REVIEW DRAFT

I-5 Columbia River Crossing Partnership:
Traffic and Tolling Analysis

Listing of Available and Needed Traffic Data

Working Paper 4.2

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Date
Draft – July 16, 2004

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OVERVIEW

The purpose of Working Paper 4.2 is to provide a listing of available historical, current, and future 2020 (the future year to be used for the tolling analyses) forecast Portland-Vancouver regional traffic; specifically focusing on traffic crossing the I-5 and I-205 Columbia River bridges.

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Additionally, this working paper serves to accomplish the following:

- Provide a comprehensive listing of available traffic information;
- Identify the data source and location;
- Identify any key and relevant information that may be missing or incomplete; and
- Recommend methods to address any missing or incomplete data.

The information is principally to be used for the purposes of:

- Creating and calibrating spreadsheet-based tolling models; and
- Determining characteristics pertinent to identifying and evaluating tolling options and volumes

DATA SUMMARY

The I-5 Corridor between I-84 in Portland, Oregon and I-5/I-205 Junction in Clark County, Washington has been under ongoing study since 1999 when the Oregon and Washington Departments of Transportation (ODOT/WSDOT), in cooperation with regional agency partners, initiated the *I-5 Trade Corridor*. This section briefly describes the body of traffic data generated since 1999 that is relevant to evaluating potential tolling of the I-5 and I-205 Columbia River crossings. The section addresses the following topics:

- Recent studies
- Data sources
- Available data list

Recent Studies

This section identifies and briefly describes the relevant completed and on-going studies within the I-5 corridor and provides a chronology for the traffic analysis conducted to date.

I-5 Trade Corridor (Jan 1999- Jan 2000)

In January 1999, a bi-state leadership committee considered the problem of growing congestion on the freeway and rail systems in the I-5 Corridor within the Portland/Vancouver metropolitan region. The *I-5 Trade Corridor Study* was initiated in January 1999 to evaluate existing and forecast travel conditions within the I-5 corridor between I-84 in Portland and I-205 north of Vancouver. The bi-state study was managed by a leadership committee led by representatives from the Oregon and

Washington DOTs with substantial involvement from other key agencies in the region and the consultant team.

The leadership committee was charged by regional transportation policy-makers to address five high level questions regarding transportation and congestion issues within the corridor:

1. What is the magnitude of the problem?
2. What are the costs of inaction?
3. What improvements are needed?
4. How can they be funded?
5. What are the next steps?

The study involved detailed regional modeling and traffic operations analysis associated with a year 2020 No-Build option and a series of Build options. Key findings from this early work were that existing and forecast problems associated with congestion were substantial, they needed to be addressed, and that a range of improvements was feasible to address the I-5 corridor issues. The bi-state leadership committee recommended in January 2000 that the region initiate a public process to develop a plan for the I-5 Corridor.

Portland/Vancouver I-5 Transportation and Trade Partnership (Jan 2001 – Jun 2002)

Building upon the *I-5 Trade Corridor Study*, *the Portland/Vancouver I-5 Transportation and Trade Partnership* (a.k.a. *I-5 Partnership*) was initiated in January 2001 with a 28-member Task Force appointed by Governors Gary Locke (WA) and John Kitzhaber (OR) to guide the development of the Strategic Plan for the corridor. Introduction of a broad-based public involvement process was a key differentiator of the *I-5 Partnership* from the *I-5 Trade Corridor*. The overall goal of this strategic planning effort was to determine the overall level of investment needed in the corridor for highways, transit and heavy rail, and to determine how to manage the transportation and land use system to protect investments in the corridor.

