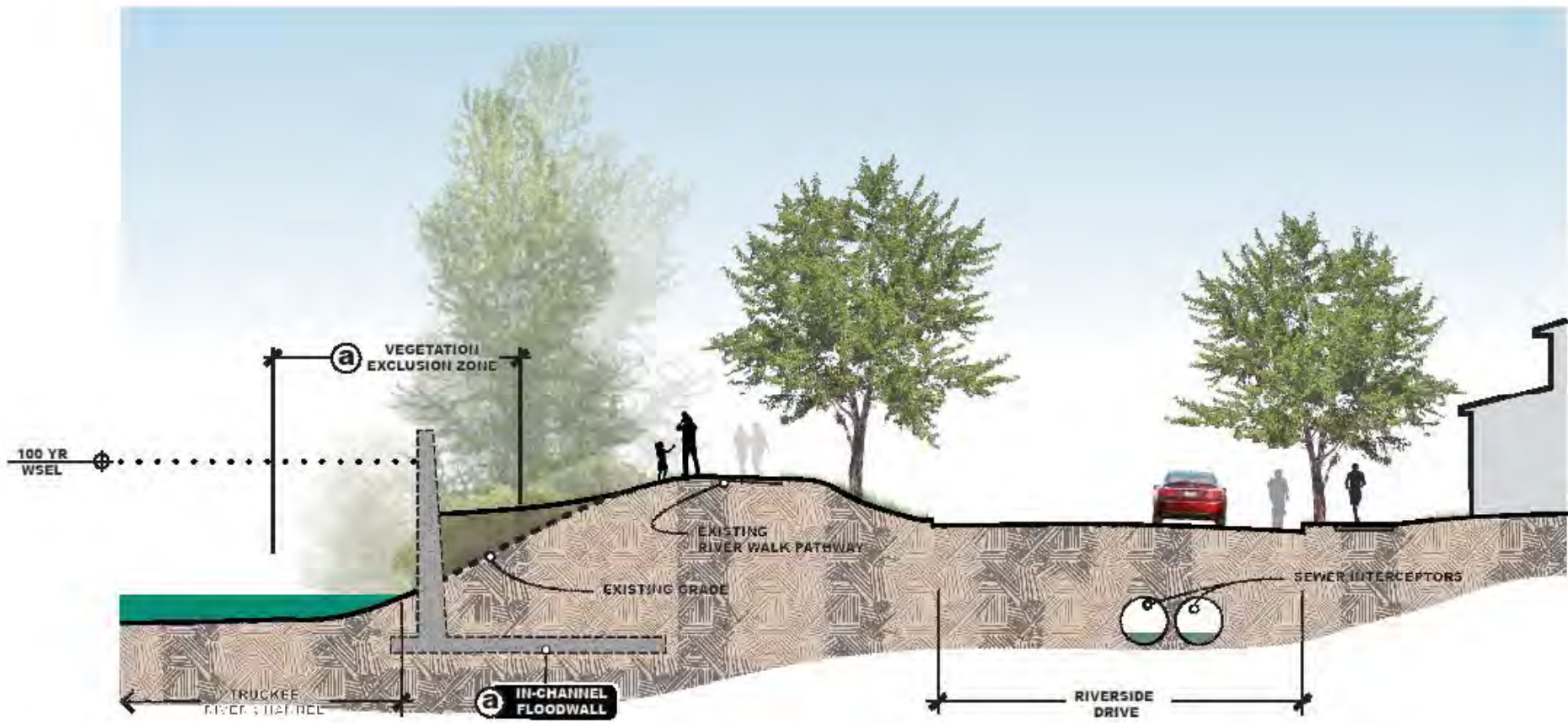
LRP (100 YR - Feasibility): Booth St to Ralston St

0 200 Feet

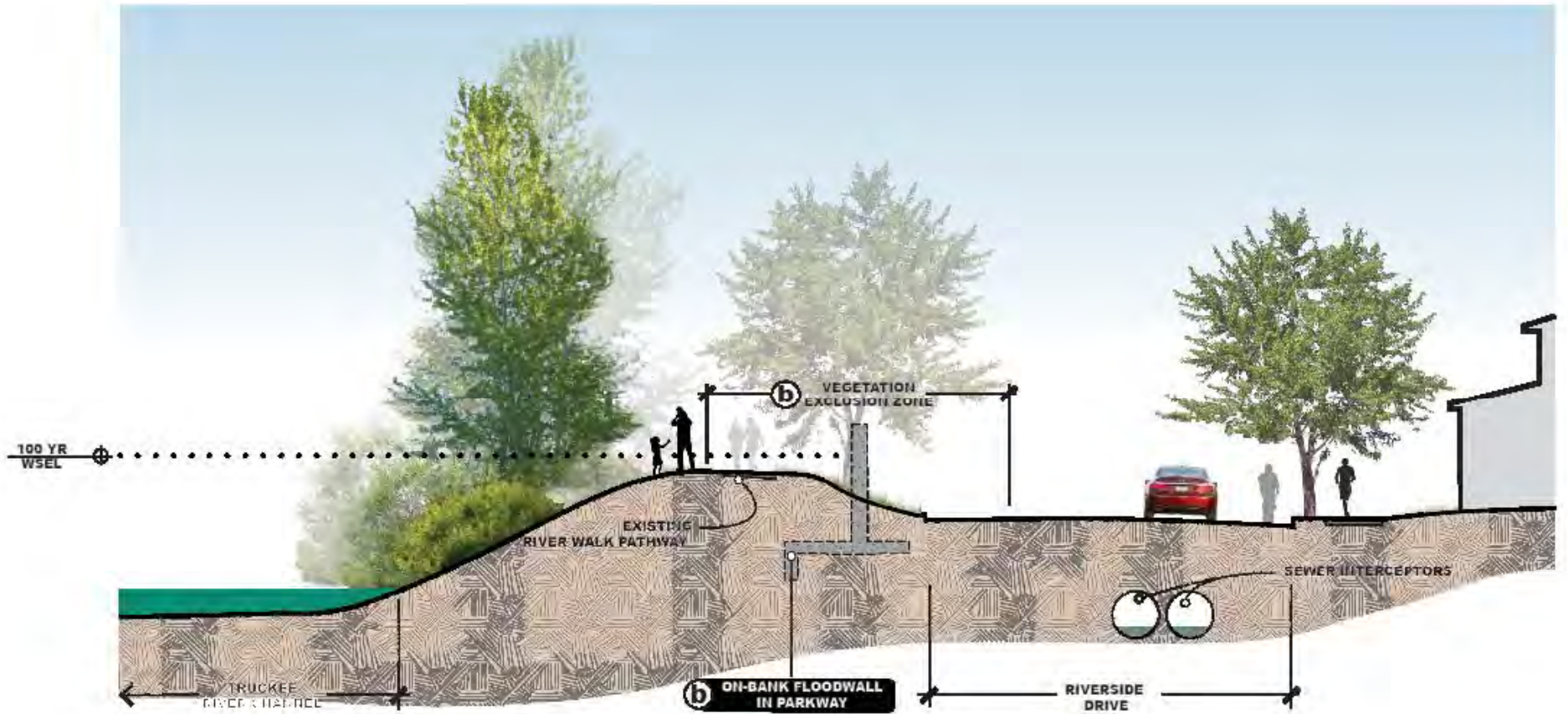
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State/Plane: Nevada, West, FIPS_2703, Feet
NAD_1983 Printed: October 2013

Projects	
Terracing & River Parkway	Replaced In-Channel FW
River Park Lands	Setback Floodwall
Bridge Replacements	Levees
Bridge Extensions	Closed Conduit
New On-Bank Floodwall	Erosion Protection
Flood Proofing	Detention Facility
Road Realignment	Ditch Realignment
On Adjacent Sheet	Restoration Area
Recaptured Water Pipe	On-Site Spill Area
City/County Boundaries	Pump Station
Property to be Acquired	Flood Gate

