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Benton County Comprehensive Plan Update

Transportation Element

Planning Commission Presentation -- June 24, 2025

Requirements for the Transportation Element RCW 36.70A.070 (6)

- a) Must Identify the transportation facilities to serve the UGA, and funding.
 - b) An inventory of air, water, ground transportation facilities, including transit and aviation
 - c) Adopted multimodal Levels of Service
 - d) Specific actions to bring transportation facilities to established Level of Service standards
 - e) Forecast of minimum 10 years
 - f) Projection of state and local system needs to meet current and future demand
-
- g) Transition Plan as required for ADA

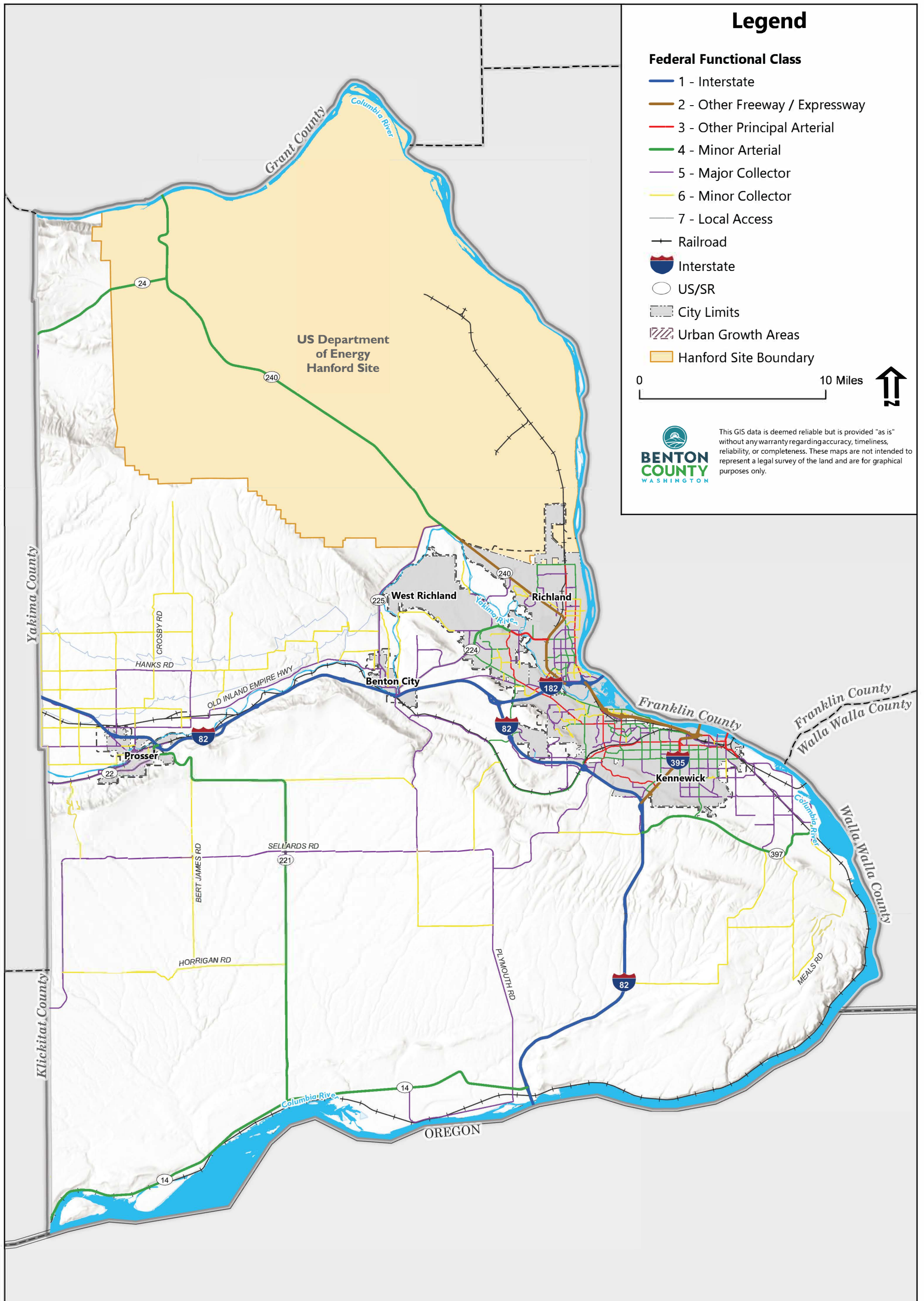
Requirements - continued

- h) Active transportation component
 - i) Description of existing and planned Transportation Demand Management strategies
 - j) Analysis of future funding capability to judge needs against probable funding resources
