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Memorandum

To:	file
From:	Craig Heither
Subject:	Final results for I-355 add-lanes project analysis
Date:	December 31, 2007

The tables below summarize the analysis done for the 2030 RTP Update and FY 07-12 TIP, which included the following amendments:

- I-355 add-lanes (I-88 to 75th Street), TIP ID 12-08-0016.
- Prairie Parkway (IL 71 to US 34, in the 2020 analysis network), TIP ID 09-02-9033.
- Previously analyzed amendments: I-355 South Extension add-lanes (127th Street to I-80) and associated improvements TIP IDs 12-94-0016 and 12-07-0004.

For ozone, analysis horizon years 2010, 2020 and 2030 were evaluated using the current CATS conformity model and the approved regional MOBILE6.2.03 emission rates. The results fell below SIP emission budgets for each horizon year and were very similar to emission estimates from the current conformity analysis documentation for the 2030 RTP Update and FY 07-12 TIP.

Ozone Emissions Table

	Volatile Organic Compounds				**Nitrogen Oxides**		
Year	Emissions	Off Network Credits	SIP Budget	*Initial 07-12 TIP*	Emissions	SIP Budget	*Initial 07-12 TIP*
2010	91.93	Not Taken	127.42	*91.93*	205.54	280.40	*205.33*
2020	51.31	Not Taken	127.42	*51.29*	67.82	280.40	*67.67*
2030	52.00	Not Taken	127.42	*51.98*	48.21	280.40	*48.17*

The 2010, 2020 and 2030 highway networks were coded to include the changes listed above and the regional travel demand models were re-run using the new networks. The resultant VMT by speed and facility type for eight vehicle classes (including urban bus) was expanded to twenty-eight MOBILE vehicle types for multiplication by regional emission rates developed using the MOBILE model. The highway emission estimates are the sum of those calculations for each precursor and each horizon year. Reductions from the National Energy Policy Act Credit and Clean Fuel Fleet Program have not been claimed.

$PM_{2.5}$ emissions were calculated based on the project changes listed previously, and the results are shown below. $PM_{2.5}$ and NOx emissions remain below the baseline year numbers. These results are for the northeastern Illinois portion of the non-attainment area only.

$PM_{2.5}$ Emissions for Northeastern Illinois

Year	**Direct $PM_{2.5}$** revised	*Initial 07-12 TIP*	**NOx** revised	*Initial 07-12 TIP*
2002	unchanged	*3,070.78*	unchanged	*167,630.81*
2010	1,605.96	*1,634.99*	78,574.50	*78,495.92*
2020	1,044.31	*1,042.49*	26,091.69	*26,035.81*
2030	1,030.32	*1,029.25*	18,870.23	*18,853.12*