DEPARTMENT OF TRANSPORTATION
URBAN MASS TRANSPORTATION ADMINISTRATION
WASHINGTON, D.C. 20590

THE ADMINISTRATOR

December 17, 1976

EYES ONLY

MEMORANDUM FOR: Secretary Coleman

FROM: Robert E. Patricelli

SUBJECT: Downtown People Mover (DPM) Recommendations

This memorandum is intended to provide background on our DPM program, summarize the review process and selection criteria we have used in managing the program, and offer recommendations on specific city proposals.

1. Background

The DPM program is an outgrowth of intensive Congressional, Departmental, local government and private interest in automated guideway transit systems. In the face of widely varying claims about the potential of automated systems, Senators Byrd and Case of the Senate Appropriations Subcommittee requested the Congressional Office of Technology Assessment, in September 1974, to perform an assessment of Personal Rapid Transit (PRT) systems. In a separate action, in November 1974, the Acting Assistant Secretary for Systems Development and Technology requested that a Departmental issue paper be prepared on the approach UMTA should take toward the research and development of PRT/Dual Mode Transportation Technologies. Both the OTA report and the DOT review concluded that UMTA should proceed with a near-term urban demonstration of simple automated guideway transit systems.

The Senate Appropriations Committee, particularly Senator Bayh, was active in following up on the OTA report, and directed UMTA to initiate engineering of urban automated guideway systems, for "...such a demonstration could answer many questions about the extent to which people will use automated systems when they have other choices."

In April 1976, I announced UMTA's intent to proceed with the DPM program in "up to three cities," and cited these objectives:

> The intent of the project is to show whether relatively simple, automated systems can provide a reliable and economical solution to local circulation problems in congested downtown areas. Such systems have been proven effective in controlled environments, such as airports and commercial and recreational centers. We now want to test their feasibility and public acceptance in the harsher and more demanding environment of a real city.

Three major goals were established:

(1) to test the operating cost savings which automated transit systems might deliver;

(2) to assess the economic impact of improved downtown circulation systems on the central city; and

(3) to test the feasibility of surface or elevated people movers both as feeder distributors and as potential substitutes for certain functions now performed by more expensive fixed guideway systems, such as subways.

From UMTA's point of view, the DPM program is an extraordinary opportunity to deploy R&D results through the "controlled" use of capital grant funding.

By mid-May, 68 cities had expressed interest in the program. We received 38 formal proposals by the end of June, at which time intensive reviews of each proposal began. The initial screening dealt with the responsiveness of proposals to established criteria; 19 of the 38 were subsequently eliminated in September for failure to satisfy threshold standards. We then examined the remaining 19 in greater detail, to assess need, local development impacts, degree of fiscal and community support, etc. This analysis led to the announced deletion of eight more cities and the selection of the following 11 finalists:

Baltimore	Jacksonville
Cleveland	Los Angeles
Detroit	Miami
Houston	Norfolk
Indianapolis	St. Louis
St. Paul	

2. Review Procedure

Each of the eleven cities was visited by a team of senior UMTA staff. I personally led reviews in five areas. In every instance, at least two Associate Administrators participated in the site visits. Further, to assist us in better evaluating the economic and development aspects of each proposal, UMTA contracted with three real estate consulting firms--Gladstone Associates, Real Estate Research Corporation and Hammer, Siler, George Associates.

Upon completion of the site visits, we reviewed the findings of the economic consultants and of the staff review teams in a series of meetings. Individual city summaries are attached. For the past week, UMTA's senior staff has engaged in intensive analyses of all 11 proposals in order to develop the recommendations which follow.

3. Selection Criteria

Consistent with the policy objectives of the program, we focused our evaluation on three major factors:

(a) Transportation Merit

--what is the need for the DPM, in terms of relieving existing or prospective congestion on downtown streets and linking up activity centers in spread-out downtowns?

--how effective is the DPM in intercepting and distributing home-to-work trips as part of a regional transportation program? Is the DPM fully integrated with existing and proposed line-haul transit lines, and with freeways and fringe parking facilities?

--is the city proposing to impose parking and other transportation systems management constraints on the private automobile, including transit and pedestrian malls, which are supportive of DPM? Has the transit system committed to route realignments in support of the DPM to bolster ridership?

(b) Development Impact

--to what degree is the DPM a stimulant for new economic development in the city, or for a more desirable location of new growth, which otherwise would not be likely to occur?

--to what degree will the DPM assist in the better economic functioning of the city in terms of higher retail sales, higher rents, faster leasing, earlier investment commitments, higher capture of hotel and convention business, etc?

(c) Capacity to Build and Operate the System

--does the applicant city have a proven record of public transportation and urban development performance?

--does the city possess adequate technical capability to implement the new DPM technology, and/or does it have the institutional capability to manage DPM construction and operations?