In developing the Strategic Plan, two separate analyses were undertaken, the first in the Summer-Fall 2001 when five multi-modal "Build" option packages were selected for further analysis under a 2020 analysis year. The option packages were based on ideas and comments from the public and consistent with the *I-5 Partnership's* Problem, Vision and Values Statement. Each of the five "Build" option packages included new Columbia River crossing capacity for transit and vehicles. The option packages were:

- Express Bus/3 Lanes
- Light Rail/3 Lanes
- Express Bus/4-Lanes
- Light Rail/4-Lanes
- West Arterial Road

Each of the five multi-modal "Build" option packages was compared to three additional scenarios:

- Existing Conditions 2000 - the current state of the I-5 Corridor,
- No Build 2020 - what is expected to happen in the year 2020 if the Region builds only the currently funded projects, and
- Baseline 2020 - what is expected to happen in the year 2020 if the Region constructs the funded projects in "No Build" AND the other projects listed in the Region's 20-year plans.

Although the *I-5 Trade Corridor* project, completed in 2000, required detailed modeling and traffic analysis, the *I-5 Partnership* project required updated travel demand modeling and traffic analysis. Based in large part on the transportation analysis, the Task force adopted draft recommendations for the Corridor in January 2002 that most emulated the "Light Rail/3 Lanes" option package.

Associated with these adopted draft recommendations, the Task Force recognized the special nature of integrating new roadway and transit capacity across the Columbia River and integrating interchange access within the I-5 corridor- all while minimizing impacts to neighborhoods and the environment and integrating public comment into the design refinements. The Task Force asked the project team to conduct additional and more detailed analysis of the defined Bridge Influence Area (BIA), located between SR 500 and Columbia Blvd and including light rail between the Expo Center and Downtown Vancouver, to better understand these implications.

This focused examination of the bridge and its influence area resulted in the development of four representative Columbia River crossing concepts. The consultant team adjusted the regional model forecasts associated with the Light Rail/3 Lanes option package to evaluate detailed traffic operations leading to suggested design refinements.

Unless otherwise noted in this working paper, the *I-5 Partnership* traffic data and analysis results should supercede the I-5 Trade Corridor data and results. The I-5 Partnership Strategic Plan is available for review at www.I-5partnership.com.

I-5 Partnership: Delta to Lombard Environmental Assessment (Feb 2003 – Present)

In general, I-5 consists of three through lanes in each direction in the Portland/Vancouver metropolitan area. In the project area, I-5 provides only a two-lane section in the southbound direction between Victory Blvd. and the Columbia Blvd. on-ramp. The Columbia Blvd. on-ramp becomes the third southbound lane on the freeway. Today, the two-lane section creates a severe bottleneck that results in congestion, poor lane balance and the freeway not being used to its full capacity during several hours of the typical weekday and occasionally during weekends.

The *I-5 Partnership: Delta to Lombard Environmental Assessment (EA)* is evaluating alternatives that widen southbound I-5 through the project area to provide a continuous three-lane section. Alternatives also reflect revised freeway access in the Columbia Blvd. Interchange area. While the Delta Park bottleneck is only one of the several existing bottlenecks along I-5 between I-205 and I-84, it is the controlling southbound bottleneck with observed flow rates as low as 3,200 vehicles per hour within the two-lane segment. Adjacent bottlenecks process significantly higher hourly volumes.

Relative to the *I-5 Partnership*, the *I-5 Partnership: Delta to Lombard EA* has involved all new regional modeling and updated traffic operations analysis within the I-5 corridor between SR 500 (Vancouver, WA) and the Rose Quarter (Portland, OR). Traffic operations analysis has focused almost exclusively on southbound I-5 traffic flow. Where appropriate, the consultant has suggested that *I-5 Partnership: Delta to Lombard EA* traffic data and operations results supercede the *I-5 Partnership* data and results. It should be noted that modeling for the *I-5 Partnership: Delta to Lombard EA* is also be conducted using Metro's 2020 model, but the results are extrapolated to year 2025.

Data Sources

This section identifies and briefly describes the sources of transportation and traffic data generated within the region and specifically within the I-5 and I-205 corridors near the Columbia River. This section also describes the various traffic analysis tools used to generate traffic operations results. The chronology for traffic analysis follows the overall study chronology described previously.

