

APPENDIX

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I. APPENDIX A – LAND USE

This appendix shows population projections and land use capacity analysis for the County. The following tables and figures were taken from the Land Use Capacity Analysis and Land Use Appendices to the Land Use Element of the Comprehensive Plan Update.

Jurisdiction Specific Population Projections based on Share of Population Growth Between 1990 and 2010
Using OFM 2012 Medium Projection for Chelan County

	Share of 1990-2010 Population Growth	Adjusted Population Allocations	2014 OFM Estimate	2015 Projection	2016 Projection	2017 Projection	2035 Projection	2036 Projection	2016-2036 20 year change	2037 Projection	2017-2037 20 year change	2040 Projection
Manson UGA	3.69%	3.69%	2,032	2,064	2,089	2,115	2,507	2,523	433	2,538	423	2,583
Chelan UGA*	2.88%	3.61%	4,384	4,416	4,440	4,465	4,849	4,864	424	4,880	414	4,924
Entiat UGA	2.01%	2.01%	1,143	1,161	1,174	1,188	1,402	1,411	237	1,420	231	1,444
Leavenworth UGA	1.71%	1.71%	2,404	2,419	2,431	2,442	2,624	2,631	201	2,638	196	2,659
Peshastin UGA	0.32%	0.32%	671	674	676	678	712	714	38	715	37	719
Cashmere UGA	2.88%	2.88%	3,742	3,767	3,787	3,807	4,112	4,125	338	4,137	330	4,172
Wenatchee UGA	53.09%	53.09%	38,454	38,921	39,279	39,649	45,286	45,517	6,238	45,741	6,093	46,389
Urban	66.58%	67.31%	52,830	53,422	53,876	54,344	61,491	61,784	7,908	62,069	7,724	62,890
Rural	33.42%	32.69%	21,470	21,758	21,978	22,206	25,677	25,819	3,841	25,957	3,752	26,356
TOTAL	100.00%	100.00%	74,300	75,180	75,854	76,550	87,168	87,603	11,749	88,026	11,476	89,246

*Modified based on population changes from 1990-2015

Table B-4: Population & Dwelling Needs

Regions	Persons per household*	2017 Population	Estimated minimum dwellings	2037 Population	Estimated minimum dwellings	20 year increase in dwellings
Cashmere UGA	2.66	3,807	1,431	4,137	1,555	124
Chelan UGA	2.38	4,465	1,876	4,880	2,050	174
Entiat UGA	2.64	1,188	450	1,420	538	88
Leavenworth UGA	2.16	2,442	1,131	2,638	1,221	90
Manson UGA	2.58	2,115	820	2,538	984	164
Peshastin UGA	2.58	678	263	715	277	14
Wenatchee UGA	2.53	39,649	15,672	45,741	18,079	2,407
Remaining Chelan County	2.57	22,206	8,640	25,957	10,100	1,460
TOTAL		76,550	30,283	88,026	34,683	4,521

Current Land Uses

The following breakdown of land uses was derived from the Assessor's land use coding system. It provides an understanding of the division of land uses within each City, UGA and the County. The City of

Wenatchee has provided a separate analysis, attached, considered as part of this document and incorporated in the Findings of Facts and Conclusions.

Classifications	City of Cashmere		Cashmere UGA		City of Chelan		Chelan UGA	
	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent
Single-Family Units	264	44.8%	254	71.3%	1515	38.7%	1184	57.1%
Multi-unit and Mobile Home Parks	19	3.2%	16	4.5%	108	2.8%	77	3.7%
Residential Condos	1	0.2%		0.0%	28	0.7%	3	0.1%
Vacation & Cabin		0.0%		0.0%	78	2.0%	5	0.2%
Hotel/Motel/Lodging; amusement, recreational, resort	1	0.2%	2	0.6%	233	6.0%		0.0%
Industrial	71	12.1%	4	1.1%	61	1.6%	12	0.6%
Commercial/Retail, professional, government, etc	168	28.5%	50	14.0%	296	7.6%	103	5.0%
Agricultural	65	11.0%	28	7.9%	221	5.7%	362	17.5%
Undeveloped	0	0.0%	2	0.6%	1,371	35.1%	328	15.8%
TOTALS	589	100%	356	100%	3,911	100%	2,074	100%

Classifications	City of Entiat		Entiat UGA		City of Leavenworth		Leavenworth UGA	
	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent
Single-Family Units	575	48.1%	14	60.9%	284	40.9%	274	52.8%
Multi-unit and Mobile Home Parks	42	3.5%	0	0.0%	5	0.7%	26	5.0%
Residential Condos	0	0.0%	0	0.0%	27	3.9%	2	0.4%
Vacation & Cabin	0	0.0%	0	0.0%	0	0.0%	3	0.6%
Hotel/Motel/Lodging; amusement, recreational, resort	1	0.1%	2	8.7%	26	3.7%	40	7.7%
Industrial	54	4.5%	0	0.0%	7	1.0%	37	7.1%
Commercial/Retail, professional, government, etc	175	14.6%	7	30.4%	312	45.0%	42	8.1%
Agricultural	12	1.0%	0	0.0%	10	1.4%	34	6.6%
Undeveloped	336	28.1%	0	0.0%	23	3.3%	61	11.8%
TOTALS	1,195	100%	23	100%	694	100%	519	100%

Classifications	Manson UGA		Peshastin UGA		Remaining County	
	Acres	Percent	Acres	Percent	Acres	Percent
Single-Family Units	623	49.4%	246	49.9%	51290	5.6%
Multi-unit and Mobile Home Parks	101	8.0%	10	2.0%	270	0.0%
Residential Condos	104	8.2%	1	0.2%	137	0.0%
Vacation & Cabin	7	0.6%		0.0%	1,2857	1.4%
Hotel/Motel/Lodging; amusement, recreational, resort	2	0.2%	1	0.2%	1,218	0.1%
Industrial	1	0.1%	61	12.4%	2,046	0.2%
Commercial/Retail, professional, government, etc.	108	8.6%	56	11.4%	584,802*	63.7%*
Agricultural	288	22.8%	116	23.5%	173,456	18.9%
Undeveloped	28	2.2%	2	0.4%	91,896	10.0%
TOTALS	1,262	100%	493	100%	917,970	100%

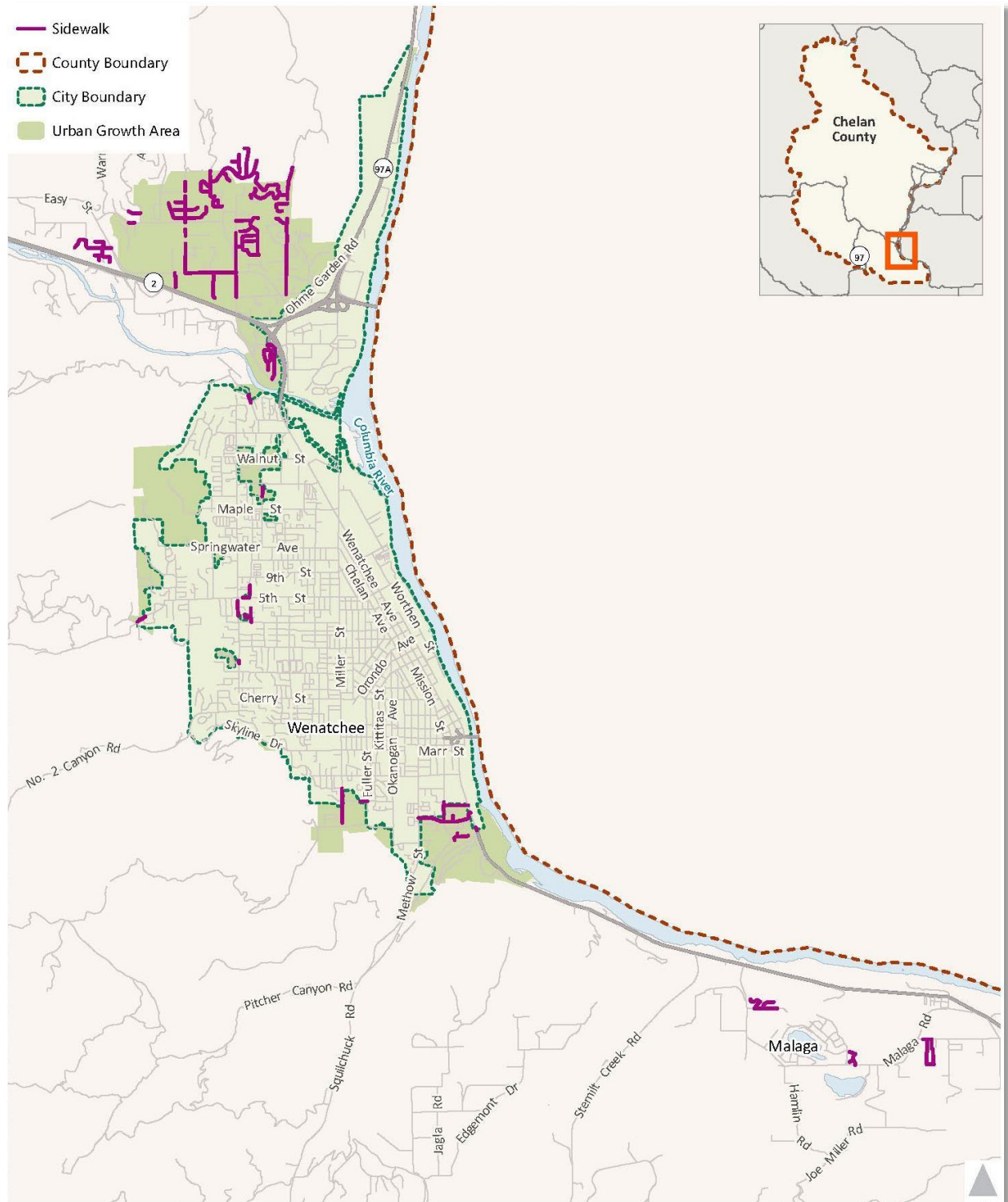
* 545,564 acres (or 59.4%) are government related; 4.3% commercial/retail

