APPENDIX G–TECHNICAL MEMO #5 PREFERRED PLAN

TECHNICAL MEMORANDUM #5

Date:	March 10, 2026	Kittelson Project No: 27003.031
To:	Project Management Team	
From:	Kittelson Associates, Inc	
Subject:	Preferred/Prioritized Transportation Plan Projects	

Contents

Introduction 3
Functional Classification Modifications and Design Standards 4
Functional Classification Modifications 4
Roadway Design Standards 19
Preferred Solutions Evaluation 22
Roadway Network 24
Non-Motorized Transportation Network 44
Public Transit Network 53
Transportation System Management and Operations 54
Funding Inventory 56
TSP Project Funding Background 56
Historical Funding Sources 56
Recommended Projects And Cost Estimates 59
Priority Projects 59
Aspirational Projects 63
Next Steps 72
Attachment A: Solutions Evaluation Scores 73
Attachment B: Planning Cost Estimates 74

List of Figures

Figure 1. Proposed County Functional Class 11
Figure 2. Proposed Federal Functional Class 15
Figure 3. Proposed Bridge Projects 27
Figure 4. Proposed Roadway Improvement Projects in County 40
Figure 5. Proposed Multimodal Projects 49

List of Tables

Table 1. Final Proposed Changes to County & Federal Functional Classifications 5
Table 2. Potential Roadway Design Standard Modifications 19
Table 3. Alternatives Evaluation Criteria 22
Table 4. Preferred/Prioritized Bridge Projects with Sufficiency Ratings 25
Table 5. Preferred/Prioritized Roadway Corridor/Intersection/Safety/Freight Improvement Projects 33
Table 6. Preferred/Prioritized Multimodal Projects 45
Table 7. Preferred TSMO Strategies/Programs 54
Table 8. Umatilla County Public Works Revenue (Five most recent years) 57
Table 9. Umatilla County Transportation Maintenance/Capital Expenditure History (Five most recent years) 57
Table 10. Future Transportation Funding Projections 58
Table 11. Recommended Tier 1 Priority Projects 60
Table 12. Recommended Tier 2 Priority Projects 62
Table 13. Recommended Aspirational Projects 64

Introduction

This memorandum identifies the preferred and prioritized list of transportation system projects developed to address gaps and deficiencies identified in the transportation system inventory, the existing conditions analysis, and the future needs analysis. The information provided in this memorandum will directly inform the DRAFT TSP for Umatilla County.

Functional Classification Modifications and Design Standards

This section outlines the final recommended updates to the County's and Federal roadway functional classifications, as well as modifications to roadway design standards. These changes are intended to ensure that the transportation network remains consistent with current needs and aligns with state and regional planning efforts.

Functional Classification Modifications

The County's existing functional classification plan includes designations for all State- and County-owned facilities. The classifications summarized below apply only to roadway sections that lie outside of the urban growth boundaries of incorporated cities:

- **Arterial Roads** –Umatilla County considers all Interstate, National, and State Highways to be its Arterial network. The County does not own or maintain these highways, nor does it classify any county-owned roadways as Arterial roads. For consistency with the current TSP, it is recommended that the Arterial Road designation remain unique to all Interstate, National, and State Highways.
- **Rural Major Collector Roads** –Major Collector roads carry higher volumes of county-wide vehicle and localized freight traffic with a greater emphasis on regional connectivity.
- **Rural Minor Collector Roads** – Rural Minor Collector roads also carry vehicle and localized freight traffic, but have a greater emphasis on serving abutting lands and the access needs of rural residents. Rural Minor Collector roads provide service to residential, commercial, industrial, and mixed land uses.
- **Local Road** – Property access is the main priority. All roads in the County that are not classified as Arterial or Collector roads are considered Local roads.

Based on Tech Memo #4 review comments, Table 1 summarizes the final proposed changes to the County and Federal classifications of County roadways. Figure 1 and Figure 2 illustrates the changes shown in Table 1.

Assuming alignment on these recommended changes, modifications to the County classifications will occur with the adoption of the TSP update, while changes to the Federal classification will only occur following the adoption of the TSP update and subsequent coordination/approval from the Oregon Department of Transportation (ODOT) and the Federal Highway Administration (FHWA).

Table 1. Final Proposed Changes to County & Federal Functional Classifications

Road Name	From	To	Roadway Functional Classification				
			Existing County Class	Existing Federal Class	Proposed County Class	Proposed Federal Class	CTUIR TSP
County 320 Rd	I-84	Fullerton Rd	Local	Major Collector	Major Collector	-	N/A
Banister Rd	OR 11	W Mill St	Minor Collector	Minor Collector	Major Collector	Major Collector	N/A
Best Rd	Shaw Rd	Market Rd	Local	Major Collector	Major Collector	-	N/A
Bingham Rd	Spring Hollow Rd	Bar M Ln	Major Collector	Major Collector	Minor Collector	Minor Collector	Minor Arterial
Bridge Rd	Country Ln	Powerline Rd	Major Collector	Major Collector	Minor Collector	Minor Collector	N/A
Butter Creek Rd	OR 207	OR 74	Local	Major Collector	Major Collector	-	N/A
Circle Rd	Weinke	Pilot Rock- Hoeft Rd	Minor Collector	Minor Collector	Local	Local	N/A
Country Ln	Powerline Rd	Near Umatilla River Rd	Major Collector	None	Local	-	N/A
County 511 Rd	Stateline Rd	Fruitvale Rd	Local	None	Minor Collector	Minor Collector	N/A
Duff Rd	OR 11	Pambrun Rd	Local	None	Minor Collector	Minor Collector	Major Collector
E Birch Creek Rd	Pearson Creek Rd	Rocky Ridge Rd	Minor Collector	None	Local	-	N/A
Echo Meadows Rd	Stanfield Meadows Rd	OR 207	Local	None	Minor Collector	-	N/A
Emigrant Rd	Poverty Flat Rd	Emigrant Rd	Local	Minor Collector	Minor Collector	-	N/A
Feedville Rd	OR 207	End of Road	Major Collector	Major Collector	Minor Collector	Minor Collector	N/A

Road Name	From	To	Roadway Functional Classification				
			Existing County Class	Existing Federal Class	Proposed County Class	Proposed Federal Class	CTUIR TSP
Fergies Rd	Juniper Canyon Rd	County 888 Rd	Local	Minor Collector	Minor Collector	-	N/A
Frontage Ln	Cedar St	County Line Rd	Local	Major Collector	Major Collector	-	N/A
Fruitvale Rd	Edwards Rd	County 511 Rd	Local	None	Minor Collector	Minor Collector	N/A
Hermiston-Hinkle Rd	Feedville Rd	Locomotive Ln	Major Collector	None	Minor Collector	-	N/A
Holdman Rd	Harper Rd	OR 37	Local	Minor Collector	Minor Collector	-	N/A
Holmes Rd	Market Rd	Goad Rd	Local	None	Minor Collector	Minor Collector	N/A
Kings Corner Rd	County 864 Rd	County 977 Rd	Local	Minor Collector	Minor Collector	-	N/A
Korvola Rd	Birch Creek Rd	SW Sunset Dr	Minor Collector	Minor Collector	Local	Local	N/A
Lamb Rd	I-82	Westland Rd	Local	Major Collector	Major Collector	-	N/A
Mann Rd	N cayuse Rd	OR 11	Local	None	Minor Collector	Minor Collector	Major Collector
McKay Creek Rd	Shaw Rd	N Fork McKay Creek Rd	Local	Minor Collector	Minor Collector	-	N/A
McKay Dr	US 395	Schroeder Rd	Minor Collector	None	Local	-	N/A
McKay Ln	Mytinger Ln	End of Rd	Minor Collector	None	Local	-	N/A
Milton Cemetery Rd	Grant Rd	Spofford Rd	Local	Minor Collector	Minor Collector	-	N/A

Road Name	From	To	Roadway Functional Classification				
			Existing County Class	Existing Federal Class	Proposed County Class	Proposed Federal Class	CTUIR TSP
Motanic Rd	Best Rd	Spring Creek Rd	Local	Minor Collector	Minor Collector	-	Minor Collector
N Cayuse Rd	Duff Rd	Cayuse Rd	Local	None	Minor Collector	Minor Collector	Minor Collector
N Juniper Canyon Rd	Vansycle Rd	Fergies Rd	Local	Minor Collector	Minor Collector	-	N/A
N Ott Rd	Moyer Ln	E Punkin Center Rd	Local	Major Collector	Major Collector	-	N/A
Pambrun Rd	Duff Rd	End of Rd	Minor Collector	None	Local	-	N/A
Porter Rd	Schoolhouse Rd	Shaw Rd	Local	Minor Collector	Minor Collector	-	N/A
Rockwell Rd	Shaw Rd	Stewart Creek Frontage Rd	Local	None	Minor Collector	Minor Collector	N/A
Ross Rd	OR 30	End of Rd	Minor Collector	None	Local	-	N/A
S First St	Feedville Rd	Hermiston UGB	Local	Major Collector	Major Collector	-	N/A
S Juniper Canyon Rd	Fergies Rd	County 864 Rd	Local	Minor Collector	Minor Collector	-	N/A
S Market Rd	Holmes Rd	Conner Rd	Local	Minor Collector	Major Collector	Major Collector	Major Collector
S Market Rd	Conner Rd	OR 331	Minor Collector	Minor Collector	Major Collector	Major Collector	Major Collector
Shaw Rd	Schoolhouse Rd	McKay Creek Rd	Major Collector	Minor Collector	Minor Collector	-	N/A

Road Name	From	To	Roadway Functional Classification				
			Existing County Class	Existing Federal Class	Proposed County Class	Proposed Federal Class	CTUIR TSP
Shaw Rd	McKay Creek Rd	Best Rd	Major Collector	None	Minor Collector	Minor Collector	N/A
Spofford Rd	Milton Cemetery Rd	Birch Creek Rd	Local	Minor Collector	Minor Collector	-	N/A
Spring Creek Rd	US 395	Shaw Rd	Minor Collector	Minor Collector	Local	Local	N/A
Spring Hollow Rd	OR 11	Bingham Rd	Local	Minor Collector	Minor Collector	-	Major Collector
Stanfield Meadows Rd	Seymour St	OR 207	Local	Minor Collector	Minor Collector	-	N/A
Stateline Rd	OR 332	OR339	Minor Collector	Major Collector	Major Collector	-	N/A
Stateline Rd	OR 339	OR 11	Minor Collector	Minor Arterial	Minor Arterial	-	N/A
Stewart Creek Rd	Pilot Rock UGB	Schoolhouse Rd	Local	Minor Collector	Minor Collector	-	N/A
Sumac Rd	Spring Creek Rd	McKay Creek Rd	Local	None	Minor Collector	Minor Collector	Minor Collector
Third St	OR 11	Center St	Local	Major Collector	Major Collector	-	N/A
Thorn Hollow Rd	Spring Hollow Rd	Bingham Rd	Local	Minor Collector	Minor Collector	-	N/A
Tum A Lum Rd	E Appleton Rd	E Crockett Rd	Local	None	Major Collector	Major Collector	N/A
Tum A Lum Rd	E Crockett Rd	Birch Creek Rd	Local	Major Collector	Minor Collector	-	N/A
Vansycle Rd	Richmond Ln	N Juniper Canyon Rd	Local	Minor Collector	Minor Collector	-	N/A

Road Name	From	To	Roadway Functional Classification				
			Existing County Class	Existing Federal Class	Proposed County Class	Proposed Federal Class	CTUIR TSP
Appleton Rd	Trumbull Ln	OR 339	Major Collector	None	-	Major Collector	N/A
Canal Rd	E Punkin Center Rd	E Loop Rd	Major Collector	Minor Collector	-	Major Collector	N/A
E Appleton Rd	OR 11	Tum A Lum Rd	Major Collector	None	-	Major Collector	N/A
E Crockett Rd	OR 11	Tum A Lum Rd	Local	Major Collector	-	Local	N/A
E Punkin Center Rd	N Ott Rd	Tabor Rd	Major Collector	None	-	Major Collector	N/A
Hat Rock Rd*	OR 730	End of Rd	Local	Major Collector	-	Local	N/A
McCormmach Rd	Shafer Rd	End of Rd	Local	Minor Collector	-	Local	N/A
Moorehouse Rd	Despain Gulch Rd	Stage Gulch Rd	Major Collector	Minor Collector	-	Major Collector	N/A
NE 42nd St	NE Riverside Ave	NE Queen Ave	Local	Minor Collector	-	Local	N/A
NE Queen Ave	Ne 42nd St	Ne 43rd St	Local	Minor Collector	-	Local	N/A
NE Riverside Ave	Pendleton UGB	Ne 42nd St	Local	Minor Collector	-	Local	N/A
Pambrun Rd	Spring Hollow Rd	Duff Rd	Minor Collector	None	-	Minor Collector	N/A
Powerline Rd	Stateline Rd	Birch Creek Rd	Local	Major Collector	-	Local	N/A
S Edwards Rd	E Punkin Center Rd	E Harding Ave	Minor Collector	Major Collector	-	Minor Collector	N/A
Sand Hollow Rd	Adams UGB	OR 334	Local	Minor Collector	-	Local	N/A
Shafer Rd	OR 335	McCormmach Rd	Local	Minor Collector	-	Local	N/A

Road Name	From	To	Roadway Functional Classification				
			Existing County Class	Existing Federal Class	Proposed County Class	Proposed Federal Class	CTUIR TSP
Soap Hill Rd	County 1472 Rd	4975 ft from NF-058	Minor Collector	Major Collector	-	Minor Collector	N/A
Wells Station Rd	Stage Gulch Rd	I 84 ramps	Major Collector	Minor Collector	-	Major Collector	N/A
*Owned & managed by Oregon Parks and Recreation Department							

Figure 1

Proposed County Functional Classification

- Proposed Major Collector
- Proposed Minor Collector
- Proposed Local Road
- Interstate
- US/State Highways (Arterial)
- Existing Major Collector
- Existing Minor Collector
- Existing Local Road
- Umatilla County
- City Boundaries
- Tribal Lands
- Forest Service Lands

UMATILLA COUNTY
est. 1862

0 5 10 Miles



Washington
Wallowa
Morrow
Union
Baker
Grant
CTUIR
STATELINE RD
N JUNIPER CANYON RD
FERGIES RD
HOLDMAN RD
KINGS CORNER RD
WAYSTICK RD
COLD SPRINGS RD
DESPAIN GULCH RD
MOORE HOUSE RD
FEEDVILLE RD
BRIDGE RD
POWERLINE RD
WESTLAND RD
UMATILLA RIVER RD
PUNKIN CENTER RD
BAXTER RD
CRAIG RD
EDWARDS RD
LOOP RD
320 RD
RIETH RD
BUTTER CREEK RD
CIRCLE RD
BIRCH CREEK RD
SOAP HILL RD
DUFF RD
MANN RD
PAMBRUN RD
SPRING HOLLOW RD
BINGHAM RD
MISSION RD
CAYUSE RD
TUTUILLA CHURCH RD
MCKAY DR
KORVOLA RD
BEST RD
MARKET RD
GOAD RD
HOLMES RD
MOTANIC RD
SHAW RD
SPRING CREEK RD
SUMAC RD
MCKAY CREEK RD
ROSS RD
COUNTY RD
WINESAP RD
EASTSIDE RD
HOOD RD
STEEN RD
WALLA WALLA RIVER RD
WINN RD
730
37
207
395
82
84
74
244
332
339
11
334
335
331
204

Figure 1a

Proposed County Functional Classification

- Proposed Major Collector
- Proposed Minor Collector
- Proposed Local Road
- Interstate
- US/State Highways (Arterial)
- Existing Major Collector
- Existing Minor Collector
- Existing Local Raod
- Umatilla County
- City Boundaries
- Tribal Lands
- Forest Service Lands

UMATILLA COUNTY
est. 1862

0 2 4 Miles



Washington

Morrow

Umatilla

Hermiston

Stanfield

Echo

Pendleton

82 730 37 395 207 84 11 331 334

POWERLINE RD
UMATILLA RIVER RD
COUNTRY LN
PUNKIN CENTER RD
N LOTT RD
CRAIG RD
BAXTER RD
CANAL RD
LOOP RD
EDWARDS RD
BRIDGE RD
WESTLAND RD
S FIRST ST
FEEDVILLE RD
LAMB RD
HARDING AVE
MOOREHOUSE RD
STANFIELD MEADOWS RD
ECHO MEADOWS RD
WELLS STATION RD
E GERONE ST
320 RD
RIETH RD
DESPAIN GULCH RD
COLD SPRINGS RD
N JUNIPER CANYON RD
FERGIES RD
S JUNIPER CANYON RD
VANSYCLE RD
KINGS CORNER RD
HOLDMAN RD
MISSION RD
MCKAY LN
RIETH
MAIN ST RD
KORVOLA RD
MCKAY DR
STEPHEN AVE
TUTUILLA CREEK RD
GOAD RD
TUTUILLA CHURCH RD
BEST RD
MARKET RD
S MARKET
MOTANIC RD
SHAW RD
HOLMES RD
BUTTER CREEK RD
TAGE LN

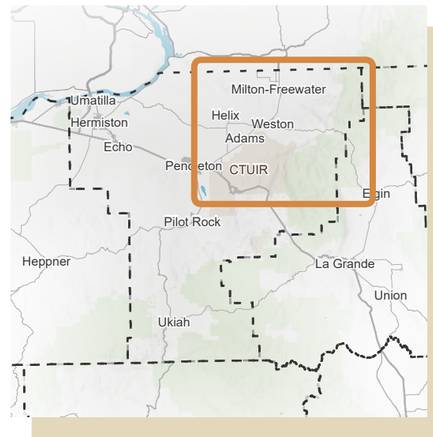
Figure 1b

Proposed County Functional Classification

- Proposed Major Collector
- Proposed Minor Collector
- Proposed Local Road
- Interstate
- US/State Highways (Arterial)
- Existing Major Collector
- Existing Minor Collector
- Existing Local Road
- Umatilla County
- City Boundaries
- Tribal Lands
- Forest Service Lands

UMATILLA COUNTY est. 1862

0 2 4 Miles



Washington

Milton-Freewater

Helix

Athena

Weston

Adams

Pendleton

CTUIR

STATELINE RD

FRUITVALE RD

COUNTY 511 RD

UMAPINE RD

PHILLIPS RD

STEPHENS RD

WINESAP RD

APPLETON RD

EASTSIDE RD

BIRCH CREEK RD

HOOD RD

SPOFFORD RD

MILTON CEMETERY RD

WALLA WALLA RIVER RD

STEEN RD

WINN RD

N JUNIPER CANYON RD

VANSYCLE RD

HOLDMAN RD

THIRD ST

PAMBRUN RD

SPRING HOLLOW RD

MANN RD

DUFF RD

N CAYUSE RD

THORN HOLLOW RD

BINGHAM RD

MCKAY LN

MISSION RD

EMIGRANT RD

CAYUSE RD

GOAD RD

TUTUILLA CHURCH RD

TUTUILLA CREEK RD

MARKET RD

BEST RD

SHAW RD

MOTANIC RD

S MARKET RD

HOLMES RD

EMIGRANT RD

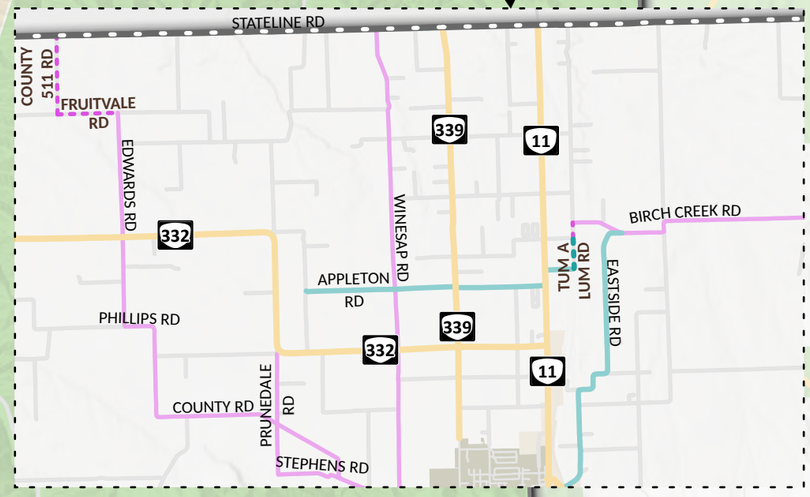
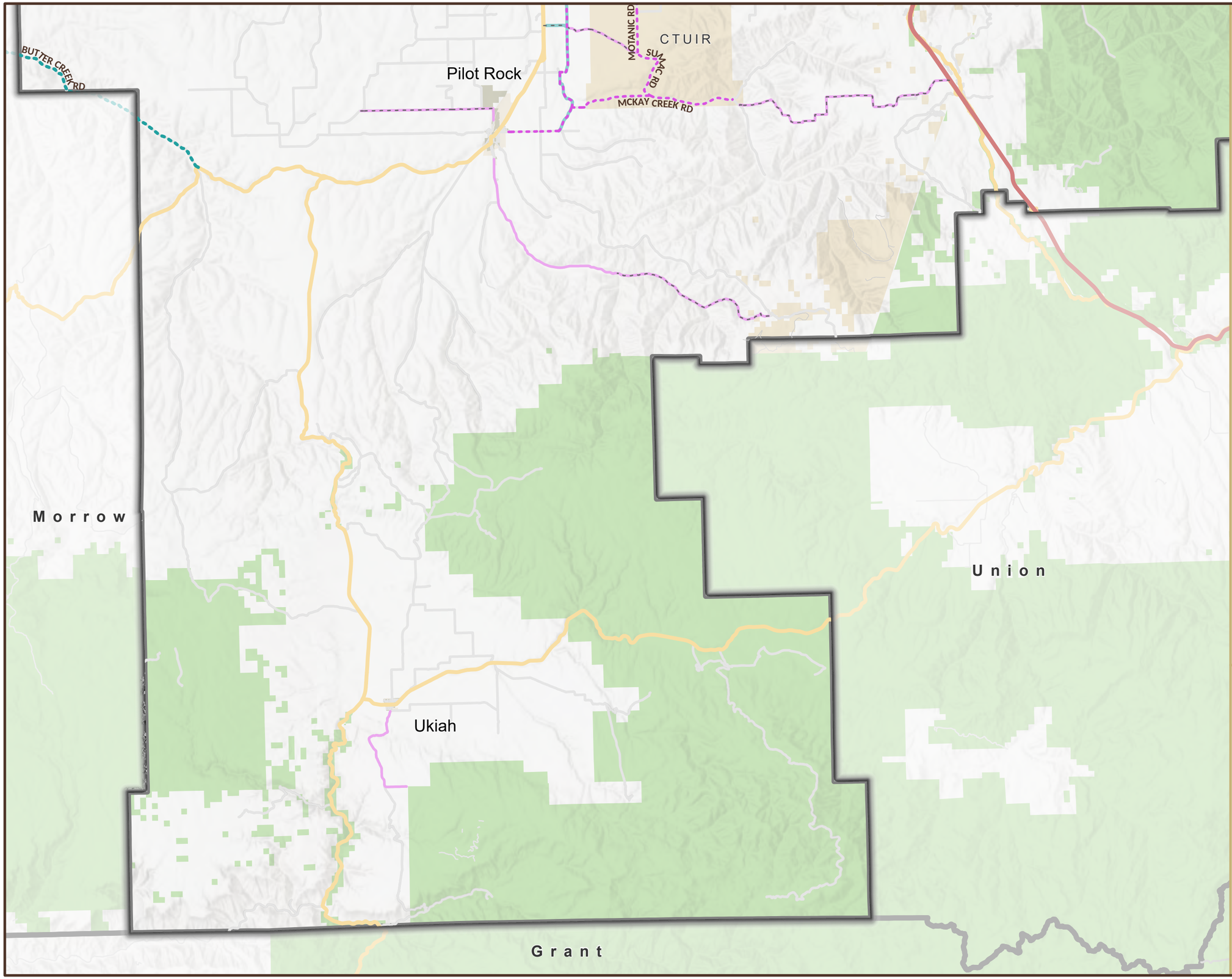