Regional Travel Demand Model Forecasts

The Metropolitan Service District (Metro) is Portland's metropolitan planning organization (MPO) and responsible for regional transportation planning in the Portland region. The Southwest Washington Regional Transportation Council (RTC) provides similar services for Washington State's southwest region, which includes Clark County. Each MPO maintains a regional transportation plan representing financially constrained and preferred investment levels in the regional transportation systems.

Since 1999, Metro has taken the lead role, in cooperation with RTC, other partner agencies, and the consultant team, in preparing Portland/Vancouver regional travel demand forecasts for the I-5 corridor. Metro generates a variety of demand volume, speed, travel time, congestion, and trip making characteristic results suitable for comparing existing, No-Build, and Build alternatives.

Metro also employs a population/employment allocation forecasting model called Metroscope to estimate the likely allocation of jobs/housing in the Portland/Vancouver region. The jobs/housing allocation is sensitive to regional changes in transportation accessibility (e.g., Columbia River crossing capacity) and can substantially affect travel demand model results.

Historical and Current Traffic Data

Since 1999, the consultant team has compiled and updated a variety of I-5 corridor, and to a lesser extent I-205 corridor traffic data, for use in understanding and analyzing existing corridor traffic operations. This data has also served as a foundation for post-processing regional model forecasts for input in to traffic operations models and to assess regional peak period spreading. Typical data consists of the following:

- Mainline freeway counts from ODOT and WSDOT permanent recorder locations and other locations;
- Vehicle classification and occupancy counts including lane utilization;
- Freeway ramp terminal counts;

- Crash history;
- Speed data; and
- Ramp meter rates.

Unless otherwise noted in this paper, data generated in support of the *I-5 Partnership* and *I-5 Partnership: Delta to Lombard EA* is, at this time, the most recently available information for supporting the evaluation of potential I-5 and I-205 Columbia River Bridge tolling.

Regional Model Post-processing

In calibrating the existing regional travel demand model, Metro seeks to replicate existing volumes along established north-south and east-west screenlines that represent multiple routes. For example, Metro seeks to replicate I-5 volumes at four locations within the I-5 corridor between the I-205 junction (Vancouver, WA) and the Rose Quarter (Portland, OR). Calibration at this regional level is not suited to generating detailed traffic volumes on a ramp-by-ramp basis needed to understand corridor traffic operations.

Working with Metro in 1999, the consultant team developed a post-processing methodology incorporating existing corridor traffic counts and regional model forecasts to develop future corridor demand volumes better suited to understanding the detailed operations of the corridor.

Traffic Operations Tools

Since 1999, a variety of traffic operations analysis tools have been used to evaluate freeway and ramp terminal traffic operations. Under the *I-5 Trade Corridor*, the Highway Capacity Software (HCS) was primarily used to evaluate freeway operations at isolated weave sections and merge/diverge locations as well as at ramp terminal intersections. The Freeway Queuing (FREQ) model was used to assess corridor-level operations including speeds, delays, level of service, and physical extent and duration of queuing.

When the *I-5 Partnership* turned to analysis of the Bridge Influence Area (BIA), the consultant team employed the VISSIM microsimulation model to help assess the detailed corridor-level operations associated with the complex BIA freeway configurations. The analysis led to several high-level design refinements.

During the *I-5 Partnership*: *Delta to Lombard EA*, the consultant team built upon the *I-5 Partnership* work and revised the southbound VISSIM model based on new regional model forecasts and designs. Within the Columbia Blvd. Interchange area, the team created a Synchro/SimTraffic model to assess various interchange designs.

