

office workers ride transit, compared to 31% of the hotel workers. It has Metro stop with very extensive bus service, but by and large most people arrive by private auto.

Similar studies were done in Tysons Corner. The consultant team initially was overwhelmed at dealing with such an immense geographical area, with 17-18 million square feet in development right now, which double in the future. The initial checklist of recommendations is intended to summarize points for both Bethesda and Tysons.

One issue is local control. You need to develop a local institutional framework, and encourage district management, operation and promotion. It must be recognized that these are major concentrations, and there needs to be some attention paid to some form of management and control institution.

There was a feeling that the problem was not that the centers were too dense but that the density was not in the right places. What was really needed was to concentrate development in some areas and keep it out of other areas; to plan clusters of higher density activity; to provide a hierarchy of usable open spaces, so like downtown, there can be places to walk, have picnics, etc.; and to reinforce the identity and image of the activity center and its sub-areas.

Finally, activity centers need to plan pedestrian mobility and linkages. Look at fringe parking instead of putting everything right next to or surrounding the buildings. Separate through traffic from internal traffic. Typically through traffic gets the preference from people that are responsible for moving traffic, and that causes problems with the center itself. One of the difficulties of having suburban centers located at high accessibility locations is that there is a lot of traffic going by.

increase the public transit options - provide consistent signing. Many of these appear to be fairly obvious, and they are things that a lot of people have been saying for years. It is time to implement them.

SUBURBAN CONGESTION AND IMPLICATIONS FOR NATIONAL POLICY

by

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Our existing surface transportation systems as well as the institutional programs, roles and resources that support it were developed more than a generation ago for a socioeconomic and geographic environment substantially different from today's. As the nation looks ahead to the 21st Century, it is apparent that new policies and programs are needed to respond to emerging problems and opportunities. With the completion of the Interstate Highway System and the need to reauthorize the major federal transportation programs, the 1990's provide a unique opportunity to consider the appropriate national response to the emerging challenges to improved mobility.

SUBURBAN CONGESTION AS A FOCUS OF NATIONAL POLICY

A major issue for national transportation policy is the delay, uncertainty and aggravation, community and environmental impacts associated with vehicle travel in growing suburban areas where increased automobile usage combined with low-density development has imposed traffic burdens on limited networks in cash-strapped jurisdictions. During the past five years, suburban congestion has become the dominant transportation concern nationally -- if measured by its prominence in the public and professional dialogue.

The public views congestion substantially as institutional failure -- the inability of federal, state and local government as service providers to meet their responsibilities. In addition, the close association of traffic problems with new development combined with environmental issues and growth management issues has added to its notoriety. But the pressure for a systematic response from the transportation agencies at the state and local level has gone largely unanswered. To the professional community, the same attention-grabbing rapid growth in suburban travel and associated traffic problems provides a constant reminder of an intractable combination involving demographics, metropolitan economic geography and limited transportation facilities, restricted budgets and programs. Indeed, a mythology has developed that nothing can be done. (1.)

Resource constraints have substantially handicapped transportation providers but their inactivity is also eloquent testimony to the lack of appropriateness of the typical array of conventional highway and transit programs and associated institutional roles and orientations. Long lead times, differing state/local priorities, problems involving "off-system" facilities, right-of-way constraints, perceived neighborhood and environmental impacts, interjurisdictional and intermodal complexities, rudimentary operational capability, lack of planning and tight budgets have handicapped visible progress in most jurisdictions.

The desire for immediate congestion relief and/or capacity increases to permit additional tax base development coupled with this supply-side unresponsiveness has, for the first time, brought the private sector into the suburban transportation dialogue. The institutional expression of this public/private interaction -- the TMA -- has focussed professional and constituent attention on the complexity of land-use "demand" interactions with transportation facility and service "supply."

AN EMERGING GENERIC STRATEGY FOR SUBURBAN CONGESTION MANAGEMENT

Despite the lack of progress, the phenomena underlying suburban congestion are increasingly well-understood in terms of supply-demand imbalance. However, the wide variation in the context for suburban congestion and analysis of early experiments are gradually leading to the realization that there is no single "silver bullet" solution.(2) This understanding, together with the scarcity of funds for new transportation facilities in the 80's has led to the legitimizing of "demand management" concepts as well as low-cost operational improvements to increase capacity supply and provide short-term reductions in congestion.(3)

The lessons learned to date emphasize the need to combine several related actions

which work together synergistically to create better balance between supply and demand in an opportunistic way, custom-tailored to the local context including time, resource and institutional constraints. This approach is explicitly recognized in the development of the "Congestion Tool Box" concept emphasizing the complete array of possible measures and emphasizing the need to develop the appropriate combinations.(4) The major conceptual challenge for each unique context is selecting the right combination -- the appropriate mix of supply and demand measures, both short - and long-term both to alleviate existing congestion and to minimize future congestion.

