


East-West Passenger Rail Study

23 June 2020
Joint Transportation Committee Meeting




This study provided an update to previous studies for the corridor

- Key aspects of the study:

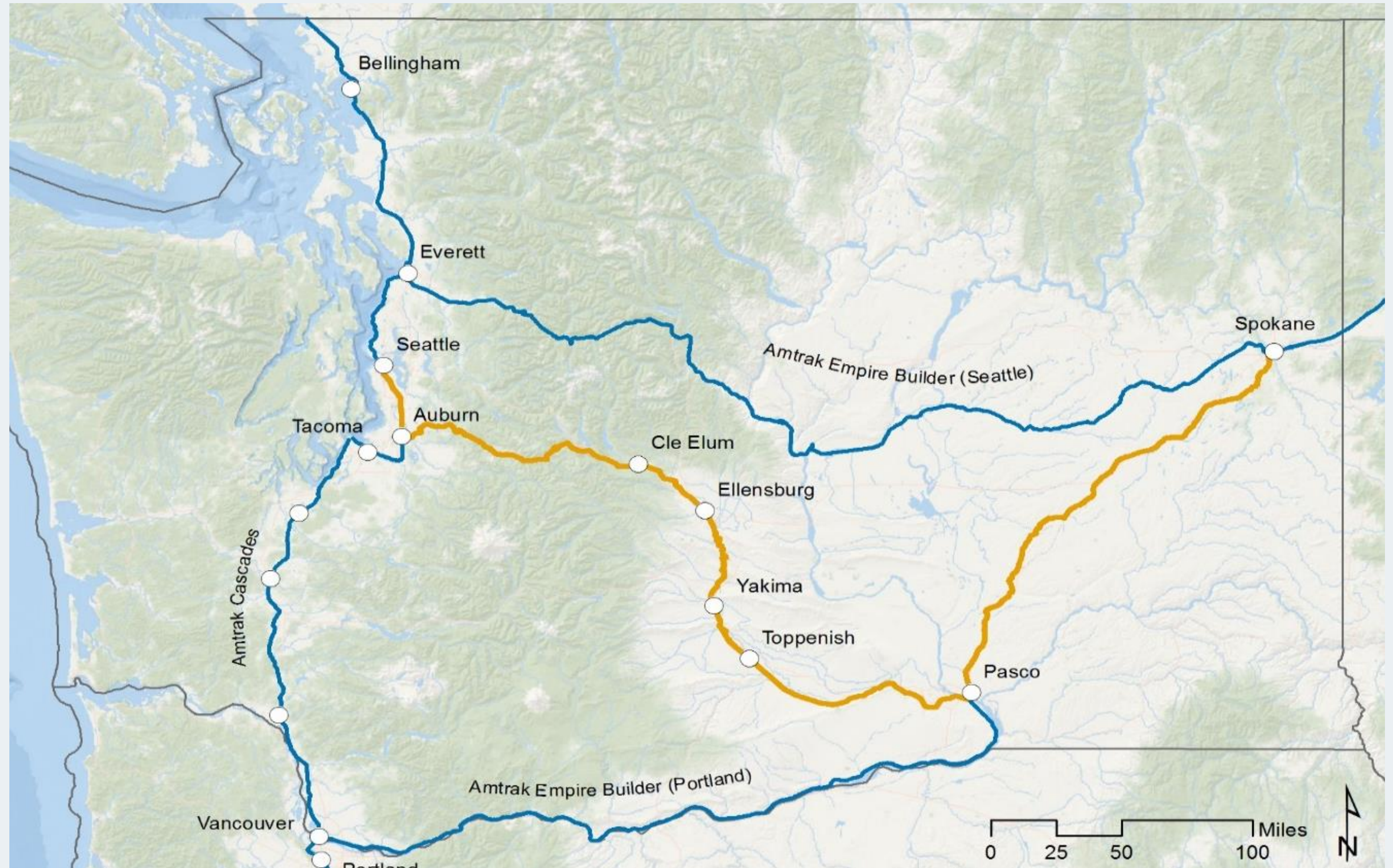
 Ridership and Revenue

 Options Review

 Current Infrastructure Assessment

 Community Survey

 Operator Assessment



Source: Steer (2020) analysis.

