Chicago Metropolitan Agency for Planning

233 South Wacker Drive
Suite 800, Sears Tower
Chicago, IL 60606

312-454-0400 (voice)
312-454-0411 (fax)
www.cmap.illinois.gov

MEMORANDUM

To: **Planning Coordinating Committee**

Date: **March 4, 2009**

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

Re: **Scenario Construction**

A central piece of the *GO TO 2040* planning process is the evaluation of alternative future scenarios. Scenarios are combinations of actions (policies, strategies, and investments) that represent alternative paths that the region could take toward reaching its desired future, as expressed in the Regional Vision. The purpose of the scenario evaluation process is *not* to select one single scenario that will be adopted in its entirety. Instead, scenarios will be used as a framework to review the different policies and investments that the region could pursue. Ultimately, the most effective pieces from each of the scenarios will be chosen and combined into a single "preferred scenario."

Draft descriptions of the alternative scenarios that will be evaluated are attached. These are expansions of the descriptions that were provided to the Planning Coordinating Committee in October 2008, which themselves were developed from working committee discussions during summer and fall 2008. The committee is requested to review and discuss these scenarios.

ACTION REQUESTED: Discussion.

"Preserve"

Planning for the future will focus on preserving those elements of our region that contribute to quality of life. Among our many strengths are vibrant communities and neighborhoods, a reasonable cost of living, world-class architecture, cultural institutions, and regional environmental assets including forest preserves, Lake Michigan, and other waterways. The region will grow and change by 2040, but we must ensure that future generations can continue to enjoy these important parts of the region's identity and quality of life. The region will seek to use what we have more effectively, limiting the need for new infrastructure by better managing our assets. We will invest heavily in people and "human capital" through education, workforce development, and human services provision.

<u>Our homes and communities:</u>
In 2040, much of the region will resemble our older, mixed-use, medium-density communities. A central policy in this scenario is the application of *urban design* principles regionally, which involves mixing land uses, increasing densities, and encouraging pedestrian travel and other alternative transportation. This will allow growth to occur in existing communities in a way that does not damage their assets or character. Other policies to preserve community character and affordability include *housing preservation* programs that reinvest in existing affordable housing stock, *historic preservation* ordinances, restriction of *teardowns*, and policies designed to facilitate *aging in place*, or allowing elderly residents to remain in their homes and communities through affordable housing provisions and community design. Housing energy and service costs will be further reduced by household-level activities including *energy efficiency retrofits in residential buildings* to reduce energy costs, a variety of small-scale *water conservation* activities, and increases in *recycling, composting, and other waste disposal programs*.

Social systems in our communities will be strengthened by investments in "human capital." This includes improvements to *education*, *workforce development*, and *arts and culture*, as described further in the economy section. Other policies include coordination of human services through a *statewide 211 system*, reducing "food deserts" and hunger by linking *local food production and distribution*, expansion of *paratransit* service, and other strategies to improve health, safety, emergency preparedness, and social services in our communities.

<u>Our economy:</u>
The economy will continue to shift away from goods production toward professional, finance, and service-based jobs, mirroring national trends. Construction and manufacturing will continue to decline, replaced by jobs that require advanced education, and by jobs in the tourism and service sectors which capitalize on the region's reputation for high quality of life. The region's success in attracting and retaining employers will depend primarily on the quality of our workforce, as businesses will increasingly value human capital. Policies in this scenario include improvements in *education*, coordination and strengthening of *workforce development* activities with professional, finance, and service-based jobs, and increased investments in *arts and culture* to attract new residents with skills relevant for the new economy.

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Our environment:

The region will preserve and reduce damage to our most valuable assets, including the natural environment, by explicit protection of these resources and the sensitive design of infrastructure that affects them. Measures will also be taken to conserve energy and natural resources, focusing on small-scale solutions for conservation rather than major investments in infrastructure or technology. Policies in this scenario include an *open space acquisition* program to preserve the most sensitive environmental land identified in the Green Infrastructure Vision, along with complementary *ecosystem restoration* and *waterway preservation* activities. Also, linkages between *local food production and distribution systems* will support local agriculture and reduce the energy consumption of food imports. Already noted in the housing and community section were resource conservation programs including *energy efficiency retrofits in buildings*, small-scale *water conservation* activities, and increases in *recycling, composting, and other waste disposal programs*.