II. APPENDIX-B – COUNTYWIDE SIDEWALKS

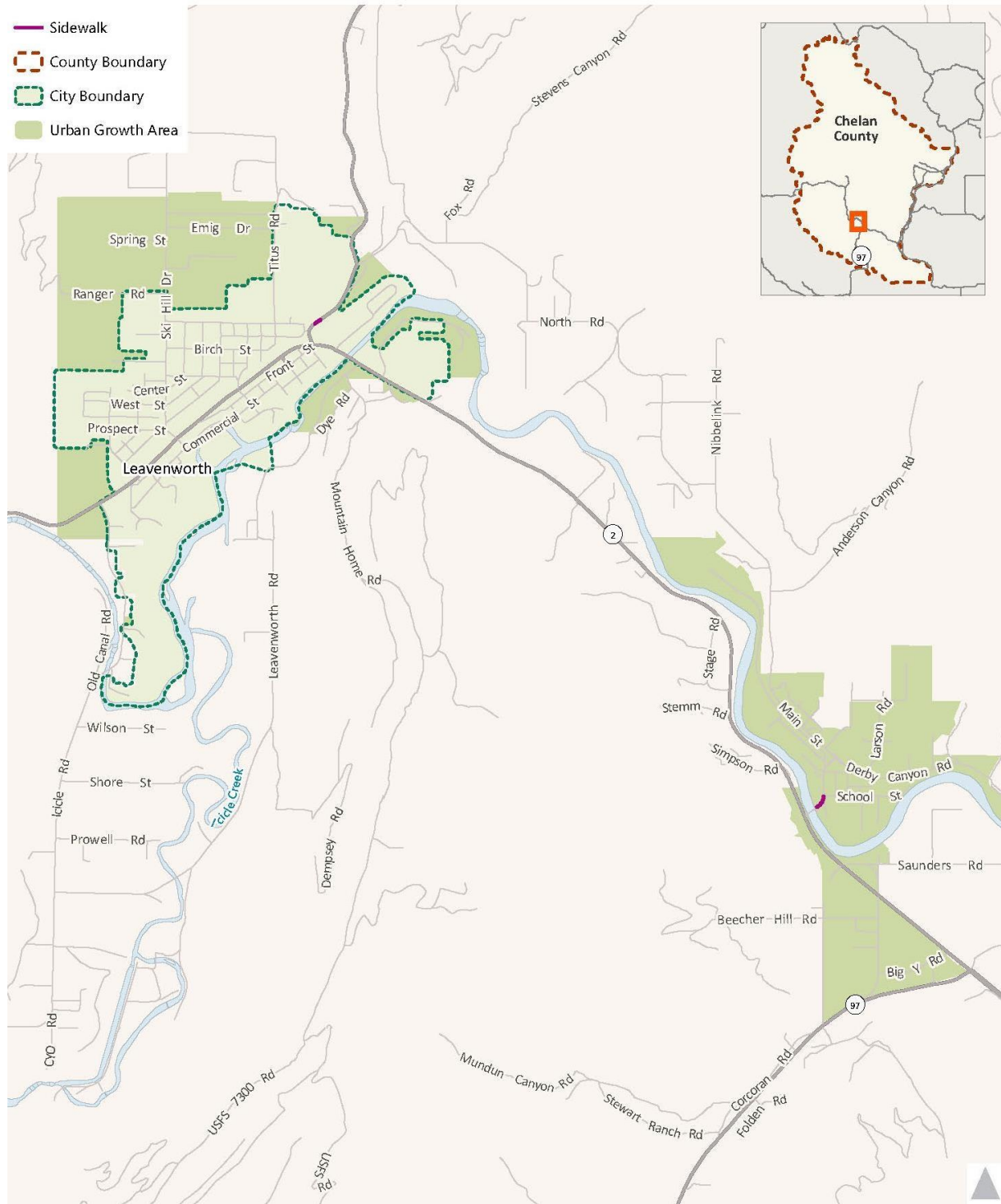
Existing Sidewalk Facilities (Manson)



Existing Sidewalk Facilities (Wenatchee/Sunnyslope and Malaga)

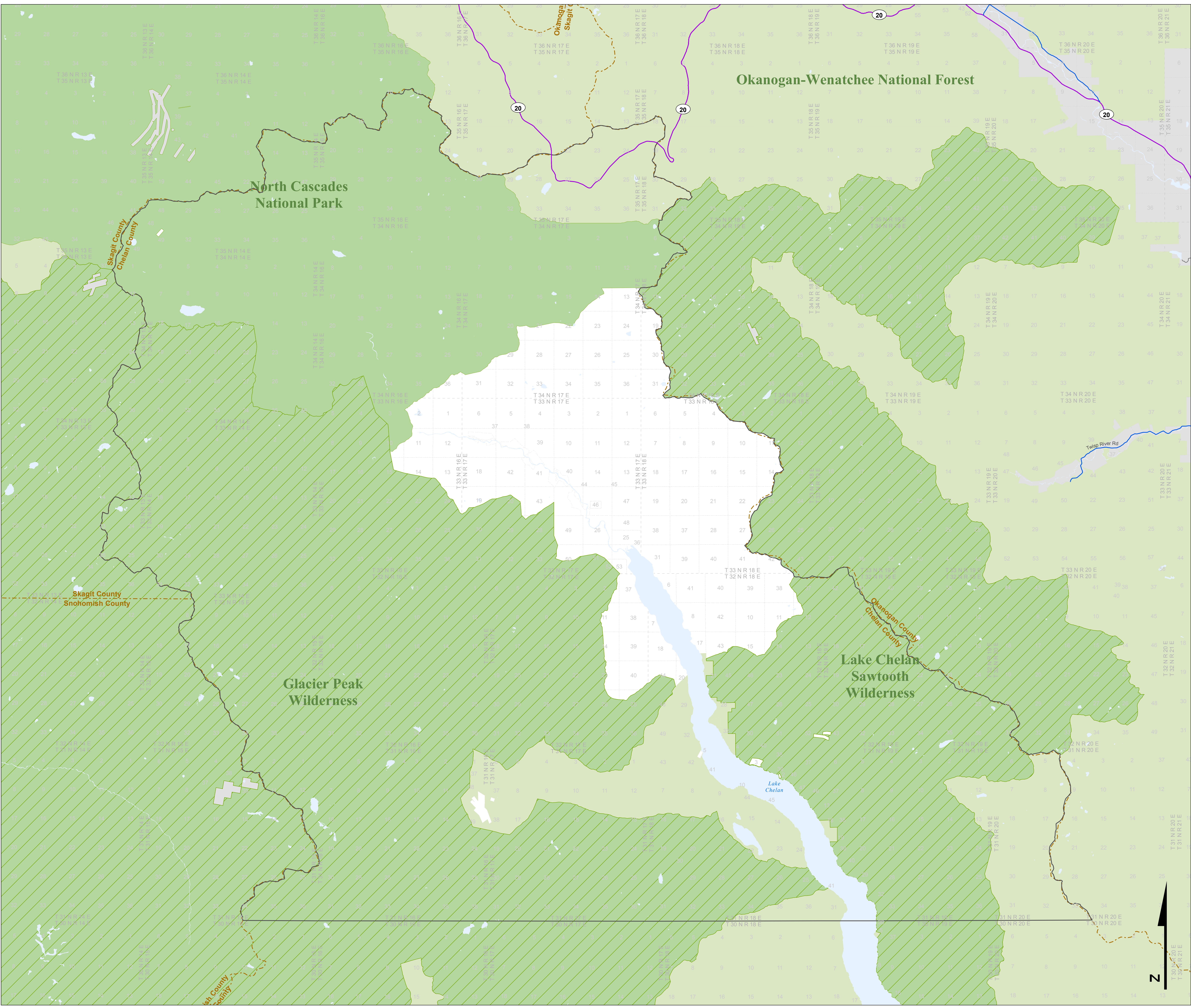


Existing Sidewalk Facilities (Leavenworth and Peshastin)



