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MEMORANDUM

To: Colleen Coleman, City of Mosier, and Don Morehouse, ODOT

From: Derek Abe, Alta Planning + Design

Date: November 7, 2018

Re: Mosier TSP Tech Memo #7: Identification of Preferred and Cost-Constrained Alternatives

Overview

This memorandum identifies the preferred and cost-constrained alternatives for the Mosier Transportation System Plan. This memorandum also describes a future transportation funding plan that will support the implementation of these alternatives. These recommendations are guided by technical work and feedback received through the public engagement activities conducted to date. This preferred plan is a culmination of these efforts.

Preferred Solutions and Alternatives

First, this section includes an analysis of the alternatives considered for Project Zone A (Downtown Circulation), and identifies the preferred alternative. Next, the full set of recommendations for the Mosier TSP are presented, with prioritization and planning level cost estimates for each.

Zone A: Downtown Circulation Preferred Alternative

One of the key issues in this zone is the location of the designated freight route. There are four alternatives under consideration for rerouting the City-designated freight route through downtown Mosier. The alternatives include:

1. No Route Change: This option would maintain the existing route, a bidirectional north-south route on Washington St between US-30 and 3rd Ave
2. Center St: This option would shift to a bi-directional north-south route on Center St. between US-30 and 3rd Ave
3. Couplet: This option would designate a southbound route on Center St between US-30 and 3rd Ave, and a northbound route on Washington St between US-30 and 3rd Ave. Both streets would maintain bidirectional traffic flow.
4. One-way couplet: This option would restripe and designate a one-way southbound route on Center St between US-30 and 3rd Ave, and a one-way northbound route on Washington St between US-30 and 3rd Ave.

The One-way couplet alternative (option 4) is the preferred alternative for inclusion in the Mosier TSP, under the assumption that associated improvements recommended in the TSP would address current safety concerns.

The One-way couplet route alternative has the benefit of improving sightlines at intersections, increasing space for truck turning movements (while minimizing potential impacts to future development on the properties with frontages on Center St), and clarifying pedestrian accessways along 3rd Avenue.

The full analysis of the four alternatives presented in Tech Memo 6 is presented below.

1. No-Route Change

This option would maintain the existing freight route, a bidirectional north-south route on Washington St between US-30 and 3rd Ave. This alternative makes several assumptions about intersection improvements at US-30 and Washington and at 3rd Ave and Washington that are included in this plan.

Key assumptions:

- Install Sidewalk and curb extension with ADA-compliant curb ramps, particularly at the southwest corner of Washington St
Modify Stop controls at the intersection. Consider removal of conditional right turn sign at the intersection of 3rd Avenue and Washington Street (WB to NB), and adding a southbound stop sign on Washington St. at 3rd Ave intersection



Figure 1. No-Build

Table 1. Summary of No Route Change Alternative

Consideration	Notes
Mobility Targets	No change
Cost	Low: Planning-level cost estimates for the assumed intersection improvements at Washington and US-30 are incorporated into other proposed solutions in the downtown project zone, regardless of the freight route alternatives. Approximately \$2,000 for intersection improvements at Washington and 3 rd .
Opportunities	<ul style="list-style-type: none"> • Maintains greatest distance between freight route and Mosier Community School than any other alternative • Maintains distance between freight route and potential Joint Use Facility alternative site on Center St between US-3rd Ave, and would not impact future development potential on properties with frontages on Center Street.
Considerations and Concerns	<ul style="list-style-type: none"> • The existing EB-to-SB right turn from US-30 to Washington Street has poor sightlines due to the location and minimal setback of the Route 30 building. The proposed intersection improvements would slow vehicle speed, but would not necessarily improve visibility.

2. Center Street

This option would shift the freight route from Washington St. to a bi-directional north-south route on Center St. between US-30 and 3rd Ave. Key assumptions:

- Add Southbound stop sign on Center St. at 3rd Ave intersection
- Install Continental crosswalks installed on south side of intersection of 3rd Ave at Center St. Removal of existing marked crosswalks on west and east legs of intersection.
- Modify stop controls at intersection. Consider a conditional right turn restriction removed at the intersection of 3rd Avenue and Washington Street (WB to NB); reduce corner radii to facilitate tighter, slower turns. Add Southbound stop sign on Washington St. at 3rd Ave intersection
- Close the Area along the north shoulder of 3rd Ave between Center St and Mosier Community School to pedestrians
- Remove Landscaping from the northwest corner of intersection of 3rd Ave at Center St., to clear sightlines for southbound drivers on Center St



