





VISION42

AN AUTO-FREE LIGHT RAIL BOULEVARD FOR 42 STREET

The **vision42** proposal is a citizens’ initiative sponsored by the Institute for Rational Urban Mobility, Inc., a New York City-based not-for-profit corporation concerned with advancing cost-effective transport investments that improve the livability of dense urban places.

Contained in this booklet are an overview of the **vision42** initiative and the key findings of a number of technical studies that address basic concerns about its feasibility. These studies were funded through a series of grants from the New York Community Trust/Community Funds, Inc., John Todd McDowell Environmental Fund.

Economic consultant: **Urbanomics, Inc.**
Cost and engineering consultant: **Halcrow, Inc.**
Traffic consultant: **Sam Schwartz Engineering**

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VISION42

AN AUTO-FREE LIGHT RAIL BOULEVARD FOR 42ND STREET



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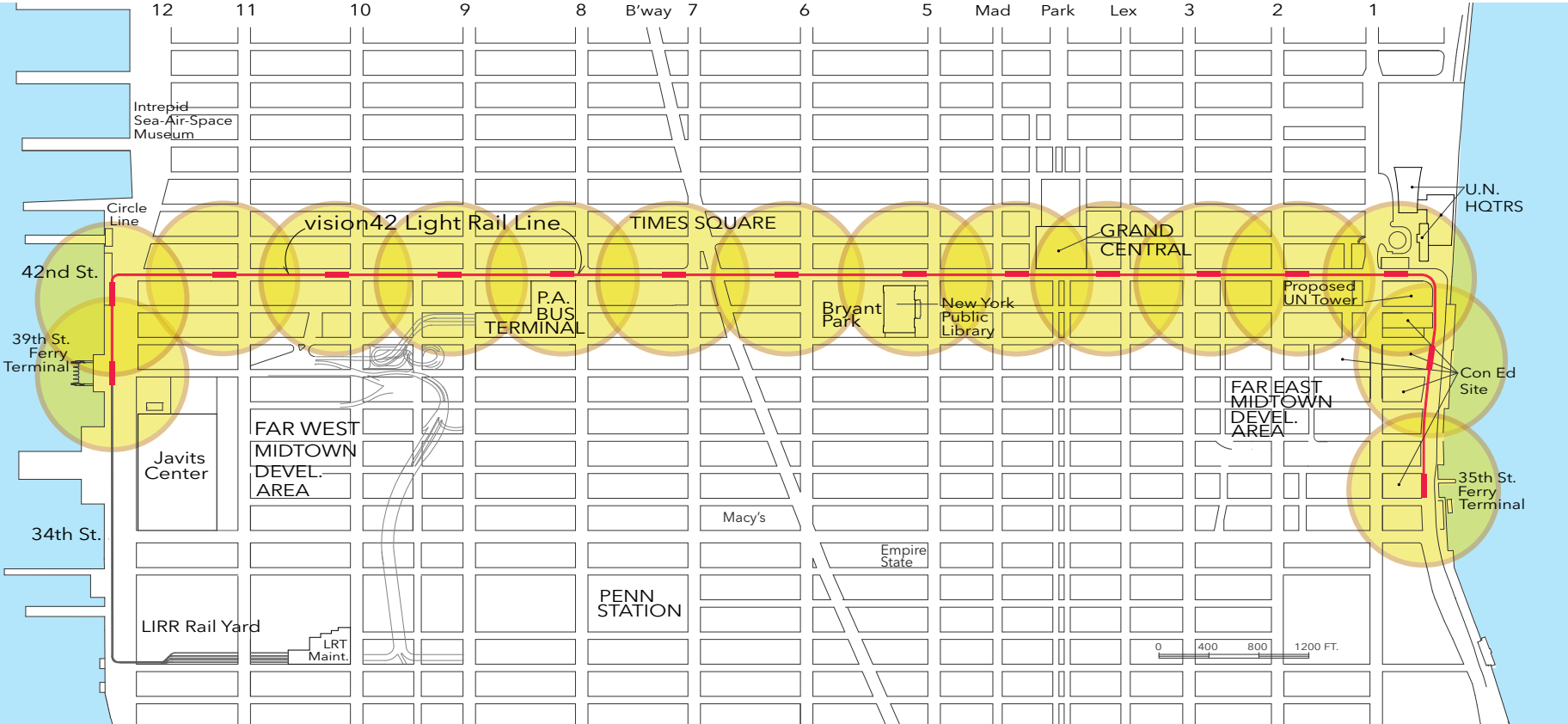