 - k) Multi-year financing plan
 - l) If funding shortfalls, discuss how additional funds will be raised or how land use assumptions will be reassessed to ensure LOS standards
 - m) A description of inter-governmental coordination efforts.
-

Inventory

- Roads
 - Rail
 - Airports
 - Water
 - Pipelines
 - Transit
 - Non-motorized
 - Transportation Demand Management strategies
-

Last three bullets include discussion of the regional efforts that Benton County participates in through the BFCOG and BFT planning processes and some of their products.



Legend

Federal Functional Class

- 1 - Interstate
- 2 - Other Freeway / Expressway
- 3 - Other Principal Arterial
- 4 - Minor Arterial
- 5 - Major Collector
- 6 - Minor Collector
- 7 - Local Access

- Railroad
- Interstate
- US/SR
- City Limits
- Urban Growth Areas
- Hanford Site Boundary



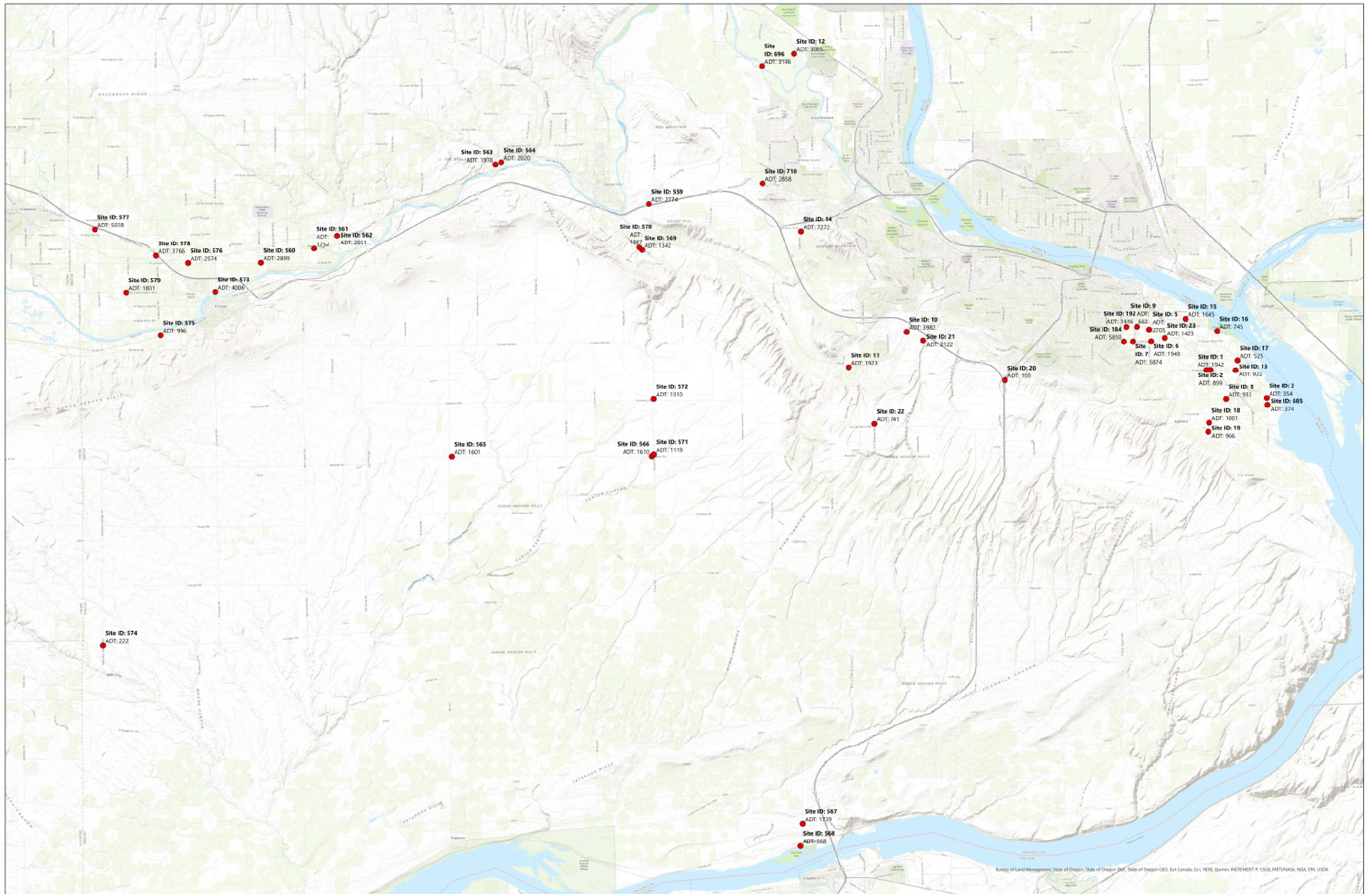
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Figure XX
DRAFT Existing Transportation Facilities Map
 Benton County Comprehensive Plan