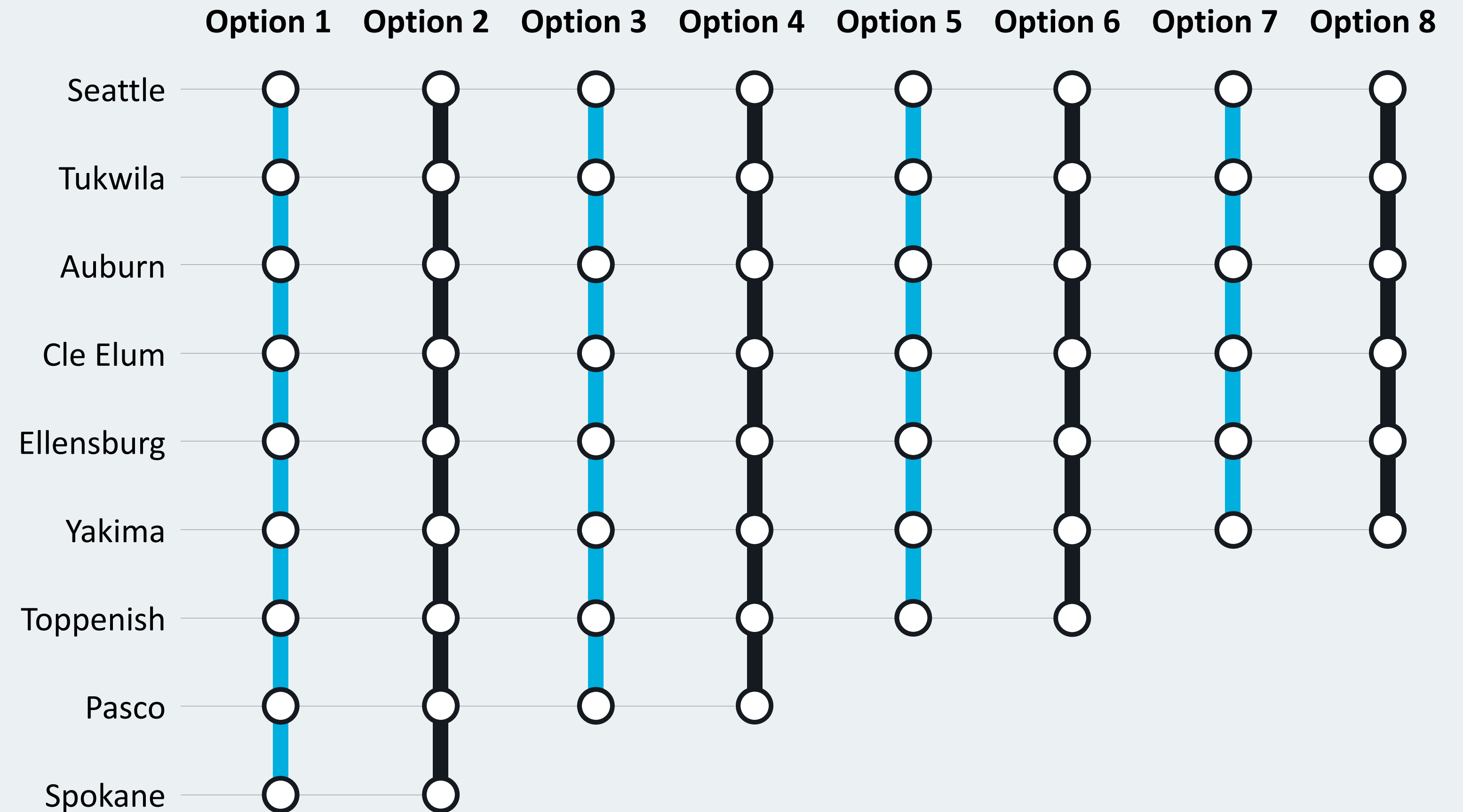
Base Map: Steer (2020) with Esri, Garmin, GEBCO, NOAA NGDC and other contributors.