Figure 2.. Center St Alternative

Table 2. Summary of Center St Alternative

Consideration	Notes
Mobility Targets	No change
Cost	Medium: planning-level cost estimate around \$22,000 for route relocation and related intersection improvements
Opportunities	<ul style="list-style-type: none"> • The EB-to-SB right turn from US-30 to Center St, provides better sightlines for operators than the existing route • Relocating the NB freight route would simplify traffic operations along Washington Street with respect to vehicle demand and capacity at Route 30, Mosier City Hall and the potential future mixed-use development south of Mosier Market. • Implementing an all-way stop at the intersection of 3rd and Center Street will provide a safe crossing for children and parents walking to and from Mosier Community School. Because this intersection has a less severe grade than Washington Street, it will be easier for large trucks to accelerate up the hill from a stop at the intersection to turn EB onto 3rd Avenue.
Considerations and Concerns	<ul style="list-style-type: none"> • Relocates freight traffic closer to Mosier Community School • AutoTURN path analysis performed on the intersection of Center and 3rd indicates that larger trucks will experience some difficulty making

both left turns onto 3rd (SB), and right turns onto Center (NB), posing potential issues for a two-way freight route.

3. Couplet (maintains bidirectional traffic on Center St and Washington St)

This option would designate a southbound route on Center St between US-30 and 3rd Ave, and a northbound route on Washington St between US-30 and 3rd Ave. Both streets would maintain bidirectional traffic flow. Key assumptions:

- Add a southbound stop sign on Center St. at 3rd Ave intersection
- Install continental crosswalks on south side of intersection of 3rd Ave at Center St. Remove existing marked crosswalks on west and east legs of intersection.
- Modify stop controls at intersection. Consider removal of conditional right turn restriction at the intersection of 3rd Avenue and Washington Street (WB to NB); reduce corner radii to facilitate tighter, slower turns. Add southbound stop sign on Washington St. at 3rd Ave intersection
- Close area along the north shoulder of 3rd Ave between Center St and Mosier Community School to pedestrians.
- Remove landscaping from the northwest corner of intersection of 3rd Ave at Center St., to clear sightlines for southbound drivers on Center St.

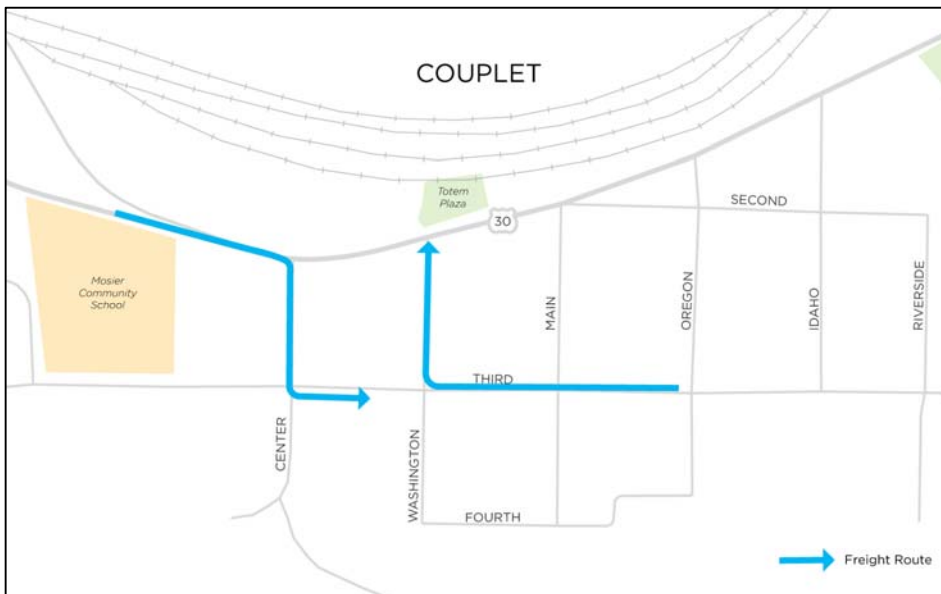


Figure 3. Couplet Alternative

Table 3. Summary of Couplet Alternative

Consideration	Notes
Mobility Targets	No impacts
Cost	Medium: planning-level cost estimate around \$22,000 for route relocation and related intersection improvements
Opportunities	<ul style="list-style-type: none"> • The EB-to-SB right turn from US-30 to Center St provides better sightlines for operators than the existing route onto Washington St. • Implementing an all-way stop at the intersection of 3rd and Center Street will provide a safe crossing for children and parents walking to and from Mosier Community School. Because this intersection has a less severe grade than Washington Street, it will be easier for large trucks to accelerate up the hill from a stop at the intersection to turn EB onto 3rd Avenue.
Considerations and Concerns	<ul style="list-style-type: none"> • Relocates a portion of the freight route closer to Mosier Community School • AutoTURN path analysis performed on the intersection of Center and 3rd indicates that larger trucks will experience some difficulty making left turns onto 3rd Ave (SB)