Figure 1c

Proposed County Functional Classification



- Proposed Major Collector
- Proposed Minor Collector
- Proposed Local Road
- Interstate
- US/State Highways (Arterial)
- Existing Major Collector
- Existing Minor Collector
- Existing Local Road
- Umatilla County
- City Boundaries
- Tribal Lands
- Forest Service Lands

UMATILLA COUNTY
est. 1862

0 2.75 5.5 Miles

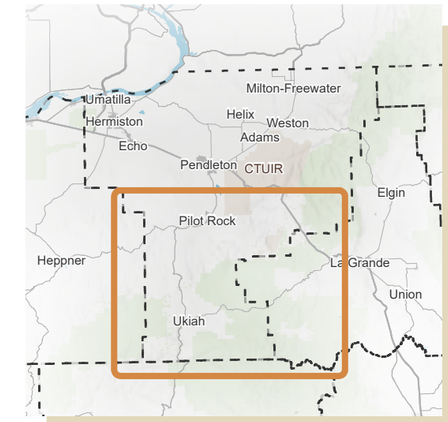


Figure 2

Proposed Federal Functional Classification

- Proposed Major Collector
- Proposed Minor Collector
- Proposed Local Road
- Interstate
- Other Principal Arterial
- Minor Arterial
- Existing Major Collector
- Existing Minor Collector
- Existing Local Road
- Umatilla County
- City Boundaries
- Tribal Lands
- Forest Service Lands

UMATILLA COUNTY
est. 1862

0 5 10 Miles



Washington
Wallowa
Morrow
Union
Baker
Grant
CTUIR
STATELINE RD
N JUNIPER CANYON RD
FERGIES RD
VANSYCLE RD
HOLDMAN RD
KINGS CORNER RD
COLD SPRINGS RD
DESPAIN GULCH RD
MOORE HOUSE RD
SHAFER RD
320 RD
RIETH RD
BUTTER CREEK RD
CIRCLE RD
BIRCH CREEK RD
SOAP HILL RD
DUFF RD
MANN RD
PAMBRUN RD
THIRD ST
WILDHORSE RD
MCLEAN RD
WINN RD
STEEN RD
WALLA WALLA RIVER RD
BINGHAM RD
MISSION RD
CAYUSE RD
EMIGRANT RD
TUTUILLA CHURCH RD
TUTUILLA CREEK RD
GOAD RD
MARKET RD
BEST RD
HOLMES RD
POVERTY FLAT RD
ROSS RD
MCKAY CREEK RD
SPRING CREEK RD
SIVAC RD
MAYS RD
KORVOLA RD
MCKAY DR
BRIDGE RD
POWERLINE RD
MEISLAND RD
FEEDVILLE RD
EDWARDS RD
LOOP RD
BAXTER RD
CRAIG RD
PUNKIN CENTER RD
UMATILLA RIVER RD
COUNTY RD
EASTSIDE RD
HOOD RD
730
207
37
82
84
395
74
244
204
11
331
332
334
335
339

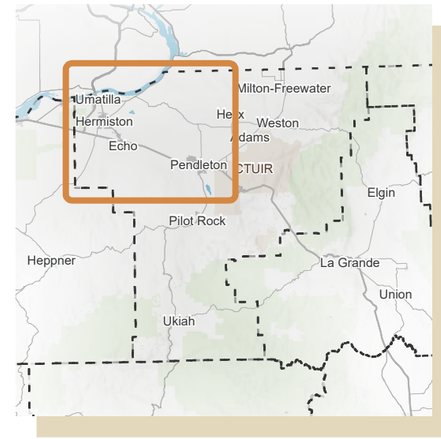
Figure 2a

Proposed Federal Functional Classification

- Proposed Major Collector
- Proposed Minor Collector
- Proposed Local Road
- Interstate
- Other Principal Arterial
- Minor Arterial
- Existing Major Collector
- Existing Minor Collector
- Existing Local Road
- Umatilla County
- City Boundaries
- Tribal Lands
- Forest Service Lands

UMATILLA COUNTY
est. 1862

0 2 4 Miles



Washington

Morrow

Umatilla

Hermiston

Stanfield

Echo

Pendleton

82 730 395 37 84 207 11 331 334

POWERLINE RD
UMATILLA RIVER RD
COUNTRY LN
PUNKIN CENTER RD
CRAIG RD
BAXTER RD
N OTHELL
CANAL RD
LOOP RD
EDWARDS RD
BRIDGE RD
WESTLAND RD
FEEDVILLE RD
HARDING AVE
STANFIELD MEADOWS RD
MOOREHOUSE RD
WELLS STATION RD
320 RD
RIETH RD
DESPAIN GULCH RD
N JUNIPER CANYON RD
FERGIES RD
S JUNIPER CANYON RD
VANSYCLE RD
KINGS CORNER RD
HOLDMAN RD
COLD SPRINGS RD
SHAFER RD
RIETH
MAIN ST RD
MCKAY LN
MISSION RD
KORVOLA RD
MCKAY DR
STEPHEN AVE
TUTUILLA CREEK RD
GOAD RD
TUTUILLA CHURCH RD
PATAWA RD
MARKET RD
BEST RD
SHAW RD
MOTANIC RD
HOLMES RD
BUTTER CREEK RD

Washington

STATELINE RD

UMAPINE RD

332

EDWARDS RD

PHILLIPS RD

PRUNEDALE RD

COUNTY RD

WINESAP RD

339

APPLETON RD

EASTSIDE RD

BIRCH CREEK RD

SPOFFORD RD

HOOD RD

Milton-Freewater

WALLA WALLA RIVER RD

STEEN RD

11

N JUNIPER CANYON RD

VANSYCLE RD

HOLDMAN RD

Helix

WINN RD

Athena

11

204

335

334

334

BANISTER RD

Weston

204

204

204

334

SAND HOLLOW RD

WILDHORSE RD

MCLEAN RD

11

PAMBRUN RD

SPRING HOLLOW RD

Adams

SHAFER RD

335

MANN RD

11

DUFF RD

Pendleton

N CAYUSE RD

BINGHAM RD

11

CTUIR

395

84

MCKAY LN

MISSION RD

331

EMIGRANT RD

CAYUSE RD

EMIGRANT RD

GOAD RD

TUTUILLA CHURCH RD

PATAWA RD

MARKET RD

TUTUILLA CREEK RD

BEST RD

MOTANIC RD

SHAW RD

84

84

HOLMES RD

Union

Figure 2b

Proposed Federal Functional Classification

- Proposed Major Collector
- Proposed Minor Collector
- Proposed Local Road
- Interstate
- Other Principal Arterial
- Minor Arterial
- Existing Major Collector
- Existing Minor Collector
- Existing Local Road
- Umatilla County
- City Boundaries
- Tribal Lands
- Forest Service Lands

UMATILLA COUNTY
est. 1862

0 2 4 Miles

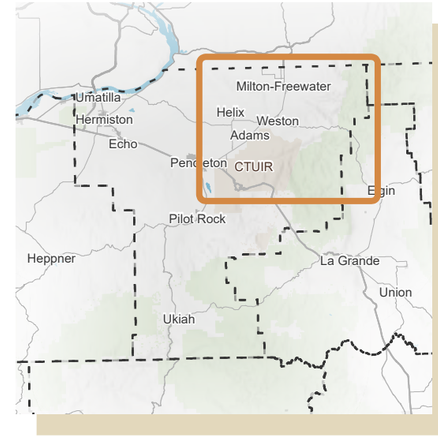


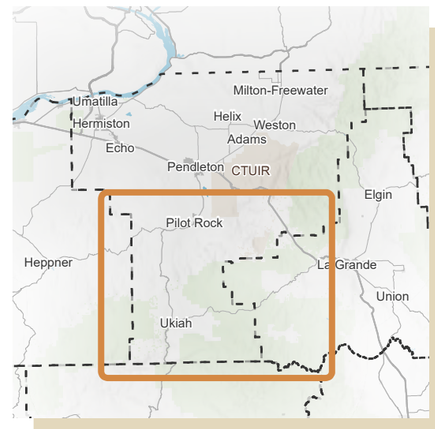
Figure 2c

Proposed Federal Functional Classification

- Proposed Major Collector
- Proposed Minor Collector
- Proposed Local Road
- Interstate
- Other Principal Arterial
- Minor Arterial
- Existing Major Collector
- Existing Minor Collector
- Existing Local Road
- Umatilla County
- City Boundaries
- Tribal Lands
- Forest Service Lands

UMATILLA COUNTY
est. 1862

0 2.75 5.5 Miles



Pilot Rock
CTUIR
SUMAC RD
MCKAY CREEK RD
BUTTER CREEK RD
Morrow
Union
Ukiah
Grant

Roadway Design Standards

The County roadway design standards are necessary to ensure the roadway system will be capable of safely and efficiently serving the traveling public, while also accommodating the orderly development of adjacent lands. Roadway design standards are tied to the roadway functional classification hierarchy so that the design of the roadway supports its intended function. Proposed updated roadway design standards are summarized in Table 2. Updated graphical cross sections are shown in Exhibit 1. The cross sections illustrate right-of-way width, paved surface width, and travel lane/shoulder widths. Rural roadway segments will not include sidewalks. Where non-motorized/multi-modal accommodations are planned, a separated multi-use pathway is preferred. Where bicycle use is planned, bicycles are to be accommodated within the roadway shoulder width or separated multi-use pathway.

The standards and cross sections are intended for planning purposes in the case of new road construction, as well as for those locations where it is physically and economically feasible to improve existing roadways as part of redevelopment or capital improvements. For County facilities within the urban areas of Umatilla, Hermiston, Echo, Pendleton, Athena, Weston, Milton-Freewater, Pilot Rock, and Ukiah, the County will continue to defer to the standards of the respective incorporated city where feasible and unless specific roadway projects are not identified.

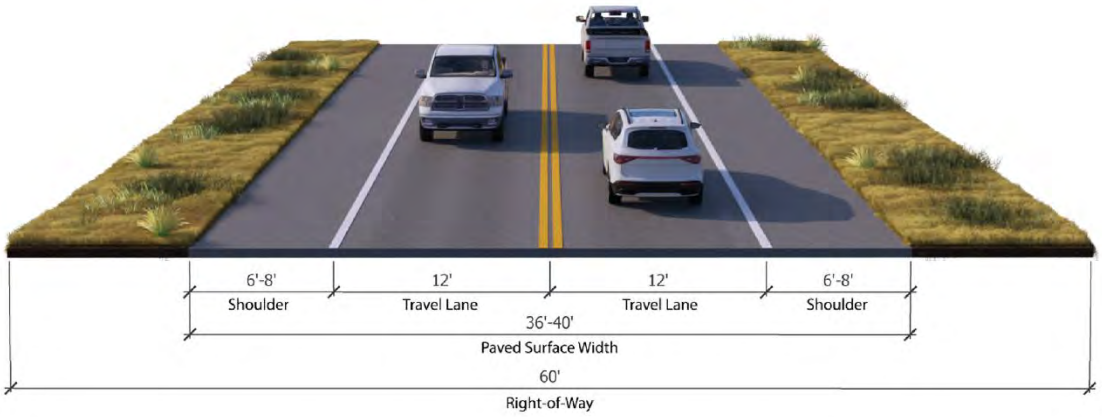
Table 2. Potential Roadway Design Standard Modifications

Functional Classification	Right-of-way	Paved Surface Width	Paved Shoulder Width	Sidewalks
Rural Major Collector	60-ft	36–40 ft	6-8 ft[1]	-
Rural Minor Collector	60-ft	32-40 ft	4-8 ft[1]	-
Rural Local (Residential)	60-ft	28-36 ft	2-6 ft[2]	5-ft[3]
Rural Local (Industrial)	60-ft	30-42 ft	4-8 ft[1]	-
Private Roads and Public Rights-of-Way (Option 1[4])	30-ft	16-ft crushed gravel surface	-	-
Private Roads and Public Rights-of-Way (Option 2[5])	60-ft	22-ft crushed gravel surface	-	-

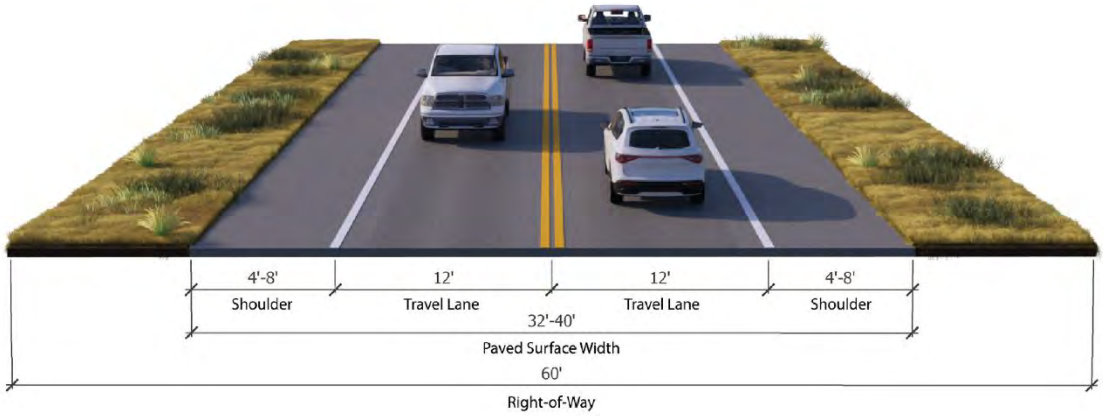
[1] Wider shoulder widths will be applied at the discretion of the County Engineer and reserved for situations where extra shoulder widths are necessary for safety reasons or the accommodation of shoulder bikeway treatments.
[2] If rural subdivision densities are greater than one dwelling per acre, or if a school or other neighborhood attraction is located within ½ mile walking distance, than 6-ft shoulders shall be provided.
[3] In lieu of 6-ft shoulders, 5-ft separated sidewalks can be provided on both sides of the local roadway, or one 10-ft separated multiuse path can be provided on one side of the local roadway.
[4] To be used for easements serving 3 or fewer parcels and additional partitioning or development is not anticipated.
[5] To be used for easements serving 4 or more parcels.

Exhibit 1 – Umatilla County Road Cross Sections

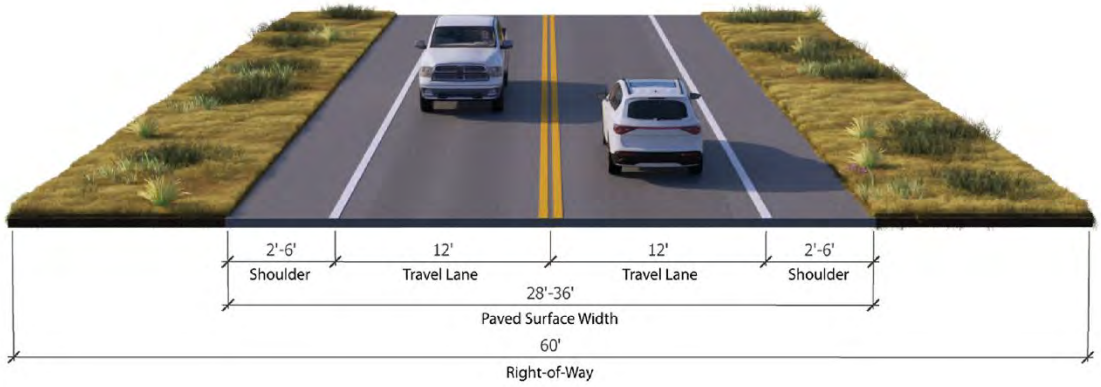
Rural Major Collector



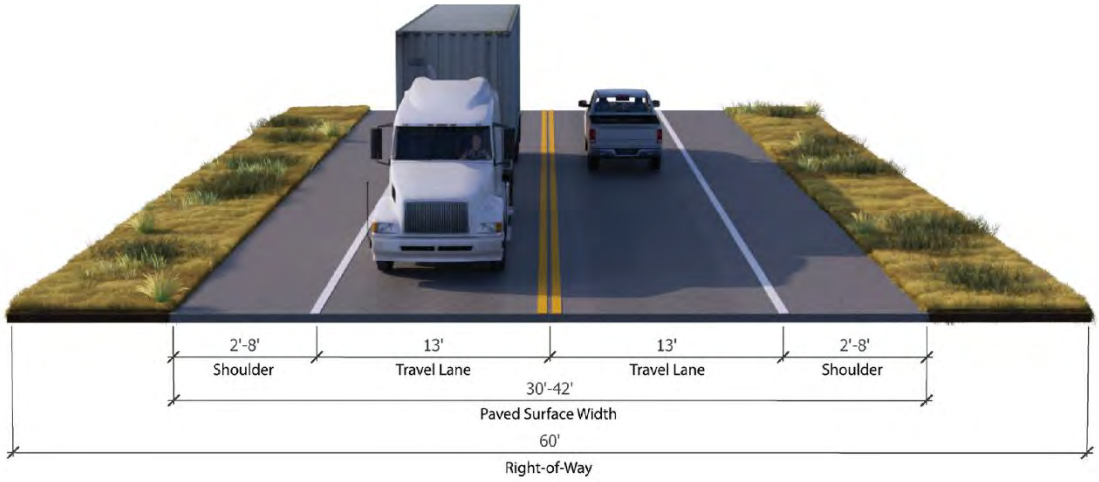
Rural Minor Collector



Rural Local Residential



Rural Local Industrial



Preferred Solutions Evaluation

A detailed evaluation assessment was performed to assist in the selection of a preferred and prioritized list of transportation projects to carry forward into the Umatilla County TSP update. The assessment was based on multiple criteria that reflect the TSP goals and objectives identified in Technical Memorandum #1 (Goals and Objectives, and Evaluation Criteria), as well as discussions with County, CTUIR, and ODOT staff. The criteria include mobility, cost, safety, land use, and environmental impacts. The criteria are designed to be qualitative and used to provide a quick comparison of the alternatives to select the one that best fits with the goals and objectives of the plan. Table 3 presents the alternatives evaluation criteria that was used to narrow down and prioritize the TSP projects.

Table 3. Alternatives Evaluation Criteria

Project Objective	
Safety	
Will this project prioritize reducing crash frequency and severity?	Yes / Unknown/ No
Will this project reduce fatal and serious injury crashes in the county?	Yes / No
Mobility	
Will this project address capacity issues, improve corridor flow, or maintain state of good repair?	Yes / Unknown/ No
Will this project improve local and regional transit connectivity?	Yes / Unknown/ No
Will this project enhance freight transportation services?	Yes / Unknown/ No
Will this project connect communities through regional multi-use trails or bicycle routes?	Yes / Unknown/ No
Connectivity & Vitality	
Will this project improve freight connectivity to/from economic centers and employment areas?	Yes / Unknown/ No
Will this project connect or upgrade existing trails to promote active living and recreation tourism?	Yes / No
Community & Equity	
Will this project strengthen economic opportunities in underserved areas?	Yes / Unknown/ No
Will this project improve multimodal access in underserved areas to schools, parks, employment centers, and other essential destinations?	Yes / Unknown/ No
Resilience	
Will this project improve transportation system resilience to extreme weather, natural hazards, or disasters?	Yes / Unknown/ No
Will this project avoid or minimize impacts on natural and cultural resources?	Yes / Unknown/ No
Strategic Investment	
Is this project consistent with adopted local and state plans?	Yes / No
Does this project align with ODOT or other partner agencies' long-term financial strategy?	Yes / Unknown/ No
Will this project improve the transportation network without significantly increasing maintenance costs?	Yes / Unknown/ No
Flexibility & Agility	
Will this project support Electric, Shared Mobility, or Automated/Connected Vehicle readiness in the county?	Yes / Unknown/ No

Project Prioritization Approach

All proposed projects have been systematically evaluated and assigned to one of three priority categories: low, medium, or high. This prioritization process is designed to support effective project planning and resource allocation within the transportation network.

HIGH-PRIORITY PROJECTS

Projects classified as high priority are determined to be essential for maintaining and supporting the current functionality of the transportation system. Their implementation is vital to ensure the reliable operation of existing infrastructure and to address critical system needs.

MEDIUM-PRIORITY PROJECTS

Medium-priority projects are important for future planning and development and are important for addressing anticipated growth, emerging needs, and long-term improvements to the transportation network.

LOW-PRIORITY PROJECTS

Projects with a low priority may be advanced as funding becomes available or as conditions within the network evolve. These projects are not immediately critical but can be considered for implementation in response to changing needs or resource availability.

ALIGNMENT WITH EXISTING PLANS

When a proposed project already carried a priority designation from previously adopted plans, such as the CTUIR Transportation System Plan (TSP), that priority was initially retained. This approach ensures consistency and alignment across all planning documents and supports coordinated project implementation.

The results from assessing the projects in Technical Memorandum #4 (Solutions and Funding Analysis) against the evaluation matrix are presented in the following sections. The detailed evaluation scores are in Attachment A.

Roadway Network

The state highway and county roadway network serves the majority of motor vehicle trips within Umatilla County. In addition to motorists, truck freight, pedestrians, bicyclists, and transit riders all rely on the state and county roadway network to access areas locally and regionally. This section summarizes the roadway network alternatives considered for implementation in the non-urban parts of the county to address gaps, deficiencies, and needs in the roadway network as well as alternatives that will facilitate improvements to the pedestrian, bicycle, and public transit networks.

Bridges, Structures, and Culverts

The bridge inventory summarized in Technical Memorandum #3 identified 16 bridges and structures in Umatilla County's transportation network with sufficiency ratings below 50. A bridge or structure with a sufficiency rating below 50 indicates that the bridge is in poor condition and is eligible for replacement.

Based on Tech Memo #4 comments, Table 4 lists the prioritized bridge projects for inclusion in the TSP update. Figure 3 summarizes the bridge project locations.

