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Memo

To	Megan McLain, Scott Adams, Mindy Peterson
Cc	David Miller
From	David Cuneo
Date	January 30, 2018
Project	Louisville-Southern Indiana Ohio River Bridges

Project No.	23066401

Traffic & Revenue Forecasts

This memo is intended to provide a better understanding of elements of the traffic and revenue forecasts for the Louisville-Southern Indiana Ohio River Bridges Project. As background, Steer Davies Gleave prepared the Louisville-Southern Indiana Ohio River Bridges Traffic & Revenue Study report dated October 24, 2013 which was included in the Official Statement of the toll revenue bonds. In 2016, we updated our forecasts as presented in a memo dated June 25, 2016.

We developed our traffic and revenue forecasts utilizing a network travel demand model that selects the best route for each trip, including the choice between tolled and un-tolled routes. The network model is only run for limited model years for which full input information is available, and then interpolated/extrapolated for other years. We apply several adjustments to the network model outputs to establish the final traffic and revenue forecasts. The details of these adjustments are discussed in Chapter 5 and 6 of our study report.

Chapter 6 of the study report starts by presenting the network model outputs to illustrate the characteristics underlying the forecasts. These characteristics include the growth in overall traffic crossing the Ohio River (for both tolled and un-tolled bridges) and how much of the total traffic would be captured by each toll bridge. We then apply further steps in our forecasting process to adjust the network model outputs that represent the theoretical steady state condition into the traffic and revenue forecasts. Key steps include:

1. The conversion from average weekday values to an annual level reflecting the different traffic profiles on weekdays vs. weekend days (the forecasts assume a 315 annualization factor).
2. The reduction to revenue for leakage/toll evasion (there is greater leakage/toll evasion for payment by video/plate).
3. The application of ramp-up factors in the early years to reduce early year traffic and revenue to reflect the need for familiarity and traffic patterns to get used to the new tolling and bridges. This is an adjustment to the steady-state theoretical conditions of the network model to the likely reality of the new toll facilities.

The effects of these adjustments are seen in the values presented in Table 6.7 of the study report, which starts with the model outputs in the "Daily Traffic" and "Daily Revenue" columns which are turned into the forecasts in the "Annual Traffic After Ramp-Up" and "Annual Revenue Less Toll Evasion After Ramp-Up" columns through the application of the adjustments described above.

We understand that actual daily traffic values are being used to assess the performance of the project. To assist in comparison with actual daily traffic values, we have converted the annual traffic forecasts into the

average weekday and weekend traffic forecasts in the table below based upon the updated forecasts outlined in the 2016 memo.

We do also want to caution placing too much emphasis on comparisons with these traffic forecasts, as the composition of the traffic by vehicle class and payment type will have a significant influence on the toll revenue and ultimately the overall financial performance of the project.

Fiscal Year	Revised Forecasts (2016)		
	Annual Traffic After Ramp-Up	Daily Weekday Traffic After Ramp-Up	Daily Weekend Traffic After Ramp-Up
2017	9,409,873	59,745	31,022
2018	22,474,519	71,348	37,046
2019	29,592,927	93,946	48,780
2020	33,889,510	107,586	55,862
2021	35,590,152	112,985	58,665
2022	36,732,035	116,610	60,547
2023	37,313,516	118,456	61,506
2024	37,952,091	120,483	62,558
2025	38,632,690	122,643	63,680
2026	39,349,997	124,921	64,863
2027	40,105,339	127,319	66,108
2028	40,900,107	129,842	67,418
2029	41,735,760	132,494	68,795
2030	42,613,835	135,282	70,243
2031	43,483,612	138,043	71,676
2032	44,331,749	140,736	73,074
2033	45,196,566	143,481	74,500
2034	46,078,396	146,281	75,953
2035	46,977,575	149,135	77,436
2036	47,778,721	151,678	78,756
2037	48,478,202	153,899	79,909
2038	49,188,008	156,152	81,079
2039	49,908,295	158,439	82,266
2040	50,639,217	160,759	83,471
2041	51,256,409	162,719	84,489
2042	51,756,965	164,308	85,314
2043	52,262,450	165,913	86,147
2044	52,772,914	167,533	86,988
2045	53,288,405	169,170	87,838
2046	53,808,975	170,822	88,696
2047	54,334,673	172,491	89,563
2048	54,865,550	174,176	90,438
2049	55,401,657	175,878	91,321
2050	55,943,048	177,597	92,214
2051	56,489,774	179,333	93,115
2052	57,041,888	181,085	94,025
2053	57,599,444	182,855	94,944
2054	58,162,496	184,643	95,872