4. One-way couplet

This option would restripe and designate a one-way southbound route on Center St between US-30 and 3rd Ave, and a one-way northbound route on Washington St between US-30 and 3rd Ave. Key assumptions:

- Add southbound stop sign on Center St. at 3rd Ave intersection
- Install continental crosswalks on south side of intersection of 3rd Ave at Center St. Remove existing marked crosswalks on west and east legs of intersection
- Modify stop controls at intersection. Consider remove conditional right turn restriction at the intersection of 3rd Avenue and Washington Street (WB to NB); reduce corner radii to facilitate tighter, slower turns. Southbound stop sign added on Washington St. at 3rd Ave intersection.
- Close area along the north shoulder of 3rd Ave between Center St and Mosier Community School to pedestrians
- Remove landscaping from the northwest corner of intersection of 3rd Ave at Center St., to clear sightlines for southbound drivers on Center St.

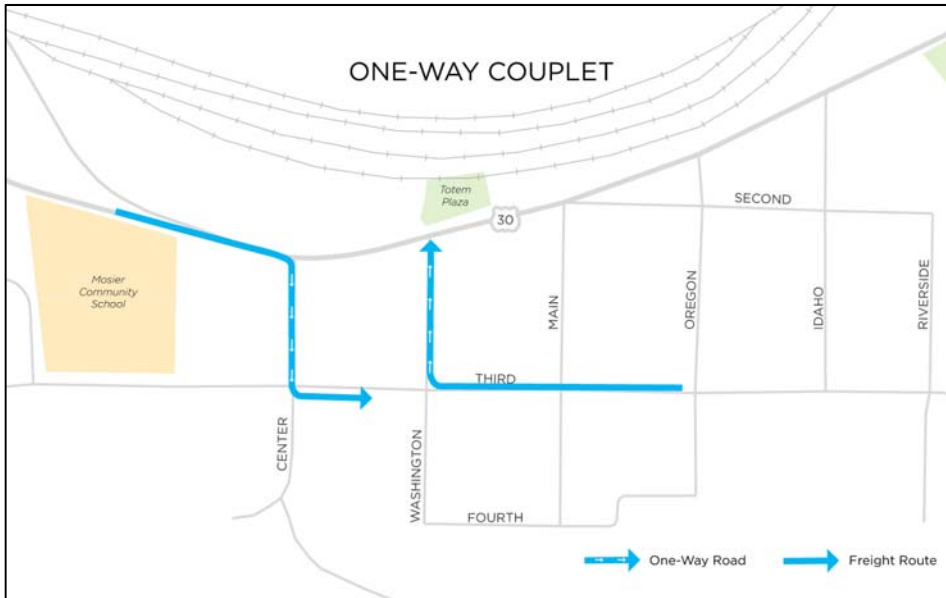


Figure 4. One-Way Couplet Alternative

Table 4. Summary of One-Way Couplet Alternative

Consideration	Notes
Mobility Targets	No change
Cost	Medium: planning-level cost estimate around \$22,000 for route relocation and related intersection improvements
TSP Goals	Relocates portion of freight route to street with better sightlines for the right turn off US-30, but puts southbound freight in closer proximity to Mosier Community School; one-way streets provide optimal space for freight, and increase pedestrian and cyclist safety in the area; AutoTURN path analysis performed on the intersection of Center and 3 rd indicates that large trucks will experience difficulty making left turns onto Center, but the added space of a one-way route alleviates the issue.
Opportunities	<ul style="list-style-type: none"> • The EB-to-SB right turn from US-30 to Center St provides better sightlines for operators than the existing route • Implementing an all-way stop at the intersection of 3rd and Center Street will provide a safe crossing for children and parents walking to and from Mosier Community School. Because this intersection has a less severe grade than Washington Street, it will be easier for large trucks to accelerate up the hill from a stop at the intersection to turn EB onto 3rd Avenue.

	<ul style="list-style-type: none"> • One-way traffic flow provides optimal space for freight, particularly at turns • One-way traffic flow increases pedestrian and cyclist safety and comfort along roadways and at intersections
<p>Considerations and Concerns</p>	<ul style="list-style-type: none"> • Relocates a portion of the freight route in closer proximity to Mosier Community School • AutoTURN path analysis performed on the intersection of Center and 3rd indicates that larger trucks will experience some difficulty making left turns onto 3rd Ave • Adds travel distance for vehicles traveling NB on Center St from the new residential developments south of Mosier Community School to reach downtown or I-84. • Assigning SB-only directionality to Washington between US-30 and 3rd Ave may compromise some parking on west side of street

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Prioritization and Cost Estimates

Table 5 presents the full set recommended solutions and alternatives for the Mosier TSP, and planning level cost estimates. The project team prioritized these solutions and alternatives based on stakeholder feedback, project funding opportunities, project feasibility, planning level costs, and how well the project addresses the goals and objectives of the Mosier TSP.