Available Data List and Potential Data Needs

The following tables summarize the traffic-related data available to the consultant team to support the evaluation of tolling across the I-5 and I-205 Columbia River Bridges. The tables also identify data that is potentially needed as input for the *I-5 Columbia River Crossing Partnership: Traffic and Tolling Analysis Study*. These potential needs have been identified through consultation with the

project's tolling analysis consultant, as well as through discussions with the project team. The list of potential needs is preliminary and addition data may be required as work progresses.

Table 1 presents existing traffic data and potential needs and Table 2 summarizes future condition traffic data and needs. It should be noted that the future year for tolling analysis purposes is 2020. However, year 2025 data, if available, is noted.

The tables are organized to identify:

- Data item
- Data year(s)
- Description of data, e.g., type, form
- Source, e.g., ODOT, WSDOT, Metro, other
- Location; e.g., where the data resides
- Potential data gaps
- Potential ideas to work around data gaps if data cannot be provided

It should be noted that, based on the data listed in Tables 1, 2, and 3, a Technical Memorandum will be prepared detailing the available travel and traffic characteristics and trends pertinent to identifying and evaluating a tolling strategy for either the I-5 Columbia River Bridge or both the I-5 and I-205 Columbia River Bridges.

Table 1. Existing Conditions Data

This section summarizes field data (non-regional model)

Data Item	Year	Description	Source	Data Location
(a) Average weekday volumes - AM Peak - PM Peak - Mid-day - Evening	2003/2004	1. Hourly, directional ATR data for I-5 Interstate Bridge (ATR # 26-004) and I-205 Glenn Jackson Bridge (ATR # 26-024) for Jan. – Dec. 2003 and Jan. – May 2004.	ODOT	DEA – Tolling project network directory
		2. Monthly ADT and Monthly AWD for I-5 Interstate Bridge and I-205 Glenn Jackson Bridge for 1993 – 2004.	ODOT	Same as # 1
		3. Hourly, directional ATR data for I-5 just south of SR 500/39th Street Interchange for Jan. – Dec. 2003.	WSDOT	DEA – Tolling project network directory
		4. Hourly, directional ATR data for I-205 just north of Mill Plain Interchange – May 2003.	WSDOT	DEA – Tolling project network directory
		5. Classified data for AM, PM, and AM + PM for I-5 just south of SR 500/39th Street Interchange and I-205 just north of Mill Plain Interchange – May 2003.	WSDOT	DEA – Tolling project network directory
		6. Average Sunday, Saturday, Friday, Weekday, and Weekend Day for 2003 along I-5 just south of SR 500/39th Street Interchange and I-205 north of Mill Plain Interchange.	WSDOT	DEA – Tolling project network directory
		7. DEA developed directional 24-hour traffic flow profiles for I-5 Interstate Bridge and I-205 Glenn Jackson Bridge for Weekday and Weekends. Profiles used to estimate duration of congestion.	ODOT	DEA – Tolling project network directory
		8. DEA developed directional 24-hour traffic flow profiles for Busses, Light, Medium, and Heavy Trucks along I-5 just south of Portland Blvd.	ODOT	DEA – Tolling project network directory
(b) Maximum weekday vols.	**Same as above**			
(c) Relevant weekend and seasonal variations	2003/2004	1. All relevant weekend data is included in the ATR data identified under section (a).	ODOT/ WSDOT	Same as above
		2. Seasonal variations can be calculated from the yearly summaries identified above in section (a) for both ODOT and WSDOT data. Additionally, ODOT summarizes seasonal variations for AWD and ADT for each specific ATR location for each year.	ODOT/ WSDOT	ODOT website - http://www.odot.state.or.us/tdb/traffic_monitoring/tvtable.htm I-5 Interstate Bridge ATR – (# 26-004) I-205 Glenn Jackson Br. ATR – (# 26-024)

Table 1. Existing Conditions Data (Continued)

This section summarizes field data (non-regional model)

