

# The Abell Report

*What we think about, and what we'd like you to think about*

Published as a community service by The Abell Foundation

## Leave your car where you parked it: Get from the Inner Harbor to Inner Harbor East, Fells Point and Canton in about 20 minutes on SMRTram — with fun stops along the way.

**ABELL SALUTES:  
Open Society Institute,  
OSI, a world-wide  
philanthropy that  
is making a difference  
locally. “We are a  
foundation in a hurry.”**

In 1947 a 17-year old boy escapes his war-torn home city of Budapest. Fifty-one years later the same refugee is giving away \$400-million in philanthropy around the world, and \$6-million of it in a city that back in Hungary he had probably never heard of—Baltimore. His name is George Soros, and he has created a global philosophy for his philanthropy that is making a difference in the quality of life in Baltimore. The best person in Baltimore to fill in the details is Diana Morris.

Mrs. Morris is president of OSI-Baltimore. She says, “We are a foundation in a hurry—our charter calls for us to be in Baltimore for just a certain amount of time and that time is nearing completion. This time frame governs what we do. We

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Just a few miles east of Baltimore’s world-renowned Inner Harbor attractions lies another world of attractions, Inner Harbor East, Fells Point, and Canton—so near and yet so far. So near—because the entire complex is only a few miles distant; but so far—because the streets and traffic and parking problems of a busy city too often discourage taking one’s car to make the drive. The question for planners: how to move people from the Inner Harbor to Inner Harbor East, Fells Point, and Canton, and back, comfortably, safely, and in a time span acceptable to both tourists and business types, and just as important,

how to serve the East Baltimore residents going to and back from downtown. City and State transportation planners are deliberating five possible answers—light rail, trolley, elevated people mover, bus and subway. This report will present a sixth, and present the arguments of those who believe that this additional alternative is in the short term the most desirable one; it is called SMRTram, and it is like no other mode of transportation the City has ever seen.

### **Let’s take a ride!**

You are at Pratt and Light Street where SMRTram is waiting for you at the

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southeast corner: In size, configuration, and character SMRTram recalls the trams that take tourists around any Disney-like amusement park. It boasts lots of glass for uninhibited viewing, rides on rubber tires, and draws its power from a single guideslot, centered in the roadbed.

SMRTram moves eastward along the south side of Pratt in its own unobstructed lane. Passengers are invited to disembark at the entrances to the Pratt Street Pavilion for eating and shopping. They disembark with confidence, knowing that another SMRTram will be along—in each direction—in less than three minutes!

For those remaining aboard SMRTram, the magical world of the Power Plant come into view—Barnes and Noble, ESPN, Hard Rock Café, and the National Aquarium.

And just across Pratt Street, the Hi-Flyer Balloon Ascension, which takes riders up 350 feet every 15 minutes to view the grand and spectacular sweep of this Land of Pleasant Living. Next door is Port Discovery, the Disney-designed, nationally-famous children's exploratory museum.

At President Street SMRTram makes an easy turn south and in seconds is at the stop in the right hand lane that leads to the gateways into the Italian Village transplanted, Baltimore's famous Little Italy. A tour takes in the historic charm of an old world neighborhood, largely preserved—and so many Italian restaurants that you will have to plan to come back and take all of them in "next time"!

Swinging east, SMRTram moves along Aliceanna Street, a street out of Old East Baltimore's yesterdays, of row hous-

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▼

es and shops and much change in progress, but the street has another reason for its popularity—it runs only one block away on the land side from storied Fells Point. Passengers disembark and walk the short block south to this picturesque seaport area where Baltimore Town began, and its many shops and taverns and waterfront ambiance retains much of the character of the Baltimore seaport of two centuries ago.

SMRTram riders notice that the tram movements are coordinated in a special way: each time a tram comes to one of its stops, it meets another tram coming in the opposite direction along the same guide way. After passengers have gotten on and off, one tram goes around the other in a short by-pass built as part of each tram stop—and each of the trams then continues on its way. This patented bi-direction-

al coordination is why SMRTram requires such a small amount of street space and provides such short convenient headways.

SMRTram riders still aboard will find themselves now on Boston Street, in the heart of one of Baltimore's oldest historic sections, Canton, where Baltimore history and romance, its past and its future come together. The U.S.S. Frigate Constellation was launched in Canton in 1797.

SMRTram winds through all of this history, affording passengers the opportunity to visit an area that is today a charming yet modern day retail shopping community—with restaurants and book stores and some of Baltimore's best shopping.

Off to the right is the harbor, and riders are witnessing a whole new community coming into being along its shores—town houses and marinas and shops, a city within a city and a spectacular example of urban planning and enterprise at work.

