Agenda Item No. 5.0

Chicago Metropolitan Agency for Planning

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MEMORANDUM

To: **Planning Coordinating Committee**

Date: **September 2, 2009**

From: **Bob Dean, Principal Regional Planner**

Re: **Preferred Scenario Development**

GO TO 2040 is now moving into a new phase. The development and evaluation of alternative scenarios, which has been a major part of the planning process for the past two years, has been concluded. The principal public engagement stage of the plan has been underway since June, and is wrapping up in early September.

The next stage in *GO TO 2040* is to use the results of this evaluation and public engagement to determine the plan's priorities and recommendations for action. This involves developing a "preferred scenario" which will form the basis of the plan's recommendations, though it will not go into detail on recommended policies, investments, or other actions, and will not address the implementation of the plan's recommendations. (These kinds of details will be included in the draft plan, which will be prepared during spring 2010.)

Major transportation capital projects, which include major rail and expressway additions or expansions, will not be explicitly addressed in the preferred scenario. These are being evaluated separately, and a recommendation concerning major capital projects will be made after the preferred scenario has been adopted. The preferred scenario will also provide the context within which major transportation capital projects are evaluated.

A draft of the preferred scenario will be prepared during fall of this year, with involvement by CMAP's working committees and discussions with other stakeholder groups between September and November. The Board is scheduled to discuss the preliminary preferred scenario at a workshop for this purpose in October. The Planning Coordinating Committee is expected to be asked to recommend the endorsement of the preferred scenario in November,

followed by a general public comment period, with action by the Board and MPO Policy Committee in January 2010.

The remainder of this memo describes the expected role of the preferred scenario in prioritizing the plan's recommendations, the expected format of the preferred scenario document, and notes on the initial scenario conclusions, which highlight some of the major elements expected to be covered in the preferred scenario.

Recommendation prioritization

The prioritization of recommendations is a critical part of *GO TO 2040*. If the plan's recommendations are simply a "laundry list" of possible actions, the plan's ability to provide any guidance on the future direction of the region becomes watered down. Identifying the few most important actions that the region can take to realize our vision is necessary. On the other hand, the plan should also not limit the ability of local governments, transportation agencies, or other groups within the region to adopt successful and positive strategies, even if these are not among the plan's most important recommendations.

For example, car-sharing programs have been implemented in the region by non-profit and private-sector organizations, and have demonstrated benefits in terms of lowering household transportation costs and reducing the need for automobile ownership. Car-sharing is unlikely to be identified as one of the plan's most important recommendations, but it is desirable for the plan to support the further implementation of car-sharing programs.

Staff recommends that this issue be dealt with by offering two types of recommendations in the plan: a short list of the highest-priority actions as a "top ten" list of the plan's recommendations; and a longer section of the plan that provides support for other activities that are seen as important to the plan but not as critical as the "top ten" items.

The preferred scenario is intended to help establish priorities, and the need for prioritization will be emphasized as this is discussed with committees and stakeholders. By the time the preferred scenario is complete, in January 2010, it should provide a clear sense of what the plan's priorities will be.

The prioritization of recommendations is among the most difficult but also most important elements of *GO TO 2040*. The Planning Coordinating Committee will be asked to take a leadership role in supporting the concept of prioritization and also making decisions concerning priorities as the planning process reaches that stage.

Description of the preferred scenario document

The preferred scenario is expected to be organized in the following way:

- A brief introduction will provide context on the preferred scenario's place in *GO TO 2040*, focusing on its relationship to the Regional Vision and the draft final plan.
- The benefits of the preferred scenario over a "reference" scenario will be described. This section will focus on the improved regional outcomes that are expected to be achieved, using measures such as congestion, energy consumption, regional economic performance, and others.
- The policies, strategies, and systematic investments that make up the preferred scenario will be described. The description of these will follow a similar structure as the alternative scenario descriptions that have been available for comment on CMAP's website this summer.
- Three appendices will be attached. These will include a description of the public engagement process and results; the results of the alternative scenario evaluation; and county-level socioeconomic forecasts that are behind the preferred scenario.

In total the document is expected to be 15-20 pages, not counting appendices, and to include numerous illustrations and graphics.

Notes on scenario conclusions

During summer 2009, some of the main conclusions reached through scenario analysis have been discussed with CMAP's committees and other stakeholder groups. These initial conclusions are repeated below. Please note that these are initial thoughts from staff and should be considered preliminary.