(d) Non-freight trips by trip purpose	-	No existing condition field data available.	-	-
(e) Origin-destination of traffic by type of vehicle, trip purpose, and mode	-	No existing condition field data available.	-	-
(f) Level of Service, v/c ratios, and delay on bridges, I-5 and I-205, and major access and parallel routes		Existing conditions results including density, speed, and v/c ratios were summarized in the I-5 State of the Interstate Report 2000 - Appendix S.	Parisi Associates	State of the Interstate – Report 2000 CD
(g) Representative travel times by time of day	2003	1. Travel times from I-5 Delta Park Project (NB - Morrison Street (Portland) to Main Street (Vancouver), SB – Main Street to I-84).	DEA	DEA – Delta-Lombard project network directory
	1999	2. Travel times from I-5 Trade Corridor Project (NB – I-84 to I-205, SB – I-205 to I-84).	DEA	DEA – Delta-Lombard project network directory
		Data Gap – Travel time data along NB and SB I-205 not available. **Possible Workaround** – Conduct floating car surveys along the corridor.		
(h) Auto occupancy and transit ridership	1999-2004	1. The I-5 HOV Pilot Project – 6th Evaluation Report summarizes the auto occupancy currently using I-5 Northbound.	ODOT	DEA – Delta-Lombard project network directory
		2. WSDOT's Vancouver HOV Lane Pilot Project – Evaluation Report #4 summarizes the auto occupancy and transit ridership currently using I-5 Southbound.	WSDOT	DEA – Delta-Lombard project network directory
		Data Gap – Occupancy and transit ridership data along NB and SB I-205 not available. **Possible Workaround** – Apply available I-5 occupancy rates to I-205. Conduct transit ridership observations along I-205.		
(i) Historic trends in factors listed above		ADT historical trends listed under section (a). Seasonal variation trends available from WSDOT and ODOT data as listed in section (c).	ODOT/ WSDOT	See section (a) and (c).
(j) Population and employment data	2000	Aggregate population and employment data by TAZ in the Portland metropolitan area, including Clark County	Metro/RTC	Metro/RTC
		Data Gap – Information not on hand. **Possible Workaround** – Use model data from Metro (also to be requested)		

Table 2. Existing Regional Model Data

This section summarizes year 2000 regional model data

Data Item	Year	Description	Source	Data Location
(a) Average weekday volumes - AM Peak - PM Peak - Mid-day - Evening	2000	1. Regional travel demand forecasts (EMME/2) showing volumes within Metro area for 2000 model. The 3-hour AM model plots cover 6-9 a.m. The 1-hour Mid-day plots cover 12-1 p.m. The 4-hour PM model plots cover 2-6 p.m.	Metro	I-5 Partnership CD Section 4.0
		2. For peak period/direction only, DEA developed post-processed volumes along the I-5 corridor between I-84 in Portland and I-205 in Vancouver for year 2000 conditions. Post-processed volumes were not developed for the 1-hour Mid-day period.	DEA	I-5 Partnership CD Section 4.0
		Data Gap – Year 2000 travel demand volumes along I-205 (plots). **Possible Workaround** – Request data from Metro.		
		Data Gap – Post-processed directional volumes along I-205 and off-peak period/directional volumes along I-5. **Possible Workaround** – Post-processed volumes may not be needed for this level of tolling analysis.		
(b) Maximum weekday vols.	**Same as above**			
(c) Relevant weekend and seasonal variations	2000	**Data Gap** – 1. Seasonal variation data 2. Weekend data for I-5 and I-205. **Possible Workaround** – 1. Use existing seasonal variations for 2000 travel demand forecasts along I-5 and I-205. 2. Estimate flow profiles from data made available by ODOT/WSDOT.		
(d) Non-freight trips by trip purpose	2000	**Data Gap** – Non-freight trips by trip purpose. **Possible Workaround** – Request data from Metro.		
(e) Origin-destination of traffic by type of vehicle, trip purpose, and mode	2020	Regional model peak period traversal matrices linking origin-destinations along I-5 corridor. Data is available for 2000 model.	Metro	DEA –Trade Corridor project network directory
		Data Gap – 2000 select-link tables for I-5 and I-205. **Possible Workaround** – Request data from Metro.		
(f) Level of Service, v/c ratios, and delay on bridges, I-5 and I-205, and major access and parallel routes	2000	Regional model outputs showing v/c ratios within Metro area for year 2000 conditions.	Metro	I-5 Partnership CD Section 4.0
		Data Gap – Regional level-of-service and delay on bridges and parallel routes. **Possible Workaround** – For trending purposes, refer to I-5 Trade Corridor CD for operations results (density, speed, and v/c ratios) for similar existing condition results.		