Table 4. Preferred/Prioritized Bridge Projects with Sufficiency Ratings

Project ID	County Bridge ID	Name	Location	Sufficiency Rating	Type of Work	Priority
B01	231	"A" Line Canal Bridge	N. Ott Rd.	72.5	Bridge replacement (structurally deficient)	Medium
B02	754	Barnhart Bridge	Rieth Rd.	Not Rated	Bridge replacement	High
B03	18078	S. Fork Cold Springs Bridge	S. Fork Cold Springs Rd.	98.7	Bridge replacement (structurally deficient)	High
B04	99	Umatilla River Bridge	Cuningham Rd.	61.3	Bridge replacement (functionally obsolete)	Low
B05	455	Eastside/ Walla Walla River Bridge	Eastside Rd.	61.1	Bridge replacement (functionally obsolete)	High
B06	568	Wild Horse Creek Bridge	Sand Hollow Rd.	63.9	Bridge replacement (structurally deficient)	Medium
B07	65	Berry West Birch	Yellow Jacket Rd.	31.7	Bridge replacement (functionally obsolete)	Low
B08	69	Rieth/Umatilla River Bridge	Birch Creek Rd.	34	Bridge replacement (structurally deficient)	Low
B09	197	A Line Canal	E. Highland Ave.	49	Bridge replacement to accommodate future needs	Medium
B10	198	"A" Line Canal Bridge	Townsend Rd.	32	Bridge replacement (functionally obsolete)	Low
B11	208	Furnish Ditch	Stage Gulch Rd.	48.9	Bridge replacement of load rated bridge	Medium
B12	325	Emigrant Butte / Hunt Ditch	Emert Rd. (Co. Rd 1338)	41.8	Repair and Maintenance Work	Low
B13	326	Hunt Ditch	Whitehouse Rd.	37.9	Repair and Maintenance Work	Low
B14	327	Hunt Ditch	Rosenburg Rd.	35.5	Bridge replacement (structurally deficient)	Low

Project ID	County Bridge ID	Name	Location	Sufficiency Rating	Type of Work	Priority
B15	-	Umatilla River Bridge	Future westerly extension of Punkin Center Road to Country Ln.	N/A	New bridge construction	Medium
B16	-	Iskuulpa Creek Bridge	Bingham road	N/A	Railroad Bridge replacement including higher deck based on annual flooding	Medium

Figure 3

Proposed Bridge Projects

B# Proposed Bridge Project

Umatilla County

City Boundaries

Tribal Lands

Forest Service Lands

Washington

Wallowa

Morrow

Union

Baker

Grant

CTUIR

STATELINE RD

UMATILLA RIVER

PUNKIN CENTER RD

BAXTER RD

CRAIG RD

BRIDGE RD

POWERLINE RD

WESTLAND RD

EDWARDS RD

FEEDVILLE RD

DESPAIN GULCH RD

HOOPER HOUSE RD

COLD SPRINGS RD

RIETH RD

MISSION RD

CAYUSE RD

TUTUILLA CREEK RD

TUTUILLA CHURCH RD

MARKET RD

MCKAY DR

KORYOLA RD

SWAMP RD

SPRING CREEK RD

CIRCLE RD

ROSS RD

BIRCH CREEK RD

SOAP HOLLOW RD

PAMBRUN RD

BINGHAM RD

COUNTY RD

WINESAP RD

EASTSIDE RD

HOOD RD

STEEN RD

WALLA WALLA RIVER RD

WINN RD

B01 B02 B03 B04 B05 B06 B07 B08 B09 B10 B11 B12 B13 B14 B15 B16

730 37 207 82 84 395 74 244 335 334 339 332 331 204 11

Data Source - Umatilla County, 2002 Umatilla County TSP

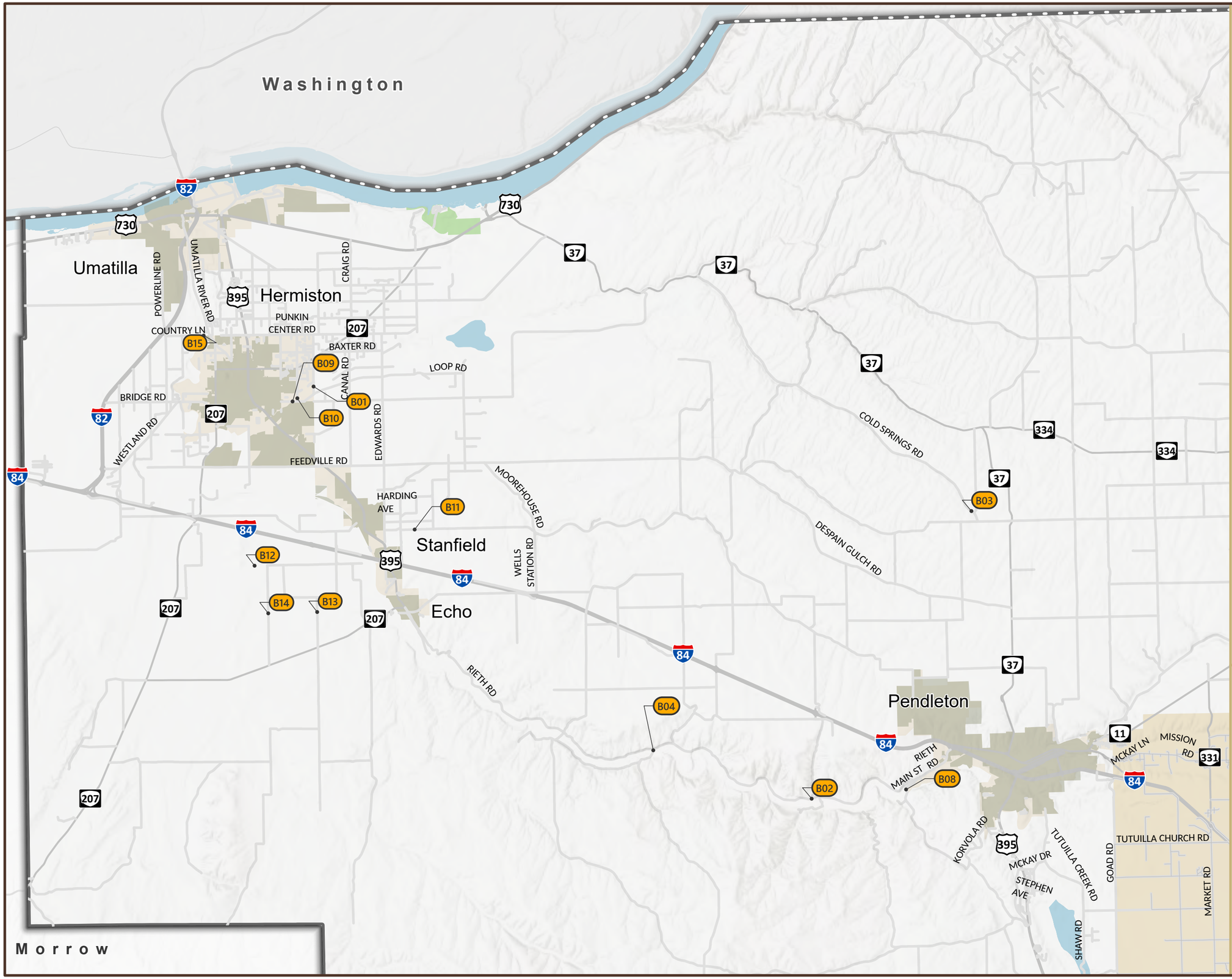
0 5 10 Miles

UMATILLA COUNTY est. 1862



Figure 3a

Proposed Bridge Projects



B# Proposed Bridge Project

Umatilla County

City Boundaries

Tribal Lands

Forest Service Lands

UMATILLA COUNTY
est. 1862

Data Source - Umatilla County, 2002 Umatilla County TSP

0 2 4 Miles

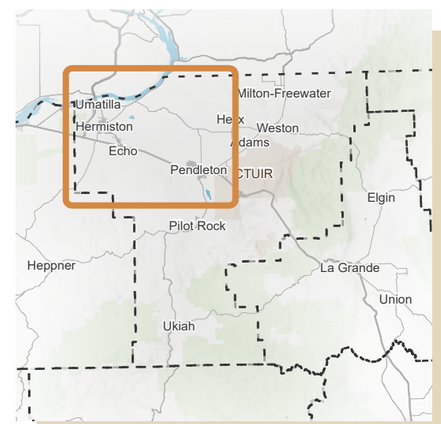
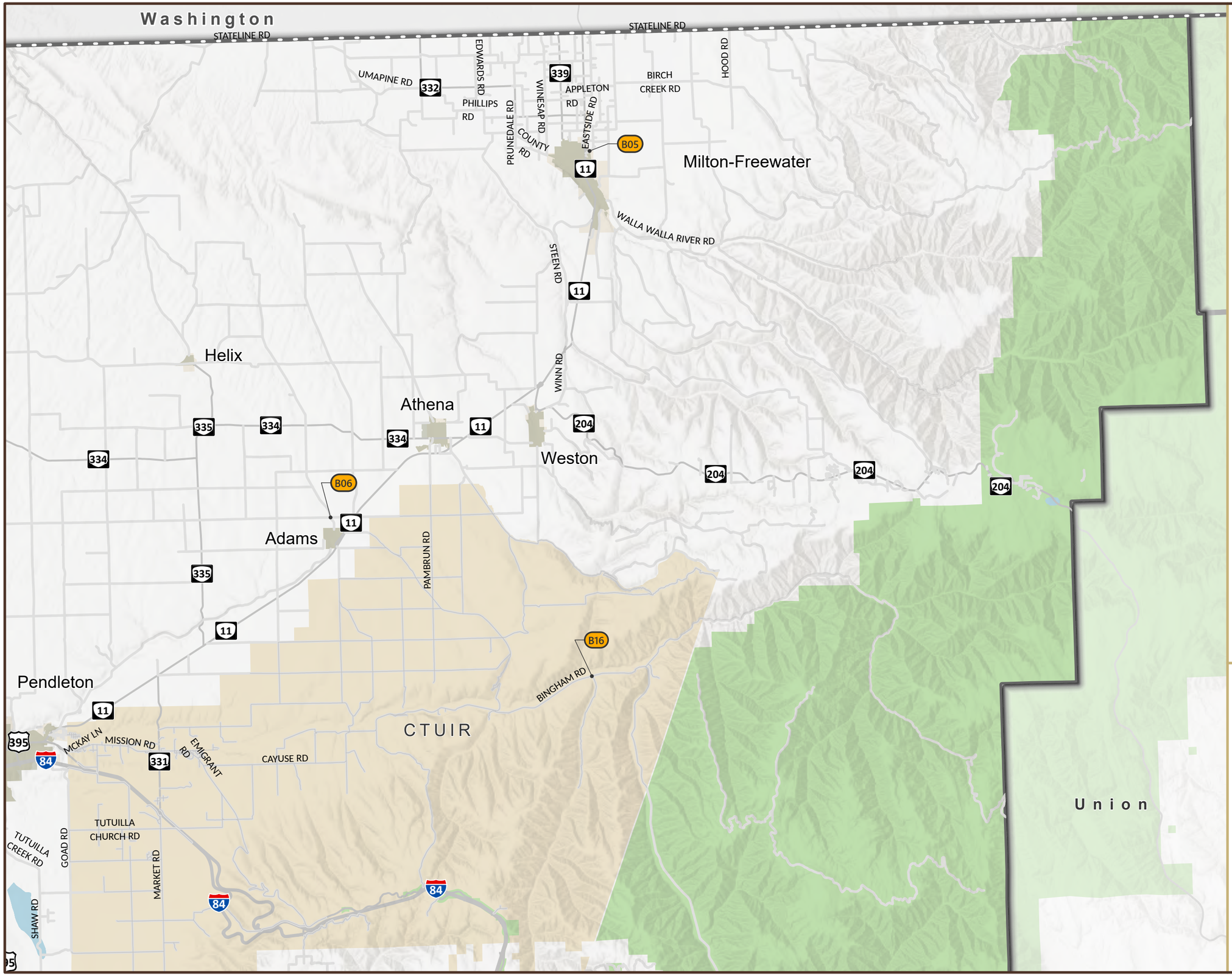


Figure 3b

Proposed Bridge Projects



B# Proposed Bridge Project

Umatilla County

City Boundaries

Tribal Lands

Forest Service Lands

UMATILLA COUNTY

Data Source - Umatilla County, 2002 Umatilla County TSP

0 2 4 Miles

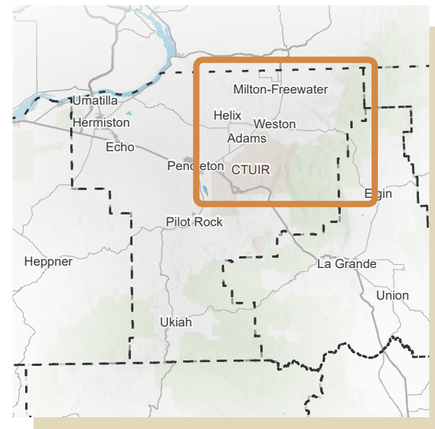
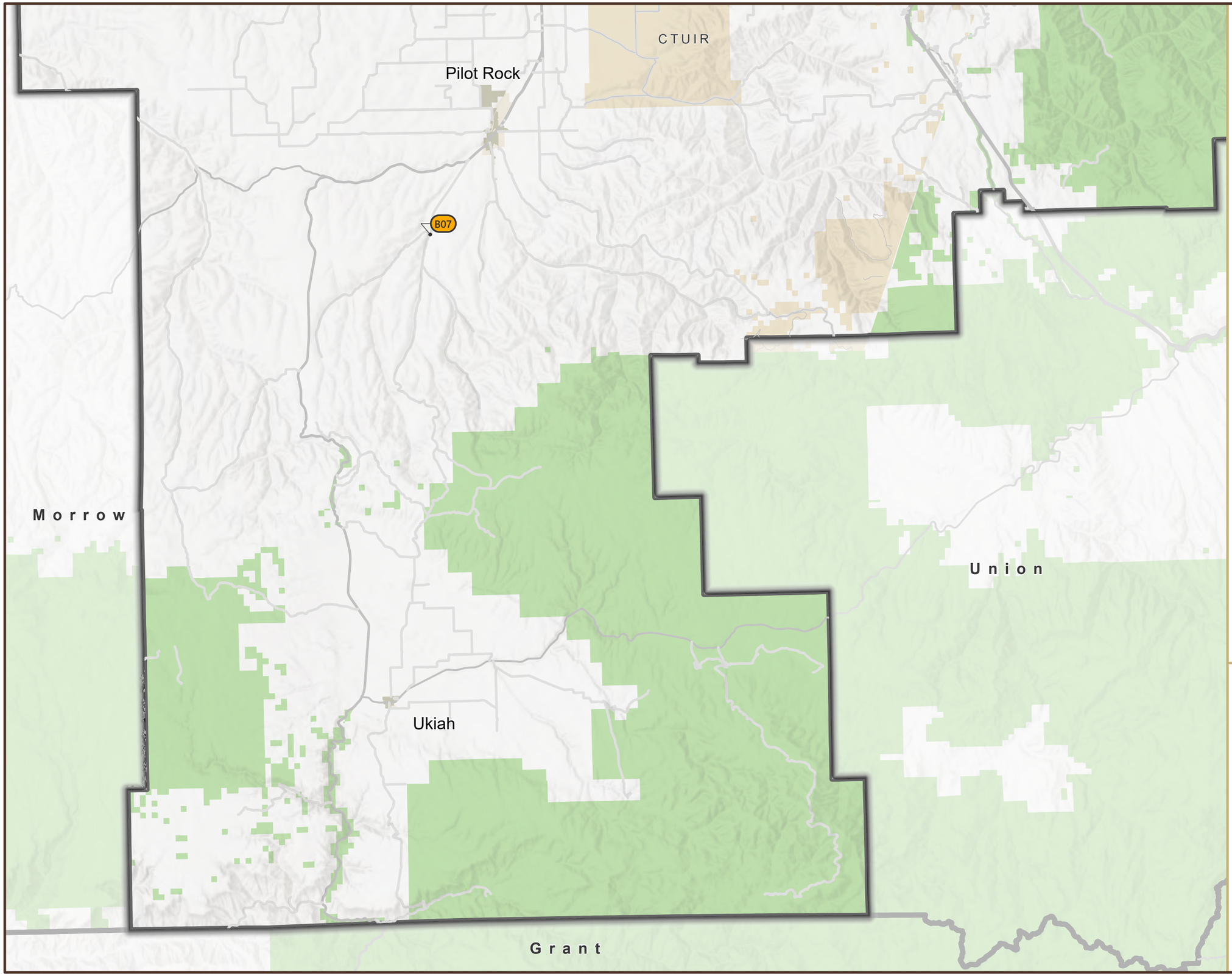


Figure 3c

Proposed Bridge Projects

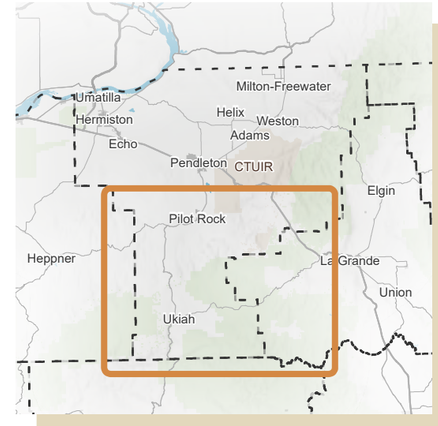


B# Proposed Bridge Project
Umatilla County
City Boundaries
Tribal Lands
Forest Service Lands

UMATILLA COUNTY
est. 1862

Data Source - Umatilla County, 2002 Umatilla County TSP

0 2.75 5.5
Miles



Roadway/Corridor Improvements

Roadway/Corridor improvements identified in this memorandum are comprised of pavement preservation on key roadways in county and roadway projects identified in existing TSPs on roadways within the county's jurisdiction. Based on County, ODOT, and CTUIR review comments on Tech Memo #4, the prioritized roadway/corridor improvement projects are listed in Table 5 and shown in Figure 4

Intersection Improvements

The identified intersection improvements are based on the intersection operations analysis summarized in Technical Memorandum #3, projects identified in existing TSPs on county roadways, and Tech Memo #4 comments from County, ODOT, and CTUIR staff.

The intersection operations analysis showed that the County's current transportation network is sufficient to support the forecast traffic volume growth through the year 2045 outside of the incorporated cities with the exception of the following intersections/locations:

- **I-82 / Powerline Road Interchange – EB Ramp Terminal (Intersection 1A) and WB Ramp Terminal (Intersection 1B):** Both interchange ramp terminals are forecast to operate over capacity due to continued growth along the Powerline Road corridor.
- **I-84/US 395 (Stanfield Meadows Road Interchange) – EB Ramp Terminal (Intersection 5)**: As per recent evaluation, the eastbound ramp terminal is operating over capacity due to continued growth along the US 395 corridor.

Given these forecasts and the complex nature of making significant improvements at older, rural interchanges where geometrics and interchange forms need to be studied in greater detail, it is recommended that the County work with ODOT and consider the development of a sub-area refinement plan for both interchanges. Known as Interchange Area Management Plans (IAMP), an IAMP would evaluate a range of potential operational, geometric, access management, and land use modifications to help improve near- and long-term modifications to improve safety, reduce congestion, and enhance future mobility at these critical interchange locations. The product of this planning effort would be adopted as part of a future Umatilla County TSP amendment[1].

All other County intersections should continue to be monitored for operational performance, particularly within incorporated cities, where localized congestion may occur.

The proposed intersection improvement projects are listed in Table 5 and shown in Figure 4.

[1] In addition to the technical aspects of an IAMP, it is essential to identify and secure appropriate funding sources. The County, along with local jurisdictions affected by traffic impacts, should collaboratively evaluate options for financing these improvements.

Traffic Safety Improvements

As a parallel effort to the Umatilla County TSP update, Umatilla County recently developed a Safety Action Plan (SAP) that was based on an anlaysis of recent crash data on all major County roads and State highways within the non-urban areas of the County.

The SAP led to the identification of crash patterns and prioritized safety countermeasures for those intersections and roadway segments that had at least one fatal or severe injury (FSI) crash. As shown below in Table 5, many of the safety alternatives for roadway segments overlap with safety alternatives for pedestrians and bicyclists, illustrating that some alternatives address multiple traffic safety issues.

The ten preferred safety improvements listed in Table 5 and shown in Figure 4 were identified in SAP as high priority.

Freight Improvements

Freight-related improvements were identified based on feedback from County staff and input collected by members of the project team during a recent assessment and investigation of a rural transportation information system.

Table 5. Preferred/Prioritized Roadway Corridor/Intersection/Safety/Freight Improvement Projects

Project ID	Road Name	From	To	Type of Work	Notes	Priority
Roadway/Corridor Projects						
R01	Punkin Center Rd.	US 395	OR 207	Shoulder widening / Urban upgrade[2]	Listed in 2002 TSP, Table 7-6.	Medium
R02	Umatilla River Rd. Phase 1	US 730	NW 11th St	Widen shoulder, install centerline rumble strips[2]	High number of FSI crashes involving lane departure and high speed rear-end crashes	Medium
R03	Edwards Rd	US 395	Feedville Rd.	Shoulder widening and repaving[2]	Listed in 2002 TSP, Table 7-6	Medium
R04	Highland Ext	Canal Rd.	Edwards Rd.	Reconstruct and pave gravel sections	Listed in 2002 TSP, Table 7-6	Low
R05	Emigrant Rd.	St. Andrews Rd.	Poverty Flat Rd.	Repave and shoulders	Adopted as medium priority project in CTUIR TSP	Medium
R06	Punkin Center Rd./ Country Ln.	Sunshine Ln.	Powerline Rd.	Extend Punkin Center Road westerly from current terminus at Sunshine Ln. to Umatilla River Road and to a new bridge across the Umatilla River (B15). Upgrade existing Country Ln. to Major Collector standards and realign intersection with Powerline Rd. further to the south.	Listed in 2002 TSP, Table 7-6. Consistent with pending Hermiston TSP update	High
R07	Reith Rd	Birch Creek Rd	I-84	Repave[2]	Listed as Poor Pavement Condition in 2023 Pavement Data from County	Low
R08	E Punkin Center Road.	Diagonal Rd.	Edwards Rd.	Repave	Listed as Poor Pavement Condition in 2023 Pavement Data from County	Low

[2] OAR 734-051-1050 may apply, verification of access rights will be required.

Project ID	Road Name	From	To	Type of Work	Notes	Priority
R09	Powerline Road	Birch Creek Rd.	Washington State line	Repave	Listed as Poor Pavement Condition in 2023 Pavement Data from County	Low
R10	Goad Road	Tutuilla Church Rd.	Southern extents	Repave, pulverize and oil mat	Listed as Poor Pavement Condition in 2023 Pavement Data from County	Low
R11	Pambrun Road	OR 11	Reford Ln.	Repave[3]	-	Low
R12	Tutuilla Church Road	Goad Rd.	Market Rd.	Repave, pulverize and oil mat	Listed as Poor Pavement Condition in 2023 Pavement Data from County	Low
R13	Kash Kash Road - Spliya Road	East of OR 331	North of I-84	Close existing access to OR 331 and reroute Kash Kash Road north to a new intersection with Kuse Road[3]	Adopted as medium priority project in CTUIR TSP (projects R1 & R2)	Medium
R14	N Cayuse Rd-Mann Rd	Cayuse-Bingham Rd	Crawford Hollow	Widen, add shoulders, and pave	Adopted as low priority projects in CTUIR TSP (projects R5 & R6)	Low
R15	Theater Rd - SE 56th St	OR 30	Mission Rd	Widen, add shoulders, and pave[3]	Adopted as low priority projects in CTUIR TSP (project R4)	Low
R16	Motanic Rd-Sumac Rd - Mckay Creek Rd	Best Rd	North Fork Mckay Creek	Widen, add shoulders, pave and improve stormwater management	Adopted as medium & low priority projects in CTUIR TSP (project R7, R8, & R9)	Low
R17	Mission Rd	Mustanger Rd	OR 331	Install speed feedback signage and other traffic calming measures[3]	Adopted as low priority projects in CTUIR TSP (project R12, R21 & R22) R21 & R22 are development driven intersection safety improvement projects	Low

[3] OAR 734-051-1050 may apply, verification of access rights will be required.

Project ID	Road Name	From	To	Type of Work	Notes	Priority
R18	Cayuse-Bingham Rd	Emigrant Rd	Old Emigrant Hill Frontage Rd	Perform a speed study at key intersections to determine safety treatments and consider stormwater management improvements	Adopted as medium priority projects in CTUIR TSP (project R13)	Medium
R19	Short Mile Rd	Mission Rd	Roadway Extents	Perform a speed study and install speed feedback signage	Adopted as low priority projects in CTUIR TSP (project R18)	Low
R20	Riverside Ave	NE 37th St	Roadway Extents	Perform a speed study and install speed feedback signage	Adopted as low priority projects in CTUIR TSP (project R24 & R19)	Low
Intersection Improvement Projects						
I01	I-82 / Powerline Road interchange Improvements	-		Interchange Area Management Plan (IAMP) – Refinement plan to modernize the interchange (including widening and improving ramp configurations and traffic control) to accommodate the growing traffic volumes.	Eastbound and westbound ramp terminals are projected to exceed capacity by 2045	High
I02	I-84 / OR 207 (Hermiston) interchange Improvements	-		Interchange Area Management Plan (IAMP) – Refinement plan to modernize the interchange (including widening and improving ramp configurations and traffic control) to accommodate the growing traffic volumes.	Eastbound ramp terminals are projected to exceed capacity by 2045	High
I03	Cayuse Rd	Cayuse River Rd Intersection		Reconstruct northern leg to connect at a more perpendicular angle	Adopted as low priority project in CTUIR TSP	Low
I04	River Rd	White Rd intersection		Reconstruct southern leg to connect at a more perpendicular angle	Adopted as low priority project in CTUIR TSP	Low

Project ID	Road Name	From	To	Type of Work	Notes	Priority
I05	I-84 / US 395 (Stanfield Meadows Road) Interchange	-		Update existing Interchange Area Management Plan (IAMP) to include widening and improving ramp configurations and traffic control to accommodate the growing traffic volumes.	Eastbound ramp terminals are over capacity and the westbound ramps will need to be analyzed as well.	Medium
I06	Kirkpatrick Rd, vertical curve east of Mckinley Lane	-		Evaluate sight distance and install advisory signage if warranted	Adopted as low priority project in CTUIR TSP (project R14)	Low
Safety Improvement Projects						
S01	US 395	Punkin Center Rd	US 730[4]	Raised medians to better manage left-turn and U-turn movements, enhanced mid-block crossings as appropriate	High number of FSI turning movement crashes	High
S02	OR 207	Townsend Rd.	Columbia Ln.[4]	Install lighting at major intersections, install edge line rumble strips, install traffic control at Punkin Center Road and Townsend Rd intersections when warranted	High number of FSI crashes involving road departure crashes	High
S03	OR 11	Milton-Freewater City Limits	WA State Line[4]	Raised medians to better manage left- turn and U-turn movements, rumble strips, improved lighting	High number of turning movement and Head-on crashes	Medium
S04	OR 11	OR 204	Just north of CR 643[4]	Northbound edge line rumble strips, centerline snow-plowable reflectors or recessed pavement markers	High number of FSI crashes (road departure and high speed)	Low

[4] OAR 734-051-1050 may apply, verification of access rights will be required.