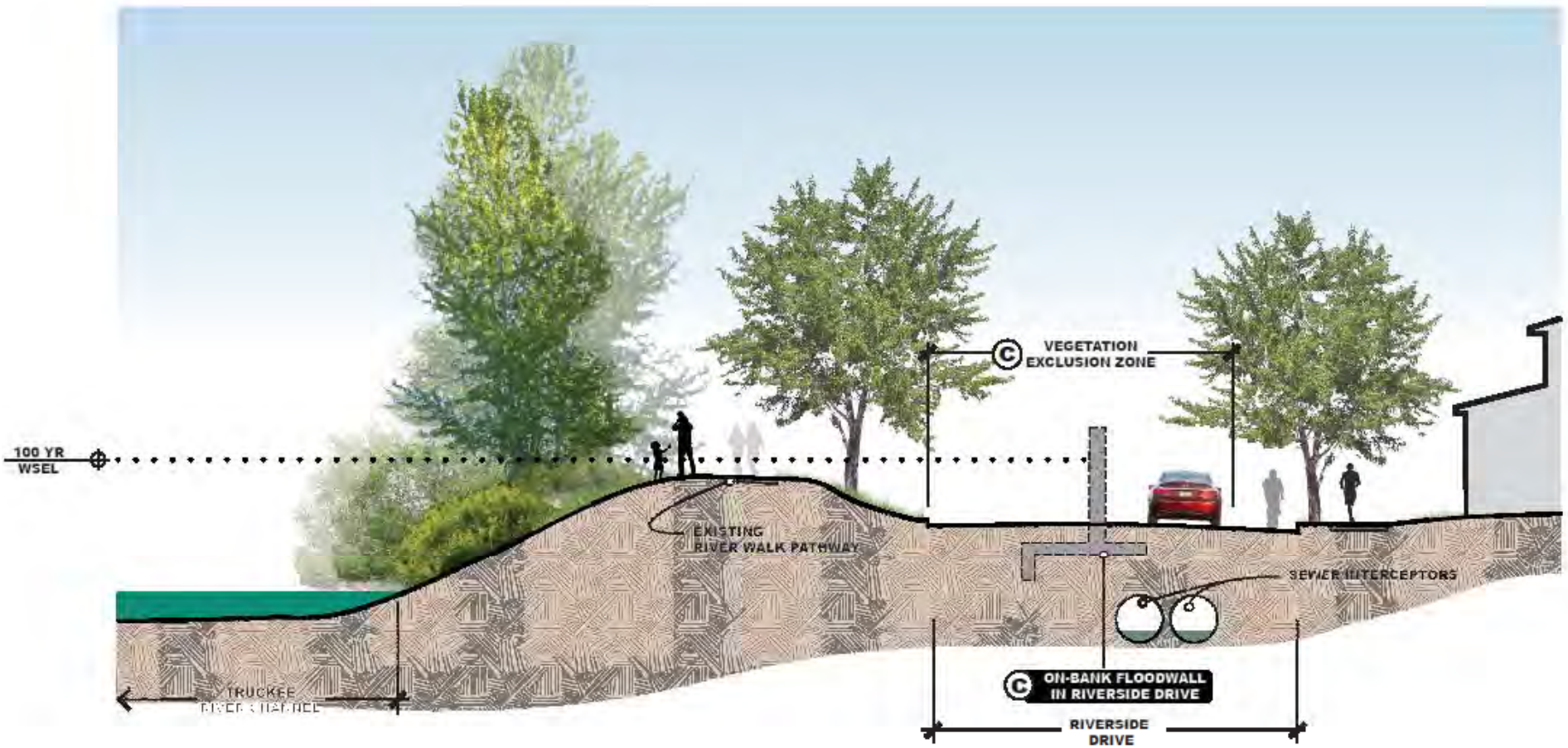




RIVERSIDE DRIVE - WEST OF WASHINGTON AVE
 IN-CHANNEL FLOODWALL ALIGNMENT

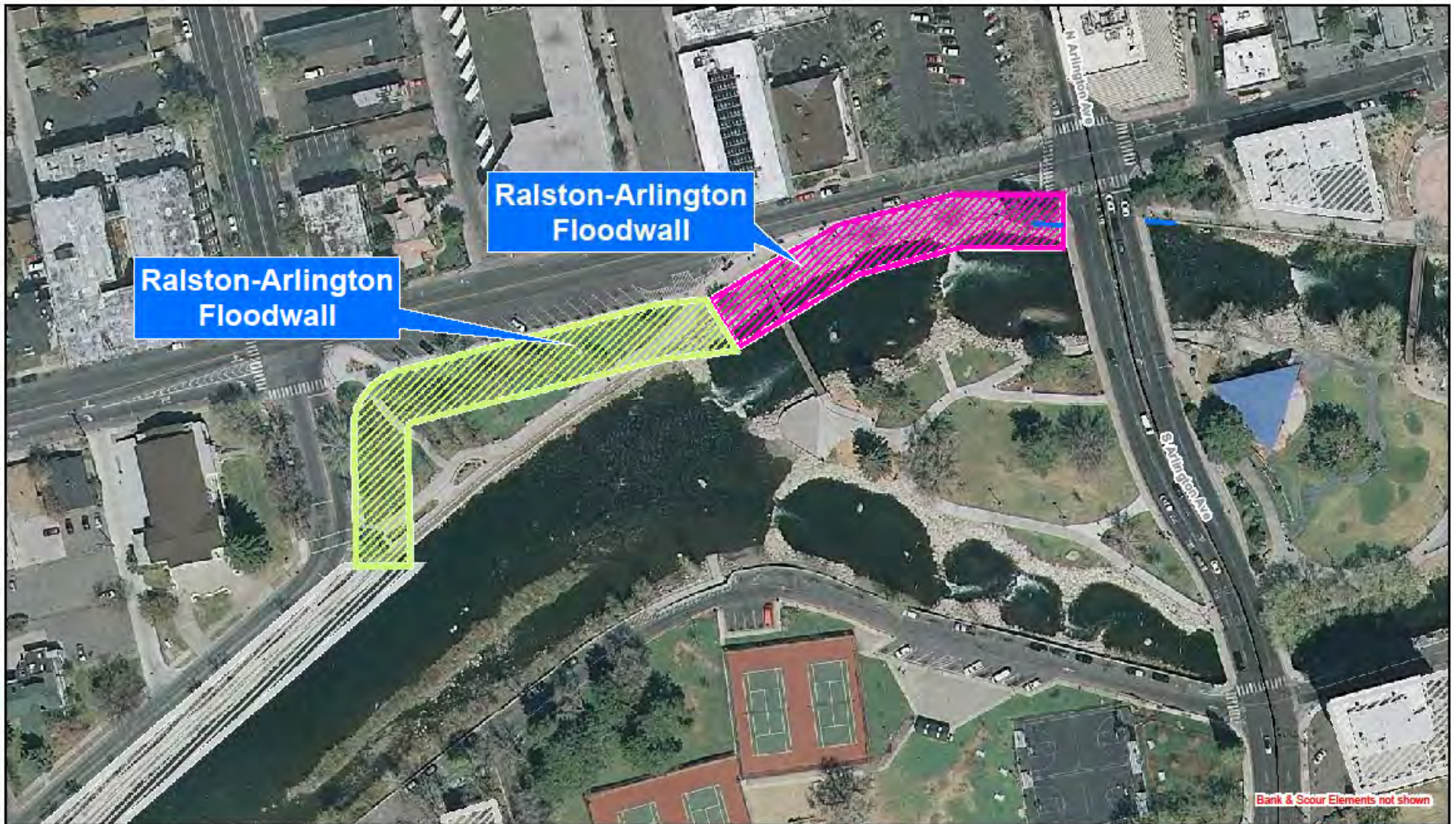


RIVERSIDE DRIVE - WEST OF WASHINGTON AVE
 IN-PARKWAY FLOODWALL ALIGNMENT



RIVERSIDE DRIVE - WEST OF WASHINGTON AVE
 IN ROADWAY FLOODWALL ALIGNMENT





2011 LPP 100 YR: Ralston-Arlington



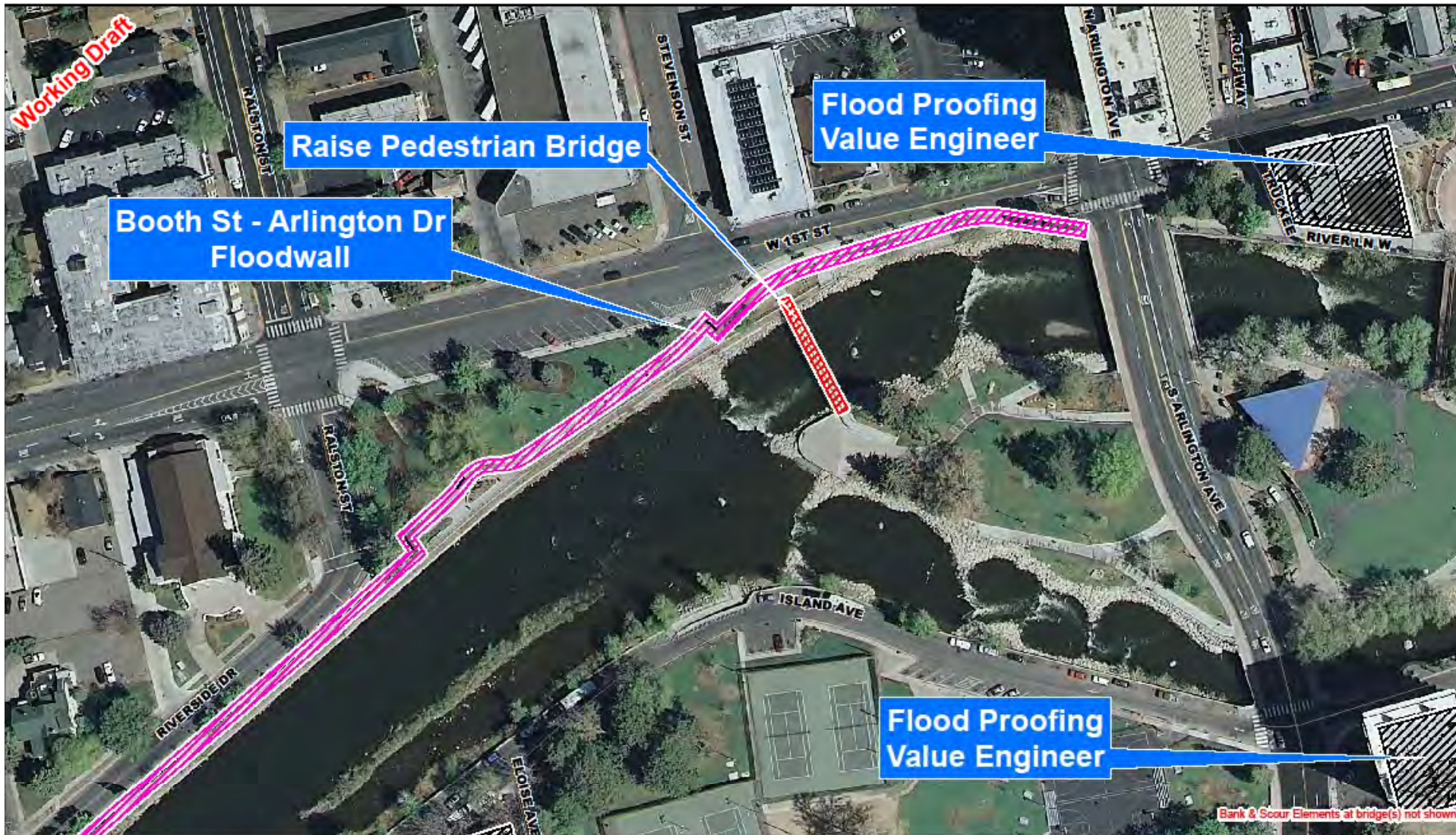
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 StatePlane_Nevada_Mile_FIPS_2703_Feet
 NAD_1983 Printed: Nov 29, 2012

Projects	
	Terracing & River Parkway
	River Park Lands
	Bridge Replacements
	Bridge Extensions
	New In-Channel Floodwall