Table 2. Existing Regional Model Data (Continued)

This section summarizes year 2000 regional model data

(g) Representative travel times by time of day	2000	1. Regional model outputs showing constrained speeds along I-5 corridor for 2000 model. Use these values and link distances to develop travel times.	Metro	DEA – Delta-Lombard project binders
		2. Zone to zone travel times for peak periods.	Metro	DEA – Delta-Lombard project network directory
		Data Gap – Travel time data along I-205. **Possible Workaround** – Request constrained speed plots from Metro for I-205 and develop travel times.		
(h) Auto occupancy and transit ridership	2000	Transit ridership along I-5 corridor by screenline for Daily, AM, and PM peak periods.	ODOT	DEA – Delta-Lombard project network directory
		Data Gap – 1. Transit ridership along I-205. 2. Auto occupancy rates along I-5 and I-205. **Possible Workaround** – 1. Request data from Metro. 2. Use occupancy rates from existing conditions for 2000 travel forecasting model.		
(i) Historic trends in factors listed above	-	N/A	-	-
(j) Population and employment data	2000	Year 2000 aggregate population and employment data by TAZ in the Portland metropolitan area, including Clark County	Metro/RTC	Metro/RTC
		Data Gap – Information not on hand. **Possible Workaround** – Use model data from Metro (also to be requested)		
(k) Year 2000 Metroscope Data	2000	Year 2000 Metroscope data, including population and employment outputs and travel demand data within study area.	Metro	Metro
		Year 2000 population and employment control totals, using Olympia's projections for Clark County. Also, 2000 totals based on Olympia's projections.	Metro/RTC	Metro/RTC
		Data Gap – Information not on hand. **Possible Workaround** – Request data from Metro/RTC.		

Table 3. Future Conditions Data

This section summarizes 2020/25 regional model data for No Build and Build Conditions

Data Item	Year	Description	Source	Data Location
(a) Average weekday volumes - AM Peak - PM Peak - Mid-day - Evening	2020/25	3. Regional travel demand forecasts (EMME/2) showing volumes within Metro area for No Build (Priority Baseline) and Build Option LRT/3 Lane as described in I-5 Partnership Strategic Plan. The 3-hour AM model plots cover 6-9 a.m. The 1-hour Mid-day plots cover 12-1 p.m. The 4-hour PM model plots cover 2-6 p.m.	Metro	I-5 Partnership CD Section 4.0
		4. For peak period/direction only, DEA developed post-processed volumes along the I-5 corridor between I-84 in Portland and I-205 in Vancouver for No Build (Priority Baseline) and Build Option LRT/3 Lane. Post-processed volumes were not developed for the 1-hour Mid-day period.	DEA	I-5 Partnership CD Section 4.0
		5. DEA developed SB 2025 24-hour traffic flow profiles based on existing 2003 SB 24-hour profiles along the I-5 corridor at Interstate Bridge, just south of Interstate Avenue off-ramp, and just south of the Portland Blvd. 24-hour traffic flow profiles were developed for both weekdays and weekends. Profiles used to estimate peak spreading.	DEA	DEA – Delta-Lombard project network directory
		Data Gap – Year 2020/25 travel demand volumes along I-205 (plots). **Possible Workaround** – Request data from Metro. **Data Gap** – Post-processed directional volumes along I-205 and off-peak period/directional volumes along I-5. **Possible Workaround** – Post-processed volumes may not be needed for this level of tolling analysis.		
(b) Maximum weekday vols.	**Same as above**			
(c) Relevant weekend and seasonal variations	2020/25	All relevant weekend data is included in the SB 2025 24-hour profiles identified under section (a).	DEA	DEA – Delta-Lombard project network directory
		Data Gap – 1. Seasonal variation data 2. Weekend data for NB I-5 and NB and SB I-205. **Possible Workaround** – 1. Use existing seasonal variations for 2025 analysis along I-5 and I-205. 2. Estimate flow profiles from data made available by ODOT/WSDOT.		
(d) Non-freight trips by trip purpose	2020	**Data Gap** – Non-freight trips by trip purpose. **Possible Workaround** – Request data from Metro.		