III. APPENDIX-C – FREIGHT AND GOODS TRANSPORTATION MAPS

The following figures show Washington State's Freight and Goods Transportation System classifications for Chelan County.



Freight and Goods Transportation System

Roadways 2015

WASHINGTON STATE
DEPARTMENT OF
TRANSPORTATION

TONNAGE CLASS
T1 - T5
ANNUAL TONS
(in thousands)

T1 (over 10,000)

T2 (4,000 to 10,000)

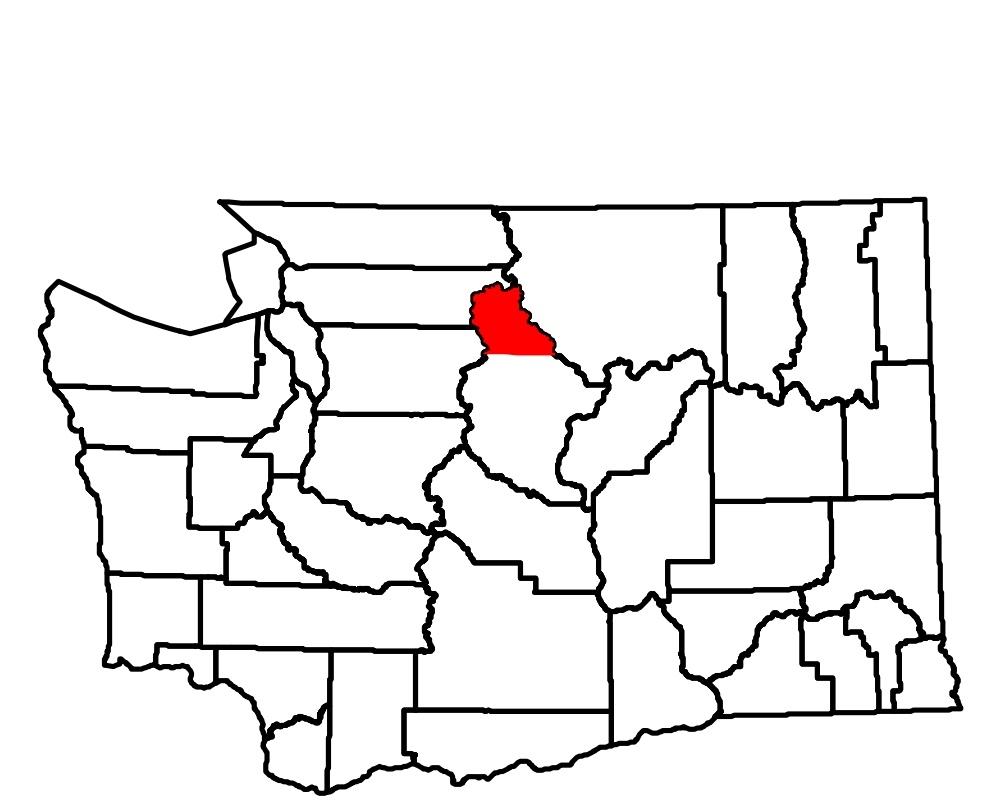
T3 (300 to 4,000)

T4 (100 to 300)

T5 (over 20 in 60 days)