Level of Service Analysis

- 48 Benton County road segments
 - 2024 traffic volumes collected through BFCOG
 - Segments selected by County staff
 - Forecast to year 2036
- 54 counts on State Highways
 - Available WSDOT counts, primarily 2023
 - Forecast to year 2036
-



Appendix H2 - Benton County Road Exising (2024) and Forecast 2036 Level of Service Analysis

Site ID #	Jurisdiction	Location/ Description	Direction	Collection Start Date	Direction Split_1	Direction Split_2	Current AADT (2024) (1)	Capacity (2)	Current PM Peak Hour Volume (3)	Current Volume to Capacity Ratio	Current PM Level of Service (4)	2036 PM Peak Hour Forecast (5)	2036 Volume to Capacity Ratio	2036 PM Level of Service
1	Benton County	Bowles Rd W-O S Haney Rd	EB/WB	10/8/2024	0.507	0.493	1942	800	87	0.11	A	98	0.12	A
2	Benton County	Bowles Rd E-O S Haney Rd	EB/WB	10/8/2024	0.538	0.462	899	800	39	0.05	A	44	0.05	A
3	Benton County	Piert Rd S-O Game Farm Rd	NB/SB	10/8/2024	0.525	0.475	354	800	18	0.02	A	20	0.03	A
5	Benton County	Oak St S-O E 19th Ave	NB/SB	4/9/2024	0.498	0.502	2705	800	129	0.16	A	145	0.18	A
6	Benton County	27th Ave E-O S Oak St	EB/WB	4/9/2024	0.521	0.479	1949	800	91	0.11	A	103	0.13	A
7	Benton County	27th Ave W-O S Gum St	EB/WB	4/9/2024	0.503	0.497	5874	800	271	0.34	A	324	0.40	A
8	Benton County	Game Farm Rd W-O S Dunham Rd	EB/WB	10/8/2024	0.478	0.522	933	800	55	0.07	A	62	0.08	A
9	Benton County	19th Ave E-O S Gum St	EB/WB	4/9/2024	0.574	0.426	662	800	40	0.05	A	45	0.06	A
10	Benton County	Badger Rd S-O Wiser Pkwy	NB/SB	3/19/2024	0.492	0.508	3982	800	189	0.24	A	213	0.27	A
11	Benton County	Badger Rd W-O S 887 Pr SE	EB/WB	8/13/2024	0.506	0.494	1923	800	90	0.11	A	101	0.13	A
12	Benton County	Twin Bridges Rd N-O Weidle Rd	NB/SB	10/1/2024	0.486	0.514	3065	800	255	0.32	A	325	0.41	A
13	Benton County	Bowles Rd W-O Finley Rd	EB/WB	10/8/2024	0.497	0.503	922	800	41	0.05	A	46	0.06	A
14	Benton County	Dallas Rd S-O 210 Private Rd	NB/SB	9/17/2024	0.490	0.510	7272	800	374	0.47	A	676	0.85	D
15	Benton County	Finley Rd E-O S Lexington St	EB/WB	10/8/2024	0.485	0.515	1645	800	75	0.09	A	84	0.11	A
16	Benton County	Finley Rd W-O S Locust Ln	EB/WB	10/8/2024	0.491	0.509	745	800	37	0.05	A	41	0.05	A
17	Benton County	Finley Rd S-O E 239 PR SE	NB/SB	10/8/2024	0.492	0.508	525	800	27	0.03	A	31	0.04	A
18	Benton County	Nine Canyon Rd S-O E Cougar Rd	NB/SB	11/19/2024	0.511	0.489	1001	800	60	0.07	A	67	0.08	A
19	Benton County	Nine Canyon Rd S-O 490 PR NE	NB/SB	11/19/2024	0.521	0.479	966	800	63	0.08	A	70	0.09	A
20	Benton County	Bofer Canyon Rd S-O E Law Ln	NB/SB	12/17/2024	0.611	0.389	100	800	7	0.01	A	279	0.35	A