Our transportation system:

Transportation improvements are focused on making small-scale, low-capital, operational improvements to the current system. Even without major capacity increases, the transportation system will operate more effectively by making systematic, low-capital improvements on arterial or local roadways. This follows a "complete streets" approach, which includes implementation of *bicycle facilities and programs* and *pedestrian improvements* region-wide, as well as *access management* programs and continual improvement of *signal timing* on arterial roadways. Significant transit operational improvements include increasing *transit service frequency* without change to existing transportation facilities, the *extension of transit service* to current unserved or underserved areas, and the improvement of *paratransit* service through coordinated systems. Other transportation policies include the implementation of *transportation demand management* techniques by employers, the expansion of *car-sharing* programs, changes in *parking requirements* that encourage shared parking and reduce overall parking, and the use of *context sensitive solutions* in the planning, design, and construction of infrastructure.

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"Reinvest"

The history and the future of the region can not be separated from its infrastructure and its built environment. The region's economy has historically relied on the production and movement of goods, and this has been supported by a strong, robust physical infrastructure, as well as our central location. This role will continue into the future, made possible by major investments that improve our existing infrastructure and focus growth into existing communities. Through infill development based around public transit, existing communities will experience changes, growing denser and economically stronger. Business development will occur in currently disinvested areas, as businesses are attracted or retained in these areas by improved infrastructure, removal of barriers to development, and targeted financial incentives.

Our homes and communities:
In 2040, our communities will be significantly denser than today. Growth will be focused into existing communities, rather than low-density development in greenfield areas. In particular, communities that have experienced population and job declines in the past will be revitalized in this scenario. This new growth will feature *transit oriented development (TOD)* in infill locations, acquisition of land for *public parks*, changes in *school siting* regulations to locate schools within community centers, redevelopment of *brownfields*, and application of *"greenfill" conservation design* in redeveloping areas. Infill development requires supporting infrastructure, including the expansion and modernization of *water and wastewater infrastructure* in existing communities as well as extensive transportation infrastructure improvements. Policies that support *agricultural preservation* will further direct development into existing communities.

We will pursue strategies that protect the affordability of housing in areas where reinvestment increases home values. Specific policies to support diverse housing choices include removal of *regulatory barriers to affordable housing* in TOD areas and adoption of *inclusionary zoning* ordinances in areas experiencing redevelopment. To support our social systems, investment in physical infrastructure such as schools, hospitals, and community centers will occur. Economically disadvantaged communities will benefit from the new development and economic activity described previously.

Our economy:
The region's economy will continue to have a strong element of freight and related industries. The region's success in attracting firms in these industries is dependent on having an efficient, modern infrastructure system, particularly for goods movements. Development and redevelopment will be attracted to existing communities, particularly those that are economically distressed, through targeted infrastructure investments among other means. Infrastructure investments in the transportation area are described in the "transportation" section; others include expansion and modernization of *water and wastewater infrastructure* and investments in *telecommunications infrastructure*. These will be linked with strategies involving *export promotion* and *workforce development* programs oriented toward the region's focus on infrastructure. A particular focus on reinvestment in economically distressed communities will

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be supported by targeting state *economic incentives* and remediating and redeveloping *brownfields* in these areas.

Our environment:
Environmental goals will be addressed primarily by focusing development into existing communities as infill. This reduces development pressure on greenfields, limiting the environmental damage of new development, and also supports the use of alternative transportation. Energy conservation will occur through *land use and transportation* change, as denser infill development supports the use of public transportation or non-motorized modes. Environmental goals will be further addressed through infill development by acquiring land for *public parks* and by application of *green infill ("greenfill") design techniques* in redeveloping areas.

Our transportation system:
Investments in infrastructure improvements are the major driver of regional prosperity and are used to encourage development to occur primarily in infill locations, leading to a more efficient land use pattern across the region. One of the key features is a heavy emphasis on transit and TOD. Development will occur at a high density near transit services, attracted by increased *transit infrastructure investment* along existing rail lines, increased *transit service frequency, c*onversion of surface parking lots to *structured parking* to allow more dense development, and application of *urban design* principles. The region will continue to be the nation's freight center, supported by a series of systematic *freight operations* improvements, *truck/HOV-only lanes* on some roadways, and *workforce development* activities to ensure that the region has a trained workforce capable of supporting our freight activities. While the "reinvest" scenario focuses on transit and freight facilities, it also includes improvements in both *arterial operations* and *expressway operations*, located so that they do not counteract the urban design activities occurring near TOD. Also, the "reinvest" scenario envisions a region that is connected by efficient infrastructure to global networks through *interregional transportation* beyond airport expansions, particularly high-speed passenger rail with connections to other Midwestern cities.