FIG 1. Map of the proposed route for a new low-floor light rail line, traversing Midtown Manhattan, river-to-river, in 21 minutes, with vehicles arriving every 3.5 minutes in peak hours, every 4 minutes at off-peak. The line would link transit hubs, ferry terminals, and many of New York’s major destinations, reaching massive new and planned development in the Far East and Far West areas of Midtown. (Circles represent 700-foot radii of immediate impact around each station.)

- Light Rail Line
- Light Rail Stop
- Access to Light Rail Maintenance
- 700-ft Access Radius Around Light Rail Stops

| CONTEXT

NO CARS, FROM RIVER TO RIVER

THE PROPOSAL

Converting 42nd Street into an auto-free landscaped urban corridor with a low-floor light rail line, spanning from river to river.

The **vision42** plan will convey urban space from motor vehicles to pedestrians and environmentally friendly surface light rail — easing pedestrian and transit flow and providing cleaner air in a park-like, traffic-free environment.

Consistent with the goals of the City's long-term sustainability plan, **vision42** establishes a standard for vibrant pedestrian enclaves in heavily populated areas throughout the city.

WHY LIGHT RAIL TRANSIT?

Current local bus service on 42nd Street, one of the MTA's busiest lines, is among the slowest in the system. Neither the existing subway Shuttle between Grand Central Terminal and Times Square, nor the extension of the #7 subway line can meet the growing needs for better public transit service to either the Far East or Far West ends of 42nd Street.

Light rail is attractive, reliable, comfortable, and has more than three times the capacity of local buses.

Self-propelled streetcars using fuel cells or other advanced technologies can achieve a maximum environmental benefit.

Tourists prefer surface travel for sightseeing, ease of access and safety.

Surface light rail would not compete with the subways, but rather would complement them, and would connect the waterfronts, ferries and major new development to the center of Manhattan.

FIG 2.
Proposed Typical Cross Section through 42nd Street – a fully landscaped walking environment for Manhattan’s center. Eliminating traffic will allow space for outdoor cafés and other amenities.

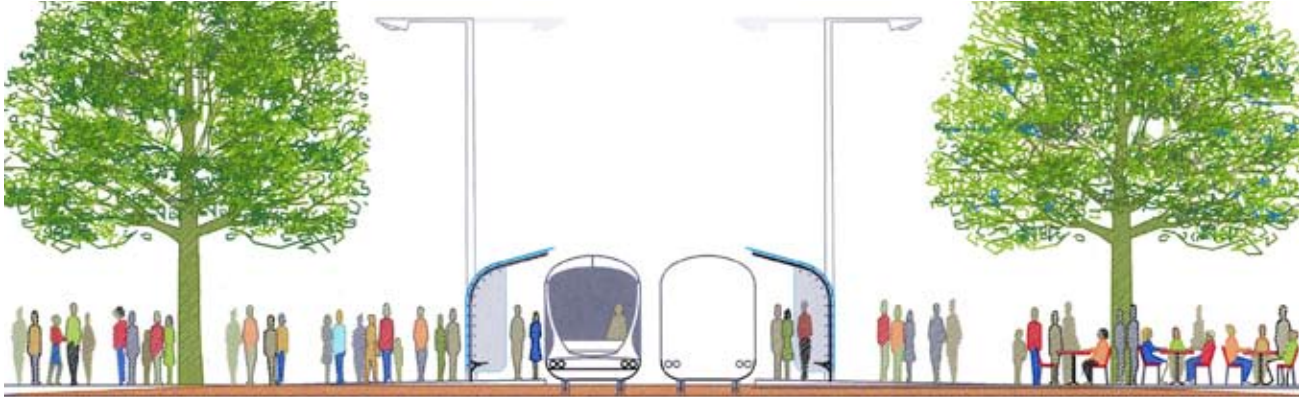


FIG 3.
Light rail in a pedestrian street in Houston’s city center.