The mix and staging of specific actions is a matter of strategy which must be developed for each particular context. Nonetheless, there must be a generalized strategic framework that can be set forth based on widespread shared realities of resource limitations, long lead times for capital-intensive approaches, ingrained travel behavior and institutional rigidity. Assuming that "no growth" in employment and tax base-related development is not a real possibility in most communities, "congestion management" is, in effect, a combination of "damage control" and "buying time" until new capacity can be added, growth (demand increase) moderated and travel patterns adjust to a new and more stable equilibrium.

A three stage strategic framework for congestion management can be perceived with each overlapping stage consisting of actions designed to maximize supply/demand balance at that stage and to contribute to future balance potential:

1. Immediate action to provide congestion relief through short-term, low-cost supply and demand tactics including:
 - a. maximizing the capacity of existing facilities and services through bottleneck removal, freeway operations improvements, area-wide traffic control improvements, improved suburban transit operations.
 - b. encouragement of employer-based incentives to flatten travel peaks and increase occupancy such as ride-sharing programs, flexitime, and parking management reinforced by public-sector actions such as preferential treatment for HOVs/
 - c. public education to develop an awareness of potential institutional issues/methods to improve transportation land-use balance and to minimize the distraction of "silver bullet" technology-fix myths.
2. Mid-term action to moderate land use and travel growth rates to enable supply improvements to catch up with demand including:
 - a. implementation of various growth management/pacing schemes through land-use and zoning review, subdivision controls and improved urban design.
 - b. introduction of trip reduction measures and ordinances.
 - c. use of impact fees and benefit assessments to generate local resources to enhance transportation capacity.

- d. development of specific, credible improvements plans -- matched by financing -- for additional transportation facilities and services.
3. Long-term action to develop new supply/demand balance at higher levels including:
- a. addition of "manageable" new roadway capacity provided with operational and preferential treatment capabilities to promote flatter peaks, higher occupancies and greater throughput (including the use of new "smart car/smart highway" technology).
 - b. improvements in state/local collaborative planning and new public/private partnerships institutionalizing increased concurrence between new development and the availability of publically-provided transportation facilities and services.

The long term resolution of supply/demand imbalance in any given location will occur at new equilibrium points as land-use development patterns and transportation systems and behavior gradually adjust at an acceptable relationship -- typically in moderate or no-growth periods following one of rapid expansion. The strategic approach to congestion management is designed to minimize the disruption and costs that may occur during this process. That this resolution takes place at an improved level of service may ultimately depend on gradual social and technological evolution towards new activity patterns -- changes leading to reorganization of employer/employee relations regarding work locations and hours together with the more efficient, reliable "smarter" transportation system which technology promises

CURRENT PROGRAMS AND INSTITUTIONS

The implementation of the congestion management strategy set forth above is substantially dependent on the programs, institutions and resources which characterize the intergovernmental and public/private partnership which deliver transportation services as well as the relevant technologies themselves. Current experience indicates that this delivery system is not well-configured to support such a strategy.

Suburban congestion is substantially a local or metropolitan problem and, therefore an appropriate responsibility of state and local jurisdictions who own, plan, develop, maintain and operate suburban highways and transit. It is primarily at the level of provision of new capacity via major additions to the metropolitan transportation system where the federal interest becomes involved.

Historically this federal-aid program has provided resources by mode, in the form of matching funds for specific predefined systems of highways in distinct functional categories each with its set standards and requirements or for certain transit technologies and project-types. These programs have been relatively stable over the last 30 years and proved quite effective in developing a backbone urban highway system and basic urban transit services. Maintaining and even

extending such systems remains an important priority. However, the approach was developed during a period when interregional facilities were rudimentary, metropolitan areas undeveloped and densities, development and travel patterns were very different from today. Continued metropolitanization of the population, expanding low density metropolitan areas and the suburbanization of employment have created an entirely new context.

The federal-aid program focus is on the provision of major new capital intensive transportation facilities in the form of interregional systems not in responding to more localized problems. The requirements and reviews accompanying the federal aid, the restrictions of its application to pre-identified modal and functional systems, the rigidity of design standards, the biases introduced through differential funding availability and match rates by categorical system, the low priority on systems operations, contribute to a less-than-effective resource to respond to suburban congestion problems.

From a contemporary metropolitan perspective, the current federal aid program is complex, time-consuming and inflexible. Furthermore, the decision-making process for programming projects reflects the strong tradition of American federalism providing for a direct federal-state relationship through which local government interests are reflected on a consultative basis. Responsibilities for planning and investment decisions at the metropolitan level are fragmented and non-hierarchical and jurisdictions -- geographic, governmental, modal or functional -- are semi-autonomous. Plans, projects and investment priorities are seldom closely linked to specific performance objectives.

