



Kalamazoo Area Transportation Study's 2030 Transportation Plan Alternatives Analysis

Presentation to the TTC
October 6, 2008

KATS's 2030 Transportation Plan Alternatives Analysis

- KATS 2030 Transportation Plan development included a simple alternatives analysis.
- The purpose of our Alternative Analysis was to identify the network performance impacts of different groups of projects in order to select the recommended alternative for the 2030 Transportation Plan.
- The purpose was not to see what changes in our growth assumptions would have on the model projections.
- Alternative Analysis was encouraged by our federal partners.

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- We began with the network deficiencies identified by the model for the base year and the horizon year of 2030.
- We discussed at the Technical Committee level what deficiencies we wanted to address.
 - Some deficient segments have environmental, political, or other factors that make them difficult to address by capacity expansion.

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Alternatives Analysis

- Additional segments were identified with capacity enhancement projects through discussion using local agency knowledge of growth and developments in the works.
- A list of 100 candidate capacity enhancement projects that would be considered to address the deficiencies was developed. These were divided into 5 separate groups of projects for analysis. All of this work was done by a subcommittee.
- System preservation projects were not part of the alternatives.

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- The alternative groups of projects were not completely distinct:
 - Several projects were common to all alternative groups.
 - One group included all candidate projects.
 - One group contained the smallest number of projects.
 - The other groups contained various combinations of projects.

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- The model for the KATS area is only a vehicular model. There is no transit component to the model so mode choice was not analyzed.
- The network performance for the 5 alternatives was compared to the network performance of the base year network with 2030 traffic, no capacity changes to the network. The results are:

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Alternatives Analysis

Alternative	% of Total Available to Plan	Change in Vehicle Miles Traveled	Change in Vehicle Hours Traveled	Change in Network Miles
A	42	40,754	-4,207	0
B	58	85,885	-128	3
C	48	16,842	-6,291	11
D	60	66,192	-4,509	3
E	97	73,500	-7,936	26
F	87	85,531	-5,731	17

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- These numbers showed that:
 - The reduction on vehicle hours travelled was not directly related to the amount of capacity expansion projects included. Alternative C with 48% of the total available had a higher reduction than Alternative F with 87%.
 - There were clear network performance differences between the alternatives.
 - Alternative A equaled or bettered more expensive alternatives B and D.

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- Because one of our Plan goals is to maintain the current system we invest more available funds to preservation projects rather than capacity expansion projects.
- The committee elected to select Alternative A as the base preferred alternative for the Plan. Projects were eliminated from this alternative to reduce the funding for capacity projects further from 42% to 29% of available funding.

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- Things learned
 - A small MPO can do this with the cooperation of MDOT.
 - More capacity projects do not automatically mean more reductions in Vehicle Miles Traveled.
 - Careful choice of projects in alternatives is important to get distinct results.

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- We intend to continue with alternative analysis with the 2035 Plan. Hopefully improving on this first experience.



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Questions?