21	Benton County	Clodfelter Rd S-O Chevy Ln	NB/SB	3/19/2024	0.507	0.493	2122	800	97	0.12	A	110	0.14	A
22	Benton County	Clodfelter Rd N-O Locust Grove	NB/SB	8/13/2024	0.538	0.462	741	800	49	0.06	A	55	0.07	A
23	Benton County	25th Ave E-O S Yew St	EB/WB	4/9/2024	0.543	0.457	1423	800	69	0.09	A	78	0.10	A
184	Benton County	27th Ave E-O S Washington St	EB/WB	4/9/2024	0.477	0.523	5850	800	282	0.35	A	332	0.42	A
192	Benton County	19th Ave E-O S Washington St	EB/WB	4/23/2024	0.507	0.493	1446	800	65	0.08	A	113	0.14	A
559	Benton County	Kennedy Rd W-O N Sunset Rd	EB/WB	8/13/2024	0.466	0.534	2774	800	137	0.17	A	164	0.20	A
560	Benton County	Old Inland Empire Hwy E-O N Bunn Rd	EB/WB	8/13/2024	0.498	0.502	2899	800	129	0.16	A	145	0.18	A
561	Benton County	Old Inland Empire Hwy W-O N French Rd	EB/WB	8/13/2024	0.514	0.486	1752	800	94	0.12	A	105	0.13	A
562	Benton County	Old Inland Empire Hwy W-O N Case Rd	EB/WB	8/13/2024	0.477	0.523	2051	800	105	0.13	A	119	0.15	A
563	Benton County	Old Inland Empire Hwy W-O W Rayhill Rd	EB/WB	8/13/2024	0.523	0.477	1978	800	92	0.12	A	104	0.13	A
564	Benton County	Old Inland Empire Hwy E-O W Knox Rd	EB/WB	8/13/2024	0.498	0.502	2020	800	94	0.12	A	106	0.13	A
565	Benton County	Sellards Rd E-O SR 221	EB/WB	8/13/2024	0.427	0.573	1601	800	75	0.09	A	85	0.11	A
566	Benton County	Sellards Rd W-O S Travis Rd	EB/WB	8/13/2024	0.441	0.559	1610	800	70	0.09	A	79	0.10	A
567	Benton County	Plymouth Rd N-O SR 14	NB/SB	8/13/2024	0.579	0.421	1739	800	99	0.12	A	112	0.14	A
568	Benton County	Christy Rd W-O S Plymouth Rd	EB/WB	8/27/2024	0.486	0.514	368	800	16	0.02	A	18	0.02	A
569	Benton County	Webber Canyon Rd S-O Badger Rd	NB/SB	8/13/2024	0.517	0.483	1342	800	57	0.07	A	65	0.08	A
570	Benton County	Webber Canyon Rd N-O Badger Rd	NB/SB	8/13/2024	0.496	0.504	1887	800	81	0.10	A	91	0.11	A
571	Benton County	Travis Rd N-O Sellards Rd	NB/SB	8/13/2024	0.489	0.511	1119	800	50	0.06	A	56	0.07	A
572	Benton County	Travis Rd N-O Cemetery Rd	NB/SB	8/13/2024	0.530	0.470	1310	800	54	0.07	A	60	0.08	A
573	Benton County	Grant Ave S-O Old Inland Empire Hwy	NB/SB	8/13/2024	0.467	0.533	4006	800	178	0.22	A	201	0.25	A
574	Benton County	Mckinley Falls Rd S-O Horrigan Rd	NB/SB	8/13/2024	0.490	0.510	222	800	12	0.02	A	14	0.02	A
575	Benton County	Bennett Ave E-O Richards Rd	EB/WB	8/13/2024	0.496	0.504	996	800	40	0.05	A	45	0.06	A
576	Benton County	Johnson Rd E-O N Gap Rd	EB/WB	8/13/2024	0.496	0.504	2574	800	116	0.15	A	131	0.16	A
577	Benton County	Wine Country Rd W-O N Griffin Rd	EB/WB	8/13/2024	0.522	0.478	5028	800	222	0.28	A	251	0.31	A
578	Benton County	Wine Country Rd N-O S Missimer Rd	NB/SB	8/13/2024	0.477	0.523	3766	800	168	0.21	A	189	0.24	A