We are now at the end stop: Boston Street and Clinton Street. Time elapsed since we left Pratt and Light, about 20 minutes! Here, at this location, the State of Maryland is deliberating whether to construct a new and enlarged cruise ship terminal. The impact of a cruise ship terminal on the City is directly related to how easily passengers can be connected to downtown.

There are, as mentioned earlier, a number of other possible ways to move people from west to east and back. Baltimore City commissioned a study ("East-West Transit Connector: Final Report, November 2001) by the transportation consulting group DMJM Harris of the various transit alternatives to improve East-West transit in and out of downtown, including light rail, people mover, historic

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The Abell Report is published bi-monthly by The Abell Foundation  
111 S. Calvert Street, 23rd Floor, Baltimore, Maryland 21202-6174 • (410) 547-1300 • Fax (410) 539-6579  
Abell Reports on the Web: <http://www.abell.org/publications>

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trolley and bus. The route of each of the proposed systems approximates the proposed SMRTram route with some variations. The light rail is assumed to operate in dedicated traffic lanes with no traffic signal preemption, and the trolley and bus, for purposes of the study, operate in existing traffic. The people mover is grade-separated, running independent of street traffic on an aerial track. Of the alternatives studied by the city, how does each alternative compare with the other and with SMRTram?

### 1. Light Rail

The proposed light rail alignment links into the existing Howard Street light rail at Pratt Street for eastbound traffic and at Lombard Street for westbound traffic and follows essentially the same route as SMRTram through Fells Point and Canton. The light rail is assumed to operate in dedicated lanes of traffic, one eastbound and one westbound, thus increasing traffic congestion. With fewer station stops and higher operating speeds achieved in a dedicated right of way that neither bus nor trolley enjoys, the light rail is estimated to make the trip in slightly more than 16 minutes. The study assumes that there would be 15-minute headways, or a 15-minute wait between trains. The capital costs are estimated at \$151 million, or approximately \$50 million per mile. In terms of impact on the environment, one of the drawbacks of the system is the overhead catenary electric wires which are a source of visual clutter, especially along the waterfront.

### 2. Historic trolley

The electric trolley system, the favored alternative in the report, also requires overhead catenary as a power

source. The system operates at lower speeds than light rail, but higher speeds than bus. The study assumes that the trolley would operate in mixed traffic with no dedicated lanes and estimates one-way travel time, which includes service to the University of Maryland at Baltimore, of 25 minutes. Headways are estimated at six minutes in rush hour and 15-20 minutes in off-peak hours. The capital costs are estimated at \$144 million, or \$38 million per mile.

### 3. Elevated People Mover

The elevated people mover is proposed to operate independent of street traffic on an overhead guide way. As such, the system has potential for the shortest travel time, as well as the highest frequency of service in comparison with light rail, bus and trolley. However, the system's extensive infrastructure and bulk at water's edge are an even greater visual barrier than light rail or trolley catenary. The City study concludes that the track should end in Fells Point due to the negative visual impacts of the system. While the shorter travel time afforded a dedicated right of way might appeal to passen-



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gers, they would have to overcome their reluctance to climb steps or ride elevators to reach elevated station platforms. People mover systems also come with a hefty price tag: \$143 million in construction costs, or \$57 million per mile. The construction of aerial guide ways and stations offsets any savings from minimizing at-grade construction. The system is projected to complete a 2-1/2 mile run from the stadiums to Fells Point in 10 minutes and 15 seconds, stopping at ten stations with peak headways of three minutes.

### 4. Bus

Buses are the least capital-intensive option, with \$33 million estimated primarily for streets and sidewalk reconstruction and 19 bus stops, although it may be questioned as to how much reconstruction is actually necessary to begin the service and how it would differ from existing east-west bus service. The route selected by the consultants originates at the University of Maryland and extends to Clinton Street in Canton. The bus has the lowest operating speed of all the modes with a 25-1/2 minute one-way operating time and six-minute peak headways. The Downtown Partnership through Yellow Transportation has recently initiated downtown shuttle service, the DASH, which partially covers the SMRTram route from Pratt and Light to the Inner Harbor Marriott Hotel. The shuttle offers five-minute headways during peak hours and 10-minute waits in non-peak hours during the work week and 20-minute headways on weekends.

### 5. Subway

Another option for East-West transit is a subway line. A new rail line linking Fells Point to downtown and on to the

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Social Security Administration was recently recommended as a priority by a Regional Rail Plan Advisory Committee to the Maryland Transit Administration (MTA). The Advisory Committee considered alignment for rail but did not determine which mode, light rail or subway, was preferable. The MTA is expected to select one or more priority projects on which to begin environmental review and planning in the summer of 2002. Below street level the subway would not offer the pedestrian the same visual experience, but it offers a more rapid trip with fewer stops than an at-grade level system. Such a system, while very desirable, is expensive to build (over \$200 million in construction dollars per mile) and will take many years to construct.