	Replaced In-Channel FW
	Setback Floodwall
	Levee
	Closed Conduit
	Erosion Protection
	Flood Proofing
	Detention Facility
	Road Realignment
	Creek Realignment
	On Adjacent Sheet
	Restoration Area
	Flood Gate
	City/County Boundaries
Fish Passage	
	FP Elements
	FP Access Road



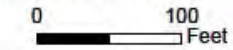
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 Nov, 2012 Page: 5

Working Draft



Bank & Scour Elements at bridge(s) not shown

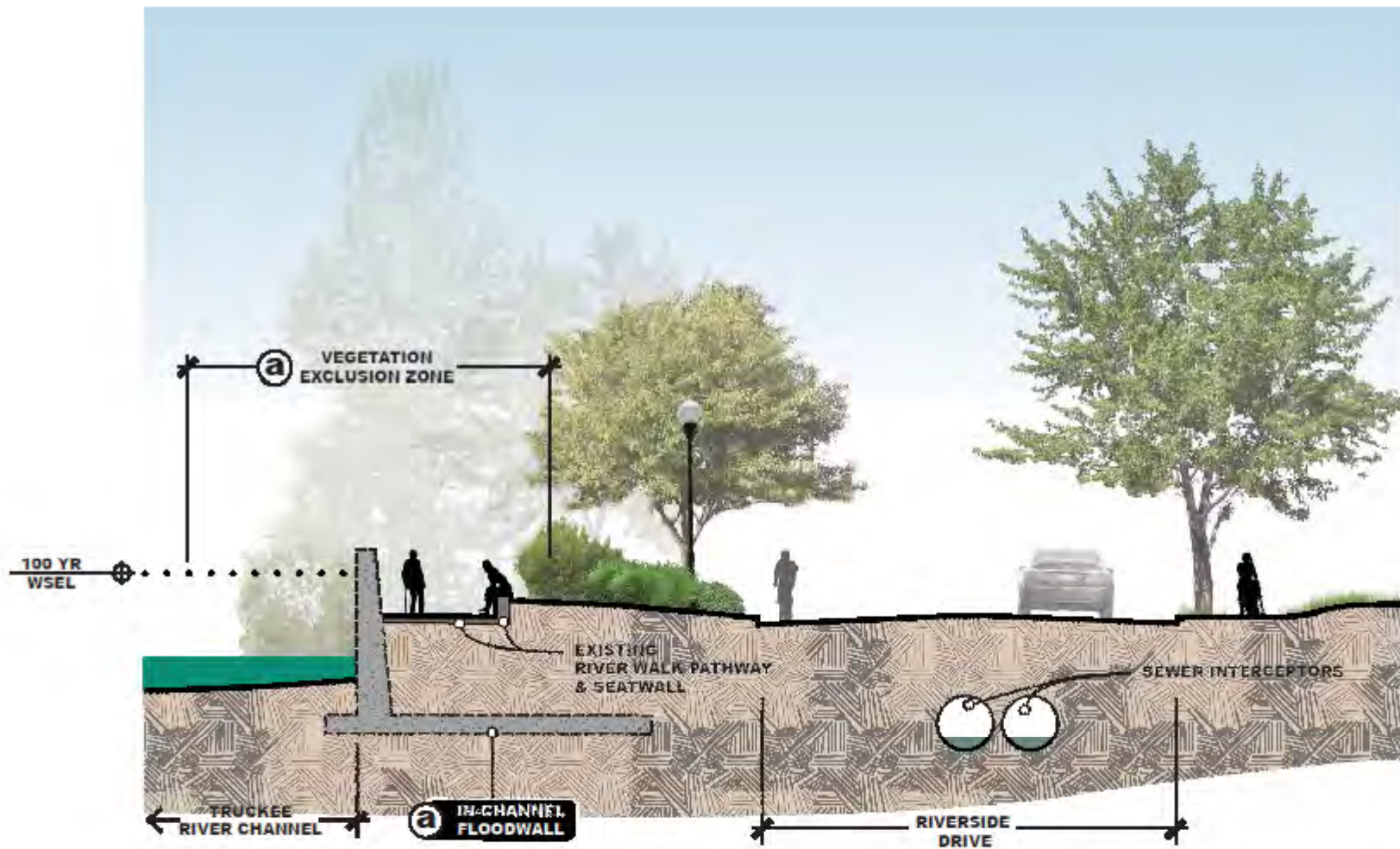
LRP (100 YR - Certified): Ralston St to S Arlington Ave



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 NAD_1983 Printed: October 2013