In addition to these factors, we considered the issue of UMTA funding equity among the finalists--was it reasonable to provide additional discretionary funding to areas which have already received major UMTA commitments, while at the same time turning down other cities which have not received large grants?

We also considered the overall likelihood of success in implementing the DPM. Considering all factors--transportation need, the fiscal and development condition of the downtown, technical capability, community and union support, ridership potential, vulnerability to crime, etc.--which areas were likely to produce positive demonstrations of DPM feasibility?

Finally, there are certain factors which need to be considered in selecting a sufficient spread or range of demonstration conditions:

--Geographic and climatic spread--We want to secure technical operating information on DPM performance in cities with a range of differing weather conditions. Likewise, for reasons of equity and nationwide exposure, we should consider implementation in different geographic areas of the nation;

--City size--A range of city sizes may be desirable; and

--Underlying city economics--Our demonstration objectives argue for picking cities with different economic problems: for example, a "crisis" city where there is a need to hold and consolidate what market there is; a weak city where redevelopment and reversal of market position are possible; and a strong city, where growth management and improved circulation may be vital.

Finally, we must address certain city-specific situations in making comparative judgments among the 11 finalist cities. The special cases are:

--Detroit: where we made a $600 million commitment in October;

--Los Angeles: where the DPM is one part of a four-phase regional package for which engineering funds have been requested; and

--Baltimore and Miami: where rapid transit commitments have already been made and DPM's offer the opportunity to improve downtown distribution of line-haul trips, thus enhancing the value and justification for our earlier rapid transit investments.

4. Discussion

Attached is a consensus table rating each of the 11 finalist cities according to the principal selection criteria cited above. Those making the ratings were the Deputy Administrator, four Associate Administrators and the Office Directors directly involved in the DPM program--11 people in all. Our collective analysis resulted in identification of four cities deserving special consideration. The attached city summaries should be read for greater detail.

It should be said at the outset that there are no bad proposals in the final group of eleven; the weak applications have already been dropped. The finalists present us with the best set of projects we have seen in a long time. They show reasonable likelihood of substantial ridership, the costs per rider are far lower than any rapid transit proposals we are reviewing, the operating costs are low and can often be entirely offset by fares of less than 25 cents, and the development impacts and urban economic benefits are demonstrable and exciting. There is no question that this competition has tapped a reservoir of work that has been going on for several years in the cities, and that the DPM approach offers the prospect of major positive impact for American cities. The choice of only three winners from this group is excruciating.

(1) Houston

Houston is literally exploding with growth. The urbanized area has grown by over 25 percent in the 1970-75 period, and downtown Houston office space has shot up by 70 percent in the same period. It is the sixth largest United States city, and has not received major UMTA grants.

The DPM will link up older and newly developing activity centers, and is tied to a well thought out transit and auto intercept program. Given existing and projected downtown rates of employment and economic activity, the DPM will serve a rapidly expanding market for internal daytime circulation trips. It would stimulate new growth and redevelopment in the older north end of the city.

An especially attractive part of the Houston proposal is its financing: the $40 million cost is divided as follows:

UMTA loan	-	$10 million
UMTA grant	-	$24 million
Local Share	-	$ 6 million

The loan would be repaid over a ten-year period from surplus fare box revenues and from lease income from real estate developers. The loan would be secured by a full faith pledge of the City of Houston. It is the most visible value capture proposal we have.

In summary, Houston is "a city where things get done." The local commitment to DPM is genuine, capacity to implement is strong, environmental opposition is likely to be weak or non-existent, and growth in the area to be served by the DPM is assured.

(2) Cleveland

Cleveland is the only DPM finalist with an existing rapid transit system. The existing system touches only on the edge of a spread-out downtown core which sorely needs better transportation if it is to improve economically. The rapid transit system would benefit greatly from improved downtown circulation, and the DPM would probably head off an alternative proposal for a downtown subway.

The DPM proposal very effectively links up retail, government, business and financial, entertainment and residential centers. Unlike Houston, Cleveland is not characterized by expansion and growth. The DPM will make a weak city work better, especially in retail and hotel/convention business, will provide a significant psychological boost to efforts to rejuvinate downtown, and will meet a major transportation need. Thus, a DPM commitment in Cleveland would act to aid a relatively weak industrial city to help itself.

On the other hand, UMTA is about to make a separate $100 million rail modernization commitment to Cleveland, and suburban support for the DPM is shaky.

(3) St. Paul

St. Paul presents the best opportunity to evaluate the role of a DPM in stimulating new downtown investments. The City has endeavored to rebuild its central core, and is committed to a major transit/pedestrian mall and to sky-ways to connect existing and new buildings. Two major downtown development decisions hinge directly upon implementation of DPM; upwards of $50 million in new private investment could be triggered within six months of a favorable DPM decision. The St. Paul proposal has been well planned, has strong public and private

support, and would be implemented by the Metropolitan Transit Commission, an agency of unique technical capability in AGT systems. Implementation of DPM in St. Paul will provide an excellent test of the role of automated guideway transit in spurring redevelopment in a medium-sized city, and of operation in a severe climate.