Operationally feasible though journey times will be long



- Services considered including daily and twice-daily services to Spokane or between Seattle and Yakima/Toppenish
- Journey times of 8 hours and 35 minutes expected between Seattle to Spokane
- Journey times longer than by air, auto or bus for most city-to-city pairs due to slow speeds and rail freight movements
- Stampede Pass has significant gradients and sharp curves
- Operations were validated using strategic timetabling software (ATTune)

Key ● Daily Service ● Twice Daily Services

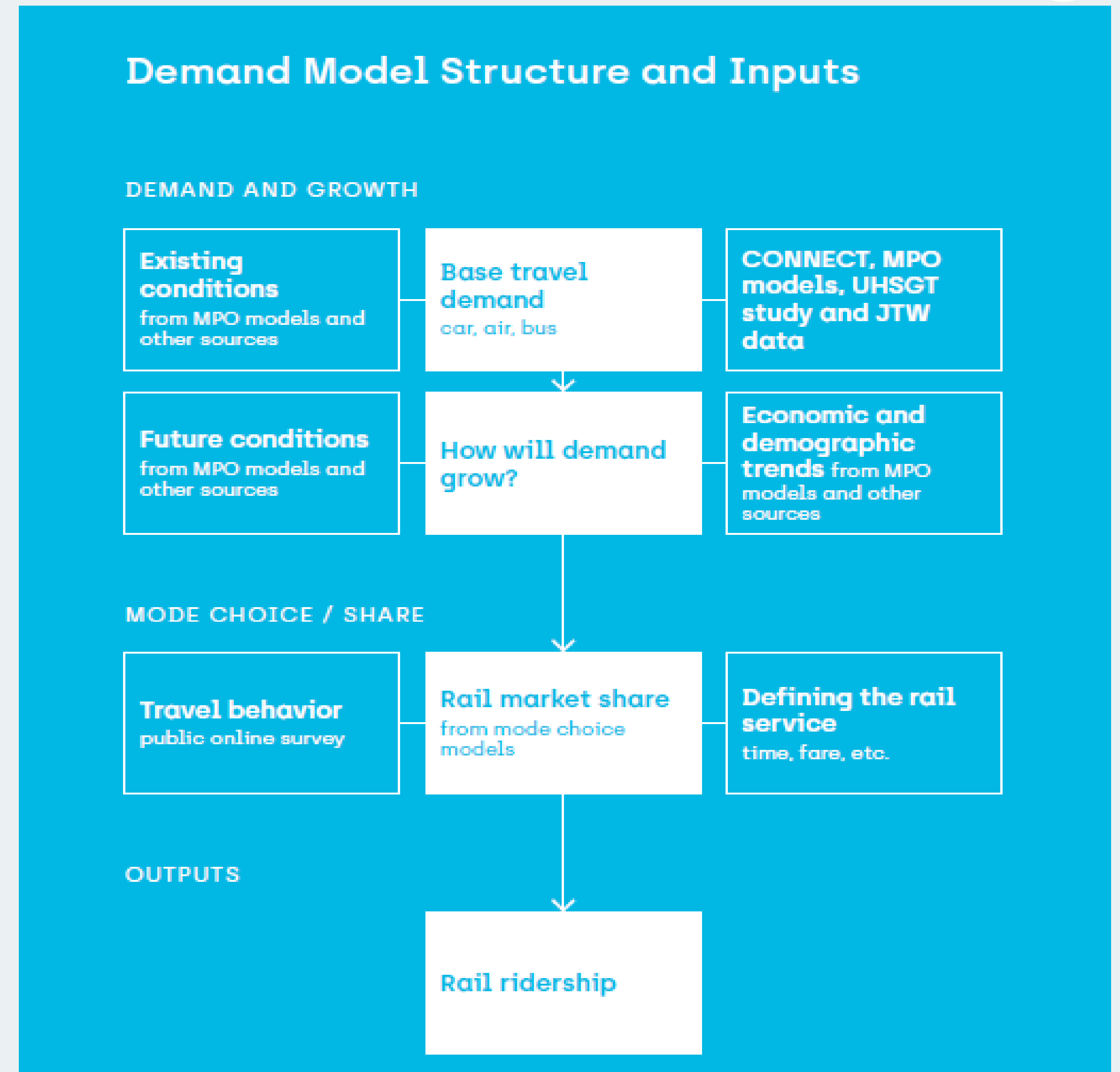


Source: Steer (2020) analysis.