Other Roadways

Proposed Routes

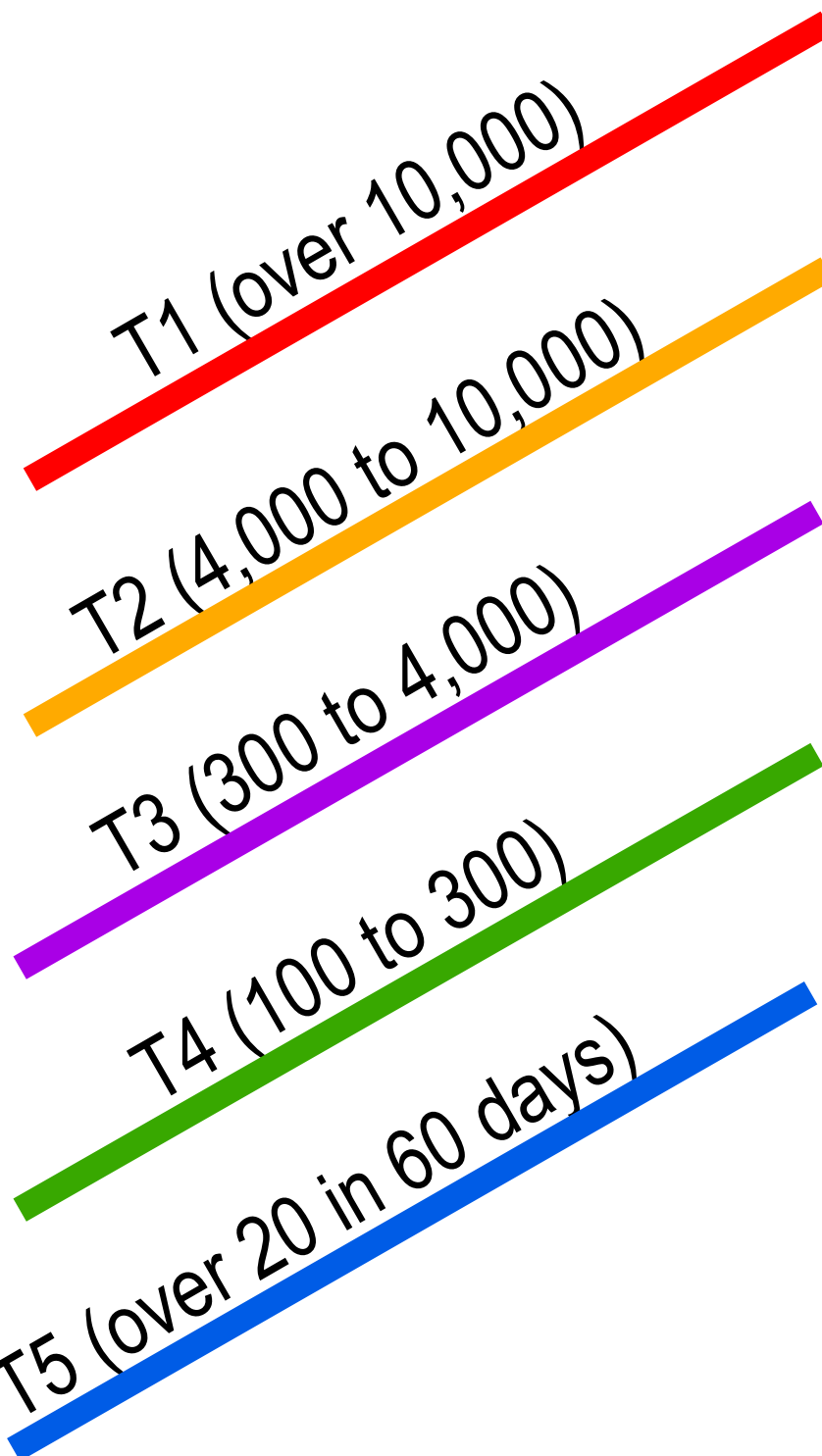


Freight
and Goods
Transportation
System

Roadways
2015

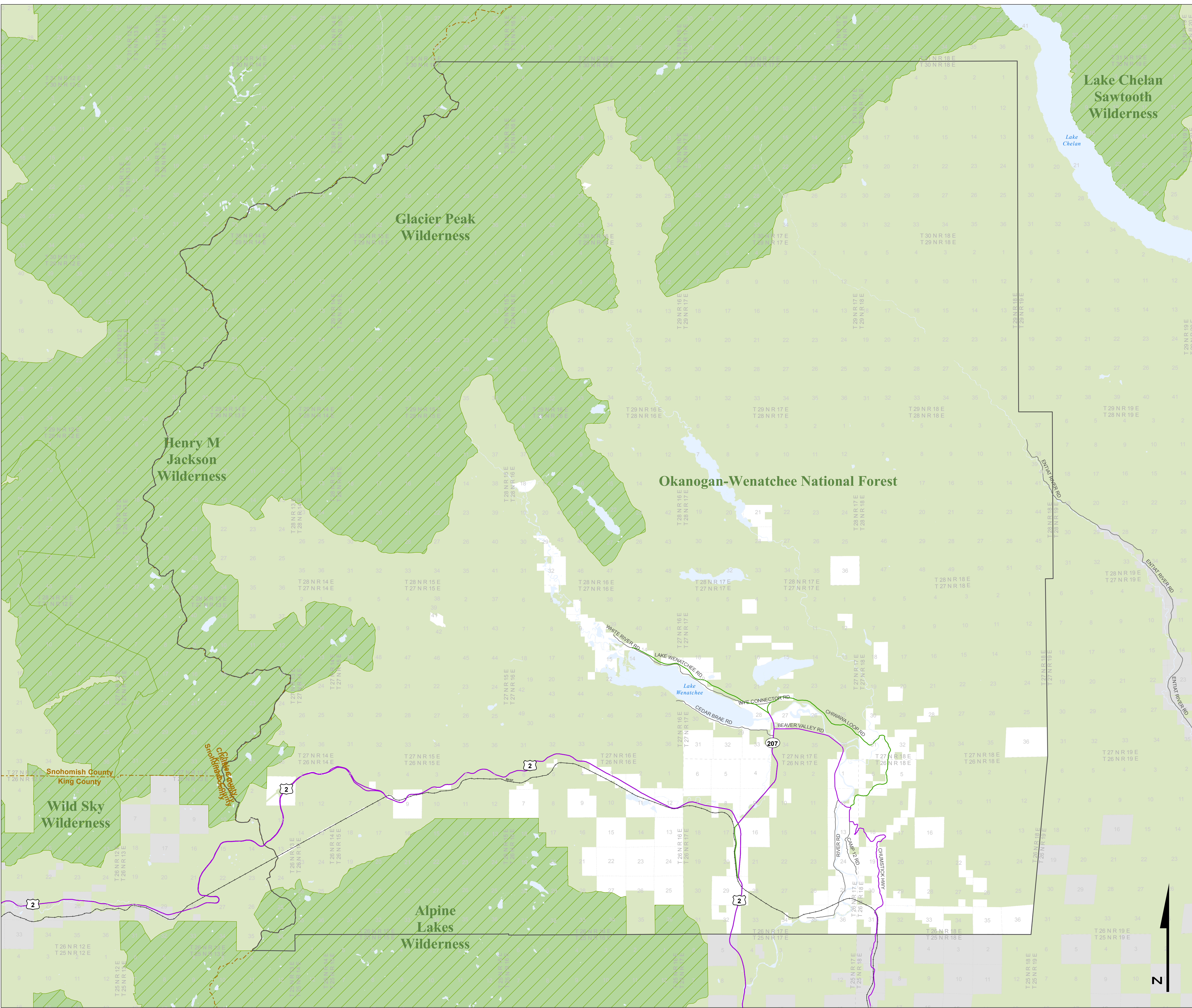
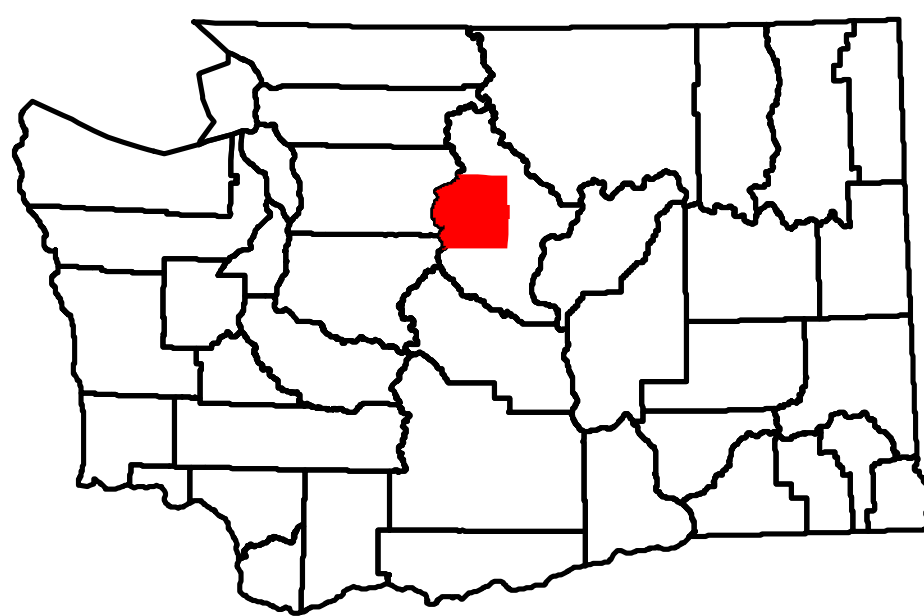
WASHINGTON STATE
DEPARTMENT OF
TRANSPORTATION

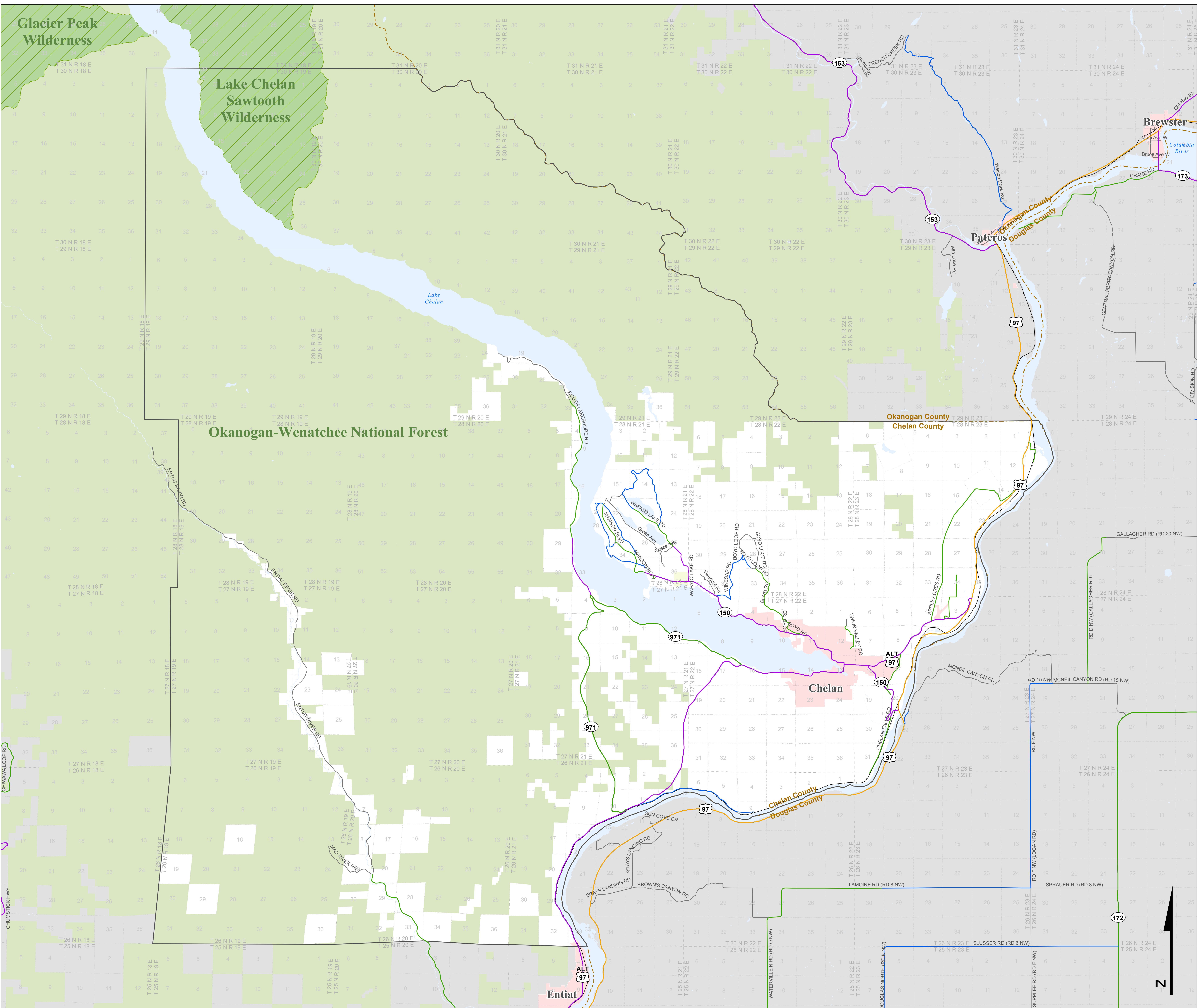
TONNAGE CLASS
T1 - T5
ANNUAL TONS
(in thousands)