The projects are organized within five planning zones:

- Zone A: Downtown Circulation
- Zone B: US-30 West (Western City Limit to Idaho Street)
- Zone C: US-30 East (Idaho Street to Eastern City Limit)
- Zone D: North of US-30: Waterfront and Community Space
- Zone E: 3rd Avenue and Mosier Community School

Furthermore, where appropriate, projects are presented as packages. The packages are recommended solutions at specific locations intended for concurrent implementation. Where the prioritization of individual projects within packages differ, lower order items are recommended but dependent on available funding. The project IDs and colors assigned to the heading of each zone in Table 5 below correspond to the project map provided on page 17.

Table 5. Recommended Alternatives*

ID	Project Description	Priority	Planning Level Cost Estimate
Zone A: Downtown Circulation			
A01	Install signs to indicate relocated eastbound freight route	Low/Medium	\$16,500
A02 a	Install a stop sign at 3rd Avenue and Center Street in the SB direction to prohibit a free left-turn onto 3rd Avenue (EB).	Medium	\$1,650
b	Install high visibility continental crosswalks on south and east sides at 3rd Ave and Center St.	Low/Medium	\$1,980
A03 a	Install a stop sign at 3rd Avenue and Washington Street in the SB direction to prohibit a free left-turn onto 3rd Avenue (EB).	Medium	\$1,650
b	Remove the conditional right turn sign at the intersection of 3rd Avenue and Washington Street (WB to NB)	Medium	\$495
ZONE A TOTAL			\$22,275
Zone B: US-30 West (Western City Limit to Idaho Street)			
Reconfigure intersection of US-30 and Rock Creek Rd. The project package includes:			
B01 a	Close southbound left turn from Rock Creek Rd. onto Hwy 30, repave and reconfigure intersection to a T-intersection.	High	\$123,750
b	Install high visibility continental crosswalk north of US-30	High	\$743
c	Install high visibility continental crosswalk east of Rock Creek Rd	High	\$743
B02	Install landscaping/planting strips along south side of US-30	Low	\$16,500
B03	Install landscaping/planting strips on both sides of Rock Creek Rd	Low	\$16,500
B04	Install bike lane and shared lane markings on Rock Creek Road from US-30 to HCRH Trailhead.	High	\$83,655

		Create a shared street environment and calm traffic along US-30 in Downtown Mosier. The project package includes:	
B05	a	Install signs for reduced speed to 20 mph throughout downtown	High \$16,500
	b	Install street trees, vegetation, and landscaping on north and south sides (5')	Low \$247,500
	c	Fill sidewalk gaps and maintain sidewalks in poor condition on both sides of US-30	High \$107,250
	d	Install a low stress bike facility (bike lane) from River Way Dr to Center Street and from Washington St to the Mosier Creek Bridge	High \$34,848
B06	a	Install curb extension with ADA-compliant curb ramps at southeast corner of Center St	High \$49,500
	b	Install high visibility continental crosswalks on eastern leg of intersection at Center St	High \$1,485
B07		Construct sidewalk along south side of Highway 30 between Center St and Washington St, at the southwest and southeast corner of Center St, and the southwest and southeast corner of Washington St.	High \$32,175
B08	a	Install curb extension with ADA-compliant curb ramps at southwest corner of Washington St	High \$49,500
	b	Install high visibility continental crosswalks on western leg of intersection at Washington St	High \$1,485
B09	a	Install curb extension with ADA-compliant curb ramps at southwest corner of Main St	High \$49,500
	b	Install high visibility continental crosswalks on western leg of intersection at Main St	High \$1,485
B10		Install a full traffic diverter to close 2nd Avenue to through traffic at US-30, and provide bike and pedestrian cut throughs to preserve neighborhood access.	High \$82,500
		Enhance the Mosier Bike Hub. The project package includes:	
B11	a	Construct sidewalk, street trees, vegetation, and landscaping on all sides of the Bike Hub and restrict parking alongside the Hub on US-30.	High \$8,250
	b	Install high visibility continental crosswalk on eastern leg of intersection at US-30 and Main St.	High \$1,114
	c	Install high visibility continental crosswalks on the east, west, and south leg of intersection at US-30 and Oregon St.	High \$4,455
	d	Construct a permanent impervious surface plaza area on Hwy 30 side of the triangle that includes interpretive maps, signage directing visitors to scenic area waysides, parks and trails. Design improvements to accommodate a public restroom at the site.	High \$495,000
		Other individual downtown improvements	
B12		Install gateway/Informational signage directing visitors to Downtown and waterfront	Low \$6,600
B13		Provide on-street parking adjacent to the Route 30 Property and Rack & Cloth business	Medium \$49,500
B14	a	Improve CAT and LINK service and amenities: build transit stop location near the Totem Pole Plaza	Medium \$165,000
	b	Install permanent impervious surface parking area east of the Totem Pole Plaza, extending east to the Joint Use Facility.	Medium \$61,875
B15		Provide designated on-street parking on 2nd Avenue to accommodate parking demand on Oregon Street.	Medium \$49,500
		ZONE B TOTAL	\$1,756,912