(4) Los Angeles

The Los Angeles proposal is five miles in length and has an estimated cost of $167 million. The DPM would link up a spread out Central Business District including a Convention Center, major downtown office and retail development, the Bunker Hill redevelopment area, the Civic Center, and Union Station. It is designed to serve both as a transit/auto intercept and as an off-peak circulation system in the central area.

The project supports well the broader community redevelopment plans for downtown Los Angeles, and enjoys very strong support of the City's business community. While no new development decisions hinge on it, new growth would be speeded up and the retail core could be stabilized. Clearly, some type of improved public transportation is needed in Los Angeles, and the DPM provides a comprehensible basis around which to rally public support.

These are the strongest proposals, on the basis of our detailed evaluation. Before making recommendations, however, the following points need to be made:

--Los Angeles: The proposal is vastly more costly than all others, and must be resolved as part of our response to the broader Los Angeles package. Some overlap with the line-haul rapid transit proposal exists and must be resolved.

--Detroit: While the DPM proposal rated relatively low compared to other cities, it is a vital part of Detroit's revitalization efforts, toward which we have pledged $600 million, and is the best fixed guideway option to which to commit some of that $600 million.

--Baltimore: While this is a very attractive proposal, given our $572 million transit commitment to Baltimore and the prospect of Interstate transfers here, additional discretionary funding would raise serious equity problems.

--Miami: The equity issue exists here, too.

5. Recommendations

I propose to offer preliminary engineering grants to the following cities:

City	System Length	Estimated Cost	Federal Cost
Houston	2.25	$40 M	$34 M (incl.$10M loan)
Cleveland	2	$52 M	$41 M
St. Paul	5.2	$56 M	$45 M
		Total:	120 M

In making these grants we would declare these three proposals to be "winners" in the DPM competition.

With respect to other cities, I make these recommendations:

--Los Angeles: Fund preliminary engineering of the DPM as part of a broader Departmental response to the four-part package, insisting in an approval letter that no commitment to DPM implementation is being made at this time. Insist upon full regional support, including a firm agreement on financing, for a coordinated areawide implementation package to be defined in detail during engineering. (See separate memorandum on Los Angeles.)

--Detroit: Fund preliminary engineering of the DPM looking to construction funding from the $600 million rather than the $150 million reserved for DPM's. Indicate that the first stage of engineering must consider alternative alignments as part of the ongoing alternatives analysis process. Insist that the locals define their best program of transit improvements as part of their urban development/transportation (line haul and DPM) at one time.

--Baltimore: Reject preliminary engineering at this time, but indicate a willingness to let them fund engineering and construction from economies to be achieved in design and construction of the rapid transit segment, or from likely Interstate transfers if they wish. The Baltimore proposal is a good one, and while they should get no new UMTA discretionary money for it, they should be free to reprogram their own funds if they wish to change their priorities.

--Miami: Reject preliminary engineering at this time, but indicate that local officials should consider refinement and reduction in the line-haul system and substitution of the DPM for certain outlying transit segments in order to enhance the success of the rapid rail system.

--Indianapolis, Jacksonville, Norfolk, St. Louis: Reject.

In summary, Houston, Cleveland and St. Paul would be the DPM "winners." The total cost of these proposals is $120 million, $30 million less than we have reserved. That cushion is highly desirable at this stage, since better cost estimates will result from engineering. Detroit and Los Angeles would also be funded for engineering, but that is part of a larger commitment to each of those areas and they cannot fairly compete with the other cities. Finally, in Baltimore and Miami, we would allow reprogramming of funds to implement DPM, but would reject them for new grants.

Concur: _____

Nonconcur: _____

Other: _____

cc: S-2

SUMMARY OF DPM EVALUATION

	Transp. Effectiveness	Transp. Need	New Development Stimulus	Improved Economic Perform.	Capacity to Build/ Operate	Likelihood of Success	Funding Equity	TOTAL POINTS
BALTIMORE	3	2	1	2	2	2/3	1	13/14
CLEVELAND	3	3	1	3	2	2	2	16
DETROIT	1	2	1	2	1	1	3	11
HOUSTON	3	2	2	2	3	3	2	17
INDIANAPOLIS	1	2	1	2	1	2	2	11
JACKSONVILLE	2	1	2	2	1/2	2	2	12/13
LOS ANGELES	3	3	2	3	2	2	3	18
MIAMI	3	2	2	2	2	2	1	14
NORFOLK	1	1	2	2	2	1	2	11
ST. LOUIS	2	2	1	2	2	1	2	12
ST. PAUL	1	2	3	2	3	2/3	2	15/16

Note: 1 - Weak
2 - Moderate
3 - Strong