Other
Roadways

Proposed
Routes





Freight and Goods Transportation System

Roadways 2015

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION

TONNAGE CLASS
T1 - T5
ANNUAL TONS (in thousands)

T1 (over 10,000)

T2 (4,000 to 10,000)

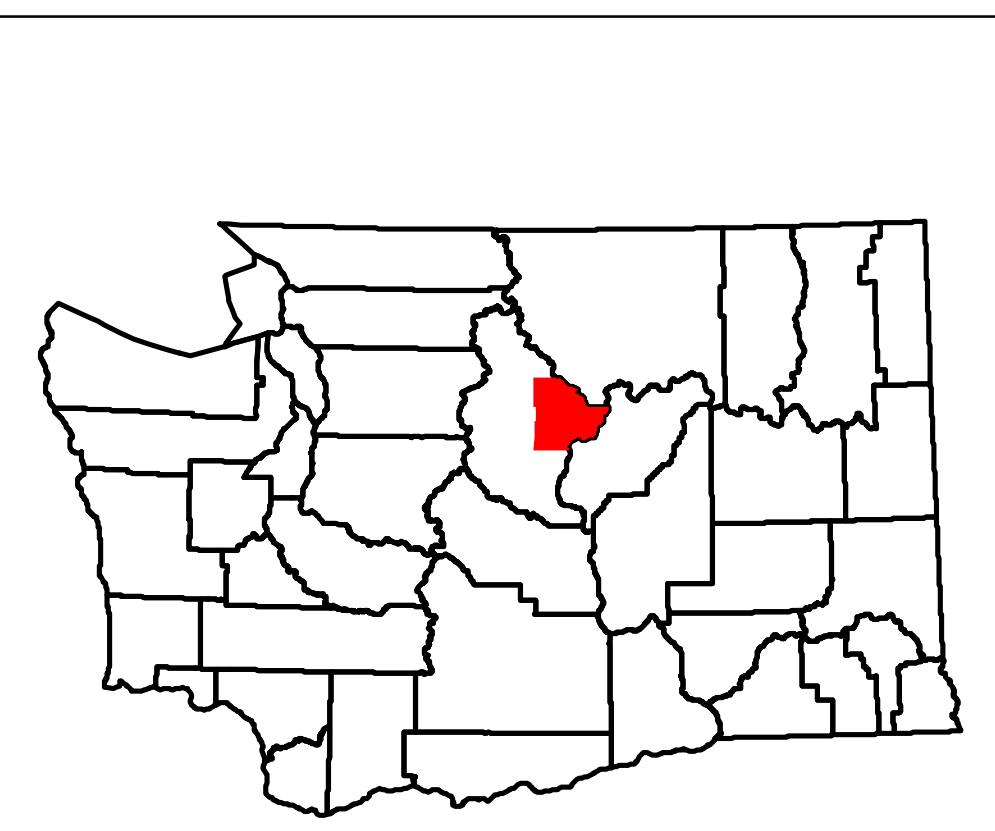
T3 (300 to 4,000)

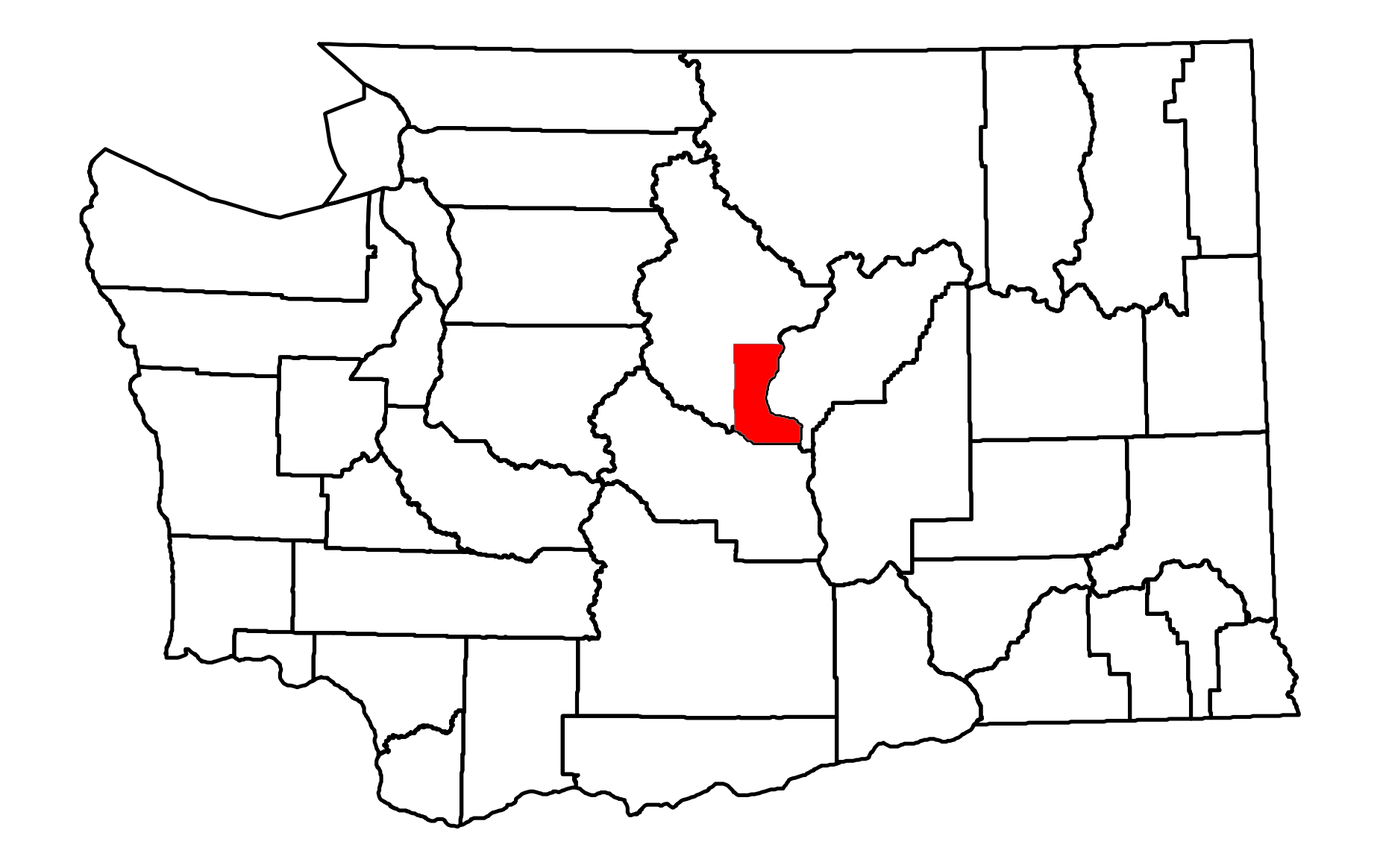
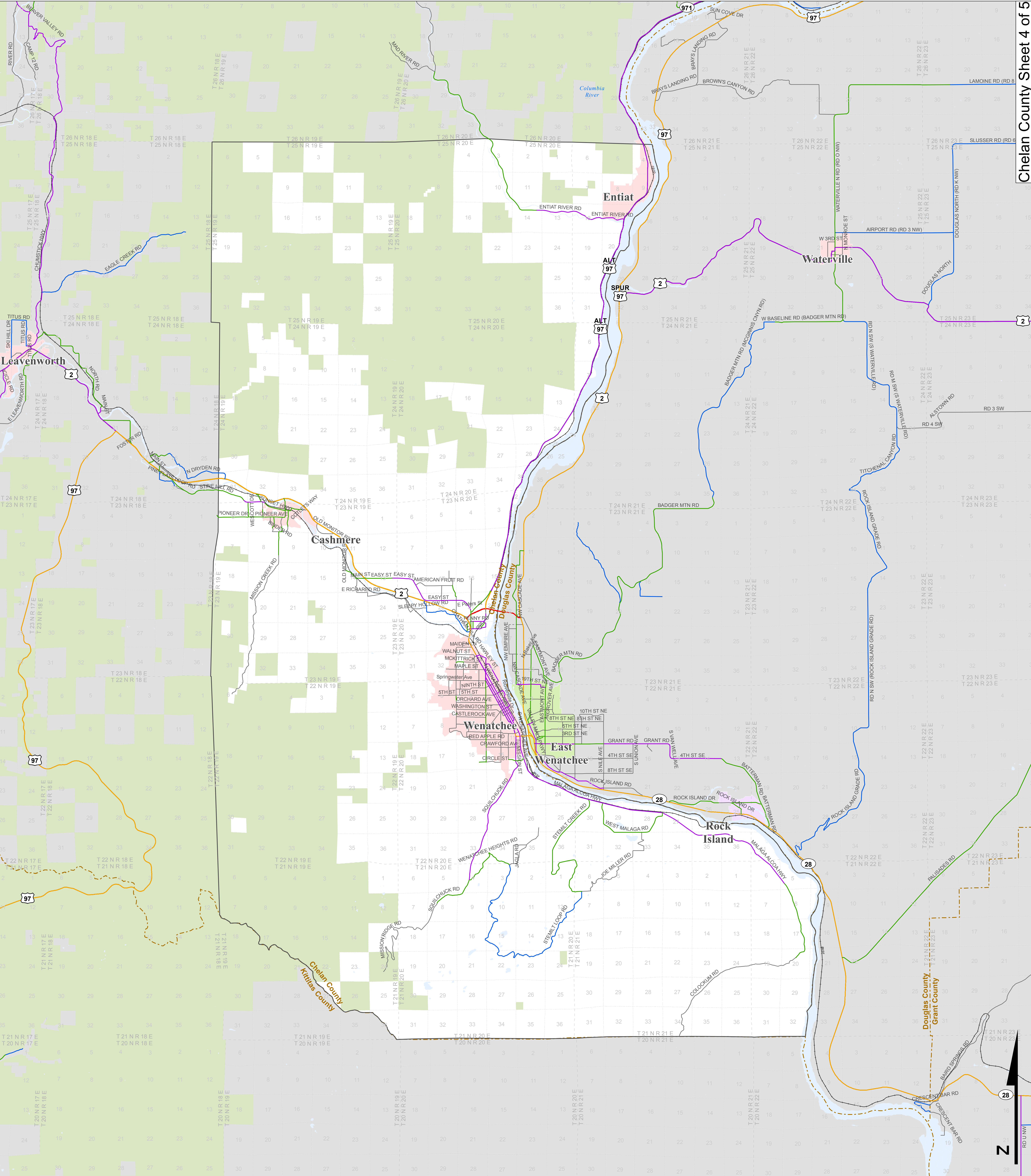
T4 (100 to 300)

