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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 08-08-0012.
- 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 CMAP 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

	Vo	olatile Organ	ic Compoun	Nitrogen Oxides			
		Off		Initial			Initial
		Network	SIP	07-12		SIP	07-12
Year	Emissions	Credits	Budget	TIP	Emissions	Budget	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

	Direct	: PM _{2.5}	NOx			
	Initial 07-12			Initial 07-12		
Year	revised	TIP	revised	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		