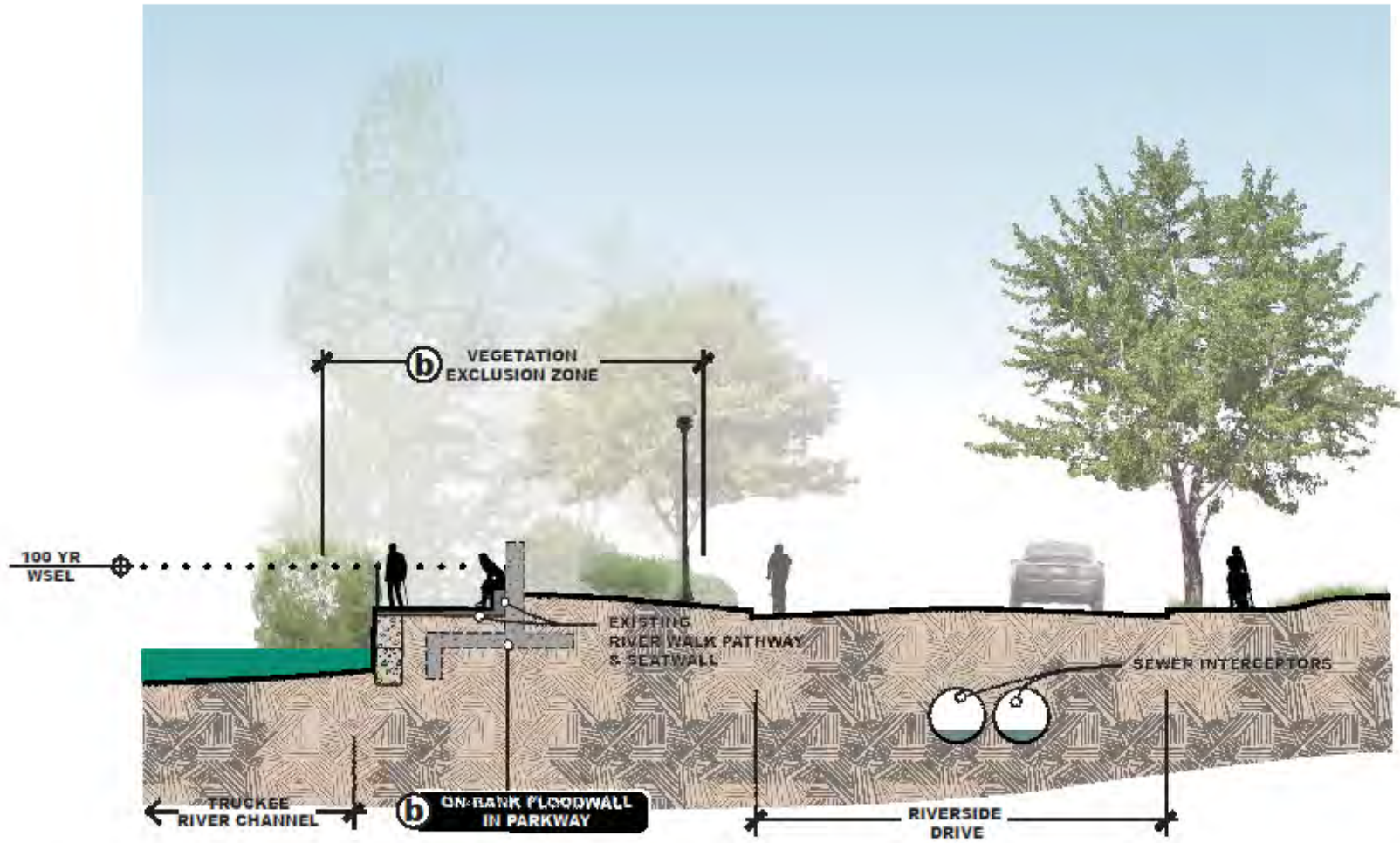
Projects		Fish Passage	
Terracing & River Parkway	Setback Floodwall	Replaced In-Channel FW	Storm PIPE
River Park Lands	Levee	Road Realignment	FP Access Road
Bridge Replacements	Closed Conduit	Ditch Realignment	Flood Gate
Bridge Extensions	Erosion Protection	On Adjacent Sheet	Reclaimed Water Pipe
New On-Bank Floodwall	Flood Proofing	Restoration Area	On-Site Spoil Area
		Detention Facility	City/County Boundaries
		Road Realignment	
		Ditch Realignment	
		On Adjacent Sheet	
		Restoration Area	
		Reclaimed Water Pipe	



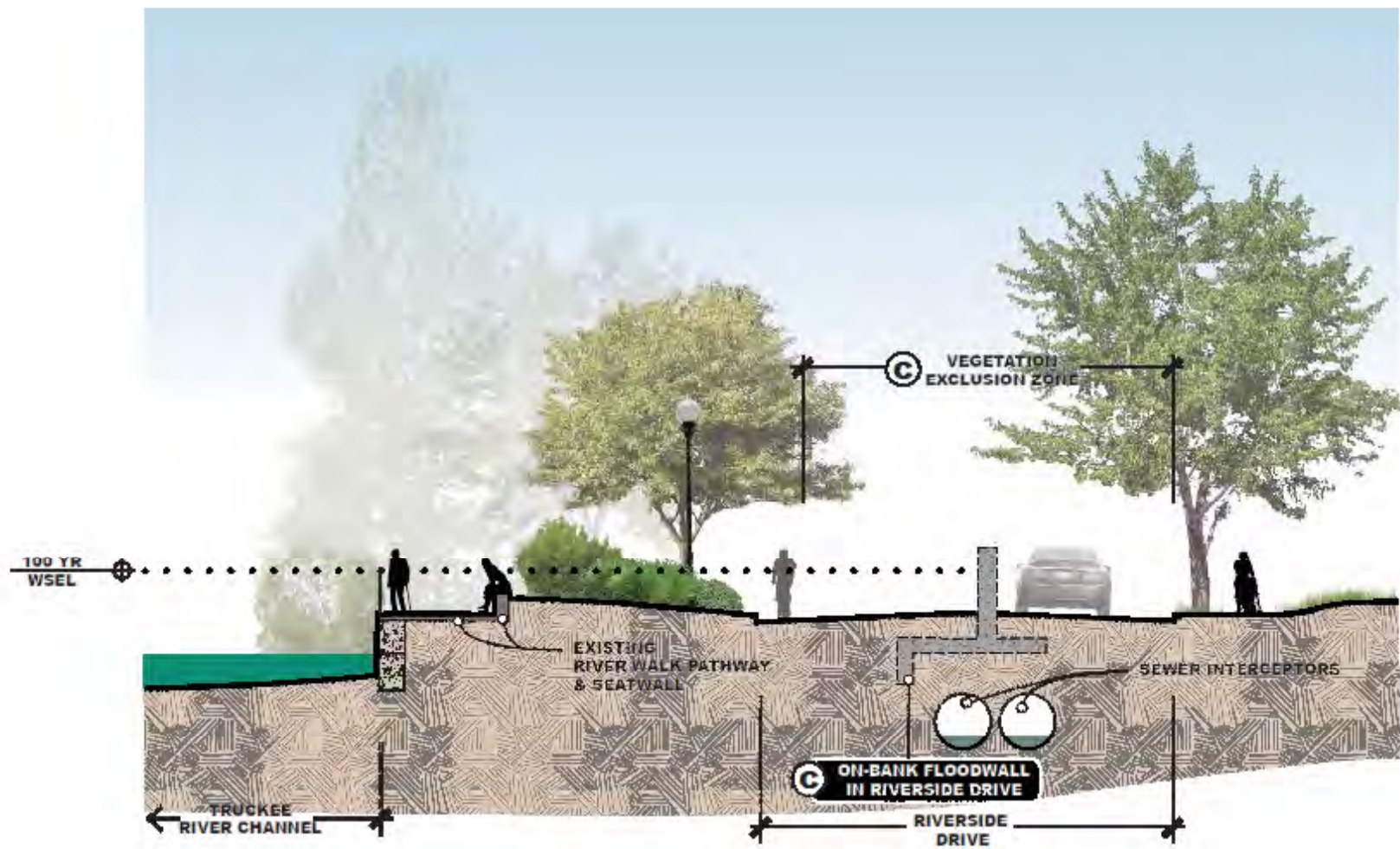


RIVERSIDE DRIVE - EAST OF WASHINGTON AVE

IN-CHANNEL FLOODWALL ALIGNMENT



RIVERSIDE DRIVE - EAST OF WASHINGTON AVE
 IN-PARKWAY FLOODWALL ALIGNMENT



RIVERSIDE DRIVE - EAST OF WASHINGTON AVE
 IN ROADWAY FLOODWALL ALIGNMENT



LRP (100 YR - Certified): S Arlington Ave to N Sierra St



MapInfo 3.0.mxd
 StatePlane Nevada West FIPS 2793 Feet
 NAD 1983 Printed October 2013

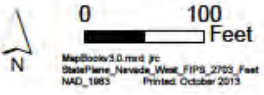
Projects	
Terracing & River Parkway	Replaced In-Channel FW
River Park Lands	Setback Floodwall
Bridge Replacements	Levee
Bridge Extensions	Closed Conduit
New On-Bank Floodwall	Erosion Protection
	Flood Proofing
	Detention Facility
	Road Realignment
	Ditch Realignment
	On Adjacent Sheet
	Restoration Area
	Retained Water Pipe
	City/County Boundaries
	Fish Passage
	Storm PIPE
	FP Access Road
	Flood Gate
	On-Site Spoil Area