Project ID	Road Name	From	To	Type of Work	Notes	Priority
S05	US 395	South of Ukiah MP 51.8	MP 54.7	Install roadside and centerline rumble strips, shield roadside hazards where appropriate, install additional curve signing where applicable[5]	High number of roadway departure crashes	Low
S06	US 395	Airport Rd.	Stanfield city limits	Raised medians to better manage left-turn and U-turn movements[5]	High number of FSI crashes	Medium
S07	Westland Road / Highland Ave corridor	Agnew Rd.	West Hermiston City Limits	Add centerline rumble strip, maintain fog lines, restripe shoulder/travel lane line, improve lighting.	High number of FSI crashes, including lane departures and darkness-related crashes	Medium
S08	US 730	West Umatilla County line	Umatilla City Limits5	Raised medians to better manage left-turn and U-turn movements, additional animal crossing warning signage, street lighting	High number of FSI turning movement crashes	Low
S09	Stanfield Meadows Rd	OR 207	½-mile to east	Install centerline pavement markers that are plowable, restripe fog lines and install speed feedback signing	High number of FSI crashes	Low
S10	OR 37	CR 1172	West of Holdman Cemetery	Install centerline and edge line rumble strip, maintain signage, add chevrons approaching all horizontal curves from both directions.[5]	High number of lane and road departure crashes	Low
Freight Improvement Projects						

[5] OAR 734-051-1050 may apply, verification of access rights will be required.

Project ID	Road Name	From	To	Type of Work	Notes	Priority
F01	I-84 eastbound at approximately MP 191	-		The existing sign structure meets minimum vertical clearance standards of 17' of clearance but is a barrier to permitted over height loads. Raising the sign bridge or replacing the sign bridge with a cantilevered sign structure would allow over height loads to stay on the freeway rather than relying upon the state and local county roadway networks to bypass the structure.	Approximate cost of $1M - $2M	Low
F02	I-84 at Echo Meadows Rd overpass	Echo Meadows Rd		The existing Echo Meadows Rd overpass structure meets minimum vertical clearance standards of 17 feet but is a barrier to permitted over height loads. Raising or replacing bridge over I-84 would allow over height loads to stay on the freeway rather than relying upon the other state or local county roadway networks to bypass the structure.	Approximate cost of >$5M for raising the overpass and >$10M for new bridge	Low
F03	I-84 westbound truck climbing lane	MP 204	MP 207	Install a truck climbing lane on westbound I-84 to improve safety and operations by allowing slow moving vehicles such as trucks, buses and recreational vehicles to move to the climbing lane and reduce the speed differential between heavy vehicles and passenger vehicles.	Approximate cost of >$10M	Low

Project ID	Road Name	From	To	Type of Work	Notes	Priority
F04*	Northeast Umatilla County Freight Access and Mobility Study	OR 37/OR 334/OR 335		Evaluate ITS and enforcement solutions to reduce the instances of overlength vehicles exceeding length restrictions on OR 37, OR 334, and OR 335 Assess the economic impact of continued length restrictions on OR 37, OR 334, and OR 335 Safety, geometric, and operational improvements including signage installation to remove length restrictions on freight and improve safety, access and mobility between OR 11 (Athena-Weston) and OR 730 and I-82	Refinement study	High
F05*	Hermiston area Freight Access and Mobility Study	Hermiston area		A joint County, City and ODOT study to assess alternative freight routes in and around Hermiston to improve freight circulation, reduce freight impacts on urbanized areas and reduce conflicts between freight and vulnerable road users.	Refinement study	High
F06*	Umatilla County Active Rural Transportation Information System (ARTIS)	Entire Umatilla County area		Traveler Information System supported by third party vendors that provides alerts to travelers (particularly freight) on road closures, work zones and safety issues via web applications and in-cab alerts.	Subscription service	High

*Studies are not shown in

Figure 4

Figure 4

Proposed Roadway Projects

- I# Proposed Intersection Improvement
- S# Proposed Safety Improvement
- R# Proposed Roadway Improvement
- F# Proposed Freight Improvement
- Umatilla County
- City Boundaries
- Tribal Lands
- Urban Growth Boundaries
- Forest Service Lands

UMATILLA COUNTY est. 1862

Data Source - Umatilla County, 2002 Umatilla County TSP, TransGIS

0 5 10 Miles



Figure 4a

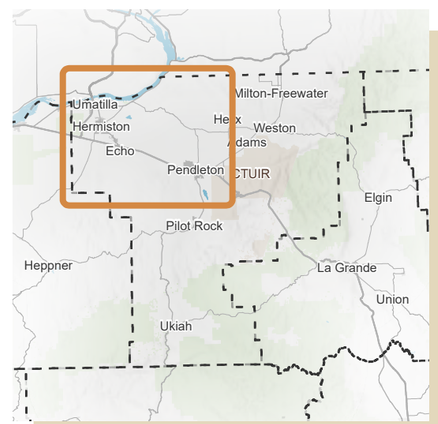
Proposed Roadway Projects

- I# Proposed Intersection Improvement
- S# Proposed Safety Improvement
- R# Proposed Roadway Improvement
- F# Proposed Freight Improvement
- Umatilla County
- City Boundaries
- Tribal Lands
- Urban Growth Boundaries
- Forest Service Lands

UMATILLA COUNTY est. 1862

Data Source - Umatilla County, 2002 Umatilla County TSP, TransGIS

0 2 4 Miles



Washington

Morrow

Umatilla

Hermiston

Stanfield

Echo

Pendleton

S08 S01 S02 S06 S07 S09 S10

F01 F02 F03

I01 I02 I05

R01 R02 R03 R04 R06 R07 R08 R10 R12 R13 R15 R16 R17 R20

82 84 730 37 395 207 334 331

POWERLINE RD
UMATILLA RIVER RD
CRAIG RD
PUNKIN CENTER RD
BAXTER RD
LOOP RD
CANAL RD
EDWARDS RD
BRIDGE RD
WESTLAND RD
FEEDVILLE RD
HARDING AVE
MOOREHOUSE RD
WELLS STATION RD
DESPAIN GULCH RD
RIETH RD
COLD SPRINGS RD
RIETH MAIN ST RD
MCKAY LN
MISSION RD
GOAD RD
TUTUILLA CHURCH RD
KORVOLA RD
MCKAY DR
STEPHEN AVE
TUTUILLA CREEK RD
SHAW RD
MARKET RD

Figure 4b

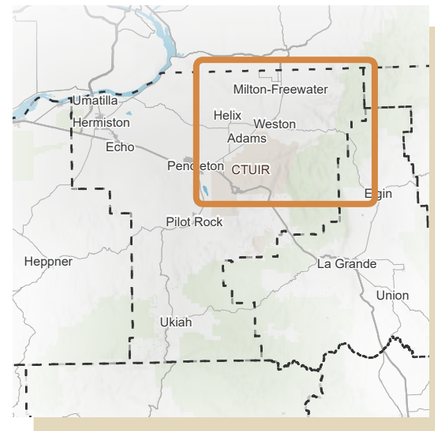
Proposed Roadway Projects

- I# Proposed Intersection Improvement
- S# Proposed Safety Improvement
- R# Proposed Roadway Improvement
- Umatilla County
- City Boundaries
- Tribal Lands
- Urban Growth Boundaries
- Forest Service Lands

UMATILLA COUNTY
est. 1862

Data Source - Umatilla County, 2002 Umatilla County TSP, TransGIS

0 2 4 Miles



Washington

Union

Milton-Freewater

Helix

Athena

Weston

Adams

Pendleton

CTUIR

STATELINE RD

UMAPINE RD

EDWARDS RD

PHILLIPS RD

PRUNEDALE RD

COUNTY RD

WINESAP RD

EASTSIDE RD

APPLETON RD

BIRCH CREEK RD

HOOD RD

WALLA WALLA RIVER RD

STEEN RD

WINN RD

PAMBRUN RD

BINGHAM RD

CAYUSE RD

MISSION RD

MCKAY LN

EMIGRANT RD

GOAD RD

TUTUILLA CHURCH RD

TUTUILLA CREEK RD

MARKET RD

SHAW RD

R09 S03 I39 332 11 204 335 334 395 84 331 R20 R17 R19 I06 I04 I03 R18 R14 R11 R15 R13 R12 R10 R05 R16

Figure 4c

Proposed Roadway Projects

CTUIR

Pilot Rock

R16

Morrow

Union

Ukiah

S05

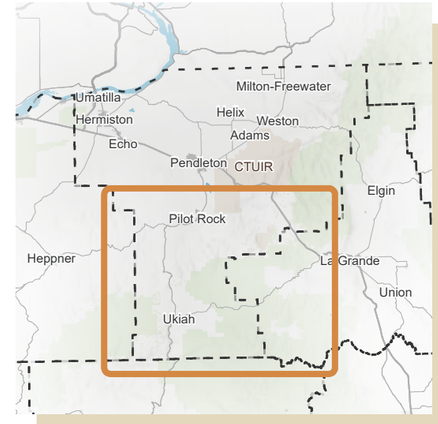
Grant

- S# Proposed Safety Improvement
- R# Proposed Roadway Improvement
- Umatilla County
- City Boundaries
- Tribal Lands
- Forest Service Lands

UMATILLA COUNTY
est. 1862

Data Source - Umatilla County, 2002 Umatilla County TSP, TransGIS

0 2.75 5.5 Miles



Non-Motorized Transportation Network

From the inventory and analysis of current pedestrian and bicycle facilities summarized in Technical Memorandum #3, Umatilla County's non-motorized transportation network is relatively minimal given its size and generally lacks facilities for people to walk and bike on a regional scale.

Pedestrian Facilities

Pedestrian facilities are the elements of the transportation system that enable people to walk safely and efficiently to destinations. They provide opportunities for people to maintain and improve their health while accessing daily needs or recreating. These include facilities for pedestrian movement along key roadways (e.g., shoulders, sidewalks, shared-use paths) and for safe roadway crossings (e.g., crosswalks, crossing beacons, pedestrian refuge islands). Each facility plays an important role in developing a comprehensive pedestrian system.

Bicycle Facilities

Bicycle facilities are the elements of the transportation system that enable people to travel safely and efficiently by bicycle. Like pedestrian facilities, they play an important role in a region's health and recreational opportunities and allow people who don't own vehicles to safely travel to destinations. These include facilities along key roadways (e.g., shared lane pavement markings, on-street bike lanes, and separated bike facilities) and facilities at key crossing locations (e.g., enhanced bike crossings). These also include end of trip facilities (e.g., secure bike parking, changing rooms, and showers at worksites); however, these facilities are typically addressed through development code requirements. Each facility plays an important role in developing a comprehensive bicycle system.

Pedestrian and Bicycle Alternatives

The non-motorized transportation strategy for Umatilla focuses on expanding a connected system of multiuse paths that link key destinations within the county and to nearby communities such as Pendleton and Hermiston. These projects are designed to improve regional connectivity, support safe active transportation, and complement existing and planned facilities identified in nearby city and previous county Transportation System Plans (TSPs).

Following extensive comments from County and CTUIR staff, Figure 5 and Table 6 identify the preferred projects that will form the backbone of the non-motorized network. A central focus of the non-motorized system is the development of a regional multi-use path network that connects key locations in the County. These projects support safe, off-street travel between the cities in the county for pedestrians, bicyclists, and other non-motorized users.

Table 6. Preferred/Prioritized Multimodal Projects

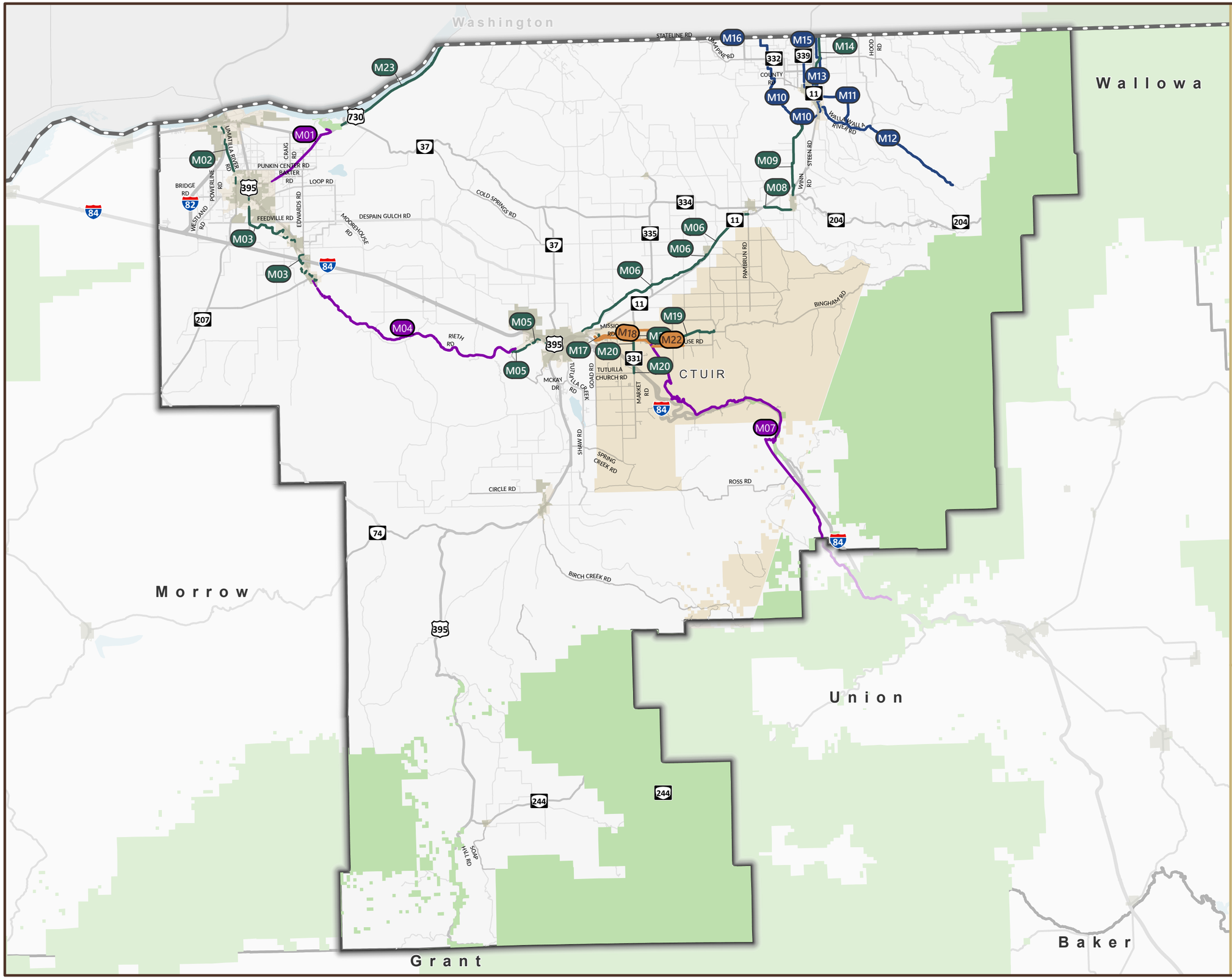
Project ID	Project Name / Location	Considerations	Description	Project Source	Priority
M1	**OR 207** Hermiston to Hat Rock State Park	Narrow shoulders High travel speeds	Widen existing highway shoulders to provide a striped buffered shoulder along both sides of OR 207 from Hermiston to Hat Rock State Park. Provides a BLTS 2-level facility for regional recreation.	-	Medium
M2	**Umatilla River Road** Umatilla River Trail Umatilla - Hermiston	Limited shoulders No pedestrian facilities (PLTS 4) No bicycle facilities (BLTS 4)	Construct a multi-use trail from Umatilla to Hermiston, mainly along the Umatilla River and segments of Umatilla River Road. Provides a PLTS/BLTS 1-level facility for regional connectivity and recreation.	Umatilla River Trail Concept Plan	High
M3	**Umatilla River Trail** Various roadway and offroad segments between Hermiston and Echo	No multi-use regional recreation connections	Construct a multi-use trail from Echo to Stanfield and Hermiston, mainly along the Umatilla River and segments of Stanfield Meadows Road. Provides a PLTS/BLTS 1-level facility for regional connectivity and recreation.	Umatilla River Trail Concept Plan	Medium
M4	**Reith Road** Echo to Pendleton	Limited shoulders No pedestrian facilities (PLTS 4) No bicycle facilities (BLTS 4)	Widen existing highway shoulders to provide a striped buffered shoulder along both sides of OR 207 from Hermiston to Hat Rock State Park. Provides a BLTS 2-level facility for regional recreation.	-	Low
M5	**Umatilla River Trail**	No multi-use regional recreation connections	Construct a multi-use trail (hard surface, soft surface, or both) extending 3.9 miles from the western terminus of the River Walk along the Flood District #1 levee. Provides a PLTS/BLTS 1-level facility for regional connectivity and recreation.	Pendleton ATP/2002 TSP	Low

Project ID	Project Name / Location	Considerations	Description	Project Source	Priority
M6	**Pendleton to Athena Trail** (various roadway and off-road segments between Pendleton and Athena)	No multi-use regional recreation connections	Construct a soft-surface multi-use trail extending along an old rail right-of-way east of Pendleton to Adams and Athena. Provides a PLTS/BLTS 1-level facility for regional connectivity and recreation.	Pendleton ATP/2002 TSP	Low
M7	**Mission to Blue Mountain Scenic Corridor** (Old Emigrant Hill Rd)	Limited shoulders No pedestrian facilities (PLTS 4) No bicycle facilities (BLTS 4)	Widen existing roadway shoulders to provide a striped buffered shoulder along both sides of Old Emigrant Hill Road. Provides a BLTS 1-level facility for regional recreation.	CTUIR TSP	Medium
M8	**Weston-Athena Multimodal Connection** (Banister Rd)	Limited shoulders No pedestrian facilities (PLTS 4) No bicycle facilities (BLTS 4)	Construct a separated multi-use path along Banister Road from approximately Mill Street to OR 11. Provides a PLTS/BLTS 1-level facility for regional connectivity. Develop an enhanced crossing for people walking and biking across OR 11 between Athena and Weston.	Weston TSP (2015)	High
M9	**Weston to Milton Freewater Connection** (York Rd and other corridors)	Limited shoulders No pedestrian facilities (PLTS 4) No bicycle facilities (BLTS 4)	Construct a separated multi-use pathway along York Road and Dry Creek Road connecting Weston to the Milton-Freewater vicinity. Provides a PLTS/BLTS 1-level facility for regional connectivity and recreation.	-	Low
M10	**Community Connection 8** - Milton-Freewater and Walla Walla	No bicycle facilities (BLTS 4)	Install shared lane signing	Blue Mountain Trails	Medium

Project ID	Project Name / Location	Considerations	Description	Project Source	Priority
M11	**Community Connection 11** - Milton-Freewater Cemetery Loop	No bicycle facilities (BLTS 4)	Install shared lane signing	Blue Mountain Trails	Medium
M12	**Milton-Freewater to National Forest**	No bicycle facilities (BLTS 4)	Shared roads connecting to South Fork Walla Walla Trailhead	Blue Mountain Trails	Low
M13	**Community Connection 10** - Milton-Freewater and Walla Walla	No bicycle facilities (BLTS 4)	Install shared lane signing	Blue Mountain Trails	Low
M14	**Walla Walla Valley Rail Pathway**	Limited shoulders No pedestrian facilities (PLTS 4) No bicycle facilities (BLTS 4)	Construct a multi-use path between the Freewater Highway and OR 11 (Milton-Freewater). Provides a PLTS/BLTS 1 level facility for regional connectivity and recreation.	2002 Umatilla County TSP	Low
M15	**Community Connection 9** - Milton-Freewater and Walla Walla	No bicycle facilities (BLTS 4)	Shared Roads, Bike Lanes	Blue Mountain Trails	Low
M16	**West Bike Route 3** - Stateline	No bicycle facilities (BLTS 4)	Install shared lane signing	Blue Mountain Trails	Low
M17	Nixyaawii-Watiks Trail		Construct a separated multi-use path connecting Mission Road and NE 45th St in Riverside	CTUIR Planning website	Low
M18	Various pedestrian and bike facility improvements on Mission Road		Widen Mission Road and install buffered or separated/ raised bicycle lanes along both sides of the roadway. Consider incorporating bus pull-outs into the project design. Install six-foot sidewalks, pedestrian scale lighting and enhanced pedestrian crossing treatments	Adopted as high priority projects in CTUIR TSP (projects P1, P2, P6, P7, B1, P18, P20, P22, P23)	High

Project ID	Project Name / Location	Considerations	Description	Project Source	Priority
M19	Short Mile Road Multi-Use Path		Construct a multi-use path along Short Mile Road to Sampson Lane, adjacent to the Union Pacific Railroad maintenance road to River Road to North Cayuse Road Bridge.	Adopted as a medium priority project in CTUIR TSP (Project P8)	Medium
M20	OR 331 Multi-Use Path (Phase I)		Construct a multi-use path along one or both sides of OR 331 from Mission Road to Arrowhead Travel Plaza driveway.	Adopted as high and medium priority projects in CTUIR TSP (Projects P9, P10, P11)	High
M21	Kirkpatrick Road		Widen Kirkpatrick Road and install shoulder bikeways on both sides of the roadway from OR 331 to McKinley Lane.	Adopted as a medium priority project in CTUIR TSP (Project B2)	Medium
M22	Cayuse Road		Widen Cayuse Road and install shoulder bikeways on both sides of the roadway from Emigrant Road to River Road.	Adopted as a medium priority project in CTUIR TSP (Project B3)	Medium
M23	Lewis & Clark National Historic Trail (Hat Rock State Park to State Line)		Construct a multi-use path along one or both sides of US 730. Provides a BLTS 1-level facility for regional recreation.	Recommended by ODOT	Low