Zone C: US-30 East (Idaho Street to Eastern City Limit)			
C01	Install sidewalk improvements from Idaho St to Mosier Creek Bridge	Medium	\$29,700
C02	Provide permanent, impervious surface parking north of US 30 at Mosier Creek and west of bridge, for Mosier Plateau Trail access	Medium	\$462,000
C03	Reduce posted speed limit to 20 mph west of the Mosier Creek Bridge	High	\$6,600
C04 a	Add advanced yield signs at Mosier Creek Bridge	Medium	\$3,300
	b Install marked crosswalks on both sides of the Mosier Creek Bridge	Medium	\$1,485
	c Construct separate pedestrian-only bridge parallel to the bridge (on north side of bridge)	Medium	\$1,155,000
C05 a	Prohibit on-street parking east of Mosier Creek Bridge using signs	High	\$3,300
	b Install signs to direct visitors to designated parking areas at Mosier Plateau trailhead	High	\$6,600
	c Install gateway/informational signage directing visitors downtown east of the Mosier Creek Bridge	Medium	\$8,250
ZONE C TOTAL			\$1,676,235
Zone D: North of US-30: Waterfront and Community Space			
D01	Construct a permanent, impervious undercrossing under railroad tracks at Rock Creek Park, and protect roadway from seasonal floods	Low	\$396,000
D02	Construct a raised, permanent impervious surface trail connecting to waterfront along Mosier Creek, under railroad bridge and I-84	Low	\$49,500
D03	Install informational and wayfinding signage at Mosier Creek and Rock Creek access points	Low	\$6,600
ZONE D TOTAL			\$452,100
Zone E: 3rd Avenue and Mosier Community School			
E01 a	Fill sidewalk gaps along the north side of 3rd Ave between Oregon St and Riverside St	High	\$39,600
	b Stripe bike lanes on both sides of 3rd Ave between River Way near Mosier Community School and Mosier Creek Road	Medium	\$105,600
	c Repave 3rd Ave between Mosier Community School and Center St	Medium	\$412,500
	d Complete rebuild of 3rd Avenue roadway between Washington St and Riverside St.	Medium	\$990,000
E02 a	Designate school drop off traffic circle with painted pavement markings	High	\$825
	b Install associated signage for school drop-off area	High	\$495
E03	Construct a speed hump just west of Huskey (in the WB direction) to slow downhill traffic speeds	High	\$4,125
E04	Install new convex mirror on Third and Huskey that will allow motorists to see around the blind corner	High	\$2,475
ZONE E TOTAL			\$1,555,620
Project Total:			\$1,207,957 \$5,463,142

**All estimates include preliminary design & engineering, construction engineering and contingency costs.*

Cost-Constrained Plan

The Cost-Constrained Plan is the set of prioritized solutions and alternatives that align with anticipated funding for transportation improvement projects through 2040. Mosier is expected to have about \$1 million available to fund transportation system improvements through 2040. The planning level cost estimates for all high priority projects in the proposed Mosier TSP total in \$1,207,957. These projects

are summarized in Table 6. It is reasonable to expect that there will be sufficient funding for these projects by 2040.

The No Route Change alternative is the cost-constrained alternative for Zone A, under the assumption that associated improvements recommended in the TSP would address current safety concerns. The No Route Change alternative is the only option that maintains distance between the designated freight route and the Mosier Community School and potential Joint Use Facility site. It is the lowest-cost alternative, leaving more funding for other project packages. While the poor sightlines at the existing eastbound to southbound right turn from US-30 to Washington Street has been identified as an issue during the scoping phases of this plan, it would be improved through the package of roadway improvements recommended along US-30 West in Zone B.

The project IDs and colors assigned to the heading of each zone in Table 6 correspond to the project map provided on page 28.