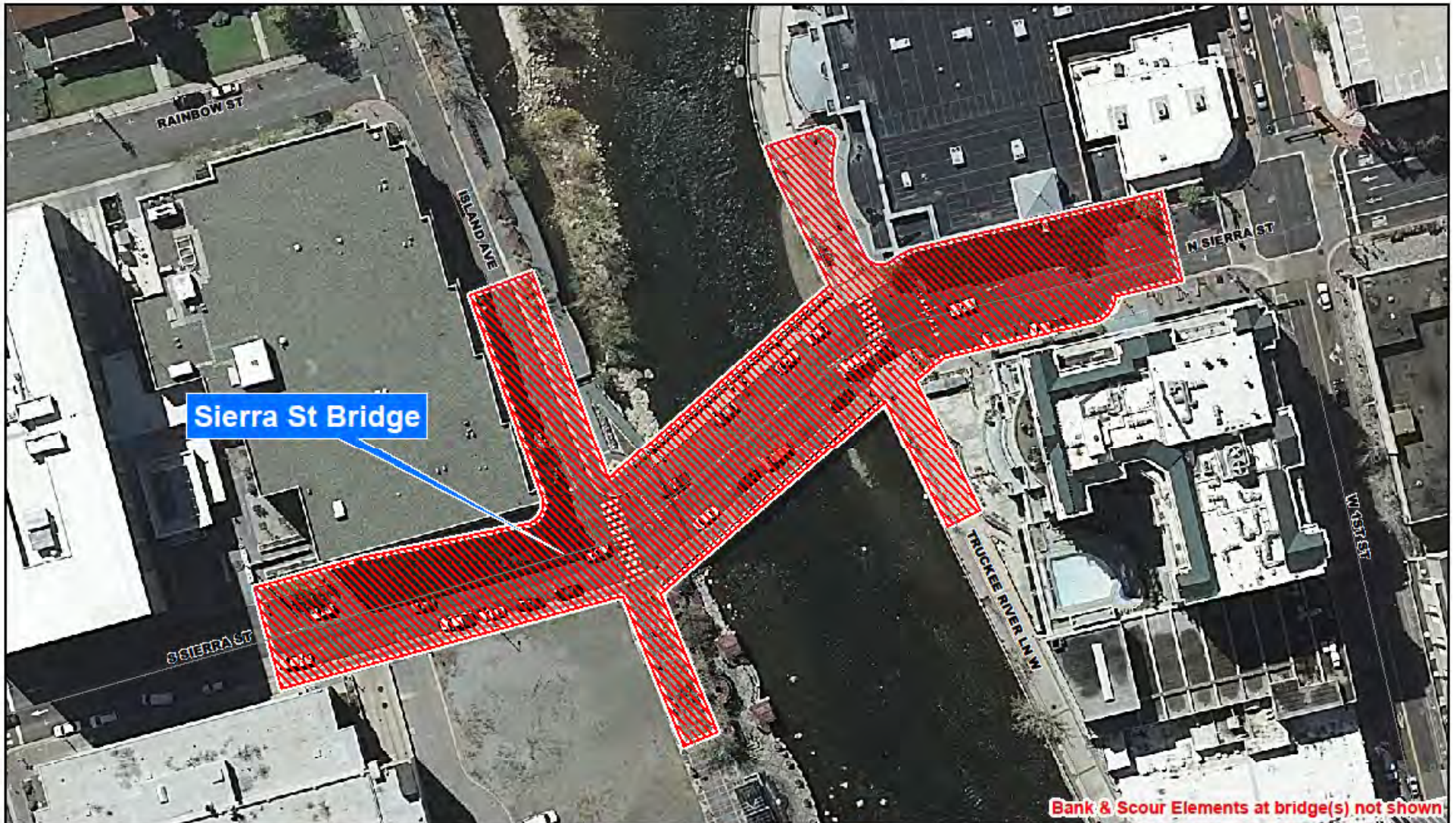
Flood Proofing Areas not shown on Map
Bank & Scour Elements at bridge(s) not shown

LRP (100 YR - Feasibility): S Arlington Ave to N Sierra St

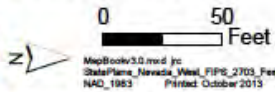


Projects	
Terracing & River Parkway	Replaced In-Channel FW
River Park Lands	Setback Floodwall
Bridge Replacements	Levees
Bridge Extensions	Closed Conduit
New On-Bank Floodwall	Erosion Protection
	Flood Proofing
Detention Facility	Road Realignment
Ditch Realignment	On Adjacent Sheet
Pump Station	Restoration Area
Property to be Acquired	Reclaimed Water Pipe
Flood Gate	On-Site Spoil Area
City/County Boundaries	





LRP (100 YR - Feasibility): Sierra Street Bridge



Projects			
Terracing & River Parkway	Setback Floodwall	Replaced In-Channel FW	Detention Facility
River Park Lands	Levee	Bridge Replacements	Road Realignment
Bridge Extensions	Closed Conduit	Bridge Replacements	Ditch Realignment
New On-Bank Floodwall	Erosion Protection	On-Adjacent Sheet	Property to be Acquired
Flood Proofing	Flood Proofing	Restoration Area	Flood Gate
		Reclaimed Water Pipe	On-Site Spot Area
		City/County Boundaries	Pump Station



Oct. 11, 2013

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No Change From LPP



2011 LPP 100 YR: Sierra-Virginia



0 100 Feet

MapBook2.2.mxd jr:
Sierra-Virginia_Nevada_Water_FIPB_2703_Feet
NAD_1983 Printed: Nov 29, 2012

Projects

- | | | | | |
|---------------------------|--------------------|------------------------|--------------------|------------------------|
| Terracing & River Pathway | Setback Floodwall | Replaced In-Channel FW | Detention Facility | City/County Boundaries |
| River Park Lands | Levee | Road Realignment | Road Realignment | Fish Passage |
| Bridge Replacements | Closed Conduit | Creek Realignment | On Adjacent Sheet | FP Elements |
| Bridge Extensions | Erosion Protection | Restoration Area | Flood Gate | FP Access Road |
| New In-Channel Floodwall | Flood Proofing | | | |



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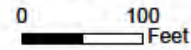
Page: 11

Working Draft



Bank & Scour Elements at bridge(s) not shown

LRP (100 YR - Certified): N Virginia St to Evans St



MapBook3.D.mxd jrc
 State/Para_Nevada_West_FIRM_2025_Feet
 NAD_1983 Printed: October 2013

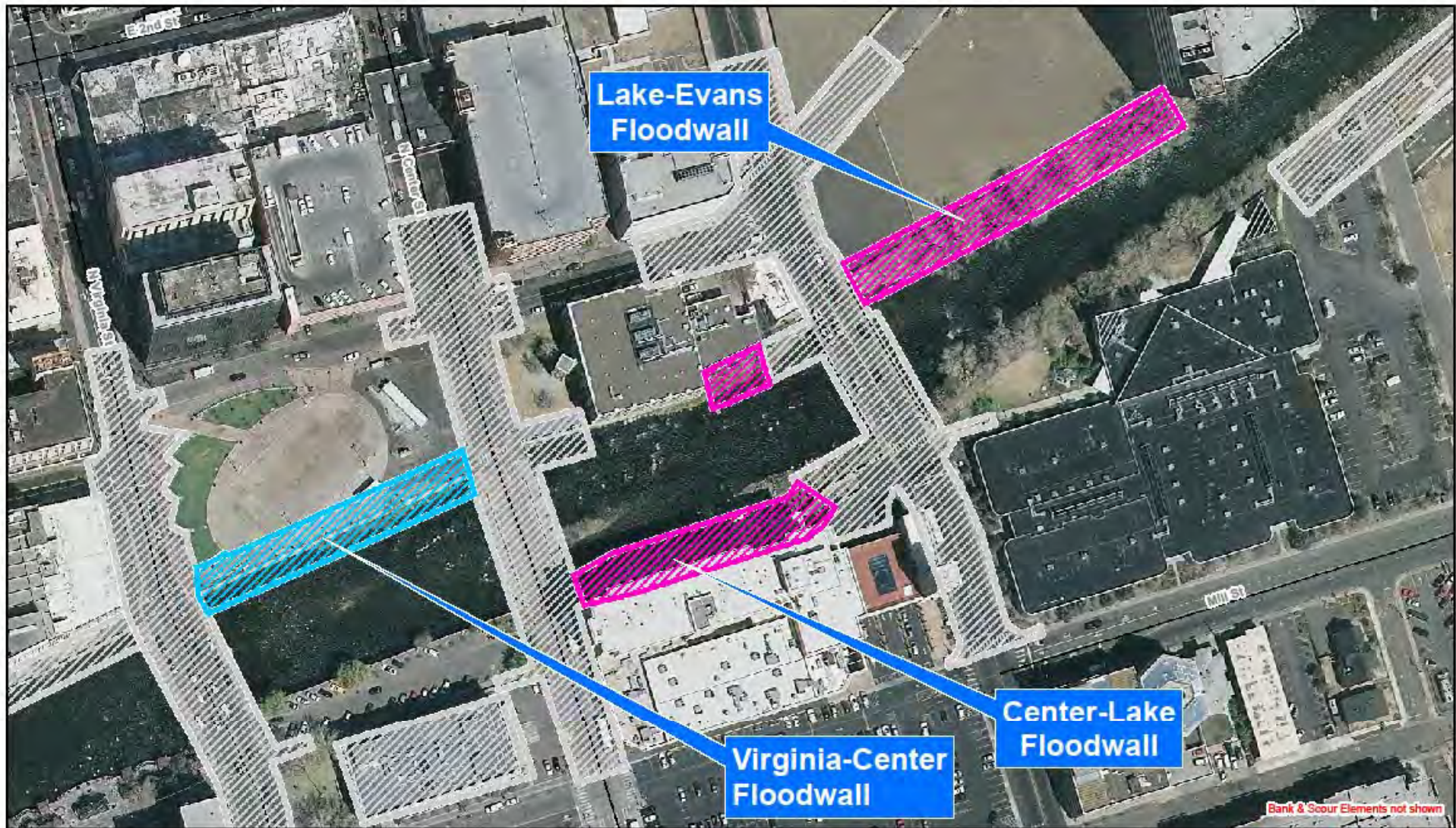
Projects	
Terracing & River Parkway	Replaced In-Channel FW
River Park Lands	Setback Floodwall
Bridge Replacements	Levee
Bridge Extensions	Closed Conduit
New On-Bank Floodwall	Erosion Protection
	Flood Proofing
	Detention Facility
	Road Realignment
	Ditch Realignment
	On Adjacent Sheet
	Restoration Area
	Reclaimed Water Pipe
	City/County Boundaries
	Storm PIPE
	Property to be Acquired
	Flood Gate
	On-Site Spoil Area