Table 3. Future Conditions Data (Continued)

This section summarizes 2020/25 regional model data for No Build and Build Conditions

(e) Origin-destination of traffic by type of vehicle, trip purpose, and mode	2020	Regional model peak period traversal matrices linking origin-destinations along I-5 corridor. Data is available for No Build (Priority Baseline) and Build Option LRT/3 Lane for I-5 only.	Metro	DEA –Trade Corridor project network directory
		Data Gap – 2020 select-link tables for I-5 and I-205. **Possible Workaround** – Request data from Metro or use overall trip table extracting I-5 select link information to estimate I-205 select link results.		
(f) Level of Service, v/c ratios, and delay on bridges, I-5 and I-205, and major access and parallel routes	2020	Regional model outputs showing v/c ratios within Metro area for No Build (Priority Baseline) and Build Option LRT/3 Lane.	Metro	I-5 Partnership CD Section 4.0
		Data Gap – Regional level-of-service and delay on bridges and parallel routes. **Possible Workaround** – For trending purposes, refer to I-5 Trade Corridor CD for operations results (density, speed, and v/c ratios) for similar No Build and Build options.		
(g) Representative travel times by time of day	2020	3. Regional model outputs showing constrained speeds along I-5 corridor for No Build (Option 2) and Build Options (4 and 6). Use these values and link distances to develop travel times.	Metro	DEA – Delta-Lombard project binders
		4. Zone to zone travel times for peak periods.	Metro	DEA – Delta-Lombard project network directory
		Data Gap – Travel time data along I-205. **Possible Workaround** – Request constrained speed plots from Metro for I-205 and develop travel times.		
(h) Auto occupancy and transit ridership	2020	Transit ridership along I-5 corridor by screenline for Daily, AM, and PM peak periods.	ODOT	DEA – Delta-Lombard project network directory
		Data Gap – 1. Transit ridership along I-205. 2. Auto occupancy rates along I-5 and I-205. **Possible Workaround** – 1. Request data from Metro. 2. Use occupancy rates from existing conditions for 2020 conditions for I-5 and I-205.		
(i) Historic trends in factors listed above	-	N/A	-	-
(j) Population and employment data	2020	Year 2020 aggregate population and employment data by TAZ in the Portland metropolitan area, including Clark County	Metro/RTC	Metro/RTC
		Data Gap – Information not on hand. **Possible Workaround** – Use model data from Metro (also to be requested)		

Table 3. Future Conditions Data (Continued)

This section summarizes 2020/25 regional model data for No Build and Build Conditions

(k) Year 2025 Metroscope Data [Note: Data, if provided, to be used only for qualitative comparative purposes only]	2025	Year 2025 Metroscope data, including population and employment outputs and travel demand data within study area.	Metro	Metro
		Year 2025 population and employment control totals, using Olympia's projections for Clark County. Also, 2020 totals based on Olympia's projections.	Metro/RTC	Metro/RTC
		Data Gap – Information not on hand. **Possible Workaround** – Request data from Metro/RTC.		