Programmatically and institutionally, this is not a promising environment for implementation of a proposed congestion management strategy.

SUBURBAN CONGESTION MANAGEMENT AND NEW NATIONAL TRANSPORTATION POLICY

The appropriate program response to suburban congestion must be considered within a large framework of new national policy and programs for the broader array of problems and opportunities facing surface transportation--passenger and freight, interstate, rural, metropolitan, highway and transit. Many of the major issues crosscut mode, system, location and other context specifics. These include: mobility and access problems; the poor quality and condition of systems and services; low productivity and inefficiencies; community, environmental and safety impacts; lack of market-responsiveness; failure to capitalize on available technology; and, shortage of resources, both financial and professional.

In consideration of these board challenges, major public interest groups, stakeholder and service providers have developed a series of related concepts around which to organize a new national surface transportation programs encompassing program orientation, intergovernmental roles and required investment levels. The growing consensus on such "basic directions" establishes a policy framework within which to consider suburban congestion. Ten major themes are included: (5.)

- o maintenance of the physical integrity of existing transportation systems.

- o increased productivity, efficiency, market-responsiveness and international competitiveness.
- o provision of increased capacity in congested and developing areas and improved rural access.
- o enhancement of safety of all transportation modes.
- o development of strategies to reduce environmental and resource impacts.
- o simplification and focussing of federal aid programs
- o improvement in metropolitan and rural regional planning/programming
- o introduction of the best available technology
- o commitment to needed investment level increases

The interpretation of these "basic directions" in terms of their more specific policy and programmatic implications for responding to suburban congestion can take a variety of forms and indeed, will do so, as the public dialogue on a new transportation policy takes place over the next few years.

Much of this dialogue will necessarily focus on the federal transportation program, in response to its direct responsibilities: its continuing role in the provision and preservation of major highway and transit system elements within metropolitan areas, the importance of federal aid in the financing of new capacity in general, its regulatory presence, its support of research and planning and its technical leadership.

However, federal program priorities, responsibilities and resources are also significant because of the indirect impact they have on the collateral priorities, roles and resources of state and local government and the private sector within the context of a continuing intergovernmental and public/private partnership for the provision of transportation.

THE FEDERAL ROLE IN RESPONDING TO SUBURBAN CONGESTION

The federal interest in suburban congestion flows from the pervasiveness of the problem, the national productivity impacts of reduced mobility, the spillover effects onto federal-aid facilities and the regional environmental problems created. The appropriate federal policy to respond to these concerns is partly a matter of professional orientation and institutional tradition but will be very much effected by policy choices made through political as well as administrative processes.

Within the current national policy dialogue regarding future transportation policy it is possible to discern the broad outlines of a federal policy and program appropriate to the generic strategy for improving suburban mobility. Obviously any such policy must recognize the diversity of urban/suburban contexts

around the nation -- size, system ownership, type of problems, institutional traditions, resource availability -- and provide flexibility for state and local governments to tailor specific arrangements as future federal program fall into three board areas: reorientation of programs; changes in intergovernmental and sectoral roles; and, increased financial resources.

REORIENTATION OF PROGRAMS

The proposed congestion-management strategy will require a reconfiguration of the federal aid program to accommodate a problem-oriented approach which can package the board range of supply and demand-related actions necessary to promote short and middle-term system balance. Major program changes would include:

- o Consolidation and simplification of the current categorical and technology-defined highway and transit federal aid programs providing increased flexibility to state and local decision-makers in programming funds on priority problems.
- o Increased multimodal funding flexibility at the local level in recognition of the wide variation in appropriate modal mix among metropolitan areas.
- o Capitalizing on major new facility investments serving interstate and interregional movements passing through metropolitan areas through a "corridor" approach which simultaneously accommodates local needs in the form of combined projects.
- o Increased flexibility in design standards to permit improvements to be tailored to constraints and opportunities established by local context consistent with safety and cost-effectiveness criteria.
- o Incentives to insure that maximum efficiency is derived from the existing transportation investments through promotion of high occupancy, ride-sharing and non-motorized modes and new forms of transit service appropriate to suburban contexts.
- o Equalization of the tax treatment of employer-provided commute-to-work fringe benefits to minimize modal bias.
- o Addition, as eligible expenditure of federal aid, certain programs costs supporting the establishment and operation of traffic operations and management activities.
- o Encouragement of coordinated land use development patterns and management policies at both the state and local level that support cost-effective transportation investments and provide for more balanced, less disruptive growth.
- o Provision of below-market federal financing for advanced acquisition of right-of-way to preserve irreplaceable transportation corridors.
- o Reductions in federal project approvals and agreements and substitute state certifications and federal assurances and post-audit procedures.