579	Benton County	Old Inland Empire Hwy W-O S Wilgus Rd	EB/WB	8/13/2024	0.488	0.512	1801	800	84	0.10	A	95	0.12	A
685	Benton County	Piert Rd N-O E Lechelt Rd	NB/SB	10/8/2024	0.512	0.488	374	800	19	0.02	A	22	0.03	A
696	Benton County	Twin Bridges Rd N-O N Harrington Rd	NB/SB	9/10/2024	0.497	0.503	3146	800	231	0.29	A	303	0.38	A
710	Benton County	Kennedy Rd W-O City Limits	EB/WB	9/17/2024	0.460	0.540	2858	800	135	0.17	A	162	0.20	A

Notes:

- (1) Current AADT (Annual Average Daily Traffic Volumes) were obtained from the Benton Franklin Council of Governments regional traffic model, most current available, representing 2024.
- (2) Capacities were obtained from the Benton Franklin Council of Governments regional traffic model.
- (3) Current PM peak hour traffic volumes were obtained from the Benton Franklin Council of Governments regional traffic model.
- (4) Current LOS calculated as volume to capacity ranges: A < 0.60, B = 0.60 - 0.70, C = 0.70 - 0.80, D = 0.80 - 0.90, E = 0.90 - 1.0, F > 1.00.
- (5) The 2036 PM peak hour volume forecast used two methodologies: (1) for roadway segments included in the Benton Franklin Council of Governments regional traffic model, PM peak hour volumes were estimated using both the model-based growth from 2019 to 2045 (interpolated to 2036) and observed growth from 2016 to 2023, with the higher of the two results selected; and (2) for roadway segments outside the regional model, the 2036 PM peak hour volumes were estimated using a growth rate based on observed traffic growth from 2016 to 2023. When the growth rate from 2016 to 2023 was observed to be negative, a growth rate of 1% was assumed.