Table 6. Cost-Constrained Plan: High Priority Recommended Alternatives*

ID	Project Description	Priority	Planning Level Cost Estimate
	Zone B: US-30 West (Western City Limit to Idaho Street)		
	Reconfigure intersection of US-30 and Rock Creek Rd. The project package includes:		
B01	a Close southbound left turn from Rock Creek Rd. onto Hwy 30, repave and reconfigure intersection to a T-intersection.	High	\$123,750
	b Install high visibility continental crosswalk north of US-30	High	\$743
	c Install high visibility continental crosswalk east of Rock Creek Rd	High	\$743
B04	Install bike lane and shared lane markings on Rock Creek Road from US-30 to HCRH Trailhead.	High	\$83,655
	Create a shared street environment and calm traffic along US-30 in Downtown Mosier. The project package includes:		
B05	a Install signs for reduced speed to 20 mph throughout downtown	High	\$16,500
	c Fill sidewalk gaps and maintain sidewalks in poor condition on both sides of US-30	High	\$107,250
	d Install a low stress bike facility (bike lane) from River Way Dr to Center Street and from Washington St to the Mosier Creek Bridge	High	\$34,848
B06	a Install curb extension with ADA-compliant curb ramps at southeast corner of Center St	High	\$49,500
	b Install high visibility continental crosswalks on eastern leg of intersection at Center St	High	\$1,485
B07	Construct sidewalk along south side of Highway 30 between Center St and Washington St, at the southwest and southeast corner of Center St, and the southwest and southeast corner of Washington St.	High	\$32,175
B08	a Install curb extension with ADA-compliant curb ramps at southwest corner of Washington St	High	\$49,500
	b Install high visibility continental crosswalks on western leg of intersection at Washington St	High	\$1,485
B09	a Install curb extension with ADA-compliant curb ramps at southwest corner of Main St	High	\$49,500

	b	Install high visibility continental crosswalks on western leg of intersection at Main St	High	\$1,485
B10		Install a full traffic diverter to close 2nd Avenue to through traffic at US-30, and provide bike and pedestrian cut throughs to preserve neighborhood access.	High	\$82,500
		Enhance the Mosier Bike Hub. The project package includes:		
B11	a	Construct sidewalk, street trees, vegetation, and landscaping on all sides of the Bike Hub and restrict parking alongside the Hub on US-30.	High	\$8,250
	b	Install high visibility continental crosswalk on eastern leg of intersection at US-30 and Main St.	High	\$1,114
	c	Install high visibility continental crosswalks on the east, west, and south leg of intersection at US-30 and Oregon St.	High	\$4,455
	d	Construct a permanent impervious surface plaza area on Hwy 30 side of the triangle that includes interpretive maps, signage directing visitors to scenic area waysides, parks and trails. Design improvements to accommodate a public restroom at the site.	High	\$495,000
		ZONE B TOTAL		\$1,143,937
		Zone C: US-30 East (Idaho Street to Eastern City Limit)		
C03		Reduce posted speed limit to 20 mph west of the Mosier Creek Bridge	High	\$6,600
C05	a	Prohibit on-street parking east of Mosier Creek Bridge using signs	High	\$3,300
	b	Install signs to direct visitors to designated parking areas at Mosier Plateau trailhead	High	\$6,600
		ZONE C TOTAL		\$16,500
		Zone E: 3rd Avenue and Mosier Community School		
E01	a	Fill sidewalk gaps along the north side of 3rd Ave between Oregon St and Riverside St	High	\$39,600
E02	a	Designate school drop off traffic circle with painted pavement markings	High	\$825
	b	Install associated signage for school drop-off area	High	\$495
E03		Construct a speed hump just west of Huskey (in the WB direction) to slow downhill traffic speeds	High	\$4,125
E04		Install new convex mirror on Third and Huskey that will allow motorists to see around the blind corner	High	\$2,475
		ZONE E TOTAL		\$47,520
		Project Total:		\$1,207,957

**All estimates include preliminary design & engineering, construction engineering and contingency costs.*

Future Transportation Funding Plan

This section presents a funding plan for the transportation improvement projects identified in this TSP document. The funding plan uses information about how the City of Mosier has collected transportation capital and operations funds in the past to establish a funding framework for future improvements. Historical funding and expenditures were combined with future growth forecasts and likely funding sources to estimate the available funding for transportation solutions through 2040.

Projected Expenditures

City expenditures for maintenance, operations and management of the transportation system are expected to increase over time with inflation. Based on historical data, transportation expenditures are expected to total approximately \$2.14 million in 2016 dollars (see Table 4). However, based on historical personnel and construction cost increases^{1,2} this amount is expected to increase to approximately \$4.3 million through 2040, roughly two times the current level.

Projected Revenues

Revenue sources through 2040 (see Table 4) are expected to provide about \$2.66 million. Recurring sources would supply about \$1.57 million. As a conservative estimate, the same levels of annual funding are assumed through 2040. Potential federal or ODOT discretionary funds for transportation system improvements would supply an additional \$1 million. A transportation utility fee program³ is a likely future funding source that was estimated to generate approximately \$4,000 annually to fund street repairs and maintenance.