FIG 4.
Strasbourg – the low-floor allows light rail to function almost like a moving walkway.



LIGHT RAIL COMBINED WITH PEDESTRIAN-ONLY STREETS OPERATES SUCCESSFULLY IN HOUSTON, DALLAS, PORTLAND, MEMPHIS, SACRAMENTO, SAN DIEGO, STRASBOURG, ZURICH, AMSTERDAM, GOTHENBURG, BREMEN, KASSEL, AND MONTPELLIER . . . AND MORE

CURRENT STATUS OF VISION42

Advocacy for **vision42** began in 1999 as a citizens' initiative under the auspices of the Institute for Rational Urban Mobility, Inc. (IRUM) — a NYC-based not-for-profit corporation. Over 300 presentations of the proposal have been made to public officials, and to civic, business, and community organizations. An Advisory Committee of distinguished citizens has been formed. Foundation grants became available beginning in 2004, which permitted IRUM to commission three rounds of technical studies. Three well-regarded consulting firms worked closely together to study the project's anticipated economic impacts, its likely costs, its traffic implications, construction phasing and a financing study. The results of these studies were presented and discussed at two well-attended community forums. Key findings of the reports are contained herein, and the full reports are posted on the **vision42** website, at www.vision42.org/about/studies.

The project's improved access and increased pedestrian amenity are projected to translate into significant gains for travelers, businesses, and property owners in the corridor.

The cost of the project is estimated at between \$411.3 and \$582.3 million in 2007 dollars. The economic analyses indicate that the economic benefits would amount to \$704.9 million annually, and that fiscal benefits to the City and State would yield another \$175.4 million annually. (*See Tables A and B on pages 28 and 30.*)

FIG 5.

Bahnhofstrasse in Zurich has many high-end shops, and a light rail line that connects the main passenger rail station with ferry docks. This makes it an excellent model for 42nd Street.