T5 (over 20 in 60 days)

Other Roadways

Proposed Routes



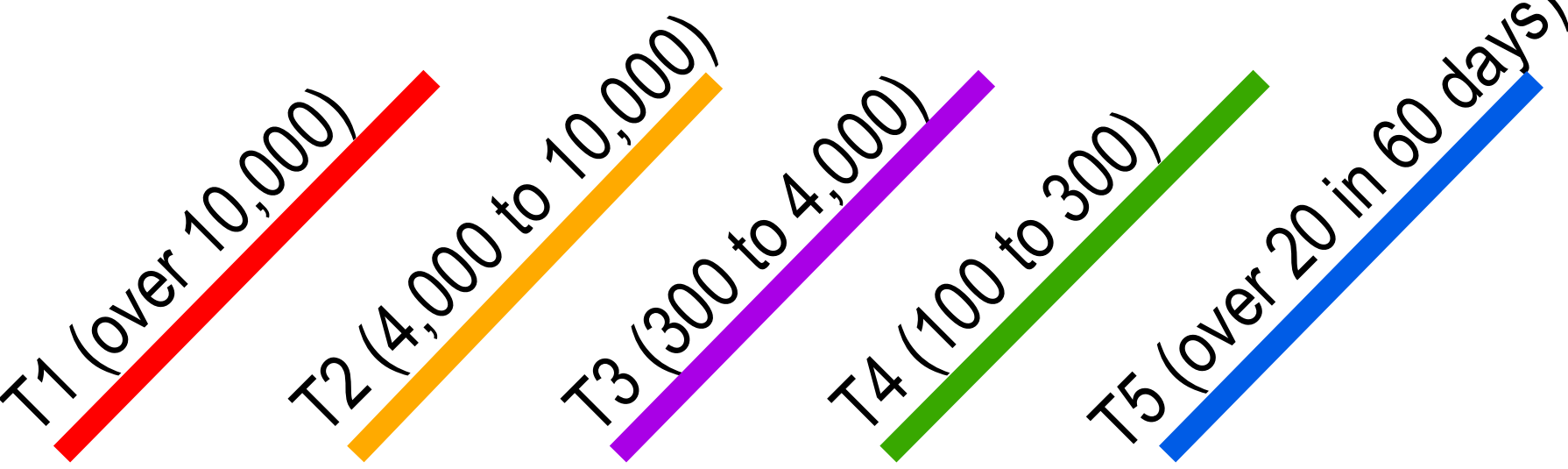


Freight and Goods
Transportation System

Roadways 2015

WASHINGTON STATE DEPT OF
TRANSPORTATION

TONNAGE CLASS T1 - T5 / ANNUAL TONS (in thousands)