- o Standardization of federal-aid match to minimize the effect of preferential match rates on state and local decision-making.
- o Development of 5-10 year range planning and programming requirements for congestion management, air quality and economic development with specific objectives as a condition of federal aid.
- o Vigorous federal leadership in transferal of best available technology and ideas for congestion management including special "crash course" technical training opportunities.

CHANGES IN INTERGOVERNMENTAL AND SECTORAL ROLES

Suburban congestion -- while a nationwide phenomenon -- is substantially a local and regional problem with important interregional consequences. Increased delegation of responsibility to lower levels of government and state/regional/collaboration is a necessary precondition to the development and execution of effective strategies. Major institutional changes would include:

- o Promotion of area wide multimodal institutions to combine planning with programming of all transportation activities within a single framework - whether a unit of local government, an MPO or some other new institution.
- o Increased funding to support improved planning and programming activities.
- o Strengthening of state/local relationship in programming from "consultative" to "collaborative" by introduction of negotiation procedures in event of nonconcurrence.
- o Encourage broader involvement of private sector interests in development of travel demand management programs including support for the development of new institutions to support travel management.
- o Provision of means whereby funds supporting facilities serving interstate and interregional transportation needs through metropolitan areas can be combined with funds supporting improvements for more localized needs through multipurpose or multimodal projects.
- o Development of a major national research development and technology transfer initiative to develop the new generation of "smart car/smart highway" technology.

INCREASED FINANCIAL RESOURCES

There is a broad consensus on the need to establish a clear long-term commitment to be shared by all levels of government and the private sector to an increased level of investment for critical surface transportation purposes. Both technical analysis and popular wisdom have indicated the need to direct increased resources into the suburban portions of metropolitan areas for congestion management (as

well as other objectives). However the appropriate mix of federal, state and local funds remains very much a matter for regional determination.

Competition for general funds at all levels of government places special importance on retaining user sources and earmarked revenues as well as seeking additional means of beneficiary financing. Increasingly, state and local governments are generating own-source revenues to meet local needs and these new mixes of funds themselves affect intergovernmental roles in resource allocation.

Nonetheless, federal-aid will remain an important component of most metropolitan area's programs for capital investment in new capacity. Within this context major policy directions for federal financial aid include:

- o Determination of the appropriate balance between federal funds oriented towards systems serving long distance transportation -- interstate or interregional -- and funds oriented toward diverse state and local (including intrametropolitan) needs.
- o Introducing metropolitan areas as a basis for allocating resources as distinct from "urbanized areas" which often leave out the suburban fringes where major needs can be anticipated.
- o Provisions to insure that metropolitan areas receive a fair share of funds available to states for local and intraregional purposes -- both urban and rural.
- o Development of increased certainty of funding for larger metropolitan areas through earmarking of a fair and equitable share of funds to metropolitan areas over a certain size threshold.
- o Provision at the federal level -- both tax revision and programmatic to permit utilization and comming of a wider range of both user and non-user funding sources such as tolls, impact fees, donations, and to encourage involvement of the private sector in provision of transportation facilities and services, especially market-responsive premium and special services.
- o Full commitment of federal highway trust fund user fee balances to transportation purposes and aggressive commitment from general revenues to support other social environmental purposes served by transportation.

CONGESTION MANAGEMENT: THE AGENDA FOR CHANGE

The policy/program concepts cited above are consistent with the requirements of the proposed generic congestion management strategy. It is apparent that major departures from today's approach to the provision of transportation facilities and services are involved. These changes constitute a substantial reorientation of the current federal-aid program with increased discretion at the regional and local level; reorientation of transportation institutions towards more collaborative cost-effective decisions; increased roles for the private sector and the need to gain the public confidence required to support additional revenues.

surface transportation program that carries us into the 21st Century. An effective response requires an ambitious agenda for change.

NOTES

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KALEIDOSCOPE OR MAP:

SUBURBAN CONGESTION & INSTITUTIONAL BARRIERS

by

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The current dialogue on congestion has a frustrating kaleidoscopic quality: the fascination with the complexity of settings, techniques, private sector roles and behavior deters rigorous discussion of the more "systemic" aspects required to identify promising -- as distinct from fashionable -- approaches. Since definition of "the problem" usually determines the proposed "solution", a "problem map" is used to structure the discussion and focus attention on particular parts of the system.

In the discussion which follows, general familiarity with the "state of play" about suburban congestion, major activity centers (MAC,s) travel demand management, (TDM) Transportation Management Organizations (TMOs), and the ongoing experiments is assumed consistent with the previous papers (Deakin, Dunphy, Douglas and Pratt). Within such a broad context, a deliberately narrow focus is proposed. this orientation is towards the potential for visibly reducing peak period congestion and delay in office-dominated suburban major activity centers in the middle-term (5-10 years) and within the current institutional context. A presumption is that the overall objective is to reduce single-occupant vehicle (SOV) commuting during peak period in an affordable, socially and politically acceptable manner.