Expected ridership focus in the Kittitas and Yakima Valleys



- Mode choice model focus on auto trips – air and intercity bus not included due to much quicker journey times AND low existing volumes
- Stated Preference Surveys did not focus on induced or softer factors given E/W rail service concept
- Annual ridership for year 2020 ranged from 31,000 to 205,000 annual trips
- One hour journey time reduction adds an additional 10,000 trips
- Most journeys to/from Yakima Valley locations, in particular between Yakima and Toppenish – suggests opportunity to improve intercity transit services within the Kittitas and Yakima valleys
- Comparable to some Amtrak State Supported Services but less than 25% of trips on the Amtrak Cascades
- Revenues of between \$0.6 million and \$5 million depending on service option





Significant upfront costs required

- Significant infrastructure improvements including additional passing loops, winter resilience and stations to support interaction between freight and passenger trains
- Limited opportunity for speed improvements
- Up to 4 additional train sets required plus maintenance facilities
- Estimated Costs:



Additional Passing Tracks and Sidings

— Between \$64M and \$75M



Stations Works

— Around \$50M for four-coach service

— Around \$120M for eight-coach service



Equipment Costs of between \$144M and \$252M plus \$30M for train maintenance facilities



Operating Costs

— \$6M to \$30M depending on service option

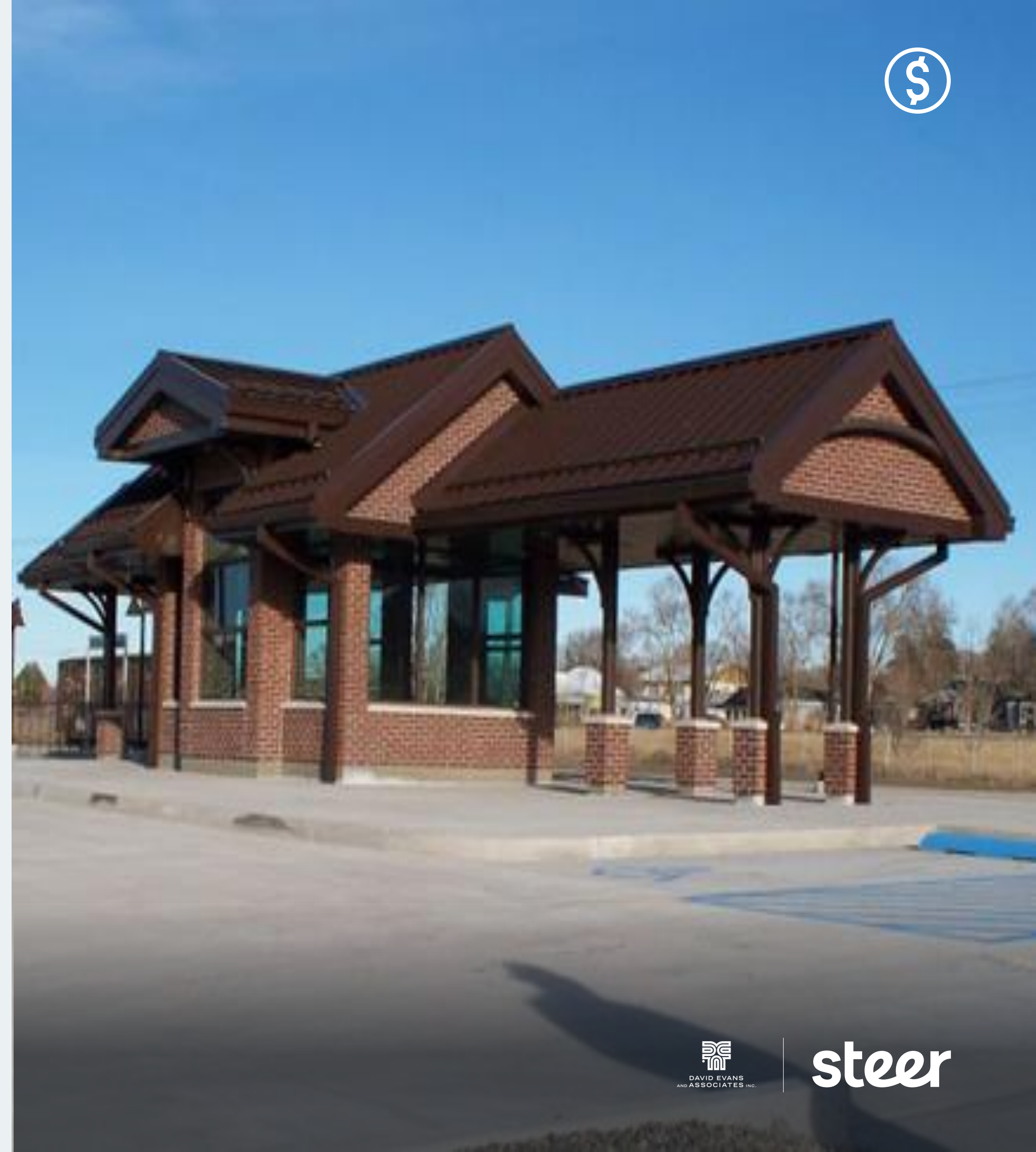
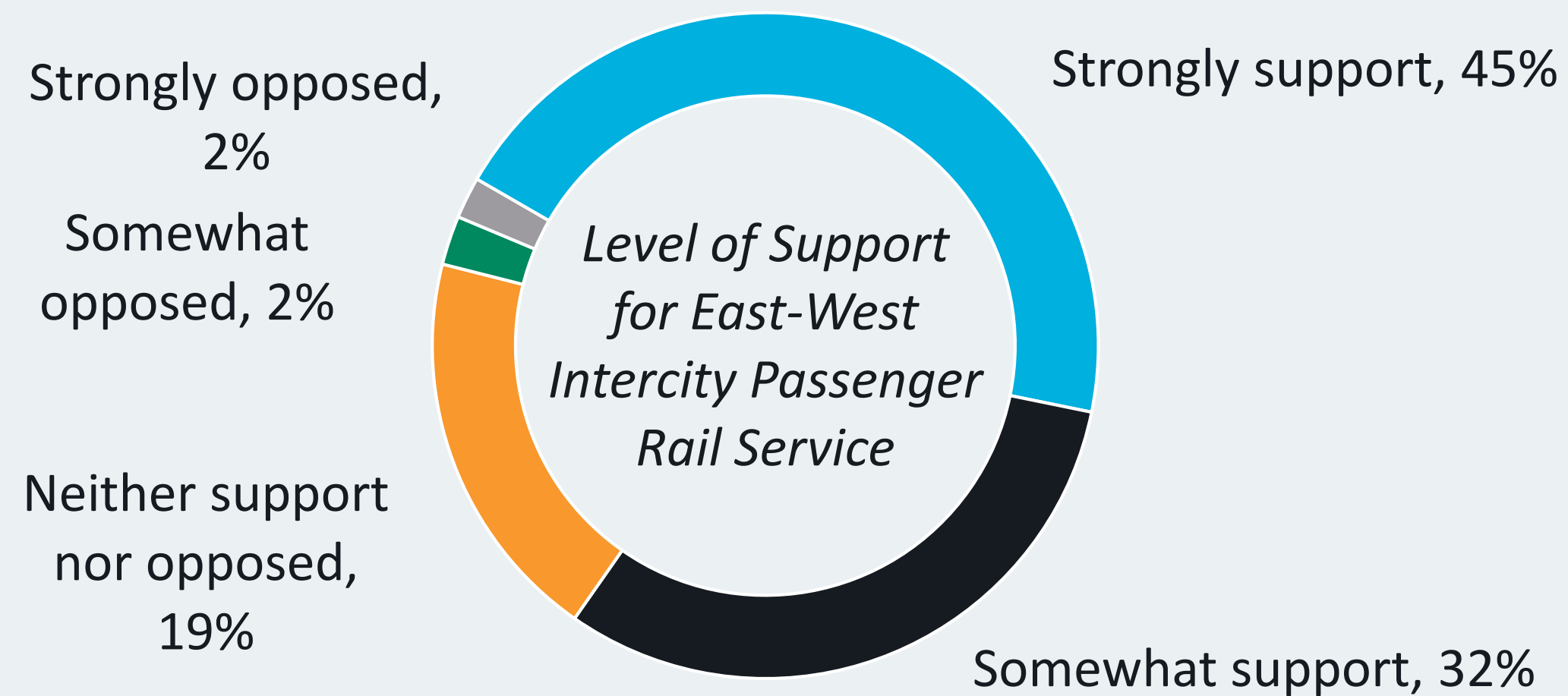