Appendix H-4 - Washington State Highway Inventory within Benton County - and 2036 Forecast and Level of Service Analysis																							
SR #	Begin MilePost	End MilePost	Description From/To	WSDOT ID	Collection Year	Functional Class	HSS	Lanes Inc.	Lanes Dec.	Legal Speed	Current AADT (2023) (1)	K%	D%	PHV	Comments	Capacity (2)	Current PM Peak Hour Volume (3)	Current Volume to Capacity Ratio	Current Level of Service (4)	2036 PM Peak Hour Forecast (5)	2036 Volume to Capacity Ratio	2036 PM Level of Service	
14	155.00	157.32	Sonova Rd to Canoe Rd	CS04595	2023	Rural Minor Arterial		1	1	65	1236	10%	68%			1300	84	0.06	A	96	0.07	A	
14	166.04	167.25	593 PR Rd - SR 221	CS04826	2023	Rural Minor Arterial		1	1	65	1868	11%	76%			1300	156	0.12	A	178	0.14	A	
14	167.25	178.90	SR 221 - Plymouth Industrial Rd	CS00987	2023	Rural Minor Arterial		1	1	65	2814	11%	74%			1300	229	0.18	A	261	0.20	A	
14	178.90	179.96	Plymouth Ind. Rd - Plymouth Rd	CS09081	2023	Rural Minor Arterial		1	1	65	3524	11%	82%			1300	318	0.24	A	362	0.28	A	
14	179.96	180.77	Plymouth Rd - I-82	CS07182	2023	Rural Minor Arterial		1	1	55	4063	11%	74%			1300	331	0.25	A	377	0.29	A	
22	29.76	33.20	Benton County line to Prosser	CS11595	2023	Rural Major Collector		1	1	60	1840	11%	55%	190		1300	190	0.15	A	216	0.17	A	
22	33.20	36.52	Prosser to I-82	CS07726, CS09070	2023	Urban Minor coll/art		1	1	45-55	2198-7704		80%		Prosser UGA								
24	30.76	35.44	Benton County Line to Cold Creek Rd	CS06920	2023	Rural Minor Arterial		1	1	65	3478	13%	80%	427		1300	427	0.33	A	492	0.38	A	
24	35.44	38.71	Cold Creek Rd - SR 240	CS10154	2021	Rural Minor Arterial		1	1	65	3699	10%	66%			1300	244	0.19	A	287	0.22	A	
24	38.71	42.26	SR 240 - Int Midway Substation Rd	CS11768	2023	Rural Minor Arterial		1	1	60	5376	9%	64%	489		1300	489	0.38	A	592	0.46	A	
24	42.23	43.79	SR 240 - Columbia River	S612	2023	Rural Minor Arterial		1	1	60	5506	11%	62%	528		1300	528	0.41	A	645	0.50	A	
82	75.37	79.93	Benton County Line - Gap Road	CS11493	2023	Urban Interstate	Y	2	2	70	25741					3600	1696	0.47	A	2262	0.63	B	
82	79.93	82.34	Gap Road - SR 22	CS10926	2023	Urban Interstate	Y	2	2	70	22422					3600	1478	0.41	A	1961	0.54	A	
82	82.34	88.55	SR 22 - Gibbon Rd	CS00220	2023	Rural Interstate	Y	2	2	70	23874					3600	1573	0.44	A	2102	0.58	A	
82	88.55	93.61	Gibbon Rd - Yakitat Rd	CS07679	2023	Rural Interstate	Y	2	2	70	23699					3600	1562	0.43	A	2082	0.58	A	
82	93.61	96.58	Yakitat Rd - SR 224/Webber Canyon	CS08986	2023	Rural Interstate	Y	2	2	70	24278					3600	1600	0.44	A	2160	0.60	A	
82	96.58	102.84	SR 224/Webber Canyon - I-182	CS05674	2023	Urban Interstate	Y	2	2	70	28349					3600	1868	0.52	A	2475	0.69	B	
82	102.84	104.52	I-182 - Dallas Rd	CS03549	2023	Urban Interstate	Y	2	2	70	14896	10%	66%	1615		3600	1615	0.45	A	2207	0.61	B	
82	104.52	109.01	Dallas Rd - Clearwater/Badger Rd	CS05035	2023	Urban Interstate	Y	2	2	70	14348					3600	946	0.26	A	1398	0.39	A	
82	109.01	112.79	Clearwater/ Badger Rd - US 395	CS01991	2023	Urban Interstate	Y	2	2	70	16687					3600	1100	0.31	A	1627	0.45	A	
82	112.79	114.39	US 395 - Locust Grove/SR 397	CS08593	2023	Rural Interstate	Y	2	2	70	23853					3600	1572	0.44	A	2129	0.59	A	
82	114.39	122.73	Locust Grove/SR 397 - Coffin Rd	P09	2023	Rural Interstate	Y	2	2	70	22614	10%	66%	2017		3600	2017	0.56	A	2635	0.73	C	
82	122.73	131.58	Coffin Rd - SR 14	CS10071	2023	Rural Interstate	Y	2	2	70	22645					3600	1492	0.41	A	1950	0.54	A	