AN AUTO-FREE LIGHT RAIL BOULEVARD FOR 42ND STREET

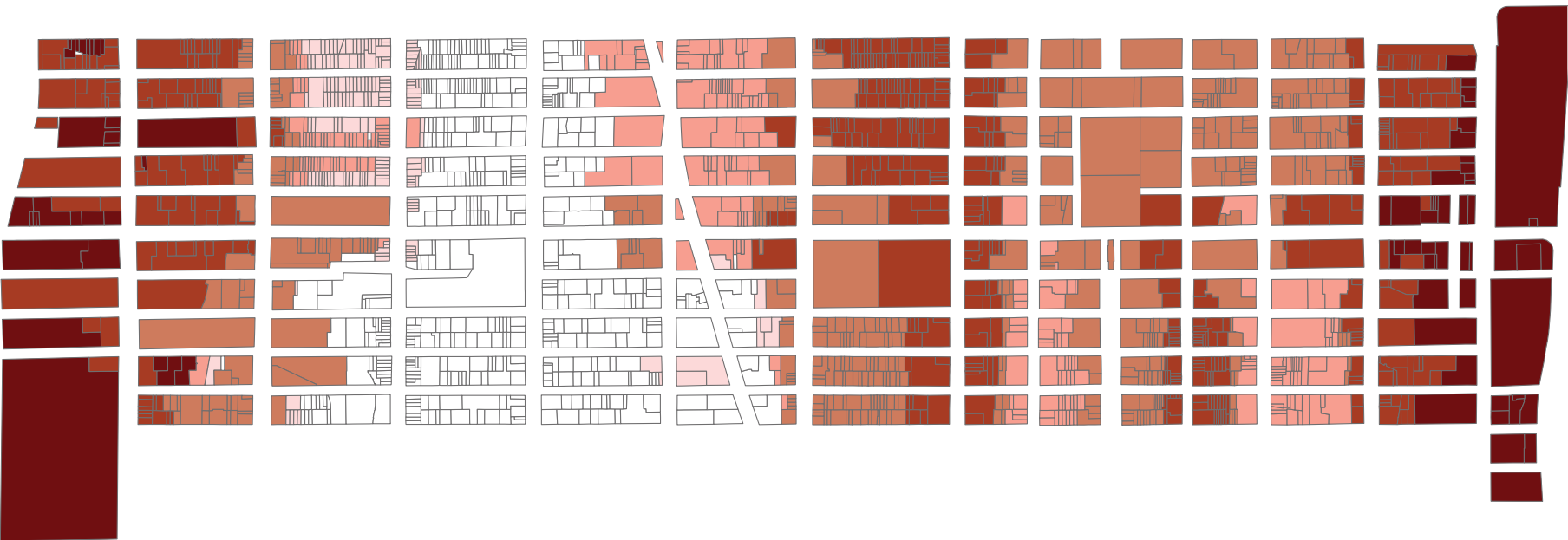
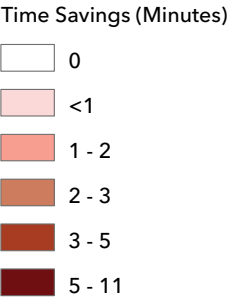


FIG 6.
Travel time savings between the Port Authority Bus Terminal and individual property parcels in the study area. The darker the color, the greater the time savings.



|| RESEARCH

ANTICIPATED ECONOMIC BENEFITS

Economic and fiscal impacts of implementing **vision42** were estimated by Urbanomics in association with Georges Jacquemart of BFJ Planning and Amos Ilan Consulting. Urbanomics is a well-regarded firm led by Regina Armstrong, who served previously as Chief Economist for the Regional Plan Association. The study analyzed travel time savings resulting from **vision42** for each parcel in the study area. An established analytic technique was used that had been developed for the Federal Transit Administration (FTA). Time savings were translated into commercial property value gains, per the FTA model. Key findings of this study reveal a highly positive cost/benefit ratio for the project.

Major gains of \$1.0 billion in commercial property values are anticipated. This one-time increase in asset value of real properties in the study area represents the largest single economic benefit of **vision42**. Light rail transit significantly quickens the last leg of the journey from transportation terminals and subway stations to some of the most valuable real estate in the nation.

KEY FINDINGS AND RECOMMENDATIONS

\$886.1 million annual economic and fiscal benefits.

Retail shops and restaurants on 42nd Street would see increases of 35 percent in their business.

61 percent of food establishments interviewed would consider expanding to sidewalk cafés.