Image Source: Amtrak. (Winnemucca Nevada)

Strong community support

- Over 76.4% participants were supportive of the project
- Meanwhile only 4.4% were somewhat opposed or strong opposed to the project



Source: Steer (2020) analysis.



Three possible operation models



Public Outsourcing

- Contracts operation to Amtrak
- Similar to State Supported services across the United States including the Cascades
- Assets including rolling stock, stations, etc. funded and owned by Washington



Private Outsourcing

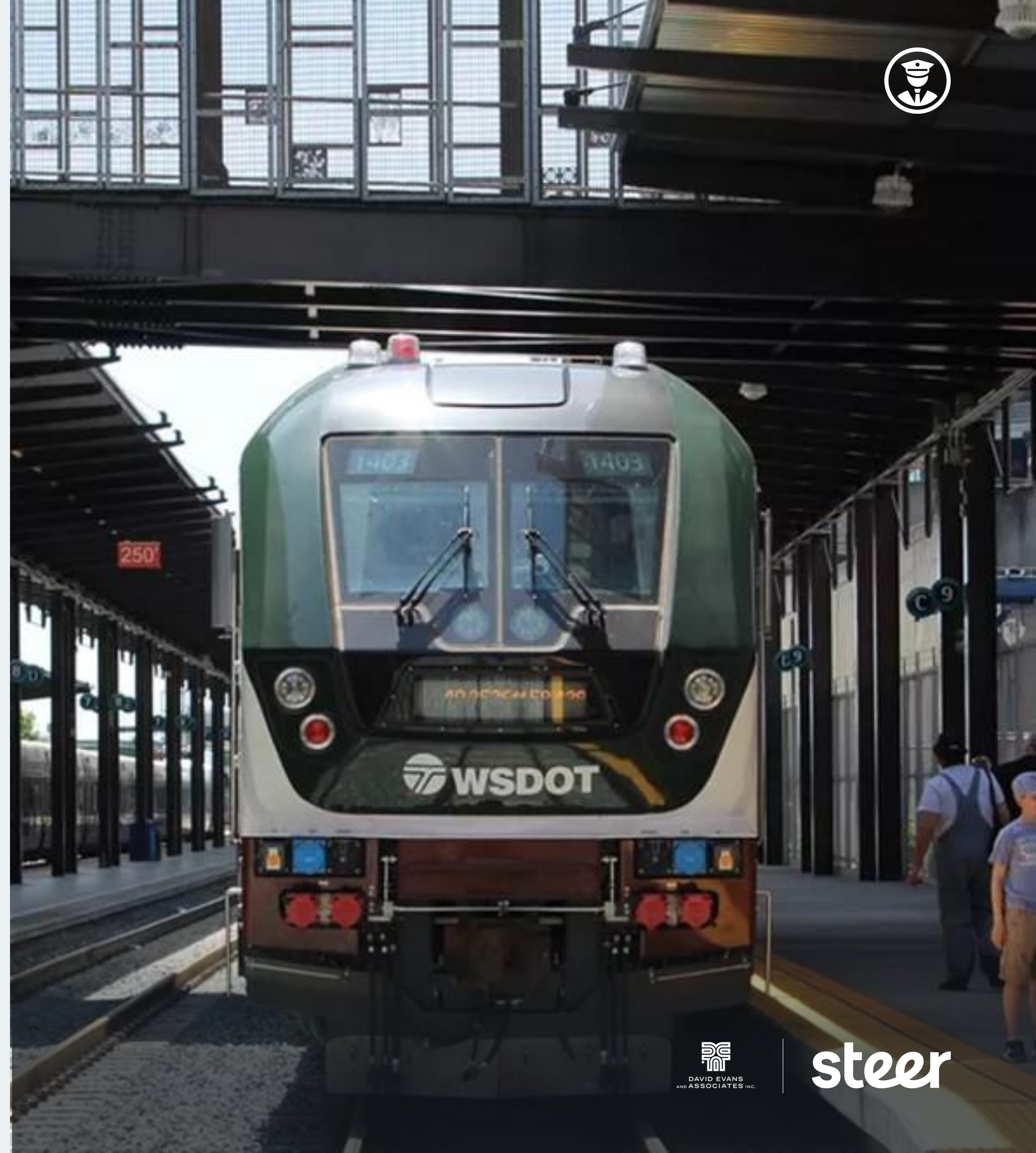
- Contracts to a third-party/private operator
- Alternative procurement approaches available including the possibility of a P3