Oct, 2013

Page: 20

No Change From LPP



2011 LPP 100 YR: Virginia-Evans



0 100 Feet

MapBook2.2.mxd jrc
StatePlane_Nevada_West_FIPS_2703_Feet
NAD_1983 Printed: Jan 29, 2013

Projects		Fish Passage	
Terracing & River Parkway	Selback Floodwall	Replaced In-Channel FW	City/County Boundaries
River Park Lands	Levee	Detention Facility	Fish Passage
Bridge Replacements	Closed Conduit	Road Realignment	FP Elements
Bridge Extensions	Erosion Protection	Ditch Realignment	FP Access Road
New In-Channel Floodwall	Flood Proofing	On Adjacent Sheet	
		Restoration Area	
		Flood Galls	



Baker

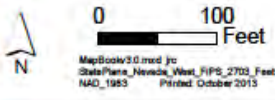
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Jan, 2013

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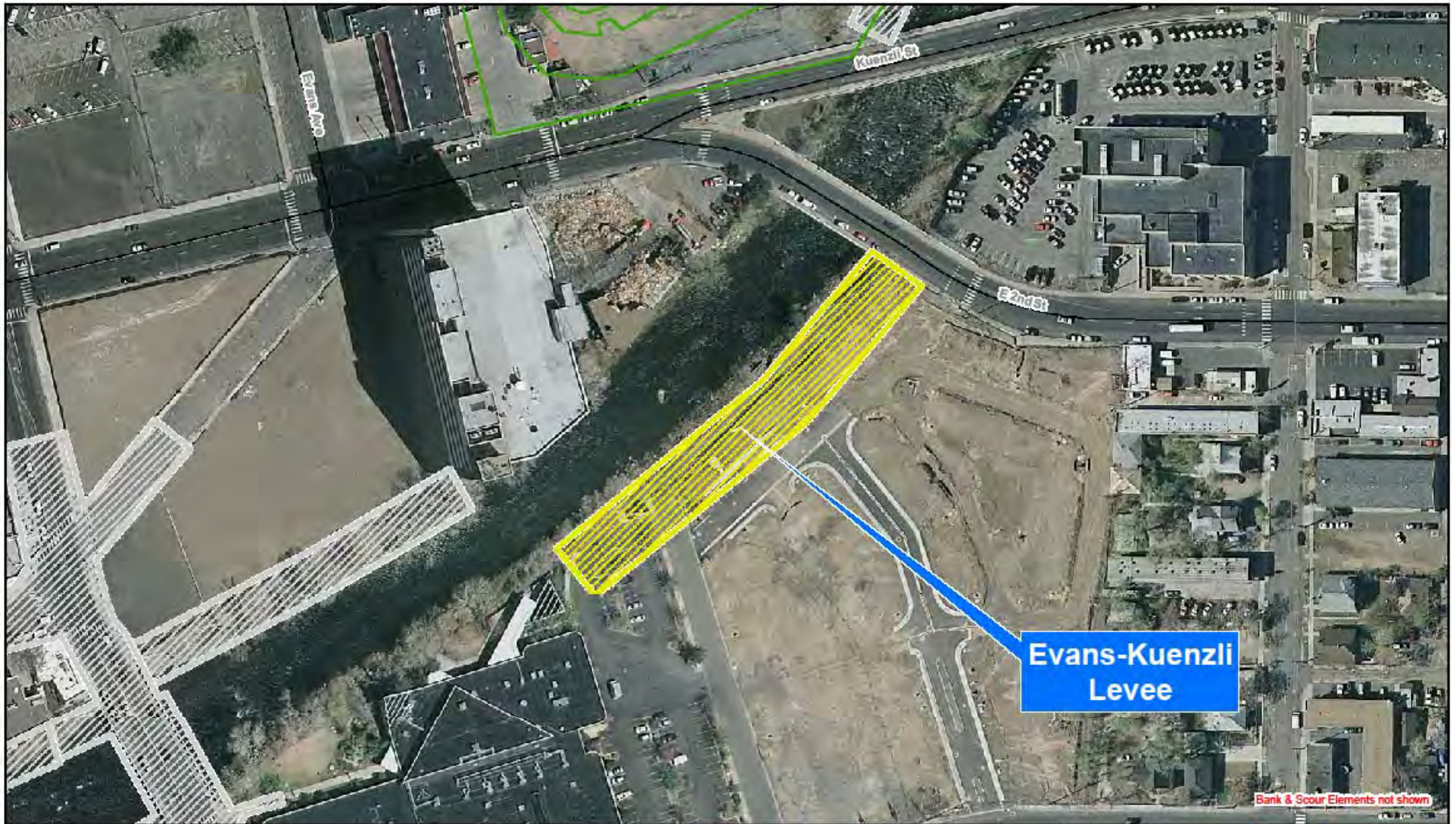


LRP (100 YR - Feasibility): N Virginia St to Evans St



Projects	
Terracing & River Parkway	Replaced In-Channel FW
River Park Lands	Detention Facility
Bridge Replacements	Road Realignment
Bridge Extensions	Ditch Realignment
New On-Bank Floodwall	On Adjacent Sheet
Setback Floodwall	Restoration Area
Levee	Reclaimed Water Pipe
Closed Conduit	Flood Gating
Erosion Protection	On-Site Spot Area
Flood Proofing	City/County Boundaries
	Pump Station
	Property to be Acquired





2011 LPP 100 YR: Evans-Kuenzli



0 100 Feet

MapBook2.2.mxd jrc
StatePlane_Nevada_West_FIPS_2703_Feet
NAD_1983 Printed: Nov 29, 2012

Projects

- | | | | |
|---------------------------|--------------------|--------------------|------------------------|
| Terracing & River Parkway | Selback Floodwall | Detention Facility | City/County Boundaries |
| River Park Lands | Levee | Road Realignment | Fish Passage |
| Bridge Replacements | Closed Conduit | Creek Realignment | FP Elements |
| Bridge Extensions | Erosion Protection | On Adjacent Sheet | FP Access Road |
| New In-Channel Floodwall | Flood Proofing | Restoration Area | Flood Gate |



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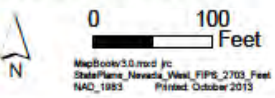
Nov, 2012

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Bank & Scour Elements at bridge(s) not shown