82	131.58	132.60	SR 14 - Columbia River	CS10385	2023	Rural Interstate	Y	2	2	65	25539			1781		3600	1781	0.49	A	2367	0.66	B	
182	0.00	2.93	I-82 - Queensgate Dr	CS02878	2023	Urban Interstate	Y	1	1	70	27508	10%	54%	1532		3400	1532	0.45	A	2112	0.62	B	
182	2.93	6.04	Queensgate Dr - Columbia River			Urban Interstate	Y	2-3	2-3	70	61000-76000				Richland UGA								
221	0.00	0.14	SR 14 - Patterson Ave	CS07508	2023	Rural Minor Arterial		1	1	50	2188	11%	55%	229		1300	229	0.18	A	261	0.20	A	
221	0.14	11.56	Patterson Ave - Dowd Rd	P17	2023	Rural Minor Arterial		1	1	65	2186	13%	74%	242		1300	242	0.19	A	275	0.21	A	
221	18.79	20.30	Perult Rd - Davis Rd	CS02392	2023	Rural Minor Arterial		1	1	65	2059	8%	89%			1300	147	0.11	A	167	0.13	A	
221	20.30	25.77	Davis Rd - Sales Yard Rd	CS10376	2023	Rural Minor Arterial		1	1	65	2577	8%	82%			1300	169	0.13	A	189	0.15	A	
224	0.00	0.24	SR 225 - Kennedy Rd	CS10894	2023	Rural Major Collector		1	1	55	6216	9%	50%	607		1300	607	0.47	A	730	0.56	A	
224	0.24	0.37	Kennedy Rd - DeMoss Rd	CS05423	2023	Rural Major Collector		1	1	55	4000	10%	53%	503		1300	503	0.39	A	587	0.45	A	
224	2.87	4.24	Antinori Rd - Red Mtn Rd	CS07148	2023	Rural Major Collector		1	1	55	3287	11%	57%	348		1300	348	0.27	A	431	0.33	A	
224	4.24	7.67	Red Mtn Rd - SR 240	CS04895, CS11785	2023	Urban Minor Arterial		1-2	1-2	35-55	4193-18466				W Richland UGA								
225	0.00	3.00	I-82 - Corral Creek Road	CS10260, CS09149	2023	Rural Major Collector		1	1	25-40	3834-10845				Benton City UGA								
225	4.01	4.71	Acord Rd - Hanlen Rd	CS10943	2023	Rural Major Collector		1	1	40	1616	18%	85%	262		850	262	0.31	A	298	0.35	A	
225	10.56	11.32	Horn Rapids Park - SR 240	CS11699	2023	Rural Major Collector		1	1	50	1615	17%	92%	247		850	247	0.29	A	281	0.33	A	
240	0.00	7.95	SR 24 - Beloit Rd	CS03701	2023	Rural Minor Arterial		1	1	65	2968	12%	60%	329		1300	329	0.25	A	390	0.30	A	
240	7.95	20.48	Beloit Rd - SR 225	CS09132	2023	Rural Minor Arterial		1	1	65	4639	17%	95%	782		1300	782	0.60	B	963	0.74	C	
240	20.48	21.93	SR 225 - Snively Rd	CS08236	2023	Rural Minor Arterial		1	1	55	6180	19%	95%	819		1200	819	0.68	B	1030	0.86	D	
240	21.93	43.17	Snively Rd - US 395	CS10501, R062W	2023	Urban Other	Y	1-3	1-3	55-60	6480-78992				Rich/Kenn UGA								
241	22.87	25.18	Benton County Line to SR 24	CS10242	2023	Rural Minor Collector		1	1	55	1552	16%	91%			1300	226	0.17	A	257	0.20	A	
395	13.05	18.93	I-182 - Columbia River	CS12558, CS05934	2023	Urban Other	Y	2	2	35-55	18108-50279				Kennewick UGA								
397	0	7.23	I-82 - Nine Canyon Rd	CS09979	2023	Urban Minor Arterial		1	1	60	2473	10%	67%			1200	166	0.14	A	388	0.32	A	
397	7.23	10.44	Nine Canyon Rd - Piert Rd	CS04425	2023	Urban Minor Arterial		1	1	60	926	10%	60%			1200	56	0.05	A	65	0.05	A	
397	10.44	11.12	Piert Rd - Piert Rd	CS07526	2023	Urban Minor Arterial		1	1	45	1190	9%	56%			1200	60	0.05	A	68	0.06	A	
397	11.12	11.68	Piert Rd - Lechelt Rd	CS12008	2023	Urban Major Collector		1	1	50	1322	10%	51%			850	67	0.08	A	76	0.09	A	
397	12.06	12.35	Game Farm Rd - Finley Rd	CS12209	2023	Urban Major Collector		1	1	50	2076	9%	51%			850	95	0.11	A	108	0.13	A	
397	12.35	12.79	Finley Rd - Cochran Rd	CS11420	2023	Urban Major Collector		1	1	50	3525	9%	51%			850	162	0.19	A	188	0.22	A	
397	13.46	13.89	Bowles Rd - Haney Rd	CS04319	2023	Urban Major Collector		1	1	50	7101	9%	52%			800	332	0.42	A	418	0.52	A	
397	13.89	14.25	Haney Rd - Perkins Rd	CS01859	2023	Urban Major Collector		1	1	50	8187	8%	54%			800	354	0.44	A	447	0.56	A	