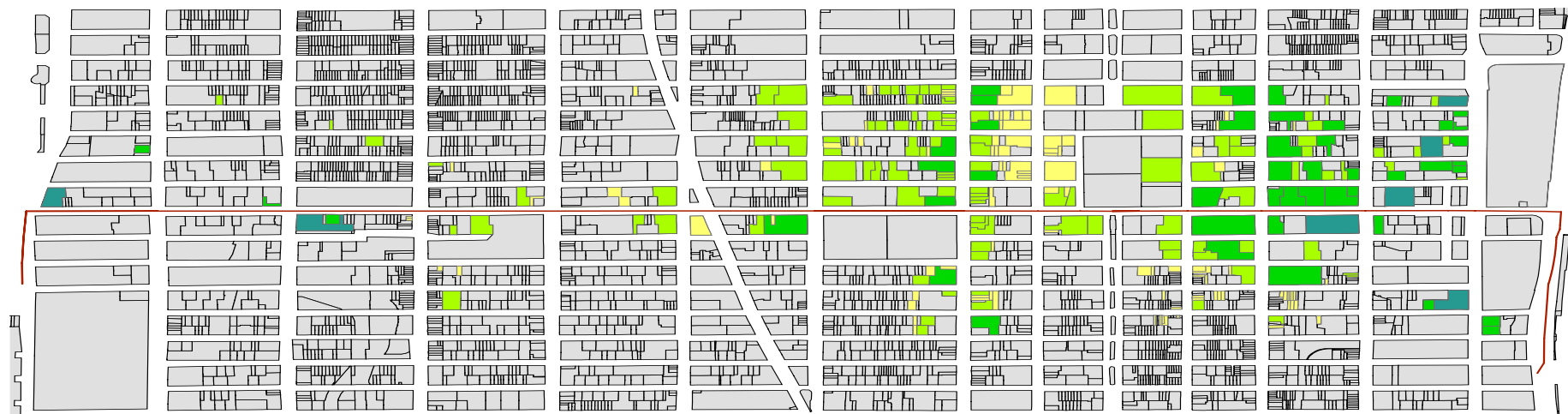
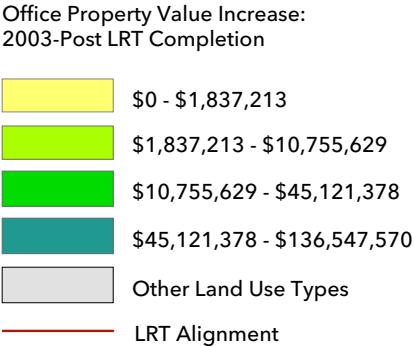


FIG 7.
 Selected commercial property value
 increases, 2003-06.



INCREASED NYC PROPERTY TAXES CAN BE CAPTURED TO FULLY FUND VISION42 WITHOUT TAKING MONEY AWAY FROM OTHER MTA PROJECTS

Increased property values and growth of economic activity in the corridor will result in fiscal benefits of increased City and State tax revenues of \$175.4 million annually. This will include a \$55.1 million gain in NYC property tax; \$54.0 million in other NYC taxes, and \$66.3 million in New York State taxes.

An additional annual gain of \$789.0 million in other economic benefits is projected. These include travel time savings — resulting in rent and occupancy increases; growth in ground-floor business revenues and worker earnings; savings from a reduction in accidents; and light rail operational savings. These benefits are balanced against added transportation costs of \$84.1 million, which include the increased costs of traffic diversion and some increase in the costs of deliveries.

The economic study analyzed the economic impacts on retail shops and restaurants located directly on 42nd Street, and on hotels and theaters in the study area between 37th and 47th Streets. Basic tools used in this study were structured interviews with senior managers and owners, which elicited a nearly 43 percent response from retailers and restaurateurs; a pedestrian demand model developed by the Regional Plan Association; and a compilation of comparable experiences of other cities.

Total economic and fiscal benefits are projected at \$880.3 million annually. *(See Table B on page 30 for a breakdown of these benefits.)*

FIG 8.
There are 126 existing retail establishments along 42nd Street, for a total of 767,000 square feet.