Figure 5
Proposed Multimodal Projects



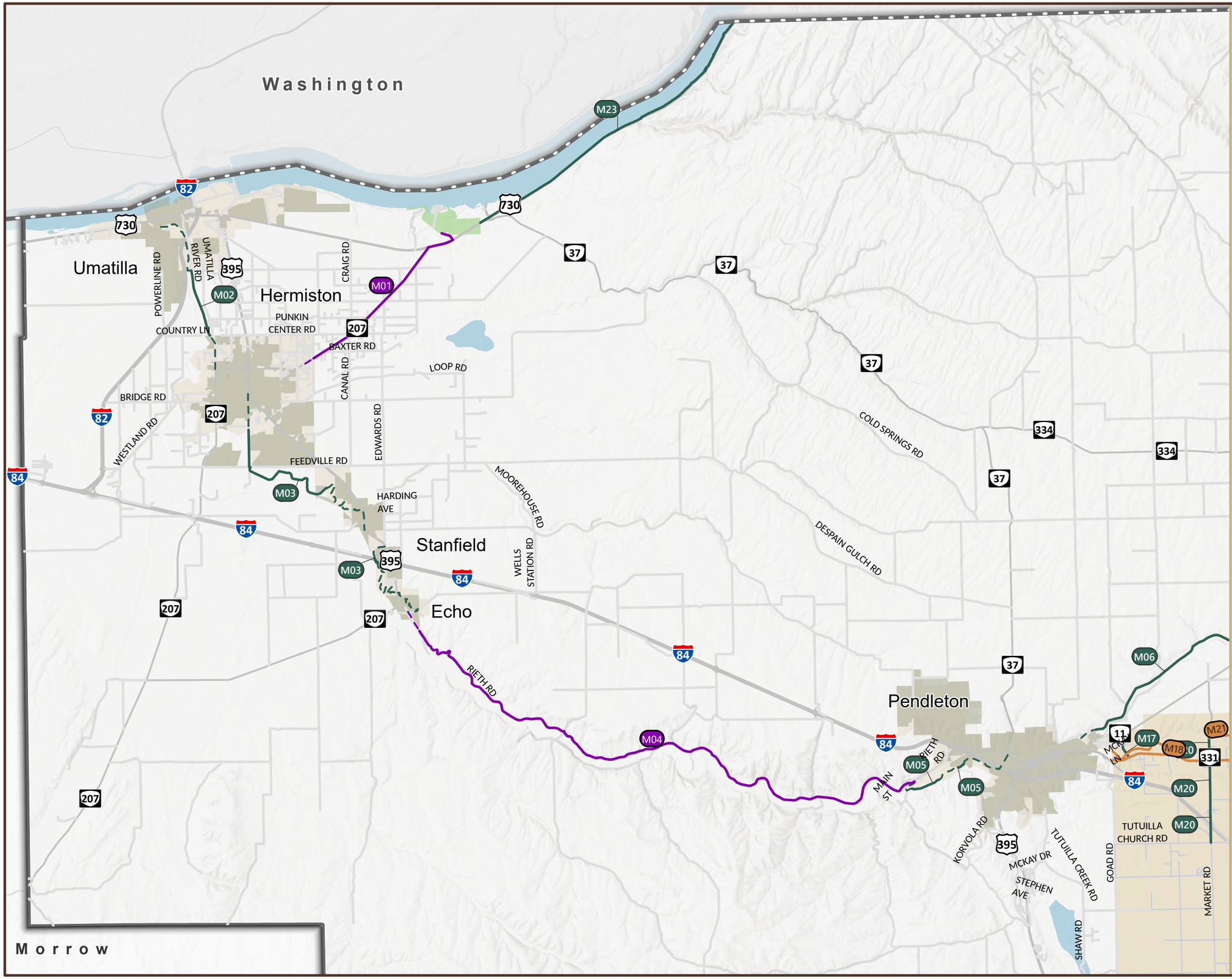
Bike Lane
Multi Use Path
Shared Roads
Shoulder Bikeway Project
Proposed Multi Use Path Project in UGB
Proposed Shared Roads Project in UGB
Proposed Shoulder Bikeway Project in UGB
Umatilla County
Urban Growth Boundaries
City Boundaries
Tribal Lands
Forest Service Lands

Data Source - ODOT TransGIS, Umatilla County, Hermiston Parks, Recreation and Open Spaces Master Plan, Pendleton TSP, Pendleton ATP, Umatilla City TSP, CTUIR TSP, Blue Mountain Tail Plan, Umatilla River Trail Plan

0 5 10 Miles



Figure 5a
Proposed Multimodal Projects



- Bike Lane
- Multi Use Path
- Shoulder Bikeway Project
- Proposed Multi Use Path Project in UGB
- Proposed Shared Roads Project in UGB
- Proposed Shoulder Bikeway Project in UGB
- Umatilla County
- Urban Growth Boundaries
- City Boundaries
- Tribal Lands
- Forest Service Lands

Data Source - ODOT TransGIS, Umatilla County, Hermiston Parks, Recreation and Open Spaces Master Plan, Pendleton TSP, Pendleton ATP, Umatilla City TSP, CTUIR TSP, Blue Mountain Tail Plan, Umatilla River Trail Plan

UMATILLA COUNTY
est. 1862

0 2 4 Miles

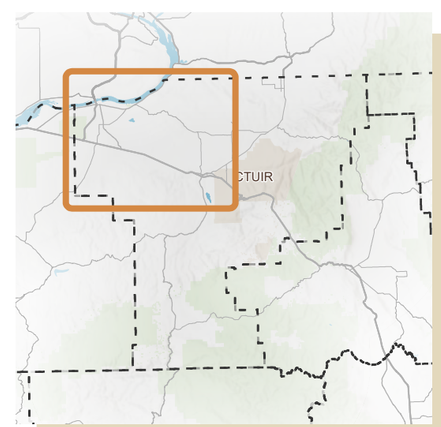
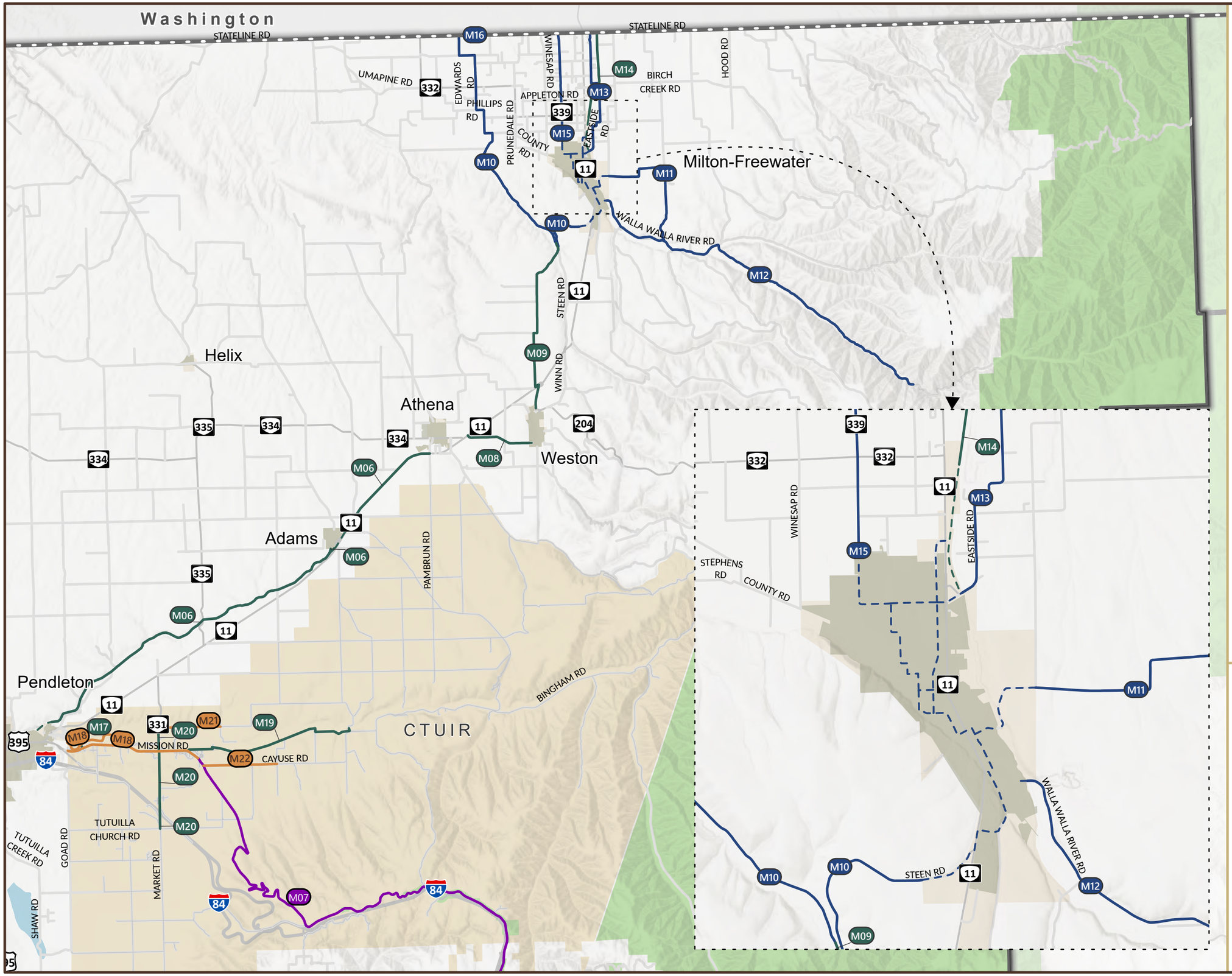


Figure 5b
Proposed Multimodal Projects



- Bike Lane
- Multi Use Path
- Shared Roads
- Shoulder Bikeway Project
- Proposed Multi Use Path Project in UGB
- Proposed Shared Roads Project in UGB
- Proposed Shoulder Bikeway Project in UGB
- Umatilla County
- Urban Growth Boundaries
- City Boundaries
- Tribal Lands
- Forest Service Lands

Data Source - ODOT TransGIS, Umatilla County, Hermiston Parks, Recreation and Open Spaces Master Plan, Pendleton TSP, Pendleton ATP, Umatilla City TSP, CTUIR TSP, Blue Mountain Tail Plan, Umatilla River Trail Plan

UMATILLA COUNTY
est. 1862

0 2 4 Miles

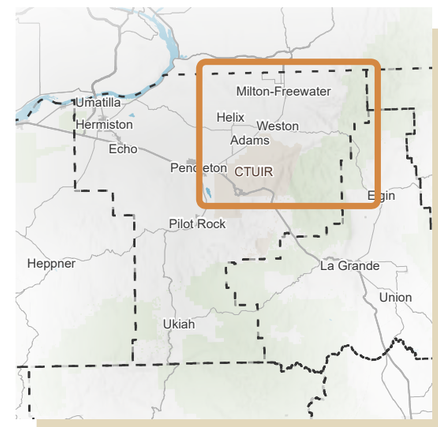


Figure 5c

Proposed Multimodal Projects

Pilot Rock

CTUIR

M07

Morrow

Umatilla

Union

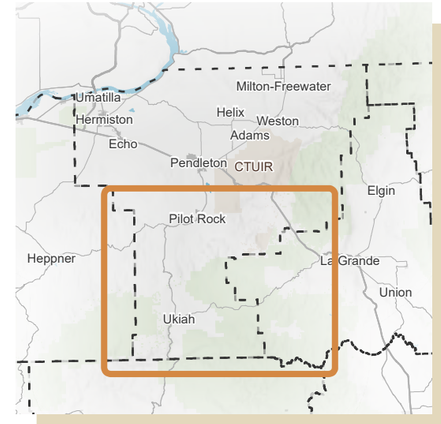
Ukiah

Grant

- Shoulder Bikeway Project
- Umatilla County
- Urban Growth Boundaries
- City Boundaries
- Tribal Lands
- Forest Service Lands

Data Source - ODOT TransGIS, Umatilla County, Hermiston Parks, Recreation and Open Spaces Master Plan, Pendleton TSP, Pendleton ATP, Umatilla City TSP, CTUIR TSP, Blue Mountain Tail Plan, Umatilla River Trail Plan

0 2.75 5.5 Miles



Public Transit Network

Public transit can provide important connections to destinations for people that do not drive or bike and can provide an additional option for all transportation system users for certain trips. Public transit also links to walking, bicycling, or motor vehicle trips: users can walk to and from transit stops and their homes, shopping or workplaces, people can drive to park-and-ride locations to access a bus, or people can bring their bikes on transit vehicles and bicycle from a transit stop to their final destination.

Public transit in Umatilla County is provided through a mix of public, semi-private, and private services offering fixed-route, commuter, and demand-response options. The 2023 Umatilla County Transit Development Plan (TDP) documents the range of existing services, including operating hours, service areas, and provider types. A detailed summary of transit providers and services is included in Memo 4.

Since the adoption of the 2023 TDP, Northwestern Stage Lines started a new transit service between Portland to Boise[6] and two transit services have discontinued operations in the region: Greyhound, which ended statewide regional service in January 2025, and CAPECO, which discontinued its Medicaid/Medicare transportation program in December 2022. Despite these changes, existing providers continue to offer essential local and regional connections that support mobility for residents, workers, and vulnerable populations.

At this time, no new transit projects are proposed as part of the Umatilla TSP. Instead, the County will continue to coordinate with the cities, existing transit providers and CTUIR to support implementation of recommendations in the 2023 Umatilla County Transit Development Plan. Transit-related investments in Umatilla should prioritize TDP-identified projects that:

- Strengthen regional connections between Hermiston, Pendleton, and Umatilla;
- Improve local access to regional routes through first-/last-mile enhancements; and
- Enhance passenger amenities such as shelters, lighting, and ADA-accessible infrastructure at key stops.

Prioritizing TDP projects within the City's future transportation funding and coordination efforts will help maintain reliable service, improve transit accessibility, and support broader goals related to mobility, safety, and equity.

6 OR Northwestern Stage Lines: New bus restores 'vital' transit in Northeast Oregon

Transportation System Management and Operations

Transportation Demand Management (TDM) and Transportation System Management (TSM) strategies are two complementary approaches to managing transportation and maximizing the existing system. Together, these strategies are referred to as Transportation System Management and Operations (TSMO). TDM addresses the demand on the system: the number of vehicles traveling on the roadways ach day. TDM measures include any method intended to shift travel demand from single occupant vehicles to non-auto modes or carpooling, travel at less congested times of the day, etc. TSM addresses the supply of the system: using strategies to improve the system efficiency without increasing roadway widths or building new roads. TSM measures are focused on improving operations by enhancing capacity during peak times, typically with advanced technologies to improve traffic operations.

The following section provides an overview of a broad range of TSMO measures that could be considered for implementation in Umatilla County and the primary and secondary implementation roles.

TSMO Strategies

Successful implementation of TSMO strategies relies on the participation of a variety of public and private entities. Strategies can be implemented by a region, a city, a neighborhood, or particular employer. In addition, they can be categorized as policies, programs, or physical infrastructure investments. Table 7 provides a summary of preferred measures that can be implemented within the County. As the County continues to grow and redevelop over the next 20 to 40 years, the applicability of these strategies can be further reviewed.

Table 7. Preferred TSMO Strategies/Programs

TSMO Strategy	Type of Investment	County/ Region	State	Developers	Transit Providers	Employers
TSM - Regional Traffic Control Programs						
Active traffic management (variable speed limits)	Infrastructure	P	P			
Special event management (automated traffic control)	Program/ Infrastructure	P	P			
Bike/ped operations and safety (crossing enhancements)	Policy/ Infrastructure	P	P		S	
Traffic network surveillance (real-time monitoring of traffic conditions)	Infrastructure	P	P		P	
Safety applications (warning systems for queues, geometric limitations, over height/weight)	Infrastructure	P	P			

TSMO Strategy	Type of Investment	County/ Region	State	Developers	Transit Providers	Employers
TSM - Traveler Information						
Regional traveler information (real-time traveler information – incidents and weather)	Infrastructure/ Program	P	P			
Real-time transit arrival information	Infrastructure/ Program	S			P	
TSM - Road Weather Operations						
Road weather information system (monitoring of adverse conditions)	Infrastructure/ Program	P	P			
Weather warning system (detection of adverse roadway conditions)	Infrastructure/ Program	P	P			
Ramp closures (closure of freeway ramps for weather and incidents)	Infrastructure	S	P			
TSM - Freight						
Roadside truck electronic screening (transfer of regulatory data at check stations)	Infrastructure/ Program	P	P			
TDM						
Rideshare matching system (ride-matching to reduce commute trips)	Program	S[1]			S	S
Employer programs (assist employers with vehicle trip reduction plans for employees)	Program/ Policy	S			S	P
Bicycle facilities	Infrastructure/ Policy	P	S	P		
Pedestrian facilities	Infrastructure/ Policy	P	S	P		
Transit facilities	Infrastructure/ Policy	P	S	P	S	

[1] Typically the responsibility of a Transportation Management Association. One does not exist in Umatilla County
P: Primary role
S: Support role

Funding Inventory

Future federal, state, and local funding for transportation investments is uncertain, creating the challenge to accurately forecast how much is available and which transportation investments qualify. Within this context, the Umatilla County TSP Update will provide a prudent and conservative list of transportation investments and emphasize lower cost methods that strengthen mobility within the county.

This section presents information on the County's historical funding sources that are available for transportation investments identified in the TSP. This section also offers additional funding sources for the County to consider pursuing in cases of funding gaps when implementing transportation investments through the TSP horizon year. This information will help the County evaluate transportation projects, define priorities, and maximize all available funding opportunities to preserve and improve its infrastructure.

TSP Project Funding Background

The Umatilla County TSP may recommend transportation projects that span multiple jurisdictions including ODOT, CTUIR, and incorporated cities such as Pendleton and Hermiston, as well as projects that rely on partnerships with the private development community. As such, each project could be funded through a different combination of federal, state, local, or private sources. The following sections present current and possible new funding mechanisms that may be available to implement projects through the life of the TSP.

Constructing every project contained in the TSP in the next 20 years is unlikely, thus, the TSP will include a complete list of projects that the County identifies as being needed over the planning horizon as well as visionary projects that support critical County goals that likely require outside funding sources. While the TSP does prioritize planned projects, the County may advance projects as opportunities arise. These opportunities could include changes in policy or funding at the federal, state, or local level; changes in local development priorities; or public-private partnerships. Project priorities are intended to be flexible for allowing the County to make wise investments consistent with the overall vision contained in this TSP.

Historical Funding Sources

Historical funding sources supplied by the County provide a basis for estimating future revenue that might be available for transportation projects over the next 20 years. Table 8 summarizes the past 5 years of County Road Fund revenue and expenditures. As shown, the County's primary sources of revenue come from State Highway Fund receipts (State Fuel Tax) and Federal Forest receipts. Other smaller/less frequent revenue has come from General Fund transfers and FEMA money.

Table 8. Umatilla County Public Works Revenue (Five most recent years)

Revenue Source	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	Average
Intergovernmental[1]	$7,246,985	$8,952,872	$10,473,994	$9,815,069	$10,845,656	$9,466,915
(funds dedicated for roadway maintenance and capital projects)	($6,449,000)	($7,480,000)	($8,349,000)	($7,640,000)	($8,300,000)	($7,643,600)
Charges for Services[2]	$144,086	$338,815	$118,178	$212,171	$257,002	$214,050
Interest/Rent	$147,244	$47,961	$52,936	$126,885	$292,352	$133,476
Reimbursables	$309,706	$236,222	$56,723	$52,542	$108,411	$152,721
Total Revenue	$7,848,021	$9,575,870	$10,701,831	$10,206,667	$11,503,421	$9,967,162

[1] Includes state gas tax & vehicle licensing revenue, other Federal, State, & local revenues

[2] Includes sale and rental of supplies and sales of vehicle/equipment

Based on the information shown in Table 8, Umatilla County Public Works has generated an average of approximately $9,900,000 per year in total revenue for public works projects. Of this revenue, approximately $7,643,600 was earmarked for roadway maintenance and capital projects. The steadiest revenue source has been the motor vehicle gas tax revenue.

Table 9 summarizes the total expenditures over the past five years.

Table 9. Umatilla County Transportation Maintenance/Capital Expenditure History (Five most recent years)

Expenditures	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	Average
Materials and Services	$4,006,385	$7,115,099	$5,437,467	$2,503,087	$3,661,235	$4,544,655
Capital Outlay	$1,173,049	$1,530,373	$924,808	$1,804,281	$2,027,295	$1,491,961
Total Expenditures	$5,179,434	$8,645,472	$6,362,275	$4,307,368	$5,688,530	$6,036,616

Based on the information shown in Table 9, Umatilla County has spent an average of $4,544,655 per year on materials and services and $1,491,961 on capital outlays. The information shown in Table 8 and Table 9 were used to project the availability of future funding for transportation improvement projects as described below.

Projected Transportation Funding

Table 10 provides a summary of the potential future project funding (in year 2025 dollars) over the next five, ten, and twenty years based on an assumed average funding level of approximately $1,491,961 per year.

Table 10. Future Transportation Funding Projections

Expenditures	Average Annual	5-Year Forecast	10-Year Forecast	20-Year Forecast
Revenue For Capital Outlay	$1,491,961	$7,459,805	$14,919,610	$29,839,220

As shown in Table 10, it is anticipated that approximately $29,839,220 will be available for transportation project funding over the next 20 years using historical funding trends. This projection does not include potential funds received from intergovernmental grants.

Given that future transportation improvements will exceed this amount in a 20-year time period, the County will need to partner with other agencies and the private development community and pursue alternative funding sources to fulfill the 20-year list of prioritized projects as well as visionary projects, should their priorities change.

Additionally, it is important to recognize that the funding projections presented here do not account for future inflation. Over the 20-year planning horizon, inflation may significantly impact the purchasing power of available funds, potentially reducing the real value of revenue and increasing the costs of transportation projects. As a result, the County should regularly revisit cost estimates and funding strategies to ensure that they remain aligned with changing economic conditions.

Recommended Projects And Cost Estimates

The recommended transportation projects presented in this section are organized into two categories:

- **Priority Projects**: These projects address the most urgent transportation needs identified by the community and the County. They are considered near-term priorities and are the focus for implementation as funding becomes available. These projects are generally feasible within the County's current and reasonably expected funding levels over the planning horizon. High-priority projects presented in the previous section are classified as priority projects.
- **Aspirational Projects**: These projects are recognized as important by the community but are considered long-term or aspirational. Implementation is not expected within the TSP planning horizon due to limited current funding and reliance on potential future funding sources. Including these projects ensures the TSP reflects broader community objectives and provides a framework for future transportation investments. It is important for these projects to be included in the TSP because they address various identified needs, and the availability and type of funding sources over 20 years is unpredictable. Medium and Low-priority projects presented in the previous sections are classified as aspirational projects.

It should be noted that, given the funding forecast described above, there are no financially constrained projects in the recommended project list. Attachment B includes the detailed cost estimates for all the projects. Note that the cost estimates presented with each project do not account for right-of-way acquisition, as the County's 60-foot right-of-way standard is inclusive of all the roadway widening projects. The cost estimates also do not account for major slope stabilization methods that may be necessary. These details should be identified through project development, and cost estimates should be adjusted accordingly.

Priority Projects

The projects considered the highest priority to the community are those identified by County staff. The priority projects reflect County roadways that demonstrate the greatest need for improving vehicular traffic flow and increasing comfort for people walking and biking.

Given the county's constraints of near-term funding, along with input from the PAC recommending the pursuit of alternative funding sources such as state and federal grants, priority projects have been divided into two categories: Tier 1 and Tier 2.

- Tier 1 includes projects that require immediate attention and currently lack any alternative funding options.
- Tier 2 consists of projects that are also a near-term priority, but for which the jurisdiction is actively seeking state or federal grant funding, with the possibility of securing such funds during the timeframe of this TSP.

These projects are presented in Table 11 with detailed descriptions and planning-level cost estimates. The projected cost for Tier 1 priority projects is $22.9 million (in 2025 dollars), while the estimated cost for Tier 2 priority projects is $43.5 million (in 2025 dollars).