Table 7: Transportation Projection through 2040 (2016 Dollars)

Expenditures	Annual Average	2040 Projection
Personal Services	\$21,300	\$490,000
Materials & Services	\$28,900	\$665,000
Capital Outlay	\$42,900	\$987,000
Total Expenditures	\$93,100	\$2,142,000
Revenue Source	Annual Average	2040 Projection
Oregon State Gas Tax	\$19,200	\$442,000
Oregon State Gas Tax - Bicycle & Pedestrian (1%)	\$200	\$5,000
Sherman County Road Tax	\$17,400	\$400,000
General Fund Transfers	\$23,800	\$547,000
Miscellaneous	\$5,100	\$117,000
Street Fund Balance (2016)	-	\$60,000
Federal or State Project Funding/Grants	-	\$1,000,000
Transportation Utility Fee Program	-	\$92,000

¹ Maintenance cost increases are estimated based on historical cost indices from 1995 to 2015, per RSMeans.

<http://rsmeansonline.com/References/CCI/3-Historical%20Cost%20Indexes/1-Historical%20Cost%20Indexes.PDF>

² Staff and operating cost increases are estimated based on Consumer Price Index conversion factors from 1995 to 2015, per Robert Sahr, Oregon State University. Revised April 10, 2014.

<http://liberalarts.oregonstate.edu/files/polisci/faculty-research/sahr/inflation-conversion/pdf/cv1995.pdf>

³ Transportation Utility Fee Memo, John Grim & Associates, December 2015.

Expenditures	Annual Average	2040 Projection
Personal Services	\$21,300	\$490,000
Materials & Services	\$28,900	\$665,000
Capital Outlay	\$42,900	\$987,000
Total Expenditures	\$93,100	\$2,142,000
Revenue Source	Annual Average	2040 Projection
Total Revenues	\$65,700	\$2,663,000

Funding Forecast for Transportation System Improvements

Mosier is expected to have about \$1 million available to fund transportation system improvements through 2040. This funding is expected to come from external funding sources such as federal or state discretionary funding or grants. The remaining \$1.66 million projected 2040 revenue would be needed to cover projected future expenditures.

With local revenues expected to remain relatively flat and maintenance costs increasing, Mosier will need to increase the transfer of general funds or utilize other (new) funding sources to maintain the current levels of maintenance and operations. The potential Transportation Utility Fee is not expected to generate enough funds to cover the annual maintenance deficit. The City should consider expanding funding sources beyond a new Transportation Utility Fee to provide funding that will meet future community needs.

The planning level cost estimates for all high priority projects in the proposed Mosier TSP total in \$1,207,957. While it is reasonable to expect that there will be sufficient funding for these projects by 2040, an additional \$4,255,185 in recommended Mosier TSP projects do not have a secure funding source. In addition to the proposed Transportation Utility Fee, additional funding sources should be considered, in addition to emerging federal and state discretionary funding opportunities.

Deferred Street Improvement Agreements

Deferred Street Improvement Agreements provide the City with a tool to hold developers accountable for necessary street improvements if it is determined that the required improvements are not feasible at the time of construction. Typically, a provision in the agreement ensures that if the property owner does not uphold the agreement, the costs for the improvements become a lien on the property.

Street System Development Charge (SDC)

System development charges (SDC) are fees collected from new development and used as a funding source for all capacity adding projects for the transportation system. The funds collected can be used to construct or improve portions of roadways impacted by applicable development. The SDC is collected from new development and is a one-time fee. The fee is based on the proposed land use and size and is proportional to each land use's potential PM peak hour vehicle trip generation.

Many cities in Oregon implement SDC fees locally, while others charge a SDC fee jointly with their County. Typical charges per residential units vary widely in the state.⁴ Hood River charges approximately \$1,800 per residence with an update anticipated in 2018.