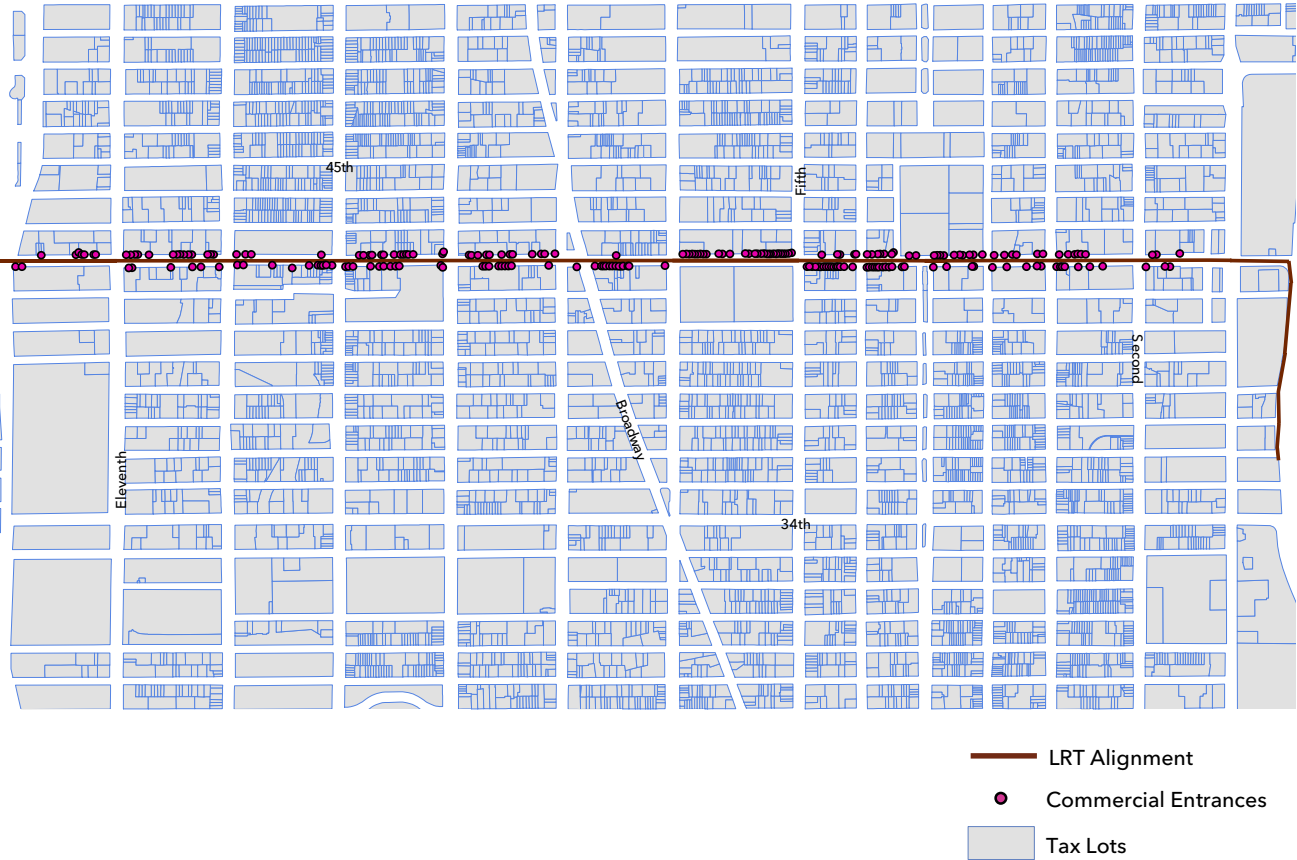
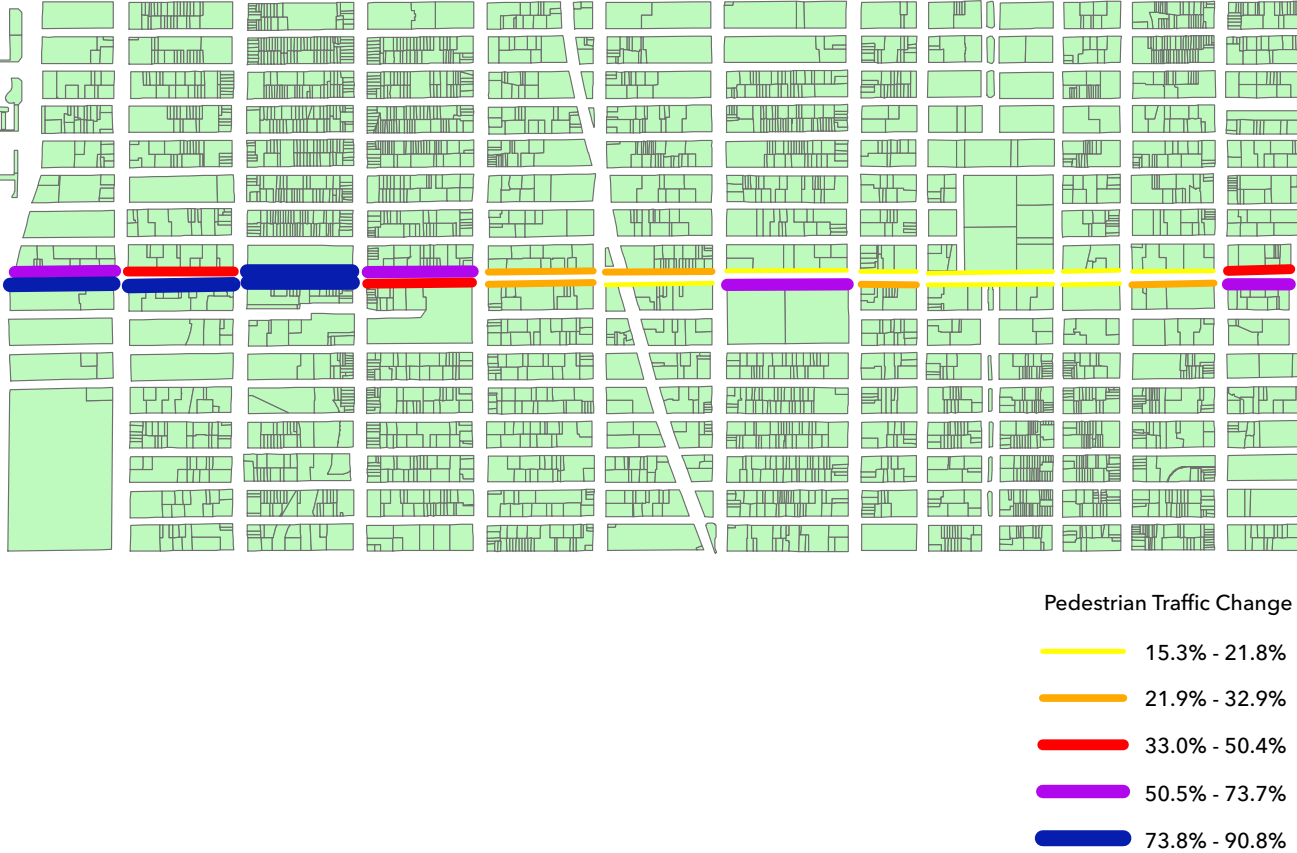