Table 11. Recommended Tier 1 Priority Projects

Project ID	Project	Project Location/ Extents	Project Description	Cost
Bridge Projects				
B05	Milton Nursery/W-W River Bridge (County Bridge 455)	Eastside Rd.	Replace with a prestressed concrete bridge	$ 2.5 M
B08	Rieth / Umatilla River (County Bridge 69)	Birch Creek Rd.	Replace with Steel Bridge	$ 2.9 M
Safety Projects				
S02	OR 207	Townsend Rd. to Columbia Ln.	Install lighting at major intersections, install edge line rumble strips, install traffic control at Punkin Center Road and Townsend Rd intersections when warranted	$ 5.3 M
S07	Westland Road / Highland Avenue	Agnes Rd. to West Hermiston City Limits	Add centerline rumble strip, maintain fog lines, restripe shoulder/travel lane line, improve lighting.	$ 0.5 M
Freight Projects				
F04	Northeast Umatilla County Freight Access and Mobility Study	OR 37/OR 334/OR 335	Refinement study	$ 0.2 M
F05	Hermiston area Freight Access and Mobility Study	Hermiston area	Refinement study	$ 0.2 M
Multimodal Projects				
M02	Umatilla River Road Umatilla River Trail Umatilla	Hermiston	Construct a multiuse trail from Umatilla to Hermiston, mainly along Umatilla River and segments of Umatilla River Road. Provides a PLTS/BLTS 1 level facility for regional connectivity and recreation.	$ 3.1 M

Project ID	Project	Project Location/ Extents	Project Description	Cost
M08	Weston-Athena Multimodal Connection	Banister Rd	Construct a separated multiuse path along Banister Road from approximately Mill Street to OR 11. Provides a Provides a PLTS/BLTS 1 level facility for regional connectivity. Develop an enhanced crossing for people walking and biking across OR 11 between Athena and Weston.	$ 6.7 M
M18	Various pedestrian and bike facility improvements on Mission Road	Mission Road	Widen Mission Road and install buffered or separated/ raised bicycle lanes along both sides of the roadway. Consider incorporating bus pull-outs into the project design. Install six-foot sidewalks, pedestrian scale lighting and enhanced pedestrian crossing treatments	$ 1.4 M
			Estimated Cost for Tier 1 Priority Projects	**$ 22.9 M**

Table 12. Recommended Tier 2 Priority Projects

Project ID	Project	Project Location/ Extents	Project Description	Cost
Bridge Projects				
B15	Umatilla River Bridge	Future westerly extension of Punkin Center Road to Country Ln.	Construct new Prestressed Concrete Bridge	$ 4.3 M
Roadway Projects				
R06	Punkin Center Rd./ Country Ln.	Sunshine Ln. to Powerline Rd.	Extend Punkin Center Road westerly from current terminus at Sunshine Ln. to Umatilla River Road and to a new bridge across the Umatilla River (B15). Upgrade existing Country Ln. to Major Collector standards and realign intersection with Powerline Rd. further to the south.	$ 29.1 M
Intersection Projects				
I01	Interchange Area Management Plan (IAMP)	I-82 @ Powerline Rd interchange ramp terminals	Interchange Area Management Plan (IAMP) – Refinement plan to modernize the interchange (including widening and improving ramp configurations and traffic control) to accommodate the growing traffic volumes.	$ 0.4 M
Freight Projects				
F06	Umatilla County Active Rural Transportation Information System (ARTIS)	Entire Umatilla County area	Subscription service	<$1 M
Multimodal Projects				
M20	OR 331 Multi-Use Path (Phase I)	OR 331	Construct a multi-use path along one or both sides of OR 331 from Mission Road to Arrowhead Travel Plaza driveway.	$ 8.7 M
			Estimated Cost for Tier 2 Priority Projects	**$ 43.5 M**

Aspirational Projects

Aspirational projects are those that are not considered immediate priorities but represent longer-term improvements the region will eventually need to enhance safety, multimodal connectivity, and overall system resiliency within Umatilla County. The aspirational projects are organized by project type. They are presented in Table 13. The estimated cost of aspirational projects is 381 million USD (in year 2025 dollars).

Table 13. Recommended Aspirational Projects

Project ID	Project	Project Extents	Project Description	Cost
Bridge Projects				
B01	"A" Line Canal Bridge	N. Ott Rd	Replace with Concrete Culvert	$ 175,000
B02	Barnhart Bridge (County Bridge 754)	Rieth Rd	Replace with concrete culvert	$ 225,000
B03	S. Fork Cold Springs Bridge (County Bridge 145)	S. Fork Cold Springs Rd.	Replace with concrete culvert	$ 250,000
B04	Umatilla River Bridge	Cuningham Rd	Replace with Steel / Truss Bridge	$ 1,300,000
B06	Wild Horse Creek Bridge	Sand Hollow Rd	Replace with Concrete Culvert	$ 300,000
B07	Berry West Birch	Yellow Jacket Rd.	Replace with Concrete Culvert	$ 200,000
B09	A Line Canal	E. Highland Ave.	Replace with Concrete Culvert	$ 225,000
B10	A Line Canal	Townsend Rd.	Replace with Concrete Culvert	$ 175,000
B11	Furnish Ditch	Stage Gulch Rd.	Replace with Prestressed Concrete Bridge	$ 400,000
B12	Emigrant Butte / Hunt Ditch	Emert Rd. (Co. Rd 1338)	Replace with Concrete Culvert	$ 150,000
B13	Hunt Ditch / Hunt Ditch	Whitehouse Rd.	Replace with Concrete Culvert	$ 150,000

Project ID	Project	Project Extents	Project Description	Cost
B14	Hunt Ditch	Rosenburg Rd.	Replace with Concrete Culvert	$ 200,000
B16	Iskuulpa Creek Rail Bridge	Bingham Road	Replace with Concrete Culvert	$ 650,000
Roadway Projects				
R01	Punkin Center Rd.	US 395 to OR 207	Shoulder widening / Urban upgrade	$ 4,375,000
R02	Umatilla River Rd. Phase 1	US 730 to NW 11th St	Widen shoulder, install centerline rumble strips	$ 5,150,000
R03	Edwards Rd	US 395 to Feedville Rd.	Shoulder widening and repaving	$ 2,475,000
R04	Highland Ext	Canal Rd. to Edwards Rd.	Reconstruct and pave gravel sections	$ 1,025,000
R05	Emigrant Rd.	St. Andrews Rd. to Poverty Flat Rd.	Repave and shoulders	$ 21,800,000
R07	Reith Rd	Birch Creek Rd to I-84	Repave	$ 550,000
R08	E Punkin Center Road.	Diagonal Rd. to Edwards Rd.	Repave	$ 400,000
R09	Powerline Road	Birch Creek Rd. to Washington State line	Repave	$ 925,000
R10	Goad Road	Tutuilla Church Rd. to Southern extents	Repave, pulverize and oil mat	$ 2,175,000
R11	Pambrun Road	OR 11 to Reford Ln.	Repave	$ 4,175,000

Project ID	Project	Project Extents	Project Description	Cost
R12	Tutuilla Church Road	Goad Rd. to Market Rd.	Repave, pulverize and oil mat	$ 1,100,000
R13	Kash Kash Road - Spliya Road	East of OR 331 to North of I-84	Close existing access to OR 331 and reroute Kash Kash Road north to a new intersection with Kusi Road	$ 2,300,000
R14	N Cayuse Rd- Mann Rd	Cayuse-Bingham Rd to Crawford Hollow	Widen, add shoulders, and pave	$ 9,400,000
R15	Theater Rd - SE 56th St	OR 30 to Mission Rd	Widen, add shoulders, and pave	$ 3,900,000
R16	Motanic Rd- Sumac Rd - McKay Creek Rd	Best Rd to North Fork McKay Creek	Widen, add shoulders, pave and improve stormwater management	$ 20,700,000
R17	Mission Rd	Mustanger Rd to OR 331	Install speed feedback signage and other traffic calming measures	$ 50,000
R18	Cayuse-Bingham Rd	Emigrant Rd to Old Emigrant Hill Frontage Rd	Perform a speed study at key intersections to determine safety treatments and consider stormwater management improvements	$ 25,000
R19	Short Mile Rd	Mission Rd to Roadway Extents	Perform a speed study and install speed feedback signage	$ 50,000
R20	Riverside Ave	NE 37th St to Roadway Extents	Perform a speed study and install speed feedback signage	$ 50,000
R21	Proposed CDA Roadway	I-82/Lamb Road interchange to I-84/Oregon National Guard Interchange	New Roadway Connection	$11,000,000

Project ID	Project	Project Extents	Project Description	Cost
Intersection Projects				
I02	I-84 / OR 207 (Hermiston) interchange Improvements	-	Interchange Area Management Plan (IAMP) – Refinement plan to modernize the interchange (including widening and improving ramp configurations and traffic control) to accommodate the growing traffic volumes.	$ 400,000
I03	Cayuse Road/ Cayuse River Road intersection	-	Reconstruct the northern leg to connect at a more perpendicular angle	$ 1,200,000
I04	River Road/White Road intersection	-	Reconstruct the southern leg to connect at a more perpendicular angle	$ 1,200,000
I05	I-84 / Stanfield Meadows Road Interchange	-	Update the existing Interchange Area Management Plan (IAMP) to include widening and improving ramp configurations and traffic control to accommodate the growing traffic volumes.	$ 400,000
I06	Kirkpatrick Rd, vertical curve east of McKinley Lane	-	Evaluate sight distance and install advisory signage if warranted	$ 25,000
Freight Projects				
F01	I-84 eastbound at approximately MP 191	-	The existing sign structure meets minimum vertical clearance standards of 17' of clearance but is a barrier to permitted over-height loads. Raising the sign bridge or replacing the sign bridge with a cantilevered sign structure would allow over-height loads to stay on the freeway rather than relying upon the state and local county roadway networks to bypass the structure.	$ 2,000,000

Project ID	Project	Project Extents	Project Description	Cost
F02	I-84 at Echo Meadows Rd overpass (Structure No. 09422 at MP 187.24)	-	The existing Echo Meadows Rd overpass structure meets minimum vertical clearance standards of 17 feet but is a barrier to permitted over-height loads. Raising or replacing the bridge over I-84 would allow over-height loads to stay on the freeway rather than relying upon the other state or local county roadway networks to bypass the structure.	$ 15,000,000
F03	I-84 westbound truck climbing lane	MP 204 to MP 207		$ 8,650,000
Safety Projects				
S01	US 395	Punkin Center Road to US 730	Raised medians to better manage left-turn and U-turn movements, enhanced mid-block crossings as appropriate	$ 625,000
S03	OR 11	Milton-Freewater City Limits to WA State Line	Raised medians to better manage left- turn and U-turn movements, rumble strips, and improved lighting	$ 550,000
S04	OR 11	OR 204 to Just north of CR 643	Northbound edge line rumble strips, centerline snow-plowable reflectors, or recessed pavement markers	$ 50,000
S05	US 395	South of Ukiah MP 51.8 to MP 54.7	Install roadside and centerline rumble strips, shield roadside hazards where appropriate, and install additional curve signing where applicable	$ 2,650,000
S06	US 395	Airport Rd. to Stanfield city limits	Raised medians to better manage left-turn and U-turn movements	$ 5,125,000
S08	US 730	West Umatilla County line to Umatilla City Limits	Raised medians to better manage left-turn and U-turn movements, additional animal crossing warning signage, and street lighting	$ 350,000

Project ID	Project	Project Extents	Project Description	Cost
S09	Stanfield Meadows Road	OR 207 to ½-mile to the east	Install centerline pavement markers that are plowable, restripe fog lines and install speed feedback signing	$ 25,000
S10	OR 37	CR 1172 to West of Holdman Cemetery	Install centerline and edge line rumble strip, maintain signage, and add chevrons approaching all horizontal curves from both directions.	$ 50,000
Multimodal Projects				
M01	OR 207	Hermiston to Hat Rock State Park	Widen existing highway shoulders to provide a striped buffered shoulder along both sides of OR 207 from Hermiston to Hat Rock State Park. Provides a BLTS 2-level facility for regional recreation.	$ 12,450,000
M03	Umatilla River Trail	Various roadway and off-road segments between Hermiston and Echo	Construct a multi-use trail from Echo to Stanfield and Hermiston, mainly along the Umatilla River and segments of Stanfield Meadows Road. Provides a PLTS/BLTS 1-level facility for regional connectivity and recreation.	$ 18,400,000
M04	Reith Road	Echo to Pendleton	Widen existing highway shoulders to provide a striped, buffered shoulder along both sides of Reith Road. Provides a BLTS 2-level facility for regional recreation.	$ 38,800,000
M05	Umatilla River Trail		Construct a multi-use trail (hard surface, soft surface, or both) extending 3.9 miles from the western terminus of the River Walk along the Flood District #1 levee. Provides a PLTS/BLTS 1-level facility for regional connectivity and recreation.	$ 2,650,000

Project ID	Project	Project Extents	Project Description	Cost
M06	Pendleton to Athena Trail	Various roadway and off-road segments between Pendleton and Athena	Construct a soft-surface multi-use trail extending along an old rail right-of-way east of Pendleton to Adams and Athena. Provides a PLTS/BLTS 1-level facility for regional connectivity and recreation.	$ 41,100,000
M07	Mission to Blue Mountain Scenic Corridor	Old Emigrant Hill Rd	Widen existing roadway shoulders to provide a striped, buffered shoulder along both sides of Old Emigrant Hill Road. Provides a BLTS 1-level facility for regional recreation.	$ 76,450,000
M09	Weston to Milton Freewater Connection	York Rd and other corridors	Construct a separated multi-use pathway along York Road and Dry Creek Road connecting Weston to the Milton-Freewater vicinity. Provides a PLTS/BLTS 1-level facility for regional connectivity and recreation.	$ 21,175,000
M10	Community Connection 8 - Milton-Freewater and Walla Walla	-	Install shared lane signing	$ 900,000
M11	Community Connection 11 - Milton-Freewater Cemetery Loop	-	Install shared lane signing	$ 400,000
M12	Milton-Freewater to National Forest	-	Install shared lane signing	$ 1,100,000
M13	Community Connection 10 - Milton-Freewater and Walla Walla	-	Install shared lane signing	$ 400,000
M14	Walla Walla Valley Rail Pathway	-	Construct a multi-use path between the Freewater Highway and OR 11 (Milton-Freewater). Provides a PLTS/BLTS 1-level facility for regional connectivity and recreation.	$ 16,125,000

Project ID	Project	Project Extents	Project Description	Cost
M15	Community Connection 9 - Milton-Freewater and Walla Walla	-	Install shared lane signing	$ 300,000
M16	West Bike Route 3 - Stateline	-	Install shared lane signing	$ 650,000
M17	Nixyaawii-Watiks Trail	-	Construct a separated multi-use path connecting Mission Road and NE 45th St in Riverside	$ 2,575,000
M19	Short Mile Road Multi-Use Path	-	Construct a multi-use path along Short Mile Road to Sampson Lane, adjacent to the Union Pacific Railroad maintenance road to River Road to North Cayuse Road Bridge.	$ 3,900,000
M21	Kirkpatrick Road	-	Widen Kirkpatrick Road and install shoulder bikeways on both sides of the roadway from OR 331 to McKinley Lane.	$ 2,400,000
M22	Cayuse Road	-	Widen Cayuse Road and install shoulder bikeways on both sides of the roadway from Emigrant Road to River Road.	$ 6,800,000
M23	Lewis & Clark National Historic Trail	Hat Rock State Park to State Line	Widen existing roadway shoulders to provide a striped, buffered shoulder along both sides of US 730. Provides a BLTS 1-level facility for regional recreation.	$ 10,100,000
			Estimated Cost for Aspirational Projects	**$ 380,900,000**

Next Steps

The preferred and prioritized transportation projects identified in this memorandum represent a comprehensive, long-range framework for addressing transportation needs in Umatilla County. The recommended project list will be presented to the Planning Advisory Committee for review and discussion. Committee feedback will be used to confirm project priorities, identify refinements, and ensure consistency with community values, County goals, and partner agency expectations.

Attachment A:
Solutions Evaluation Scores

ProjectType	Project ID	Project Name/ Location	Considerations	Type of Work	Source/ Notes	Priority (based on Evaluation Matrix)	County PWD Priority (1/12)	Final Priority	Estimated Cost	Cost (Rounded)
Shoulder Bikeway Project	M01	OR 207 Hermiston to Hat Rock State Park	Narrow shoulders High travel speeds	Widen existing highway shoulders to provide a striped buffered shoulder along both sides of OR 207 from Hermiston to Hat Rock State Park. Provides a BLTS 2 level facility for regional recreation.		Medium		Medium	$ 12,430,000	$ 12,450,000
Multi Use Path	M02	Umatilla River Road Umatilla River Trail Umatilla - Hermiston	Limited shoulders No pedestrian facilities (PLTS 4) No bicycle facilities (BLTS 4)	Construct a multiuse trail from Umatilla to Hermiston, mainly along Umatilla River and segments of Umatilla River Road. Provides a PLTS/BLTS 1 level facility for regional connectivity and recreation.	Umatilla River Trail Concept Plan	High		High	$ 3,105,000	$ 3,125,000
Multi Use Path	M03	Umatilla River Trail Various roadway and offroad segments between Hermiston and Echo	No multi-use regional recreation connections	Construct a multiuse trail from Echo to Stanfield and Hermiston, mainly along the Umatilla River and segments of Stanfield Meadows Road. Provides a PLTS/BLTS 1 level facility for regional connectivity and recreation.	Umatilla River Trail Concept Plan	Low	Medium	Medium	$ 18,380,000	$ 18,400,000
Shoulder Bikeway Project	M04	Reith Road Echo to Pendleton	Limited shoulders No pedestrian facilities (PLTS 4) No bicycle facilities (BLTS 4)	Widen existing highway shoulders to provide a striped buffered shoulder along both sides ofReith Road. Provides a BLTS 2 level facility for regional recreation.		Low		Low	$ 38,790,000	$ 38,800,000
Multi Use Path	M05	Umatilla River Trail	No multi-use regional recreation connections	Construct a multiuse trail (hard surface, soft surface, or both) extending 3.9 miles from the western terminus of the River Walk along the Flood District #1 levee. Provides a PLTS/BLTS 1 level facility for regional connectivity and recreation.	Pendleton ATP/2002 TSP	Low		Low	$ 2,635,000	$ 2,650,000
Multi Use Path	M06	Pendleton to Athena Trail (various roadway and offroad segments between Pendelton and Athena)	No multi-use regional recreation connections	Construct a soft-surface multiuse trail extending along an old rail right-of-way east of Pendleton to Adams and Athena. Provides a PLTS/BLTS 1 level facility for regional connectivity and recreation.	Pendleton ATP/2002 TSP	Low		Low	$ 41,080,000	$ 41,100,000
Shoulder Bikeway Project	M07	Mission to Blue Mountain Scenic Corridor (Old Emigrant Hill Rd)	Limited shoulders No pedestrian facilities (PLTS 4) No bicycle facilities (BLTS 4)	Widen existing roadway shoulders to provide a striped buffered shoulder along both sides of Old Emigrant Hill Road. Provides a BLTS 1 level facility for regional recreation.		Medium		Medium	$ 76,440,000	$ 76,450,000
Multi Use Path	M08	Weston-Athena Multimodal Connection (Banister Rd)	Limited shoulders No pedestrian facilities (PLTS 4) No bicycle facilities (BLTS 4)	Construct a separated multiuse path along Banister Road from approximately Mill Street to OR 11. Provides a Provides a PLTS/BLTS 1 level facility for regional connectivity. Develop an enhanced crossing for people walking and biking across OR 11 between Athena and Weston.	Weston TSP (2015)	High		High	$ 6,655,000	$ 6,675,000
Multi Use Path	M09	Weston to Milton Freewater Connection (York Rd and other corridors)	Limited shoulders No pedestrian facilities (PLTS 4) No bicycle facilities (BLTS 4)	Construct a separated multiuse pathway along York Road and Dry Creek Road connecting Weston to the Milton-Freewater vicinity. Provides a PLTS/BLTS 1 level facility for regional connectivity and recreation.		Low		Low	$ 21,155,000	$ 21,175,000
Shared Roads	M10	Community Connection 8 - Milton-Freewater and Walla Walla	No bicycle facilities (BLTS 4)	Install shared lane signing	Blue Mountain Trails	Medium		Medium	$ 900,000	$ 900,000
Shared Roads	M11	Community Connection 11 - Milton-Freewater Cemetery Loop	No bicycle facilities (BLTS 4)	Install shared lane signing	Blue Mountain Trails	Medium		Medium	$ 390,000	$ 400,000
Shared Roads	M12	Milton-Freewater to National Forest	No bicycle facilities (BLTS 4)	Install shared lane signing	Blue Mountain Trails	Low		Low	$ 1,090,000	$ 1,100,000
Shared Roads	M13	Community Connection 10 - Milton-Freewater and Walla Walla	No bicycle facilities (BLTS 4)	Install shared lane signing	Blue Mountain Trails	Low		Low	$ 380,000	$ 400,000
Multi Use Path	M14	Walla Walla Valley Rail Pathway	Limited shoulders No pedestrian facilities (PLTS 4) No bicycle facilities (BLTS 4)	Construct a multi-use path between the Freewater Highway and OR 11 (Milton-Freewater). Provides a PLTS/BLTS 1 level facility for regional connectivity and recreation.	2002 TSP	Low		Low	$ 16,115,000	$ 16,125,000
Shared Roads	M15	Community Connection 9 - Milton-Freewater and Walla Walla	No bicycle facilities (BLTS 4)	Install shared lane signing	Blue Mountain Trails	Low		Low	$ 300,000	$ 300,000
Shared Roads	M16	West Bike Route 3 - Stateline	No bicycle facilities (BLTS 4)	Install shared lane signing	Blue Mountain Trails	Low		Low	$ 640,000	$ 650,000
Multi Use Path	M17	Nixyaawii-Watiks Trail		Construct a separated multiuse path connecting Mission Road and NE 45th St in Riverside	https://ctuir.org/departments/tribal-planning-office/nixyaawii-watiks-trail-project/	Low		Low	$ 2,560,000	$ 2,575,000
Bike Lane	M18	Various pedestrian and bike facility improvements on Mission Road		Widen Mission Road and install buffered or separated/ raised bicycle lanes along both sides of the roadway. Consider incorporating bus pull-outs into the project design. Install six-foot sidewalks,pedestrian scale lighting and enhanced pedestrian crossing treatments	Adopted as high priority projects in CTUIR TSP (projects P1,P2,P6,P7,B1,P18, P20,P22,P23)	High		High	$ 11,550,000	$ 11,550,000
Multi Use Path	M19	Short Mile Road Multi-Use Path		Construct a multi-use path along Short Mile Road to Sampson Lane adjacent to the Union Pacific Railroad maintenance road to River Road to North Cayuse Road Bridge.	Adopted as a medium priority project in CTUIR TSP (Project P8)	Medium		Medium	$ 3,900,000	$ 3,900,000
Multi Use Path	M20	OR 331 Multi-Use Path (Phase I)		Construct a multi-use path along one or both sides of OR 331 from Mission Road to Arrowhead Travel Plaza driveway.	Adopted as high and medium priority projects in CTUIR TSP (Projects P9,P10,P11)	High		High	$ 8,700,000	$ 8,700,000
Bike Lane	M21	Kirkpatrick Road		Widen Kirkpatrick Road and install shoulder bikeways on both sides of the roadway from OR 331 to McKinley Lane.	Adopted as a medium priority project in CTUIR TSP (Project B2)	Medium		Medium	$ 2,400,000	$ 2,400,000
Bike Lane	M22	Cayuse Road		Widen Cayuse Road and install shoulder bikeways on both sides of the roadway from Emigrant Road to River Road.	Adopted as a medium priority project in CTUIR TSP(Project B3)	Medium		Medium	$ 6,800,000	$ 6,800,000