<u>Transportation</u>

- Management and operations strategies and ITS activities improved transportation system performance, and were particularly effective at shifting trips to transit or nonmotorized modes. However, mobility was improved the most dramatically by capital investments in the existing system (new major capital projects were not considered in the scenarios). Additional operating efficiencies can be gotten from the existing system, but this only provides part of the solution; substantial infrastructure investment is needed, which is costly.
- Congestion pricing (and to a lesser extent, variable parking pricing) had dramatic results that were mixed in terms of positives and negatives. In the analysis, it created two "classes" of travelers – those who would pay higher prices for additional mobility, and those who would or could not. For the first group, the region became more accessible as travel times on expressways were reduced. For the second group, trips were shifted onto slower arterial roadways or onto public transit, increasing overall travel times for those users. This obviously creates equity concerns. Congestion pricing also demonstrated significant ability to raise revenues. The impacts of congestion pricing on freight are a concern but have not been fully explored in the scenario analysis and further work on this is needed.

- Increases in highway capacity led to rises in VMT, even if transit services were also improved and land use patterns grew denser. The increases in highway capacity appeared to generate additional auto travel. Although transit and non-motorized trips rose compared to the reference in every scenario, auto travel also increased in the scenarios that increased roadway capacity either through new construction or operational improvements.
- One of the more surprising results concerned air quality. In some cases, actions taken to reduce congestion also increased auto demand, leading to more auto trips and negative net air quality impacts. This was not expected – staff assumed that the air quality benefits of congestion reduction would exceed the disbenefits of increased auto tripmaking, but the particular strategies that were tested had the opposite effect. In particular, strategies that shifted traffic from higher-speed to lower-speed roadways (either through pricing or through arterial improvements) increased some pollutants because vehicles are less efficient at lower speeds. However, the differences between scenarios were minor, and were overwhelmed by the impacts of technological change expected to occur between now and 2040.
- Interest in interregional high-speed rail is increasing, and it appears to be a relevant topic for the *GO TO 2040* plan. This topic appears most appropriate to address at the "mega-region" level.
- Improving access to jobs was considered a key transportation outcome by groups working in human and community development, and was expected to improve workforce participation of lower-income people, increase overall public health, lower household costs, and reduce crime. The link between transportation and health was especially strong, and the education group emphasized the importance of children being able to walk to school.
- The scenario analysis was not successful in meaningfully evaluating freight strategies. The plan needs to address freight directly, so additional work on this issue is underway and should be complete by the time the plan's recommendations are being developed.

<u>Land use</u>

- Increasing density of development in areas where infrastructure already exists had major positive impacts on many of the outcomes measured. See the "environment" section for more on this.
- Brownfield remediation and transit oriented development attracted reinvestment in existing communities, leading to an overall pattern of denser development. These strategies were most effective when linked with infrastructure improvements.
- Mixed-use developments intended to foster a sense of community were seen to have many benefits in the human and community development areas. Positive impacts were noted for arts and culture, crime and justice, education, emergency preparedness, health, human relations, and workforce development. Density had particularly positive impacts in terms of allowing better access to education and health facilities.

- Improving access to open space (defined as the number of people with adequate amounts of open space within a short distance) is different than increasing the region's overall supply of open space. Improving access requires creating new open space and parks in densely developed parts of the region, which can be difficult and costly, but has health and social benefits.

Human services

- Elderly, disabled, and other vulnerable residents would benefit from mixed land uses, moderate to high development densities, multimodal transportation options, and widely available affordable housing.
- In the human and community development area, delivery of services could be improved by information and data sharing between governmental agencies offering similar services as well as increased transparency. Better coordination of federal and state funding programs was also identified by a number of groups as a key issue.

Housing

- Increasing densities was projected to increase housing affordability even without any other action, as denser housing tends to be more affordable (this is admittedly an oversimplification, but it is generally true). However, increasing reinvestment in existing communities can lead to challenges in maintaining affordable housing in these areas. In particular, transit-oriented development, combined with improved transit service, attracted more development to areas served by transit; without public sector action, this could also drive up housing costs in these locations.
- Reducing barriers to efficient market function appears to be effective in addressing long-term housing affordability. Allowing the market to operate effectively to create a mix of housing types would improve the regional supply and balance of affordable housing.
- Research on housing preservation and inclusionary zoning found that well-designed public programs of these types could be effective at supporting affordable housing in specific circumstances, though overall had less impact on regional housing affordability than the operation of the private sector housing market. Also, public programs will need to continue to have a role in providing housing for very low-income or other vulnerable groups.
- One of the better ways to reduce the region's water use, energy use and greenhouse gas emissions involved efficiency improvements to housing. This also improves affordability by lowering utility costs.