LRP (100 YR - Feasibility): Evans Ave to Kuenzli St

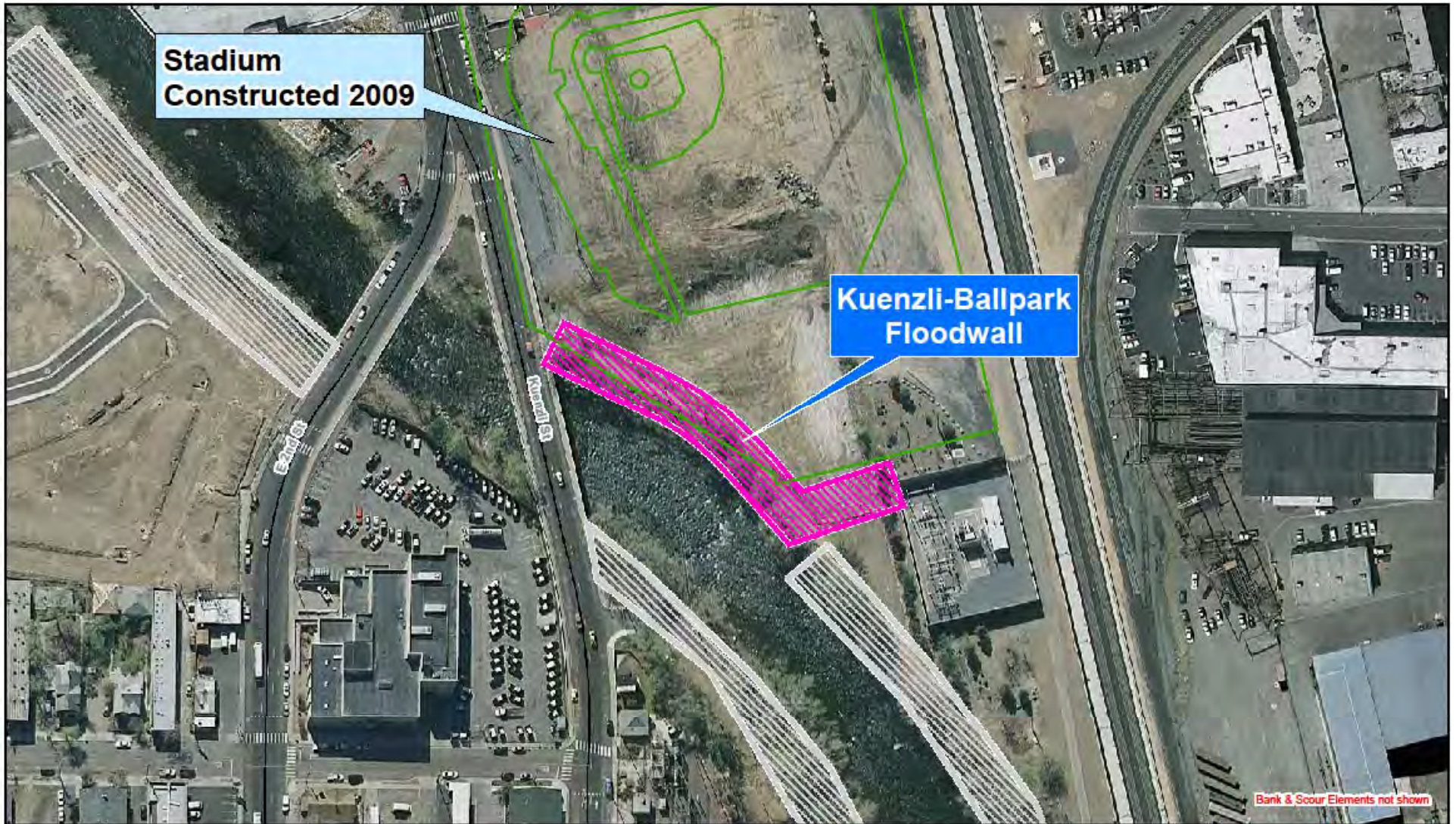


MapBook3.0.mxd jrc
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 NAD_1983 Printed: October 2013

Projects	
Terracing & River Parkway	Replaced In-Channel FW
River Park Lands	Setback Floodwall
Bridge Replacements	Levee
Bridge Extensions	Closed Conduit
New On-Bank Floodwall	Erosion Protection
	Flood Proofing
	Detention Facility
	Road Realignment
	Ditch Realignment
	On Adjacent Sheet
	Restoration Area
	Reclaimed Water Pipe
City/County Boundaries	Pump Station
	Property to be Acquired
	Flood Gate
	On-Site Spoil Area

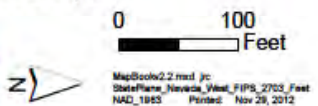


Oct. 11, 2013

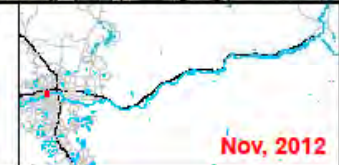


Bank & Scour Elements not shown

2011 LPP 100 YR: Kuenzli St-Ballpark



Projects		Fish Passage	
Terracing & River Parkway	Setback Floodwall	Replaced In-Channel FW	City/County Boundaries
River Park Lands	Levee	Road Realignment	FP Elements
Bridge Replacements	Closed Conduit	Creek Realignment	FP Access Road
Bridge Extensions	Erosion Protection	On Adjacent Sheet	Restoration Area
New In-Channel Floodwall	Flood Proofing	Detention Facility	Flood Gate



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LRP (100 YR - Feasibility): Kuenzli St-Ballpark



0 100 Feet

MapBook3.0.mxd jrc
 StatePlane_Nevada_West_FIPS_2703_Feet
 NAD_1983 Printed October 2013

Projects

- | | | | | |
|---------------------------|--------------------|------------------------|--------------------|-------------------------|
| Terracing & River Parkway | Setback Floodwall | Replaced In-Channel FW | Detention Facility | City/County Boundaries |
| River Park Lands | Levee | Bridge Replacements | Road Realignment | Pump Station |
| Bridge Extensions | Closed Conduit | Bridge Replacements | Ditch Realignment | Property to be Acquired |
| New On-Bank Floodwall | Erosion Protection | Bridge Extensions | On Adjacent Sheet | Flood Gate |
| | Flood Proofing | New On-Bank Floodwall | Restoration Area | Reclaimed Water Pipe |
| | | | On-Site Spoil Area | |



Oct. 11, 2013





**Kuenzli-395
Erosion Protection**

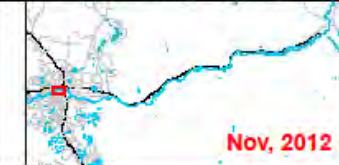
Bank & Scour Elements not shown

2011 LPP 100 YR: Kuenzli-395



MapScale2.2.mxd.gx
StatePlane_Nevada_Mile_FIPS_2703_Feet
NAD_1983 Printed: Nov 29, 2012

Projects	
Terracing & River Parkway	Seaback Floodwall
Bridge Replacements	Closed Conduit
Bridge Extensions	Erosion Protection
New In-Channel Floodwall	Flood Proofing
Replaced In-Channel FW	Detention Facility
Road Realignment	Creek Realignment
On Adjacent Sheet	Restoration Area
City/County Boundaries	Fish Passage
Fish Elements	FP Access Road
Flood Gate	

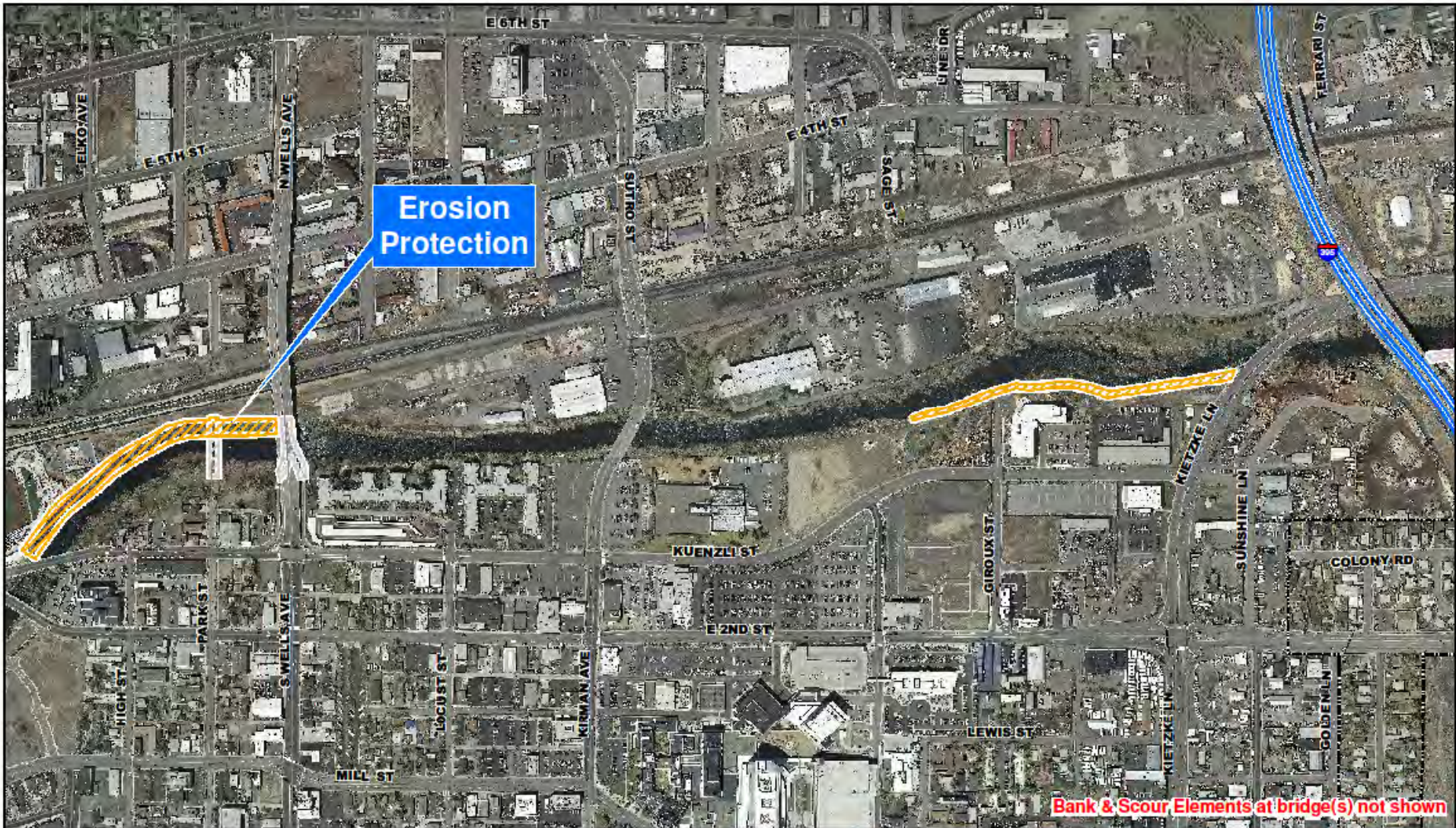


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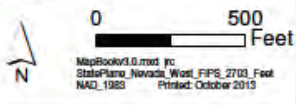
Nov, 2012