Project ID	Road Name	From	To	Type of Work	Notes/ Source	PCI	Priority (based on Evaluation Matrix)	County PWD Priority (1/12)	Final Priority	Cost (Rounded)
R01	Punkin Center Rd.	US 395	OR 207	Shoulder widening / Urban upgrade	Listed in 2002 TSP, Table 7-6	-	Medium		Medium	$ 4,375,000
R02	Umatilla River Rd. Phase 1	US 730	NW 11th St	Widen shoulder, install centerline rumble strips	High number of FSI crashes involving lane departure and high speed rear-end crashes	-	Medium		Medium	$ 5,150,000
R03	Edwards Rd	US 395	Feedville Rd.	Shoulder widening and repaving	Listed in 2002 TSP, Table 7-6	-	Medium		Medium	$ 2,475,000
R04	Highland Ext	Canal Rd.	Edwards Rd.	Reconstruct and pave gravel sections	Listed in 2002 TSP, Table 7-6	-	Low		Low	$ 1,025,000
R05	Emigrant Rd.	St. Andrews Rd.	Poverty Flat Rd.	Repave and shoulders	Adopted as medium priority project in CTUIR TSP	-	Medium		Medium	$ 21,800,000
R06	Punkin Center Rd./ Country Ln.	Sunshine Ln.	Powerline Rd.	Extend Punkin Center Road westerly from current terminus at Sunshine Ln. to Umatilla River Road and to a new bridge across the Umatilla River (B15). Upgrade existing Country Ln. to Major Collector standards and realign intersection with Powerline Rd. further to the south.	Listed in 2002 TSP, Table 7-6. Consistent with pending Hermiston TSP update	-	High		Medium	$ 11,500,000
R07	Reith Rd	Birch Creek Rd	I-84	Repave	Listed as Poor Pavement Condition in 2023 Pavement Data from County	Poor	Low		Low	$ 550,000
R08	E Punkin Center Road.	Diagonal Rd.	Edwards Rd.	Repave	Listed as Poor Pavement Condition in 2023 Pavement Data from County	Poor	Low		Low	$ 400,000
R09	Powerline Road	Birch Creek Rd.	Washington State line	Repave	Listed as Poor Pavement Condition in 2023 Pavement Data from County	Poor	Low		Low	$ 925,000
R10	Goad Road	Tutuilla Church Rd.	Southern extents	Repave, pulverize and oil mat	Listed as Poor Pavement Condition in 2023 Pavement Data from County	Poor	Low		Low	$ 2,175,000
R11	Pambrun Road	OR 11	Reford Ln.	Repave	-		Low		Low	$ 4,175,000
R12	Tutuilla Church Road	Goad Rd.	Market Rd.	Repave, pulverize and oil mat	Listed as Poor Pavement Condition in 2023 Pavement Data from County	Poor	Low		Low	$ 1,100,000
R13	Kash Kash Road - Spliya Road	East of OR 331	North of I-84	Close existing access to OR 331 and reroute Kash Kash Road north to a new intersection with Kuse Road	Adopted as medium priority project in CTUIR TSP (projects R1 & R2)	-	Medium		Medium	$ 2,300,000
R14	N Cayuse Rd- Mann Rd	Cayuse-Bingham Rd	Crawford Hollow	Widen, add shoulders, and pave	Adopted as low priority projects in CTUIR TSP (projects R5 & R6)	-	Low		Low	$ 9,400,000
R15	Theater Rd - SE 56th St	OR 30	Mission Rd	Widen, add shoulders, and pave	Adopted as low priority projects in CTUIR TSP (project R4)	-	Low		Low	$ 3,900,000
R16	Motanic Rd- Sumac Rd - Mckay Creek Rd	Best Rd	North Fork Mckay Creek	Widen, add shoulders, pave and improve stormwater management	Adopted as medium & low priority projects in CTUIR TSP (project R7, R8,& R9)	-	Medium	Low	Low	$ 20,700,000
R17	Mission Rd	Mustanger Rd	OR 331	Install speed feedback signage and other traffic caming measures	Adopted as low priority projects in CTUIR TSP (project R12, R21 & R22) R21 & R22 are development driven intersection safety imrpovement projects	-	Low		Low	$ 50,000
R18	Cayuse-Bingham Rd	Emigrant Rd	Old Emigrant Hill Frontage Rd	Perform a speed study at key intersections to determine safety treatments and consider stormwater management improvements	Adopted as medium priority projects in CTUIR TSP (project R13)	-	Medium		Medium	$ 25,000
R19	Short Mile Rd	Mission Rd	Roadway Extents	Perform a speed study and install speed feedback signage	Adopted as low priority projects in CTUIR TSP (project R18)	-	Low		Low	$ 50,000
R20	Riverside Ave	NE 37th St	Roadway Extents	Perform a speed study and install speed feedback signage	Adopted as low priority projects in CTUIR TSP (project R24 & R19)	-	Low		Low	$ 50,000

Project ID	Road Name	From	To	Type of Work	Priority (based on Evaluation Matrix)	Estimated Cost	Cost (Rounded)
F01	I-84 eastbound at approximately MP 191			The existing sign structure meets minimum vertical clearance standards of 17' of clearance but is a barrier to permitted over height loads. Raising the sign bridge or replacing the sign bridge with a cantilevered sign structure would allow over height loads to stay on the freeway rather than relying upon the state and local county roadway networks to bypass the structure.	Low	$ 2,000,000	$ 2,000,000
F02	I-84 at Echo Meadows Rd overpass			The existing Echo Meadows Rd overpass structure meets minimum vertical clearance standards of 17 feet but is a barrier to permitted over height loads. Raising or replacing bridge over I-84 would allow over height loads to stay on the freeway rather than relying upon the other state or local county roadway networks to bypass the structure.	Low	$ 15,000,000	$ 15,000,000
F03	I-84 westbound truck climbing lane	MP 204	MP 207		Low	$ 8,640,000	$ 8,650,000
F04	Northeast Umatilla County Freight Access and Mobility Study	OR 37/OR 334/OR 335		Refinement study	High	$ 200,000	$ 200,000
F05	Hermiston area Freight Access and Mobility Study	Hermiston area		Refinement study	High	$ 200,000	$ 200,000
F06	Umatilla County Active Rural Transportation Information System (ARTIS)	Entire Umatilla County area		Subscription service	High		$ -

Project ID	Location	Type of Work	Notes/ Source	Priority (based on Evaluation Matrix)	Cost	Cost (Rounded)
I01	I-82 @ Powerline Rd interchange ramp terminals	Interchange Area Management Plan (IAMP) – Refinement plan to modernize the interchange (including widening and improving ramp configurations and traffic control) to accommodate the growing traffic volumes.	Eastbound and westbound ramp terminals are projected to exceed capacity by 2045 (TSP study intersection #1)	High	$ 400,000	$ 400,000
I02	I-84 @ OR207 (Hermiston) interchange ramp terminals	Interchange Area Management Plan (IAMP) – Refinement plan to modernize the interchange (including widening and improving ramp configurations and traffic control) to accommodate the growing traffic volumes.	Eastbound ramp terminals are projected to exceed capacity by 2045 (TSP study intersection #5)	High	$ 400,000	$ 400,000
I03	Cayuse Road/ Cayuse River Road intersection	Reconstruct northern leg to connect at a more perpendicular angle	Adopted as low priority project in CTUIR TSP (project R15)	Low	$ 1,200,000	$ 1,200,000
I04	River Road/White Road intersection	Reconstruct southern leg to connect at a more perpendicular angle	Adopted as low priority project in CTUIR TSP (project R16)	Low	$ 1,200,000	$ 1,200,000
I05	I-84 / Stanfield Meadows Road Interchange	Update existing Interchange Area Management Plan (IAMP) to include widening and improving ramp configurations and traffic control to accommodate the growing traffic volumes.	ODOT	Medium	$ 400,000	$ 400,000
I06	Kirkpatrick Rd, vertical curve east of Mckinley Lane	Evaluate sight distance and install advisory signage if warranted	Adopted as low priority project in CTUIR TSP (project R14)	Low	$ 25,000	$ 25,000

Project ID	Road Name	From	To	Type of Work	Notes/ Source	Priority (based on Evaluation Matrix)	County PWD Priority (1/12)	Final Priority	Estimated Cost	Cost (Rounded)
S01	US 395	Punkin Center Rd	US 730	Raised medians to better manage left-turn and U-turn movements, enhanced mid-block crossings as appropriate	High number of FSI turning movement crashes, listed as CID1 in Umatilla County SS4A Report	High		Medium	$ 612,000	$ 625,000
S02	OR 207	Townsend Rd.	Columbia Ln.	Install lighting at major intersections, install edge line rumble strips, install traffic control at Punkin Center Road and Townsend Rd intersections when warranted	High number of FSI crashes involving road departure crashes, listed as CID2 in Umatilla County SS4A Report	High		Medium	$ 5,313,900	$ 5,325,000
S03	OR 11	Milton-Freewater City Limits	WA State Line	Raised medians to better manage left- turn and U-turn movements, rumble strips, improved lighting	High number of turning movement and Head-on crashes, listed as CID4 in Umatilla County SS4A Report	Medium		Medium	$ 536,400	$ 550,000
S04	OR 11	OR 204	Just north of CR 643	Northbound edge line rumble strips, centerline snow-plowable reflectors or recessed pavement markers	High number of FSI crashes (road departure and high speed), listed as CID5 in Umatilla County SS4A Report	Low		Low	$ 28,600	$ 50,000
S05	US 395	South of Ukiah MP 51.8	MP 54.7	Install roadside and centerline rumble strips, shield roadside hazards where appropriate, install additional curve signing where applicable	High number of roadway departure crashes, listed as CID7 in Umatilla County SS4A Report	Low		Low	$ 2,642,300	$ 2,650,000
S06	US 395	Airport Rd.	Stanfield city limits	Raised medians to better manage left-turn and U-turn movements	High number of FSI crashes, listed as CID8 in Umatilla County SS4A Report	Medium		Medium	$ 5,110,000	$ 5,125,000
S07	Westland Road / Highland Avenue	Agnew Rd.	West Hermiston City Limits	Add centerline rumble strip, maintain fog lines, restripe shoulder/travel lane line, improve lighting.	High number of FSI crashes, including lane departures and darkness-related crashes, listed as CID9 in Umatilla County SS4A Report	Low	Medium	Medium	$ 516,800	$ 525,000
S08	US 730	West Umatilla County line	Umatilla City Limits	Raised medians to better manage left-turn and U-turn movements, additional animal crossing warning signage, street lighting	High number of FSI turning movement crashes, listed as CID10 in Umatilla County SS4A Report	Low		Low	$ 340,900	$ 350,000
S09	Stanfield Meadows Road	OR 207	½-mile to east	Install centerline pavement markers that are plowable, restripe fog lines andinstall speed feedback signing	High number of FSI crashes, listed as CID13 in Umatilla County SS4A Report	Low		Low	$ 6,300	$ 25,000
S10	OR 37	CR 1172	West of Holdman Cemetery	Install centerline and edge line rumble strip, maintain signage, add chevrons approaching all horizontal curves from both directions.	High number of lane and road departure crashes, listed in Umatilla County SS4A Report	Low		Low	$ 50,000	$ 50,000

Project ID	County Bridge #	Bridge Name	Location	Type of Work	Source & Notes	Proposed Bridge Type	Priority (based on Evaluation Matrix)	County PWD Priority (1/12)	Final Priority	Estimated Cost	Final Cost Estimate
B01	231	"A" Line Canal Bridge	N. Ott Rd	Bridge replacement (structurally deficient)	Listed in 2002 TSP, Table 7-6	Con. Culv.	Medium		Medium	$ 168,000	$ 168,000
B02	754	Barnhart Bridge	Rieth Rd	Bridge replacement	Listed in 2002 TSP, Table 7-7	Con. Culv.	High	Low	Low	$ 224,000	$ 224,000
B03	145	S. Fork Cold Springs Bridge	S. Fork Cold Springs Rd.	Bridge replacement (structurally deficient)	Listed in 2002 TSP, Table 7-7	Con. Culv.	High	Low	Low	$ 235,200	$ 235,200
B04	99	Umatilla River Bridge	Cuningham Rd	Bridge replacement (functionally obsolete)	Listed in 2002 TSP, Table 7-7	Steel / Truss	Low	Medium	Medium	$ 1,282,500	$ 1,282,500
B05	455	Milton Nursery/W-W River Bridge	Eastside Rd.	Bridge replacement (functionally obsolete)	Listed in 2002 TSP, Table 7-8	Prs. Con.	High		High	$ 2,520,000	$ 2,520,000
B06	568	Wild Horse Creek Bridge	Sand Hollow Rd	Bridge replacement (structurally deficient)	Listed in 2002 TSP, Table 7-8	Con. Culv.	Medium		Medium	$ 280,000	$ 280,000
B07	65	Berry West Birch	Yellow Jacket Rd.	Bridge replacement (functionally obsolete)	Poor sufficiency rating per 2023 data	Con. Culv.	Low	Medium	Medium	$ 196,000	$ 196,000
B08	69	Rieth / Umatilla River	Birch Creek Rd.	Bridge replacement (structurally deficient)	Poor sufficiency rating per 2023 data and was also listed in 2002 TSP, Table 7-7	Steel	Low	High	High	$ 2,915,500	$ 2,915,500
B09	197	A Line Canal	E. Highland Ave.	Bridge replacement to accommodate future needs	Poor sufficiency rating per 2023 data	Con. Culv.	Medium		Medium	$ 224,000	$ 224,000
B10	198	A Line Canal	Townsend Rd.	Bridge replacement (functionally obsolete)	Poor sufficiency rating per 2023 data and was also listed in 2002 TSP, Table 7-6	Con. Culv.	Low	Medium	Medium	$ 156,800	$ 156,800
B11	208	Furnish Ditch	Stage Gulch Rd.	Bridge replacement of load rated bridge	Poor sufficiency rating per 2023 data	Prs. Con.	Medium		Medium	$ 380,800	$ 380,800
B12	325	Emigrant Butte / Hunt Ditch	Emert Rd. (Co. Rd 1338)	Repair and Maintenance Work	Poor sufficiency rating per 2023 data	Con. Culv.	Low		Low	$ 129,600	$ 129,600
B13	326	Hunt Ditch / Hunt Ditch	Whitehouse Rd.	Repair and Maintenance Work	Poor sufficiency rating per 2023 data	Con. Culv.	Low		Low	$ 134,400	$ 134,400
B14	327	Hunt Ditch	Rosenburg Rd.	Bridge replacement (structurally deficient)	Poor sufficiency rating per 2023 data	Con. Culv.	Low		Low	$ 192,000	$ 192,000
B15	N/A	Umatilla River Bridge	Future westerly extension of Punkin Center Road to Country Ln.	New construction with bridge	Listed in 2002 TSP, Table 7-6; Unconfirmed project, location TBD	Prs. Con.	Medium	High	Medium	$ 4,320,000	$ 4,320,000
B16	N/A	Iskuulpa Creek Rail Bridge	Bingham Road	Replace rail bridge with higher deck based on annual flooding	Railroad bridge listed as low priority CTUIR TSP Project R20	Con. Culv.	Medium	Low	Low	$ 640,000	$ 640,000

Attachment B:
Planning Cost Estimates

Unit Cost Assumptions

Bridge Type	Cost / sf
Timber	$ 300
Concrete Culvert	$ 200
Prestressed Concrete	$ 400
Steel/ Truss	$ 475
Steel	$ 425

Project ID	County Bridge #	Bridge Name	Location	Type of Work	Source & Notes	Proposed Bridge Type	Length (ft)	Width (ft)	Area (sf)	Cost
B01	231	"A" Line Canal Bridge	N. Ott Rd	Bridge replacement (structurally deficient)	Listed in 2002 TSP, Table 7-6	Con. Culv.	30	28	840	$ 168,000
B02	754	Barnhart Bridge	Rieth Rd	Bridge replacement	Listed in 2002 TSP, Table 7-7	Con. Culv.	40	28	1120	$ 224,000
B03	145	S. Fork Cold Springs Bridge	S. Fork Cold Springs Rd.	Bridge replacement (structurally deficient)	Listed in 2002 TSP, Table 7-7	Con. Culv.	42	28	1176	$ 235,200
B04	99	Umatilla River Bridge	Cuningham Rd	Bridge replacement (functionally obsolete)	Listed in 2002 TSP, Table 7-7	Steel / Truss	135	20	2700	$ 1,282,500
B05	455	Milton Nursery/W-W River Bridge	Eastside Rd.	Bridge replacement (functionally obsolete)	Listed in 2002 TSP, Table 7-8	Prs. Con.	225	28	6300	$ 2,520,000
B06	568	Wild Horse Creek Bridge	Sand Hollow Rd	Bridge replacement (structurally deficient)	Listed in 2002 TSP, Table 7-8	Con. Culv.	50	28	1400	$ 280,000
B07	65	Berry West Birch	Yellow Jacket Rd.	Bridge replacement (functionally obsolete)	Poor sufficiency rating per 2023 data	Con. Culv.	35	28	980	$ 196,000
B08	69	Rieth / Umatilla River	Birch Creek Rd.	Bridge replacement (structurally deficient)	Poor sufficiency rating per 2023 data and was also listed in 2002 TSP, Table 7-7	Steel	245	28	6860	$ 2,915,500
B09	197	A Line Canal	E. Highland Ave.	Bridge replacement to accommodate future needs	Poor sufficiency rating per 2023 data	Con. Culv.	40	28	1120	$ 224,000
B10	198	A Line Canal	Townsend Rd.	Bridge replacement (functionally obsolete)	Poor sufficiency rating per 2023 data and was also listed in 2002 TSP, Table 7-6	Con. Culv.	28	28	784	$ 156,800
B11	208	Furnish Ditch	Stage Gulch Rd.	Bridge replacement of load rated bridge	Poor sufficiency rating per 2023 data	Prs. Con.	34	28	952	$ 380,800
B12	325	Emigrant Butte / Hunt Ditch	Emert Rd. (Co. Rd 1338)	Repair and Maintenance Work	Poor sufficiency rating per 2023 data	Con. Culv.	27	24	648	$ 129,600
B13	326	Hunt Ditch / Hunt Ditch	Whitehouse Rd.	Repair and Maintenance Work	Poor sufficiency rating per 2023 data	Con. Culv.	28	24	672	$ 134,400
B14	327	Hunt Ditch	Rosenburg Rd.	Bridge replacement (structurally deficient)	Poor sufficiency rating per 2023 data	Con. Culv.	40	24	960	$ 192,000
B15	N/A	Umatilla River Bridge	Future westerly extension of Punkin Center Road to Country Ln.	New construction with bridge	Listed in 2002 TSP, Table 7-6; Unconfirmed project, location TBD	Prs. Con.	300	36	10800	$ 4,320,000
B16	N/A	Iskuulpa Creek Rail Bridge	Bingham Road	Replace rail bridge with higher deck based on annual flooding	Railroad bridge listed as low priority CTUIR TSP Project R20	Con. Culv.	80	40	3200	$ 640,000

Bridge Projects - Cost Estimates

INPUT CELLS	Calculating Cells	Constants									
Shared Lanes	Bike Lanes	On-Street Bike/Ped Pathway				Roadway			Signing and Striping Projects		Proje
Intersection Project										Cost per foot	
Prj No	Street Name	From	To	Segment Length (ft) *does not account for intersection breaks*	Current Width Roadway	Planned Width Roadway	New Pavement	Length of Striping Work	20	Sq ft	
R01	Punkin Center Rd.	US 395	OR 207	17132	24.00	32.00	137056.00		$ -	137056.00	
R02	Umatilla River Rd. Phase 1	US 730	NW 11th St	20199	24.00	32.00	161592.00		$ -	161592.00	
R03	Edwards Rd	US 395	Feedville Rd.	12869	24.00	30.00	77214.00		$ -	77214.00	
R04	Highland Ext	Canal Rd.	Edwards Rd.	5311	24.00	30.00	31866.00		$ -	31866.00	
R06	Punkin Center Rd./ Country Ln.	Sunshine Ln.	Powerline Rd.	11287	0.00	32.00	361184.00		$ -	361184.00	
R07	Reith Rd	Birch Creek Rd	I-84	5087	24.00		-122088.00	5087.00	$ 101,740.00	-122088.00	
R08	E Punkin Center Road.	Diagonal Rd.	Edwards Rd.	3737	24.00		-89688.00	3737.00	$ 74,740.00	-89688.00	
R09	Powerline Road	Birch Creek Rd.	Washington State line	8792	24.00		-211008.00	8792.00	$ 175,840.00	-211008.00	
R10	Goad Road	Tutuilla Church Rd.	Southern extents	20575	24.00		-493800.00	20575.00	$ 411,500.00	-493800.00	
R11	Pambrun Road	OR 11	Reford Ln.	39505	24.00		-948120.00	39505.00	$ 790,100.00	-948120.00	
R12	Tutuilla Church Road	Goad Rd.	Market Rd.	10338	24.00		-248112.00	10338.00	$ 206,760.00	-248112.00	

Roadway Projects - Cost Estimates

ct Area	Excavation				Embankment		Earthworks		Pavement Rehabilitation (2" G&I)	New Pavement (6"/12")	Subtotal (Roadworks + Earthworks+ADA Curb Ramps)	Survey	Storm Drain System
	pavement		Volume		Sidewalk		Excavation	Embankment					
Acres	area (sqft)	depth (ft)	cu ft	cu yard	area (sqft)	depth (ft)	$ 65.00	$ 65.00	$2	$10.00		2%	5%
3.15	137056.00	1.58	217005.33	8037.23	0.00	1.00	522420.25	0.00		$ 1,370,560	$ 1,892,980	$ 37,860	$ 94,649.01
3.71	161592.00	1.58	255854.00	9476.07	0.00	2.00	615944.81	0.00		$ 1,615,920	$ 2,231,865	$ 44,637	$ 111,593.24
1.77	77214.00	1.58	122255.50	4527.98	0.00	3.00	294318.80	0.00		$ 772,140	$ 1,066,459	$ 21,329	$ 53,322.94
0.73	31866.00	1.58	50454.50	1868.69	0.00	4.00	121464.54	0.00		$ 318,660	$ 440,125	$ 8,802	$ 22,006.23
8.29	361184.00	1.58	571874.67	21180.54	0.00	5.00	1376735.31	0.00		$ 3,611,840	$ 4,988,575	$ 99,772	$ 249,428.77
-2.80		1.58	0.00	0.00	0.00	6.00	0.00	0.00	$ 183,132		$ 183,132	$ 3,663	$ 9,156.60
-2.06		1.58	0.00	0.00	0.00	7.00	0.00	0.00	$ 134,532		$ 134,532	$ 2,691	$ 6,726.60
-4.84		1.58	0.00	0.00	0.00	8.00	0.00	0.00	$ 316,512		$ 316,512	$ 6,330	$ 15,825.60
-11.34		1.58	0.00	0.00	0.00	9.00	0.00	0.00	$ 740,700		$ 740,700	$ 14,814	$ 37,035.00
-21.77		1.58	0.00	0.00	0.00	10.00	0.00	0.00	$ 1,422,180		$ 1,422,180	$ 28,444	$ 71,109.00
-5.70		1.58	0.00	0.00	0.00	11.00	0.00	0.00	$ 372,168		$ 372,168	$ 7,443	$ 18,608.40

Roadway Projects - Cost Estimates

Signing and Striping	Clearing and Grubbing	Removal of Obstructions	Mobilization	Erosion Control	Traffic Control	Construction Staging	Total	Contingencies	Estimated Construction Cost	Engineering and Construction Management	Estimated Project Cost
4.0%	2.0%	2.00%	10%	$ 10,000.00	10%	5%		30%		25%	
$ 75,719.21	$ 37,859.60	$ 37,859.60	$ 189,298.02	$ 31,463.73	$ 189,298.02	$ 94,649.01	$ 2,681,636.07	$ 804,490.82	$ 3,486,127	$ 871,531.72	$ 4,357,659
$ 89,274.59	$ 44,637.30	$ 44,637.30	$ 223,186.48	$ 37,096.42	$ 223,186.48	$ 111,593.24	$ 3,161,707.16	$ 948,512.15	$ 4,110,219	$ 1,027,554.83	$ 5,137,774
$ 42,658.35	$ 21,329.18	$ 21,329.18	$ 106,645.88	$ 17,725.90	$ 106,645.88	$ 53,322.94	$ 1,510,768.21	$ 453,230.46	$ 1,963,999	$ 490,999.67	$ 2,454,998
$ 17,604.98	$ 8,802.49	$ 8,802.49	$ 44,012.45	$ 7,315.43	$ 44,012.45	$ 22,006.23	$ 623,489.78	$ 187,046.93	$ 810,537	$ 202,634.18	$ 1,013,171
$ 199,543.01	$ 99,771.51	$ 99,771.51	$ 498,857.53	$ 82,916.44	$ 498,857.53	$ 249,428.77	$ 7,066,921.87	$ 2,120,076.56	$ 9,186,998	$ 2,296,749.61	$ 11,483,748
$ 7,325.28	$ 3,662.64	$ 3,662.64	$ 18,313.20	$ (28,027.55)	$ 18,313.20	$ 9,156.60	$ 330,097.25	$ 99,029.18	$ 429,126	$ 107,281.61	$ 536,408
$ 5,381.28	$ 2,690.64	$ 2,690.64	$ 13,453.20	$ (20,589.53)	$ 13,453.20	$ 6,726.60	$ 242,495.27	$ 72,748.58	$ 315,244	$ 78,810.96	$ 394,055
$ 12,660.48	$ 6,330.24	$ 6,330.24	$ 31,651.20	$ (48,440.77)	$ 31,651.20	$ 15,825.60	$ 570,516.03	$ 171,154.81	$ 741,671	$ 185,417.71	$ 927,089
$ 29,628.00	$ 14,814.00	$ 14,814.00	$ 74,070.00	$ (113,360.88)	$ 74,070.00	$ 37,035.00	$ 1,335,119.12	$ 400,535.74	$ 1,735,655	$ 433,913.71	$ 2,169,569
$ 56,887.20	$ 28,443.60	$ 28,443.60	$ 142,218.00	$ (217,658.40)	$ 142,218.00	$ 71,109.00	$ 2,563,493.60	$ 769,048.08	$ 3,332,542	$ 833,135.42	$ 4,165,677
$ 14,886.72	$ 7,443.36	$ 7,443.36	$ 37,216.80	$ (56,958.68)	$ 37,216.80	$ 18,608.40	$ 670,836.52	$ 201,250.96	$ 872,087	$ 218,021.87	$ 1,090,109