## 6. SMRTram

The proposed SMRTram would be accessible at grade with wide doors to alight and disembark. Each tram would be designed to carry 60 passengers, 21 seated. The SMRTram is electric, but the power source is located in the guideway, requiring no overhead catenary. As a result, there is no overhead infrastructure to obstruct views or buildings. The SMRTram system assumes traffic signal pre-emption to have cross-traffic vehicles yield the right of way to the SMRTram. The projected operating speed from Light and Pratt Streets to Boston and Clinton Streets, including 14 stops, is 19 minutes one way. The estimated headway in peak hours favorably compares with the people mover at three minutes.

The initial projected cost of the SMRTram system at \$26 million for construction and vehicles is actually less than the projected cost of the bus system.

The appeal to potential riders of any

new system is a complex combination of factors: whether the system takes them where they want to go, the novelty of a new system, the travel time, when the next vehicle is expected once the last one leaves the station, and the comfort, safety and convenience of using the system. In addition, the City's report considered projected ridership, system expandability, costs, maintenance and storage facilities and parking/delivery impacts. In each of these categories SMRTram designers claim the SMRTram compares favorably, as follows.

### Ridership

The trolley system is projected to have the highest ridership of the four options at 13,800 per day. Due to its sidewalk orientation and more convenient headway SMRTram could be expected to surpass the trolley ridership. SMRTram has a maximum capacity of 24,000 people per day.

### System Expandability

The report evaluated the ability of the system to be expanded in terms of right-of-way and expansion costs. In all cases, except bus, transit systems are not easily expanded. SMRTram, in contrast, can easily be extended because it can be deployed at relatively low cost in virtually any existing right-of-way.

### Costs

As mentioned earlier, SMRTram capital costs are projected at \$26 million. This includes \$13.5 million for guideway construction, tram-stops, etc., \$3 million for traffic signal coordination, and \$9.5 million for equipment. In terms of operating costs, the SMRTram is estimated to be similar to bus service for labor costs and maintenance at \$5.8 million annually. The trolley is slightly more

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at \$5.9 million and light rail and people mover are more still, at \$6.7 million, and \$10.2 million, respectively.

### Maintenance and Storage Facilities

An important difference among alternatives is whether they can be stored and serviced "off-track." The trolley system, like light-rail, will have to access its maintenance facilities without leaving its track system. This means maintenance facilities must be located relatively close to, and in alignment with, the vehicle tracks and power systems themselves. SMRTram, in contrast, is able to utilize remote (and hence, less expensive) maintenance and storage facilities. While the SMRTram is connected to its guideway for operation, it can be disconnected from the slot and driven, using an auxiliary battery power source, to off-site locations.

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### **Parking/Delivery Impacts**

The SMRTram right of way is typically adjacent to the curb on one side of the street, a location which, would eliminate 117 curbside parking spaces along Aliceanna Street but no traffic lanes. While this could be viewed as a net loss of parking and customers to businesses along the route, SMRTram designers point out that, in fact, the opposite is true. On Aliceanna Street, those 117 parking spaces generate about 56 people per hour while the SMRTram system will generate up to 3,240 people/hour, effectively drawing potential customers from all the parking spaces along the route. In addition, SMRTram designers recommend that curbside parking on the opposite side of the street be designated as short-term errand and loading spaces only.

### **Baltimore Could Be First!**

A negative of SMRTram is that one has never been built. It is the invention of Marylander John Alt, who is currently

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***SMRTram  
merits a  
serious look  
as a promising  
alternative  
to conventional  
options under  
consideration.***  
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negotiating to build the very first system in a Southern city. Baltimore could choose to wait and observe that first-to-be built system, or it may—if questions of cost are satisfactorily answered—want to be the first in the world to offer it.

### **Open questions about SMRTram**

As the prototype vehicle and system are developed, a number of issues need to be considered: detailed vehicle and guideway manufacturing and infrastructure cost estimates; design and safety of the in-street power source; pedestrian and vehicle safety for the bi-directional SMRTram; impact of traffic signal preemption on affected intersections; ownership and operation; and fare collection. Thorough studies of these issues must be an integral part of the planning process.