State Operated

- State establishes an internal company to design, deliver and operate (significant step-up)
- Sub-options where WSDOT has more control over certain activities (akin to California)

Source: Steer (2020) analysis.



Summary

Daily Service Options		Option 1	Option 3	Option 5	Option 7
Service	From	Spokane	Pasco	Toppenish	Yakima
	To	Seattle	Seattle	Seattle	Seattle
	End to End Journey Time (hh:mm)	8:35	6:05	4:59	4:43
	Average Speed (miles per hour)	44	39	35	33
	Number of Locomotives	6	6	6	6
	Number of Coaches	10	10	10	10
Infrastructure	New Stations	4	4	4	3
	New Passing Tracks	4	4	4	4
Financials Costs	Infrastructure (\$Millions)	\$140	\$140	\$140	\$120
	Equipment (\$Millions)	\$160	\$160	\$160	\$160
	Operating Per Annum (\$Millions)	\$15	\$9	\$7	\$6
Financial Revenue	Catering (\$Millions)	>\$1	>\$1	>\$0.5	>\$0.5
	Ticket Sales (\$Millions)	\$4.0	\$4	\$2	>\$1
Ridership	Annual Trips (Thousands in 2020)	192	189	150	31

Summary

Twice Daily Service Options		Option 2	Option 4	Option 6	Option 8
Service	From	Spokane	Pasco	Toppenish	Yakima
	To	Seattle	Seattle	Seattle	Seattle
	End to End Journey Time (hh:mm)	8:35	6:05	4:59	4:43
	Average Speed (miles per hour)	44	39	35	33
	Number of Locos	10	10	10	8
	Number of Coaches	19	19	19	16
Infrastructure	New Stations	4	4	4	3
	New Passing Tracks	4	4	4	4
Financials Costs	Infrastructure (\$Millions)	\$140	\$140	\$140	\$120
	Equipment (\$Millions)	\$280	\$280	\$280	\$200
	Operating Per Annum (\$Millions)	\$30	\$18	\$13	\$12
Financial Revenue	Catering (\$Millions)	\$2	\$1	>\$1	>\$1
	Ticket Sales (\$Millions)	\$5	\$4	\$3	\$1
Ridership	Annual Trips (Thousands in 2020)	205	198	166	43

Thank you



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Study Provisio

(3) (a) \$250,000 of the multimodal transportation account—state appropriation is for the joint transportation committee to conduct a study of the feasibility of an east-west intercity passenger rail system. The study must include the following elements:

- (i) Projections of potential ridership;
- (ii) Review of relevant planning studies;
- (iii) Establishment of an advisory group and associated meetings;
- (iv) Development of a Stampede Pass corridor alignment to maximize ridership, revenue, and rationale, considering service to population centers: Auburn, Cle Elum, Yakima, Tri-Cities, Ellensburg, Toppenish, and Spokane;
- (v) Assessment of current infrastructure conditions, including station stop locations;
- (vi) Identification of equipment needs; and
- (vii) Identification of operator options.

(b) A report of the study findings and recommendations is due to the transportation committees of the legislature by June 30, 2020.

Complex questions
Powerful answers

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