Environment

- As noted in the "land use" section, increasing development density had significant environmental benefits. A dense development pattern was as effective as any specific environmental program at limiting imperviousness, reducing land consumption, or reducing water use (particularly groundwater).

- All of the environmental strategies analyzed worked best when paired with strategies that increased reinvestment. For example, conservation design had better results when applied to redevelopment and considered in conjunction with other strategies that supported redevelopment, rather than when applied only to new growth.
- Similarly, agricultural preservation strategies that focused on preserving high-productivity soils tended to simply shift growth from higher-productivity to lower-productivity farmland. The prevalence of agricultural land in the region means that most greenfield growth will consume farmland; increasing reinvestment and reducing overall greenfield growth is necessary as part of an approach to preservation. Linking agricultural preservation with local food systems was also recommended in the human and community development research.
- Access to open space has been discussed in the "land use" section. Prioritizing open space conservation in places with the highest natural resource value rather than access potential would have different results, leading to preservation of land in less developed parts of the region.
- A disappointing result of the scenario analysis was that no scenario appears likely to reduce greenhouse gas emissions at the rate necessary to truly address the issue of climate change. A common target for emissions is to reduce them to 20% of their levels in 1990; none of the scenarios approach this level. This can be interpreted two ways: first, that more aggressive strategies are needed, including even denser development, more investment in alternative transportation modes, and more retrofits of buildings; or second, that this ambitious target is just not achievable without dramatic technological change. Staff believes that both of these interpretations are probably correct. *GO TO 2040* should set a realistic target for greenhouse gas emission reductions with existing technology that is challenging but possible, but also support the rapid development of technological improvements as well as mechanisms (like cap-and-trade systems) for emission reductions.
- Energy retrofits of existing institutional buildings were highlighted in the areas of education, health, and arts and culture, as these could reduce the costs of operating large facilities of these types.
- Water supply and water quality were not addressed in detail during the *GO TO 2040* process because of the ongoing work of the Regional Water Supply Planning Group (RWSPG). The conclusions of the RWSPG are expected to inform the recommendations of *GO TO 2040*. In particular, the RWSPG will be addressing the connection between land use and water for the next several months, and the results of this work will also be relevant for *GO TO 2040*.

<u>Economic development</u>

- Economic incentives are best addressed by targeting sectors or clusters whose growth and increased specialization in the region are desired. They appear to be less

appropriate for affecting land use decisions or encouraging growth to occur in one location rather than another.

- Land use development decisions are highly influenced by fiscal impacts, which are caused in part by tax policy. This means that tax policy is among the factors that influence development that should be examined in the *GO TO 2040* plan.
- Economic innovation has proven difficult to measure or even describe, but it is important for our region's future economic health. The public sector can have a role in supporting innovation through technology transfer programs or assistance in planning technology parks, for example (although innovation is not limited to technology-based fields).
- Human capital was not directly analyzed in the scenarios, but there is consensus that it is vitally important. Education and workforce skills must be addressed in some way in *GO TO 2040*. The results of the work on early childhood education, K-12 education, higher education, and workforce development are expected to be used to inform the plan's approach; so will the results of ongoing work on industry clusters that have particular workforce requirements.
- A number of human and community development groups noted the importance of maintaining a supply of jobs in the region that pay a good wage but do not require advanced education. This was seen to improve workforce development, and would also reduce poverty, with positive effects on crime, health, human relations, and hunger. Industries that support many jobs with mid-level incomes, rather than a few high-paying jobs and many low-paying jobs, are preferable in this regard.
- Significant potential for economic growth exists in the "green jobs" sector; the preparation of a report that gives additional detail on this is underway.
- Insufficient quantitative analysis of the economic outcomes of scenarios was done during the scenario evaluation, which is a significant gap because of the importance of this issue. This needs to be improved during the evaluation of the preferred scenario.

ACTION REQUESTED: Information and discussion.