Roadway Projects - Cost Estimates

Estimated	***TSP Project Cost (Rounded)***
$ 4,360,000.00	***$ 4.36M***
$ 5,140,000.00	***$ 5.14M***
$ 2,455,000.00	***$ 2.46M***
$ 1,015,000.00	***$ 1.02M***
$ 11,485,000.00	***$ 11.49M***
$ 535,000.00	***$ 0.54M***
$ 395,000.00	***$ 0.40M***
$ 925,000.00	***$ 0.93M***
$ 2,170,000.00	***$ 2.17M***
$ 4,165,000.00	***$ 4.17M***
$ 1,090,000.00	***$ 1.09M***

Roadway Projects - Cost Estimates

INPUT CELLS	Calculating Cells	Constants									
					Roadway			Project Area		Landsc	
										Strip Length	
Prj No	Street Name	From	To	Segment Length (ft) *does not account for intersection breaks*	Current Width Roadway	Planned Width Roadway	New Pavement	Sq ft	Acres	(ft)	
F03	I-84 westbound truck climbing lane	MP 207	MP 204	15840	0.00	12.00	190080.00	190080.00	4.36	0.00	

Freight Projects - Cost Estimates

caping	Excavation						Earthworks	New Pavement (6"/12")	Subtotal (Roadworks + Earthworks + ADA Curb Ramps)	Survey	Storm Drain System	Signing and Striping	Clearing and Grubbing
	pavement		Curb		Volume		Excavation						
$ 4.20	area (sqft)	depth (ft)	Area (sqft)	Depth (ft)	cu ft	cu yard	$ 65.00	$10.00		2%	35%	4.0%	2.0%
$ -	190080.00	2.00	47520.00	2.50	498960.00	18480.00	1201200.00	$ 1,900,800	$ 3,102,000	$ 62,040	$ 1,085,700.00	$ 124,080.00	$ 62,040.00

Freight Projects - Cost Estimates

Removal of Obstructions	Mobilization	Erosion Control	Traffic Control	Construction Staging	Total	Contingencies	Estimated Construction Cost	Engineering and Construction Management	Estimated Project Cost		
2.00%	10%	$ 10,000.00	10%	5%		30%		25%		Estimated	***TSP Project Cost (Rounded)***
$ 62,040.00	$ 310,200.00	$ 43,636.36	$ 310,200.00	$ 155,100.00	$ 5,317,036.36	$ 1,595,110.91	$ 6,912,147	$ 1,728,036.82	$ 8,640,184	$ 8,640,000.00	***$ 8.64M***

Freight Projects - Cost Estimates

Project ID	Road Name	From	To	Type of Work	Notes/ Source	Length_mi	Cost	Cost (Rounded)	
S01	US 395	Punkin Center Rd	US 730	Raised medians to better manage left-turn and U-turn movements, enhanced mid-block crossings as appropriate	High number of FSI turning movement crashes, listed as CID1 in Umatilla County SS4A Report	4.18310381	$ 612,000	$ 612,000	
S02	OR 207	Townsend Rd.	Columbia Ln.	Install lighting at major intersections, install edge line rumble strips, install traffic control at Punkin Center Road and Townsend Rd intersections when warranted	High number of FSI crashes involving road departure crashes, listed as CID2 in Umatilla County SS4A Report	2.730025947	$ 5,313,860	$ 5,313,900	
S03	OR 11	Milton-Freewater City Limits	WA State Line	Raised medians to better manage left- turn and U-turn movements, rumble strips, improved lighting	High number of turning movement and Head-on crashes, listed as CID4 in Umatilla County SS4A Report	3.678025487	$ 536,369	$ 536,400	
S04	OR 11	OR 204	Just north of CR 643	Northbound edge line rumble strips, centerline snow-plowable reflectors or recessed pavement markers	High number of FSI crashes (road departure and high speed), listed as CID5 in Umatilla County SS4A Report	2.212148464	$ 28,579	$ 28,600	
S05	US 395	South of Ukiah MP 51.8	MP 54.7	Install roadside and centerline rumble strips, shield roadside hazards where appropriate, install additional curve signing where applicable	High number of roadway departure crashes, listed as CID7 in Umatilla County SS4A Report	2.86493697	$ 2,642,279	$ 2,642,300	
S06	US 395	Airport Rd.	Stanfield city limits	Raised medians to better manage left-turn and U-turn movements	High number of FSI crashes, listed as CID8 in Umatilla County SS4A Report	1.175064046	$ 5,110,000	$ 5,110,000	
S07	Westland Road / Highland Avenue	Agnew Rd.	West Hermiston City Limits	Add centerline rumble strip, maintain fog lines, restripe shoulder/travel lane line, improve lighting.	High number of FSI crashes, including lane departures and darkness-related crashes, listed as CID9 in Umatilla County SS4A Report	2.068354011	$ 516,800	$ 516,800	
S08	US 730	West Umatilla County line	Umatilla City Limits	Raised medians to better manage left-turn and U-turn movements, additional animal crossing warning signage, street lighting	High number of FSI turning movement crashes, listed as CID10 in Umatilla County SS4A Report	3.916937049	$ 340,850	$ 340,900	
S09	Stanfield Meadows Road	OR 207	½-mile to east	Install centerline pavement markers that are plowable, restripe fog lines andinstall speed feedback signing	High number of FSI crashes, listed as CID13 in Umatilla County SS4A Report	1.462468576	$ 6,216	$ 6,300	
S10	OR 37	CR 1172	West of Holdman Cemetery	Install centerline and edge line rumble strip, maintain signage, add chevrons approaching all horizontal curves from both directions.	High number of lane and road departure crashes, listed in Umatilla County SS4A Report	3.993734663		$ 50,000	cost to be confirmed

Safety Projects - Cost Estimates

Project ID	Road Name	From	To	Type of Work	Length_mi
S01	US 395	Punkin Center Rd	US 730	Raised medians to better manage left-turn and U-turn movements, enhanced mid-block crossings as appropriate	4.18310381

Countermeasure	Cost	Unit	No.	Unit Cost	
Raised median	300000		1	$	300,000.00
Pedestrian crossing beacon	45000	per unit	1	$	45,000.00
Pedestrian crosswalk markings + tactile pads	15000		1	$	15,000.00
Construction Cost				$	360,000.00
Engg+Design - 30%	0.3			$	108,000.00
Contingency - 40%	0.4			$	144,000.00
Total				**$**	**612,000.00**

Safety Projects - Cost Estimates

Project ID	Road Name	From	To	Type of Work	Length_mi
S02	OR 207	Townsend Rd.	Columbia Ln.	Install lighting at major intersections, install edge line rumble strips, install traffic control at Punkin Center Road and Townsend Rd intersections when warranted	2.730025947

Countermeasure	Cost	Unit	No.	Unit Cost	
Punkin Center Rd traffic signal	800000		1	$	800,000.00
Route and turn restrict. signage	800	per unit	1	$	800.00
Townsend Rd roundabout (small)	200000		1	$	200,000.00
Townsend Rd roundabout (large)	2100000		1	$	2,100,000.00
Street light	25000		1	$	25,000.00
Construction Cost				$	3,125,800.00
Engg+Design - 30%	0.3			$	937,740.00
Contingency - 40%	0.4			$	1,250,320.00
Total				**$**	**5,313,860.00**

Safety Projects - Cost Estimates

Project ID	Road Name	From	To	Type of Work	Length_mi
S03	OR 11	Milton-Freewater City Limits	WA State Line	Raised medians to better manage left- turn and U-turn movements, rumble strips, improved lighting	3.67802549

Countermeasure	Cost	Unit	No.	Unit Cost	
Rumble Strips	3	per linear mi	3.678025487	$	11.03
Speed Limit Radar	15000	per unit	1	$	15,000.00
Enhanced Stop Control	500	per intersect	1	$	500.00
Raised Median	150000	per unit	2	$	300,000.00
Construction Cost				$	315,511.03
Engg+Design - 30%	0.3			$	94,653.31
Contingency - 40%	0.4			$	126,204.41
Total				**$**	**536,369.00**

Safety Projects - Cost Estimates

Project ID	Road Name	From	To	Type of Work	Length_mi
S04	OR 11	OR 204	Just north of CR 643	Northbound edge line rumble strips, centerline snow-plowable reflectors or recessed pavement markers	2.212148464

Countermeasure	Cost	Unit	No.	Unit Cost	
Rumble strips	3000	per lane mi	2.212148464	$	6,636.45
Guardrail reflectors	250	per unit	1	$	250.00
Ice alert signs	1150	per unit	2	$	2,300.00
Fog line	2000	per mi	2.212148464	$	4,424.30
Chevron signs	800	per unit	4	$	3,200.00
Construction Cost				$	16,810.74
Engg+Design - 30%	0.3			$	5,043.22
Contingency - 40%	0.4			$	6,724.30
Total				**$**	**28,579.00**

Safety Projects - Cost Estimates

Project ID	Road Name	From	To	Type of Work	Length_mi
S05	US 395	South of Ukiah MP 51.8	MP 54.7	Install roadside and centerline rumble strips, shield roadside hazards where appropriate, install additional curve signing where applicable	2.86493697

Countermeasure	Cost	Unit	No.	Unit Cost	
Rumble strips	3000	per lane mi	2.864937	$	8,594.81
Guardrail	100	per feet	15126.87	$	1,537,686.72
Chevron signs	500	per unit	8	$	4,000.00
Transverse rumble strips	2000	unit	2	$	4,000.00
Construction Cost				$	1,554,281.53
Engg+Design - 30%	0.3			$	466,284.46
Contingency - 40%	0.4			$	621,712.61
Total				**$**	**2,642,279.00**

Safety Projects - Cost Estimates

Project ID	Road Name	From	To	Type of Work	Length_mi
S07	Westland Road / Highland Avenue	Agnew Rd.	West Hermiston City Limits	Add centerline rumble strip, maintain fog lines, restripe shoulder/travel lane line, improve lighting.	2.068354011

Countermeasure	Cost	Unit	No.	Unit Cost	
SW 17th paved median	55000		1	$	55,000.00
SW 17th crosswalk	12000		1	$	12,000.00
Bridge Rd t-up paving	60000		1	$	60,000.00
Bridge Rd t-up paving + hardscape	125000		1	$	125,000.00
Bridge Rd restriping	12000		1	$	12,000.00
Bridge Rd street lights	20000	per unit	2	$	40,000.00
Construction Cost				$	304,000.00
Engg+Design - 30%	0.3			$	91,200.00
Contingency - 40%	0.4			$	121,600.00
Total				**$**	**516,800.00**

Safety Projects - Cost Estimates

Project ID	Road Name	From	To	Type of Work	Length_mi
S08	US 730	West Umatilla County line	Umatilla City Limits	Raised medians to better manage left-turn and U-turn movements, additional animal crossing warning signage, street lighting	3.916937049

Countermeasure	Cost	Unit	No.	Unit Cost	
Animal crossing signs	500	per unit	1	$	500.00
Paved median	150000	per unit	1	$	150,000.00
Street lighting	25000	per unit	2	$	50,000.00
Construction Cost				$	200,500.00
Engg+Design - 30%	0.3			$	60,150.00
Contingency - 40%	0.4			$	80,200.00
Total				**$**	**340,850.00**

Safety Projects - Cost Estimates

Project ID	Road Name	From	To	Type of Work	Length_mi
S09	Stanfield Meadows Road	OR 207	½-mile to east	Install centerline pavement markers that are plowable, restripe fog lines andinstall speed feedback signing	1.46246858

Countermeasure	Cost	Unit	No.	Unit Cost	
Recessed reflective pavement markers	2500	per lane mi	1.462468576	$	3,656.17
Construction Cost				$	3,656.17
Engg+Design - 30%	0.3			$	1,096.85
Contingency - 40%	0.4			$	1,462.47
Total				**$**	**6,216.00**

Safety Projects - Cost Estimates

INPUT CELLS	Calculating Cells	Constants	Sidewalk Construction Project							
Remove Sidewalk Obstructions	Remove Utility Obstruction	Signing and Striping Project	Multi-Use Path Project		Roadway			Sidewalk	Multi-Use Path	
To Be Determined			Intersection Project							
Prj No	Street Name	From	To	Segment Length (ft) *does not account for intersection breaks*	Current Width Roadway	Planned Width Roadway	New Pavement	new_curb	Planned Multi-Use Path Width	New Multi-Use Path
M01	OR 207Hermiston to Hat Rock State Park			32585	0.00	12.00	391020.00		0.00	0.00
M02	Umatilla River RoadUmatilla River Trail Umatilla - Hermiston			11018			0.00		10.00	110180.00
M03	Umatilla River Trail Various roadway and offroad segments between Hermiston and Echo			54610			0.00		10.00	546100.00
M04	Reith Road Echo to Pendleton			101664	0.00	12.00	1219968.00			0.00
M05	Umatilla River Trail			5911			0.00		10.00	59110.00
M06	Pendleton to Athena Trail(various roadway and offroad segments between Pendelton and Athena)			82020			0.00		10.00	820200.00
M07	Mission to Blue Mountain Scenic Corridor (Old Emigrant Hill Rd)			200345	0.00	12.00	2404140.00			0.00
M08	Weston-Athena Multimodal Connection(Banister Rd)			10900			0.00		10.00	109000.00
M09	Weston to Milton Freewater Connection (York Rd and other corridors)			31802			0.00		10.00	318020.00
M10	Community Connection 8 - Milton-Freewater and Walla Walla			55526			0.00			0.00
M11	Community Connection 11 - Milton-Freewater Cemetery Loop			23945			0.00			0.00
M12	Milton-Freewater to National Forest			66976			0.00			0.00
M13	Community Connection 10 - Milton-Freewater and Walla Walla			23351			0.00			0.00
M14	Walla Walla Valley Rail Pathway			14983			0.00	29966.00	10.00	149830.00
M15	Community Connection 9 - Milton-Freewater and Walla Walla			18532			0.00			0.00
M16	West Bike Route 3 - Stateline			39397			0.00			0.00
M17	Nixyaawii-Watiks Trail			2065			0.00	4130.00	10.00	20650.00
M23	Lewis & Clark National Historic Trail			51744	0.00	6.00	310464.00		11.00	569184.00

Signing and Striping Projects		Project Area		Excavation						Embankment				Earthworks	
	Cost per foot			pavement		Multi-Use Path		Volume		Multi-Use Path		Volume		Excavation	Embankment
Length of Striping Work	10	Sq ft	Acres	area (sqft)	depth (ft)	area (sqft)	depth (ft)	cu ft	cu yard	area (sqft)	depth (ft)	cu ft	cu yard	$ 65.00	$ 65.00
	$ -	391020.00	8.98	391020.00	1.58	0.00	1.00	619115.00	22930.19	0.00	1.0	0.00	0.00	1490462.04	0.00
	$ -	110180.00	2.53	0.00	1.58	110180.00	1.00	110180.00	4080.74	110180.00	2.0	220360.00	8161.48	265248.15	530496.30
	$ -	546100.00	12.54	0.00	1.58	546100.00	1.00	546100.00	20225.93	546100.00	3.0	1638300.00	60677.78	1314685.19	3944055.56
	$ -	1219968.00	28.01	1219968.00	1.58	0.00	1.00	1931616.00	71541.33	0.00	4.0	0.00	0.00	4650186.67	0.00
	$ -	59110.00	1.36	0.00	1.58	59110.00	1.00	59110.00	2189.26	59110.00	5.0	295550.00	10946.30	142301.85	711509.26
	$ -	820200.00	18.83	0.00	1.58	820200.00	1.00	820200.00	30377.78	820200.00	6.0	4921200.00	182266.67	1974555.56	11847333.33
	$ -	2404140.00	55.19	2404140.00	1.58	0.00	1.00	3806555.00	140983.52	0.00	7.0	0.00	0.00	9163928.70	0.00
	$ -	109000.00	2.50	0.00	1.58	109000.00	1.00	109000.00	4037.04	109000.00	8.0	872000.00	32296.30	262407.41	2099259.26
	$ -	318020.00	7.30	0.00	1.58	318020.00	1.00	318020.00	11778.52	318020.00	9.0	2862180.00	106006.67	765603.70	6890433.33
55526.00	$ 555,260.00	0.00	0.00	0.00	1.58	0.00	1.00	0.00	0.00	0.00	10.0	0.00	0.00	0.00	0.00
23945.00	$ 239,450.00	0.00	0.00	0.00	1.58	0.00	1.00	0.00	0.00	0.00	11.0	0.00	0.00	0.00	0.00
66976.00	$ 669,760.00	0.00	0.00	0.00	1.58	0.00	1.00	0.00	0.00	0.00	12.0	0.00	0.00	0.00	0.00
23351.00	$ 233,510.00	0.00	0.00	0.00	1.58	0.00	1.00	0.00	0.00	0.00	13.0	0.00	0.00	0.00	0.00
	$ -	149830.00	3.44	0.00	1.58	149830.00	1.00	149830.00	5549.26	149830.00	14.0	2097620.00	77689.63	360701.85	5049825.93
18532.00	$ 185,320.00	0.00	0.00	0.00	1.58	0.00	1.00	0.00	0.00	0.00	15.0	0.00	0.00	0.00	0.00
39397.00	$ 393,970.00	0.00	0.00	0.00	1.58	0.00	1.00	0.00	0.00	0.00	16.0	0.00	0.00	0.00	0.00
	$ -	20650.00	0.47	0.00	1.58	20650.00	1.00	20650.00	764.81	20650.00	17.0	351050.00	13001.85	49712.96	845120.37
	$ -	879648.00	20.19	310464.00	1.58	0.00	1.00	491568.00	18206.22	0.00	18.0	0.00	0.00	1183404.44	0.00

New Pavement (6"/12")	Standard Curb & Gutter	New Multi-Use Path	Subtotal (Roadworks + Earthworks)	Survey	Storm Drain System	Signing and Striping	Clearing and Grubbing	Removal of Obstructions	Mobilization	Erosion Control	Traffic Control	Construction Staging	Total
$10.00	$30.00	$ 5.00		2%	5%	4.0%	2.0%	2.00%	10%	$ 10,000.00	10%	5%	
$ 3,910,200	$ -	$ -	$ 5,400,662	$ 108,013	$ 270,033.10	$ 216,026.48	$108,013.24	$ 108,013.24	$ 540,066.20	$ 89,765.84	$ 540,066.20	$ 270,033.10	$ 7,650,692.69
$ -	$ -	$ 550,900	$ 1,346,644	$ 26,933	$ 67,332.22	$ 53,865.78	$ 26,932.89	$ 26,932.89	$ 134,664.44	$ 25,293.85	$ 134,664.44	$ 67,332.22	$ 1,910,596.07
$ -	$ -	$ 2,730,500	$ 7,989,241	$ 159,785	$ 399,462.04	$ 319,569.63	$159,784.81	$ 159,784.81	$ 798,924.07	$ 125,367.31	$ 798,924.07	$ 399,462.04	$ 11,310,304.35
$ 12,199,680	$ -	$ -	$ 16,849,867	$ 336,997	$ 842,493.33	$ 673,994.67	$336,997.33	$ 336,997.33	$ 1,684,986.67	$ 280,066.12	$ 1,684,986.67	$ 842,493.33	$ 23,869,879.45
$ -	$ -	$ 295,550	$ 1,149,361	$ 22,987	$ 57,468.06	$ 45,974.44	$ 22,987.22	$ 22,987.22	$ 114,936.11	$ 13,569.79	$ 114,936.11	$ 57,468.06	$ 1,622,675.34
$ -	$ -	$ 4,101,000	$ 17,922,889	$ 358,458	$ 896,144.44	$ 716,915.56	$358,457.78	$ 358,457.78	$ 1,792,288.89	$ 188,292.01	$ 1,792,288.89	$ 896,144.44	$ 25,280,336.46
$ 24,041,400	$ -	$ -	$ 33,205,329	$ 664,107	$ 1,660,266.44	$ 1,328,213.15	$664,106.57	$ 664,106.57	$ 3,320,532.87	$ 551,914.60	$ 3,320,532.87	$ 1,660,266.44	$ 47,039,374.79
$ -	$ -	$ 545,000	$ 2,906,667	$ 58,133	$ 145,333.33	$ 116,266.67	$ 58,133.33	$ 58,133.33	$ 290,666.67	$ 25,022.96	$ 290,666.67	$ 145,333.33	$ 4,094,356.29
$ -	$ -	$ 1,590,100	$ 9,246,137	$ 184,923	$ 462,306.85	$ 369,845.48	$184,922.74	$ 184,922.74	$ 924,613.70	$ 73,007.35	$ 924,613.70	$ 462,306.85	$ 13,017,599.20
$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 555,260.00
$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 239,450.00
$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 669,760.00
$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 233,510.00
$ -	$ 898,980	$ 749,150	$ 7,058,658	$ 141,173	$ 352,932.89	$ 282,346.31	$141,173.16	$ 141,173.16	$ 705,865.78	$ 34,396.24	$ 705,865.78	$ 352,932.89	$ 9,916,517.12
$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 185,320.00
$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 393,970.00
$ -	$ 123,900	$ 103,250	$ 1,121,983	$ 22,440	$ 56,099.17	$ 44,879.33	$ 22,439.67	$ 22,439.67	$ 112,198.33	$ 4,740.59	$ 112,198.33	$ 56,099.17	$ 1,575,517.25
$ 3,104,640	$ -		$ 4,288,044	$ 85,761	$ 214,402.22	$ 171,521.78	$ 85,760.89	$ 85,760.89	$ 428,804.44	$ 201,939.39	$ 428,804.44	$ 214,402.22	$ 6,205,201.62

Contingencies	Estimated Construction Cost	Engineering and Construction Management			
30%		25%	Estimated Project Cost	Estimated	***TSP Project Cost (Rounded)***
$ 2,295,207.81	$ 9,945,900	$ 2,486,475.12	$ 12,432,376	$ 12,430,000.00	***$ 12.43M***
$ 573,178.82	$ 2,483,775	$ 620,943.72	$ 3,104,719	$ 3,105,000.00	***$ 3.11M***
$ 3,393,091.30	$ 14,703,396	$ 3,675,848.91	$ 18,379,245	$ 18,380,000.00	***$ 18.38M***
$ 7,160,963.83	$ 31,030,843	$ 7,757,710.82	$ 38,788,554	$ 38,790,000.00	***$ 38.79M***
$ 486,802.60	$ 2,109,478	$ 527,369.49	$ 2,636,847	$ 2,635,000.00	***$ 2.64M***
$ 7,584,100.94	$ 32,864,437	$ 8,216,109.35	$ 41,080,547	$ 41,080,000.00	***$ 41.08M***
$ 14,111,812.44	$ 61,151,187	$ 15,287,796.81	$ 76,438,984	$ 76,440,000.00	***$ 76.44M***
$ 1,228,306.89	$ 5,322,663	$ 1,330,665.79	$ 6,653,329	$ 6,655,000.00	***$ 6.66M***
$ 3,905,279.76	$ 16,922,879	$ 4,230,719.74	$ 21,153,599	$ 21,155,000.00	***$ 21.16M***
$ 166,578.00	$ 721,838	$ 180,459.50	$ 902,298	$ 900,000.00	***$ 0.90M***
$ 71,835.00	$ 311,285	$ 77,821.25	$ 389,106	$ 390,000.00	***$ 0.39M***
$ 200,928.00	$ 870,688	$ 217,672.00	$ 1,088,360	$ 1,090,000.00	***$ 1.09M***
$ 70,053.00	$ 303,563	$ 75,890.75	$ 379,454	$ 380,000.00	***$ 0.38M***
$ 2,974,955.14	$ 12,891,472	$ 3,222,868.07	$ 16,114,340	$ 16,115,000.00	***$ 16.12M***
$ 55,596.00	$ 240,916	$ 60,229.00	$ 301,145	$ 300,000.00	***$ 0.30M***
$ 118,191.00	$ 512,161	$ 128,040.25	$ 640,201	$ 640,000.00	***$ 0.64M***
$ 472,655.18	$ 2,048,172	$ 512,043.11	$ 2,560,216	$ 2,560,000.00	***$ 2.56M***
$ 1,861,560.48	$ 8,066,762	$ 2,016,690.53	$ 10,083,453	$ 10,085,000.00	***$ 10.09M***