FIG 9.
Increases in midday pedestrian traffic on 42nd Street were estimated for each block face; evening peak hour pedestrian volumes were also projected. Increases occur because pedestrian space is greatly expanded and transit access is substantially improved with the **vision42** proposal.



RETAIL SHOPS AND RESTAURANTS ON 42ND STREET WOULD SEE BUSINESS INCREASES OF 35%

The overall average increase in pedestrian traffic generated by the implementation of the **vision42** plan is expected to be 31 percent at midday and 45 percent in the evening. Areas with the greatest projected increases in pedestrian traffic are primarily on the Far West Side, where pedestrian traffic is currently lightest. Even the more central areas with already-convenient access to transit will increase by between 15.3 and 32.9 percent, primarily because of the increase in free and enhanced walking space.

Increased pedestrian traffic will lead to greater retail and restaurant sales on 42nd Street: Retail and restaurant customers will increase from the current 39,000 per day to over 57,000. This is expected to increase annual retail and restaurant sales by 35 percent, from \$1.09 billion to \$1.49 billion.

Greater hotel occupancy and room sales: Although 42nd Street hotels are already at nearly full occupancy, hotel guest occupancy is expected to grow, with annual room sales increasing by \$5.7 million. Increased pedestrian access, creative landscaping and street amenities were viewed as major benefits.