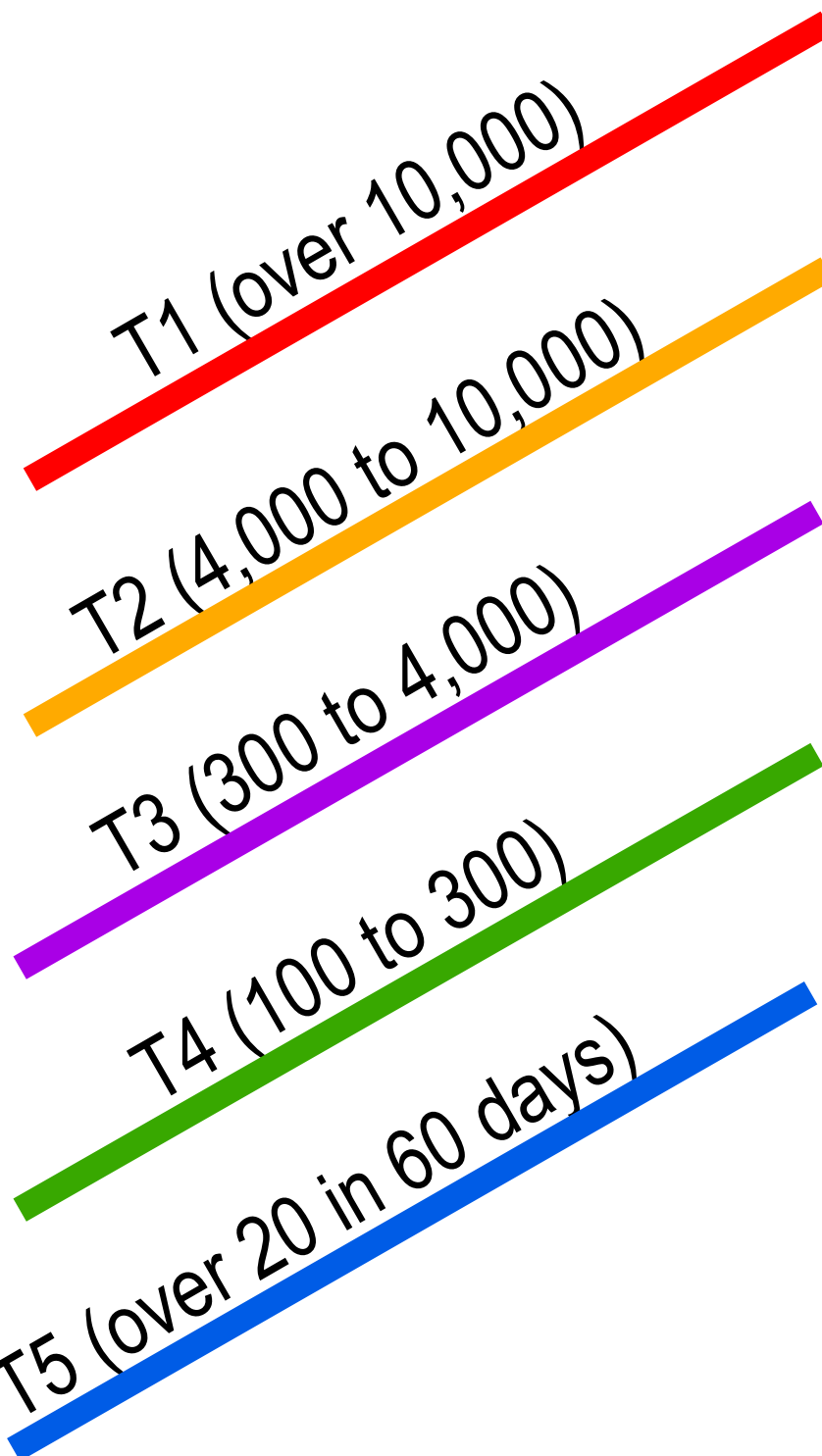
Other
Roadways
Proposed
Routes

Freight
and Goods
Transportation
System

Roadways
2015

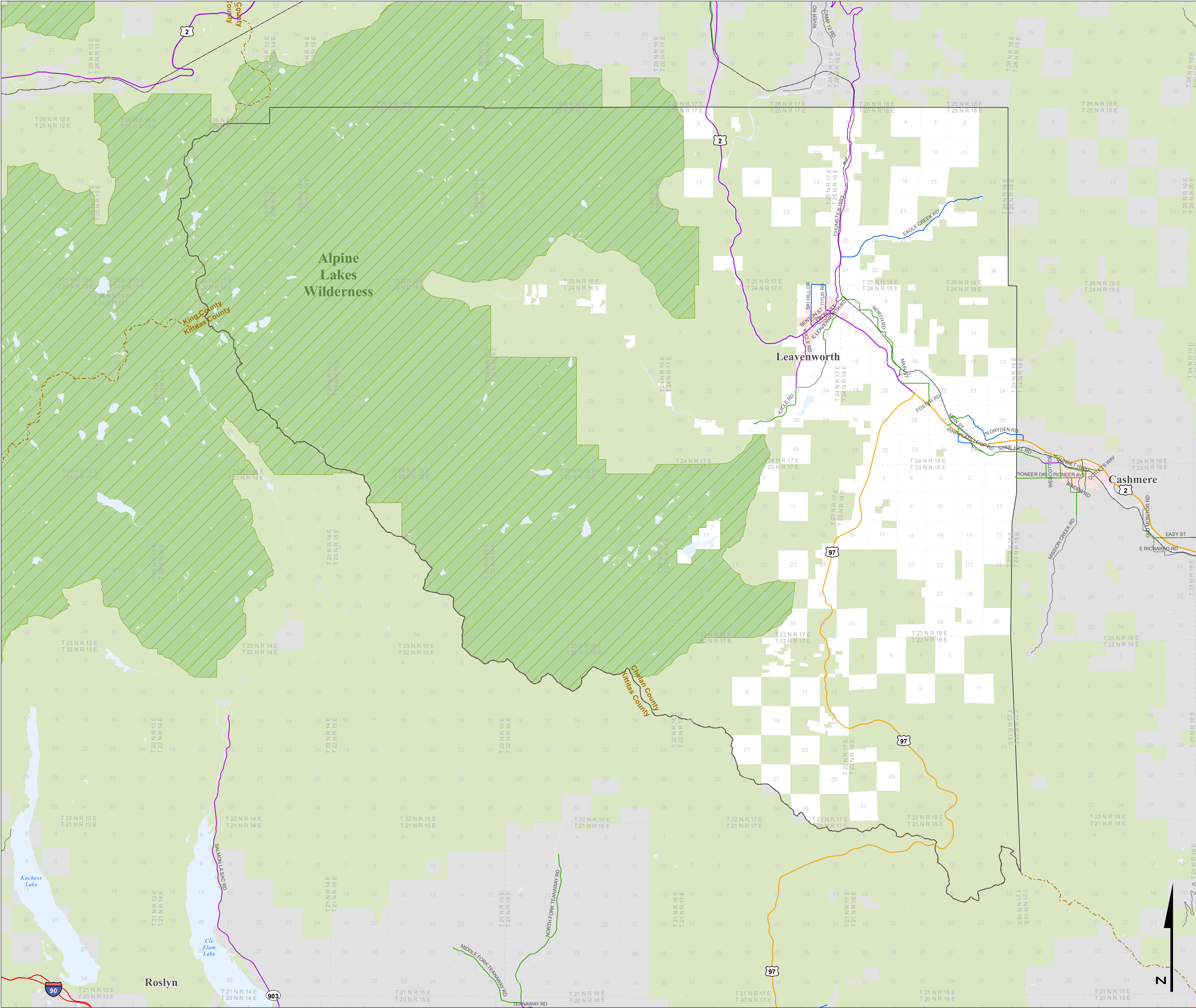
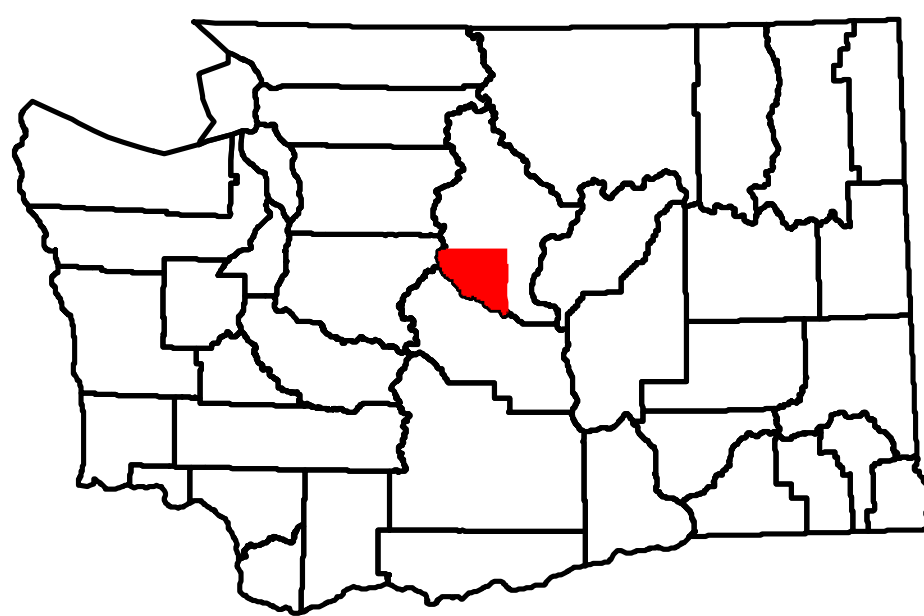
WASHINGTON STATE
DEPARTMENT OF
TRANSPORTATION

TONNAGE CLASS
T1 - T5
ANNUAL TONS
(in thousands)



Other
Roadways

Proposed
Routes



IV. APPENDIX-D – PROJECT PRIORITIZATION CRITERIA

The following figure shows the criteria used to prioritize Chelan County's 20-year capital project list by vicinity

Project Evaluation

Goal	Metric Description	Ranking
1. Maintain What We Have	Does the project include a maintenance, rehabilitation, or bridge replacement component?	4 = Bridge replacement/rehab 3 = Major reconstruction 2= Other maintenance 0= Not maintenance
2. Safety	Does the project address a location with a history of injury/fatality collisions or identified modal conflicts?	4= History of injury/fatal collisions or hot spot 2= Safety enhancement 0= Other
3. Ensure Financial Viability	Does the project leverage outside funding sources/have multiple funding partners?	4= Yes 0= No
4. Support Land Use	Does the project support future growth or improve auto LOS?	2= Project needed to maintain LOS standard 1= Projects that benefit auto circulation 0= Other
	Does the project provide needed connections to key land-uses: farm-to-market, recreation, employment, forestry, etc.	2= Connects two or more destinations 1= Connects to one destination 0= Connects to less than one destination
5. Environmental Stewardship	Does the project support fish passage and/or storm water drainage?	2= Supports fish passage or storm water drainage 0= Other
	Does the project support multimodal travel?	2= Transit/Bike/Ped 1= Indirectly Improves Transit/Bike/Ped 0= No
6. Be An Active Partner	Does the county partner with other agencies/entities?	4= County partners with two or more agencies/entities 2= County partners with one additional agency/entity 0= No