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"Innovate"

Our future relies on our ability to be innovative, to adapt to changing global conditions, and to develop and adopt new technology. In the "innovate" scenario, the footprint of the region will expand as undeveloped areas continue to grow, but the negative effects of this new development will be reduced by the use of conservation design and other environmental best management practices. Multi-modal transportation will be strengthened, but automobiles will continue to be primary means of travel for most regional residents. However, the environmental impacts of this behavior will be reduced by the use of alternative fuels, more efficient vehicles, and innovative design and construction techniques for roadways.

Nowhere is the need for innovation more evident than in the area of energy and climate change. Clean energy and fuel sources will be widely used, vehicle efficiency will be improved, and new residential and commercial developments will use the latest design techniques to reduce energy use. Economic opportunities will be presented by the need to address climate change, and the region will become an international leader in these. Overall, the region will foster a climate of innovation among businesses, with the public sector playing a supportive role.

<u>Our homes and communities:</u>
In 2040, the prevailing land use pattern can be described as "green development." Growth will occur in both suburban greenfield locations and older communities. In either case, it will be designed to reduce environmental impact and provide affordable housing options. Specific policies to support more environmentally friendly development include *conservation design*, coupled with *urban design* features such as pedestrian facilities and clustering of development. To promote affordability, *regulatory barriers to affordable housing* will be applied in areas with conservation design, and the use of *energy conservation* in new housing is expected to reduce energy costs greatly.

<u>Our economy:</u>
The region will become a globally-recognized center of "green jobs," including green technology development, green manufacturing, and similar industries. The region's innovative business climate will also extend to other fields beyond green jobs. Specific policies to encourage innovation and "green job" growth will include investment in *industry clusters* in fields where growth is desired, coordination between research institutions and the private sector to support *technology transfer and commercialization*, and focusing *workforce development* efforts on skills needed to support green industries.

<u>Our environment:</u>
The "innovate" scenario features the use of technological improvements to reduce the negative effects of development and economic activity on the environment. Both the global and local impacts of the region's activities will be addressed. A proactive approach to energy is a major feature of the "innovate" scenario, which includes development of *clean energy* programs, investments in *alternative fuels and vehicle technology*, the use of agricultural land for biofuel

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production, the use of *energy conservation* techniques in new buildings, and the attraction of "green jobs" to the region. The scenario also addresses improving local environmental conditions, particularly water and air quality, through the use of *conservation design* and *stormwater best management practices* in new developments, implementation of *new wastewater technology*, and the use of innovative *waste disposal* solutions. An additional theme in the scenario is the use of pricing or user fees, which transfer the costs of the use of resources to the actual users rather than the region at large, including *carbon pricing* and possibly other applications.

Our transportation system:

The "innovate" scenario uses advanced technology and innovative policy ideas, including Intelligent Transportation Systems (ITS) and pricing, to improve the regional transportation system. Pricing allows the cost of a facility to be borne by its users, and this is implemented through a system of *variable pricing on expressways* and *variable pricing for parking*. Beyond pricing, other ITS applications can improve transportation system performance without much capital and operating expenditure, including advanced *signal interconnections* on arterials and local roads, and transit ITS improvements that could include *transit signal priority*, application of *BRT on existing infrastructure*, and implementation of *traveler information services* for roadway, transit, and freight. While technological ITS-based innovation is a central part of the "innovate" scenario, other innovation is also included in this scenario, including the use of *roundabouts and other innovative intersection treatments*, the innovative use of *context sensitivity* or alternative building materials, and the use of *alternative fuels and vehicle technology*. This land use pattern will require more travel by automobile than the other alternative scenarios, but advances in technology will reduce the negative effects of this.

More broadly, transportation improvements that support innovative land use planning are included, such as design of new transit services to support TOD, or roadway planning that supports conservation design; even transportation facilities that are not otherwise innovative would be consistent with the "innovate" scenario if they are coupled with innovative land use or environmental activities.

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