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Bank & Scour Elements at bridge(s) not shown

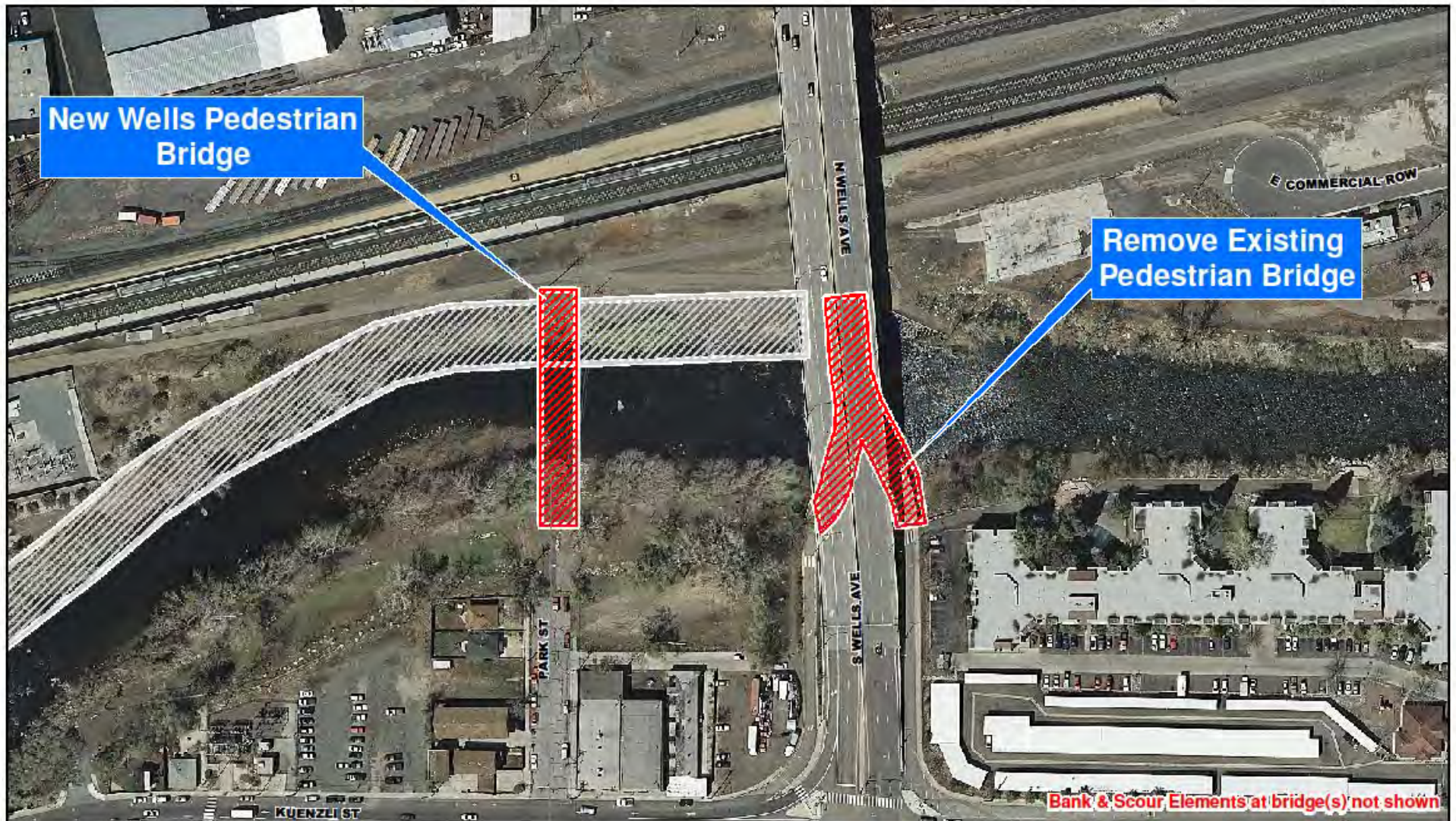
LRP (100 YR - Feasibility): Kuenzli St to Hwy 395



Projects	
Terracing & River Parkway	Replaced In-Channel FW
River Park Lands	Siltback Floodwall
Bridge Replacements	Levee
Bridge Extensions	Closed Conduit
New On-Bank Floodwall	Erosion Protection
	Flood Proofing
Detection Facility	City/County Boundaries
Road Realignment	Pump Station
Ditch Realignment	Property to be Acquired
On Adjacent Shore	Flood Gate
Restoration Area	On-Site Spot Area
Retained Water Pipe	



Oct. 11, 2013



Bank & Scour Elements at bridge(s) not shown

LRP (100 YR - Feasibility): Wells Pedestrian Bridge



0 100 Feet
 MapBook63.0.mxd, Jr.
 StatePlane_Nevada_West_FIPS_2703_Feet
 NAD_1983 Printed: October 2013

Projects	
	Terracing & River Parkway
	River Park Lands
	Bridge Replacements
	Bridge Extensions
	New On-Bank Floodwall
	Setback Floodwall
	Levee
	Closed Conduit
	Erosion Protection
	Flood Proofing
	Replaced In-Channel PW
	Detention Facility
	Road Realignment
	Ditch Realignment
	On Adjacent Sheet
	Restoration Area
	Rooted/Water Pipe
	City/County Boundaries
	Pump Station
	Property to be Acquired
	Flood Gate
	On-Site Spot Area



Oct. 11, 2013



No Change From LPP

Report Card - Accomplishments

- ◆ Since June of 2012
 - ◆ Prepared an RFP
 - ◆ Hired a consultant
 - ◆ Negotiated a contract
 - ◆ Designed a project
- ◆ Schedule – Best Case Scenario
 - ◆ Target date for update – Sept 2013
 - ◆ Actual date for update – Oct 2013

Schedule Way Forward

◆ Schedule – Best Case Scenario

- ◆ Complete financial modeling on the rates – 6 mo
- ◆ Vet rates before 1st hearing – 3 mo
- ◆ Vet rate before 2nd hearing – 2 mo
- ◆ Judicial Review – 2 yrs

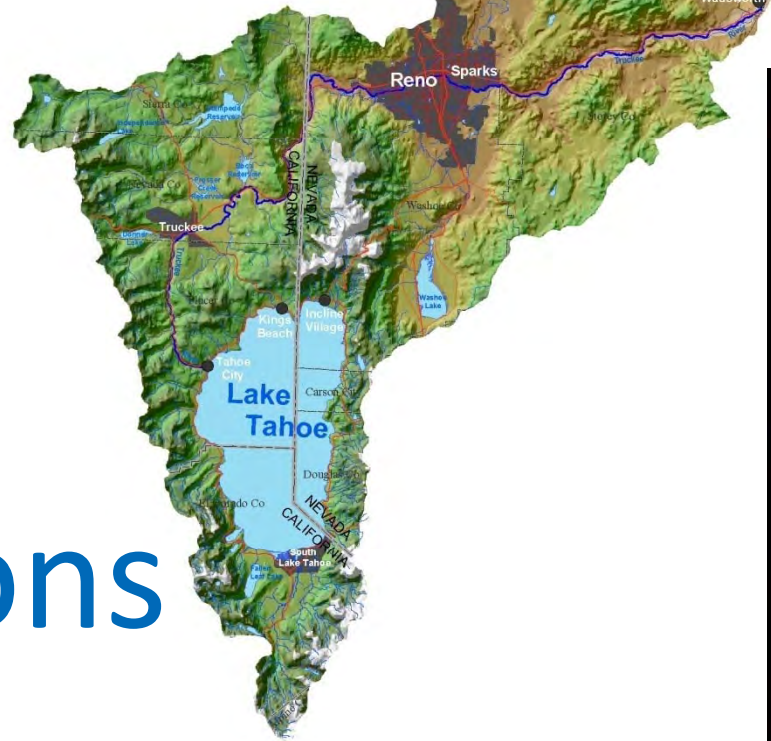
Approximate time period ~ 3 yrs before use of
money for construction



Lake Tahoe



Pyramid Lake



Questions