V. APPENDIX-E – 20-YEAR PROJECT LIST (INCLUDES SCORING)

Chelan County Transportation Project List																			
Location	New Project ID	Title	Description	Planning Level Cost	Goal 1: Maintainance	Goal 1: Maintenance	Goal 2: Safety	Goal 2: Safety	Goal 3: Finance	Goal 3: Finance	Goal 4: Land Use		Goal 4: Land Use	Goal 5: Environment		Goal 5: Environment	Goal 6: Partnership	Goal 6: Partnership	Total Score
					Maintenance (2) or Reconstruction (3) or Bridge (4)		History of Injury/Fatality Collisions or Hot Spot (4) or Safety Enhancement (2)		Leverages Outside Funding Sources / Multiple Funding Partners - YES (4) / NO (0)		Maint. Auto LOS (2) / Benefits Circulation (1)	Provides needed connection to key land-uses: two or more (2) or one destination (1)		Supports fish passage or storm water drainage (2)	Supports Multimodal Travel? Directly (2) or Indirectly(1)		Coordinating w/ Groups County + ≥ 2 Partners (4) or County + 1 Partner (2)		Max score = 24
Cashmere/Monitor Subarea	CA-1	West Cashmere Bridge Replacement	Replacement of bridge to support freight and safety	23,000,000	4	✓	4	✓	4	✓	2	2	✓	2	2	✓	4	✓	24
	CA-2	Binder Road/ Tigner Road	Roadway relocation to support sidewalks and a safe route to school	1,000,000	2	✓	4	✓	4	✓	0	2	✓	2	2	✓	4	✓	20
	CA-3	Goodwin Road	Roadway improvements from Sunset Hwy to Goodwin Road Bridge	2,000,000	3	✓	2	✓	4	✓	2	2	✓	2	2	✓	4	✓	21
	Subtotal			\$26,000,000															
Chelan Subarea	CH-1	Slide Ridge	Retrofit and slope stabilization	800,000	4	✓	4	✓	4	✓	0	2	✓	2	1	✓	2	✓	19
	CH-2	Anderson Road, Phase II	Phase 2: MP 0.28 to MP 0.46	75,000	2	✓	2	✓	4	✓	0	1	✓	2	2	✓	2	✓	15
	CH-3	Howard Flats Road Relocation	Roadway relocation to accommodate airport expansion	500,000	0		2	✓	4	✓	2	1	✓	2	1	✓	2	✓	14
	CH-4	25-Mile Creek Culvert Rehabilitation	Maintenance of culvert	185,000	4	✓	2	✓	0		0	2	✓	2	0	✓	0		10
			Widen, grade, drain, add base and top course, and pave MP 2.42 to MP 3.63	1,000,000	2	✓	2	✓	0		0	1	✓	2	1	✓	2	✓	10
	Subtotal			\$2,560,000															
Manson Subarea	MAN-1	Totem Pole Road	Manson Schools (Hill Street) to end of Harris	3,750,000	3	✓	4	✓	4	✓	2	2	✓	2	2	✓	4	✓	23
	MAN-2	Wapato Lake Road	Reconstruction and widening, MP 0.6 to MP 2.3	2,600,000	3	✓	2	✓	4	✓	2	2	✓	2	1	✓	2	✓	18
	MAN-3	Summit Boulevard / Manson Boulevard	Intersection Improvements	255,000	2	✓	4	✓	4	✓	1	1	✓	2	1	✓	2	✓	17
	MAN-4	Ivan Morse Road	Widen, grade, drain, add base and top course, and pave curve at MP	300,000	2	✓	2	✓	4	✓	1	1	✓	2	1	✓	2	✓	15
	MAN-5	Grade Creek Road	Road Rehabilitation: repave and upgrade existing shoulders	400,000	2	✓	2	✓	4	✓	0	1	✓	2	1	✓	2	✓	14
	MAN-6	Pedoi Street Recirculation	Reconfigure existing road to accommodate parking	100,000	2	✓	2	✓	0		1	1	✓	2	1	✓	2	✓	11
	MAN-7	Boetzkes Avenue	Truck route study between Totem Pole Road and Manson Road	30,000	0		2	✓	0		2	2	✓	0	0		2	✓	8
	MAN-8	Trail Access to Water	Open public rights-of-way for public access to Lake Chelan	100,000	0		0		0		0	1	✓	0	1	✓	2	✓	4
	Subtotal			\$7,535,000															
Entiat Subarea	E-1	Entiat River Bridges Scour	Scour mitigation on bridges along Entiat River Road	2,000,000	4	✓	2	✓	4	✓	1	2	✓	2	1	✓	4	✓	20
	E-2	Moe Ridge Bridge	Bridge replacement	2,100,000	4	✓	2	✓	4	✓	1	2	✓	2	1	✓	2	✓	18
Subtotal			\$4,100,000																
Leavenworth Subarea	L-1	Chumstick Hwy / North Road	Intersection reconstruction	1,300,000	3	✓	4	✓	4	✓	2	2	✓	2	2	✓	4	✓	23
	L-2	North Road	Construct/widen shoulders, improve horizontal curves, signage, and safety between Fox Road and Nibblelink Road (South connection)	3,500,000	3	✓	4	✓	4	✓	2	2	✓	2	2	✓	2	✓	21
			Full Depth Reclamation (FDR) with a cement treated base and an HMA overlay. MP 3.3 to MP 5.8	3,520,000	2	✓	2	✓	4	✓	1	2	✓	2	1	✓	4	✓	18
	L-3	Eagle Creek Road, Phase II	Multimodal improvements, illumination, signage, and provide traffic calming along Titus Road from city limits to Ski Hill Drive	2,710,000	2	✓	2	✓	4	✓	0	2	✓	2	2	✓	2	✓	16
	L-4	Titus Road	Multimodal improvements, illumination, signage, and provide traffic calming along Ski Hill Drive from city limits to Titus Road	1,790,000	2	✓	2	✓	4	✓	0	2	✓	2	2	✓	2	✓	16
	L-5	Ski Hill Drive	Culvert Replacement	900,000	4	✓	2	✓	4	✓	0	1	✓	2	0	✓	2	✓	15
	L-6	Yodelin Culvert	Potential improvements following federal safety audit	100,000	2	✓	2	✓	4	✓	0	2	✓	0	1	✓	4	✓	15
	L-7	Icicle Road	Shared-use trail connecting downtown to Icicle Station and Valley Trail.	400,000	0		2	✓	4	✓	0	2	✓	0	2	✓	4	✓	14
	L-8	Icicle Station Trail with bridge			4	✓	2	✓	0		2	1	✓	2	0	✓	2	✓	
	L-9	Motteler Road Bridge Replacement	Bridge Replacement	1,500,000															13
Subtotal			\$15,720,000																
Peshastin Subarea	PE-1	Peshastin Main Street Bridge	Bridge replacement	18,700,000	4	✓	4	✓	4	✓	2	2	✓	2	2	✓	4	✓	24
	PE-2	Peshastin Main Street Sidewalk	Sidewalk/pedestrian facility improvements from end of bridge to Megelos Street	760,000	2	✓	4	✓	4	✓	0	2	✓	2	2	✓	4	✓	20
Subtotal			\$19,460,000																
Plain Subarea	PL-1	Chiwawa Loop, Phase III	Roadway reconstruction to address deteriorating pavement, includes drainage, guardrail, and clear zone improvements, from Wending Lane to Sumac Lane.	3,335,000	3	✓	4	✓	4	✓	2	2	✓	2	2	✓	4	✓	23
	PL-2	Chiwawa Loop, Phase IV	Roadway preservation to address deteriorating pavement, from Sumac Lane to SR207	1,800,000	2	✓	2	✓	4	✓	2	2	✓	2	2	✓	4	✓	20
	PL-3	Beaver Valley Road Shoulder Improv.	Roadway expansion to include shoulders for multi-modal use	500,000	2	✓	4	✓	0		0	2	✓	0	2	✓	4	✓	14
	PL-4	River Road - milepost 6	Retaining wall and bank improvements	250,000	2	✓	4	✓	4	✓	0	1	✓	2	1	✓	0		14
	PL-5	Camp 12 Road	Rehabilitation and reconstruction for fire safety ingress and egress	500,000	2	✓	2	✓	0		0	1	✓	2	1	✓	2	✓	10
	Subtotal			\$6,385,000															