Local Improvement Districts

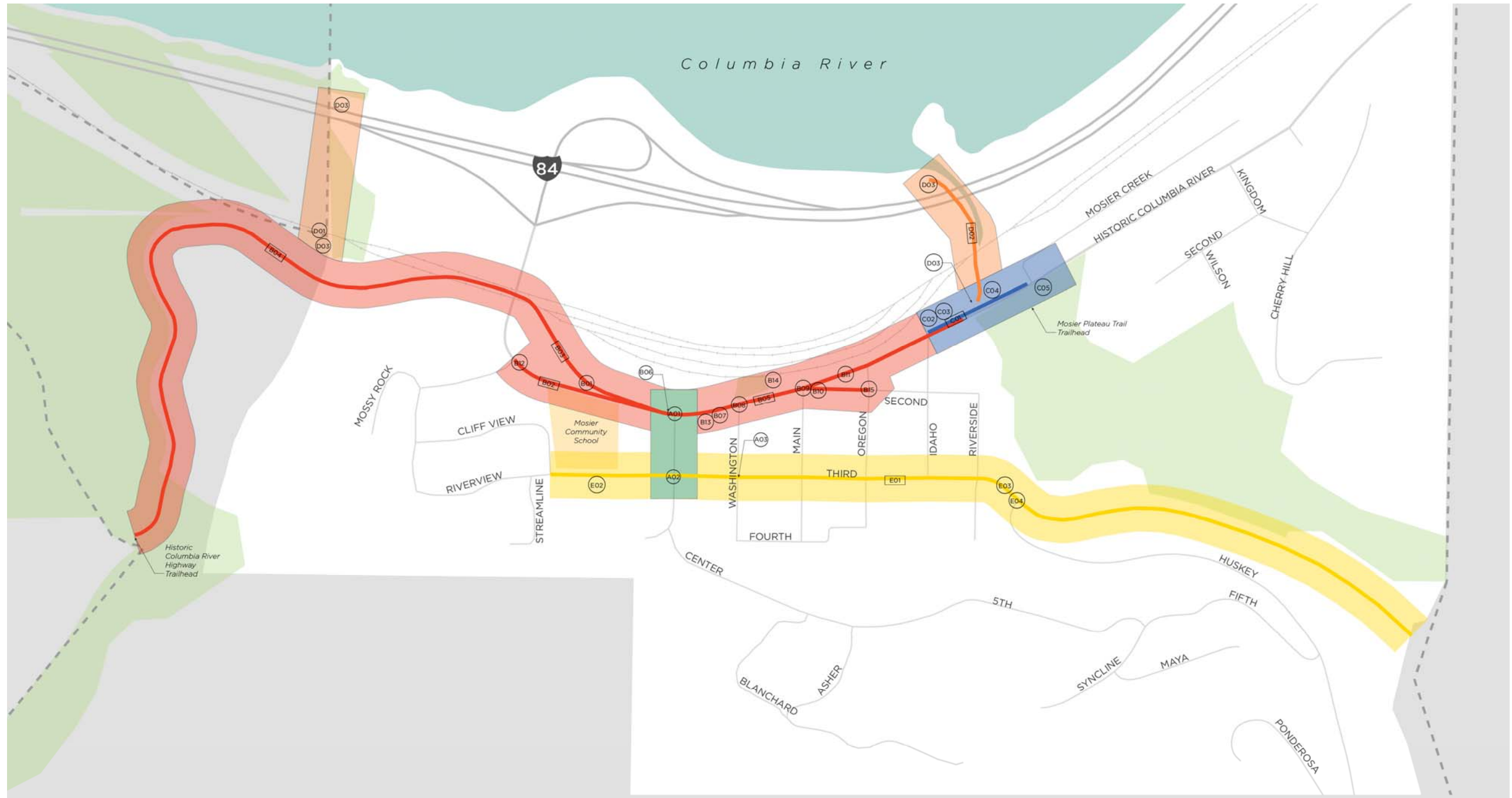
Local Improvement Districts (LIDs) can be formed to fund capital transportation projects. LIDs provide a means for funding specific improvements that benefit a specific group of property owners. LIDs require owner/voter approval and a specific project definition. Assessments are placed against benefiting properties to pay for improvements. LIDs can be matched against other funds where a project has system wide benefit beyond benefiting the adjacent properties. Fees are paid through property tax bills. LIDs are often used for sidewalks and pedestrian amenities that provide local benefit to residents along the subject street.

Debt Financing

While not a direct funding source, debt financing can be used to mitigate the immediate impacts of significant capital improvement projects and spread costs over the useful life of a project. Though interest costs are incurred, the use of debt financing can serve not only as a practical means of funding major improvements, but is also viewed as an equitable funding strategy, spreading the burden of repayment over existing and future customers who will benefit from the projects. The obvious caution in relying on debt service is that a funding source must still be identified to fulfill annual repayment obligations.

The Oregon Transportation Infrastructure Bank (OTIB) is a potential source for cities to borrow funds for transportation improvement projects. The OTIB is a statewide revolving loan fund. Projects eligible to receive funding include roadway improvements, bicycle and pedestrian access, and transit capital projects. Potential projects are rated by OTIB staff along with a regional advisory committee and require approval from the Oregon Transportation Commission.

⁴ http://www.orcities.org/Portals/17/Premium/SDC_Survey_Report_2013.pdf



RECOMMENDED PROJECTS

CITY OF MOSIER TRANSPORTATION SYSTEM PLAN

RECOMMENDATION TYPES

- A01 Spot Improvement
- A01 Linear Improvement

PROJECT ZONES

- A: Downtown Circulation
- B: Western City Limit to Idaho St
- C: Idaho St to Eastern City Limit

- D: North of US-30: Waterfront & Community Space
- 3rd Ave & Mosier Community School

FEATURES + BOUNDARIES

- Schools
- Parks
- Water
- City Limits
- Urban Growth Boundary

Data provided by the City of Mosier and ODOT.
Map produced September 2018

0 175 350 FEET

Figure 5. Project Map