397	14.25	15.78	Perkins Rd - Finley Rd	CS10345	2023	Urban Major Collector		1	1	50	9356	8%	62%			800	464	0.58	A	583	0.73	C
397	15.78	16.25	Finley Rd - Yew St	CS07558	2023	Urban Major Collector		1	1	50	12136	8%	60%			800	583	0.73	C	692	0.87	D
397	16.66	18.69	10th Ave - Columbia River	CS05379, CS03611	2023	Urban Major Collector		2	2	35-40	11504-18337				Kennewick UGA							

Notes:

- (1) Current AADT (Annual Average Daily Traffic Volumes) were obtained from the Washington State Department of Transportation Annual Traffic Report, most current available, representing 2023.
- (2) Capacities were obtained from the Benton Franklin Council of Governments regional traffic model within the Metropolitan Transportation Planning Area. Capacities outside the model area were estimated from similar facility types within the model area.
- (3) Current PM peak hour traffic volumes were obtained from the Washington State Department of Transportation Traffic Data System Portal where available. When only AADT was available it was multiplied by 10% to approximate the peak hour volume, and then the peak hour volume was multiplied by 65% to estimate the volume in the peak direction.
- (4) Current LOS calculated as volume to capacity ranges: A < 0.60, B = 0.60 - 0.70, C = 0.70 - 0.80, D = 0.80 - 0.90, E = 0.90 - 1.0, F > 1.00.
- (5) The 2036 PM peak hour volume forecast used two methodologies: (1) for roadway segments included in the Benton Franklin Council of Governments regional traffic model, PM peak hour volumes were estimated using both the model-based growth from 2019 to 2045 (interpolated to 2036) and observed growth from 2016 to 2023, with the higher of the two results selected; and (2) for roadway segments outside the regional model, the 2036 PM peak hour volumes were estimated using a growth rate based on observed traffic growth from 2016 to 2023. When the growth rate from 2016 to 2023 was less than 1% per year, a growth rate of 1% per year was used.

Remaining work

- Goals and Policies update, in conjunction with other Comp Plan Elements
 - EIS – Support to identify traffic impacts of different land use alternatives
 - Incorporate work yet to be done for next year, including:
 - County Road Program
 - WSDOT Transportation Improvement Program
 - Ben Franklin Transit – Transit Development Plan
 - Define multi-modal Level of Service standards
 - ADA transition plan, if applicable
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Thank you!

QUESTIONS?