### **Conclusion**

There is an understandable desire, from an operations and maintenance perspective, to minimize the number of different kinds of transit modes, but this should not result in the deployment of a transit mode which is out of scale with its intended purpose. The purpose of Baltimore's east-west transit corridor, from the Inner Harbor to Canton, is to enable pedestrians to move easily back and forth along the corridor, patronizing its various businesses, shops, restaurants and entertainment venues, without moving their cars. If we focus specifically on this purpose, it could be concluded that SMRTram merits a serious look as a promising new alternative that may cost substantially less, and perform better, than what is currently being considered and constructed more quickly than many of the alternatives. ■

## **ABELL SALUTES:**

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do not commit to problem-solving that is open-ended; we look for immediacy—results in the relatively short run. We are careful to make sure that the grants we make fit precisely into the OSI mission as Mr. Soros defined it.”

That mission is to “strengthen democracy, lower the barriers to opportunity and assist marginalized groups to participate equally in a civil society, and to make their voices heard.” In support of those goals, OSI-Baltimore has created and /or funded local initiatives that are in lockstep with Mr. Soros's aspirations globally.

### **Three (among many) examples:**

#### **Maryland Juvenile Justice Coalition:**

OSI-Baltimore gave seed money to Advocates for Children and Youth to create the Maryland Juvenile Justice Coalition. Since 1998, OSI-Baltimore has awarded \$425,000 to this effort, and this month, the Board awarded an additional \$300,000 over two years to support the Coalition. The goal of the Coalition is to increase delinquency prevention programs, prevent transfer of juveniles to the adult criminal justice system, to increase community-based alternatives to incarceration and to reduce the overuse of detention.

In less than four years, the Coalition has become a local and national model for effectively influencing policy changes and increasing public awareness of the problems inherent in Maryland's juvenile justice system. The Coalition has successfully gained press coverage of the physical abuse of children in juvenile detention, which lead to an overhaul in leadership at the Department of Juvenile

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Justice. In addition, the decision of the Department of Juvenile Justice to downsize the Cheltenham and Victor Cullen youth detention centers and to establish a network of community-based wrap-around services is an example of the successful advocacy efforts of the Coalition. Finally, the Coalition has worked successfully to help establish the Youth Consolidated Grant, which will pool \$18 million in federal funds to make them available to local management boards for delinquency prevention, early intervention and alternatives to incarceration programs. And during the 2002 legislative session, the Coalition convinced the General Assembly to enact budget language requiring the Department of Juvenile Justice to dedicate over \$4.5 million a year to be reallocated from detention to intensive community-based programs.

In addition, OSI-Baltimore has given complementary grants to the Center on Juvenile and Criminal Justice to provide media and public education expertise to the Coalition and to encourage faith-based programs to become involved in juvenile justice issues.

### **Baltimore City High School Initiative:**

In January 2002 OSI Baltimore announced a grant of 4.5 million over five years to the Fund For Educational Excellence to support reform of Baltimore's nine neighborhood high schools. The grant was made in conjunction with nine other Baltimore based foundations, and the Bill and Melinda Gates Foundation for

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a total of \$20-million. The goal of the grant is to boost student achievement and graduation rates in neighborhood high schools by greatly reducing school size, enhancing curriculum, and strengthening leadership and teaching. Three schools will begin to implement this redesign process in the fall of 2002. The remaining six will be phased in over the next three years. Stanford research institute, along with a local evaluator, will evaluate the initiative and resulting student progress.

### **Citizens Planning and Housing Association:**

OSI has provided \$625,000 over five years in grant funding to the Citizens Planning and Housing Association (CPHA). To advocated for improved regional transportation and job access for city residents. Over the first three years of

funding (1999-2001) CPHA has produced significant results from its research, organizing, advocacy and educational efforts. In 2000 CPHA won a 20% reduction in the farebox recovery mandate so that transit fares need cover 40% rather than 50% of operating costs, a move that lowers the hurdle for more rail expansion opportunities. In addition CPHA won legislative and gubernatorial commitments to an additional \$500 million over six years for transit improvements statewide. MTA also responded to expansion requests and instituted the seven day Metro service in metropolitan Baltimore. It also expanded commuter bus service between Baltimore and Harford, Anne Arundel, Carroll and Howard Counties. Last, CPHA has had a significant impact on the federally mandated 2001 Baltimore regional transportation plan: \$1.5 billion was added for three major expansions of rail transit in metropolitan Baltimore and \$350 was removed for outer suburban highway expansions.

Of OSI's brief history in Baltimore, Mrs. Morris says, "I hope that it will be said that Baltimore is a stronger community because of OSI, that we faced the tough issues, and understood the need and the power of immediacy. That difference, between the Baltimore when we came here and he Baltimore when we leave—that will be our legacy."

Abell Foundation salutes OSI, a foundation in a hurry to where it is going, but with a mandate to look where it has been.. ■

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