Increased theater attendance and ticket sales in the corridor from 37th to 47th Streets: Anticipating increases in ticket sales with full pedestrianization and light rail service, the two cinema megaplexes and the 15 legitimate theaters directly on 42nd Street foresee a rise in business of \$14.3 million annually. Theater managers/owners see an opportunity for kiosks promoting shows as a key benefit of a pedestrian street.

FIG 10.
 There are 7 hotels along 42nd Street
 and 54 additional hotels in the study
 area, with more than 13,000 rooms.

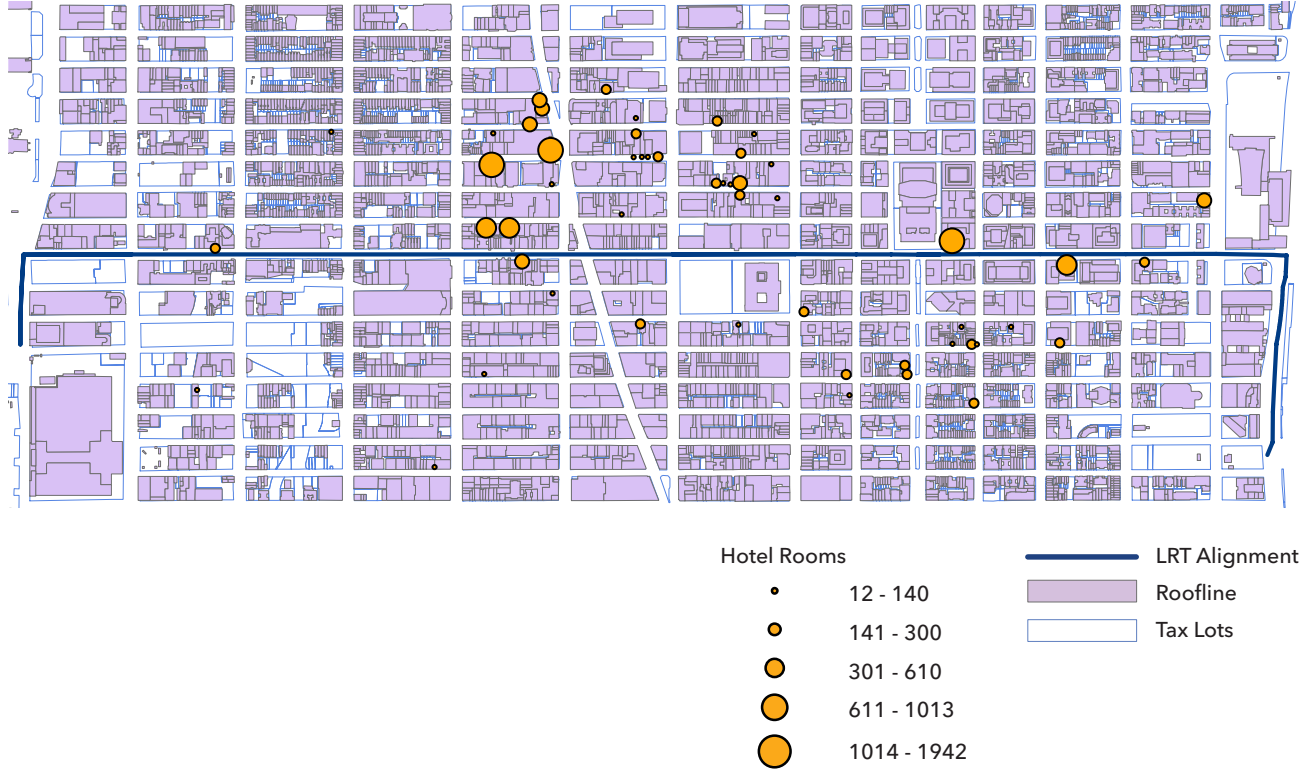
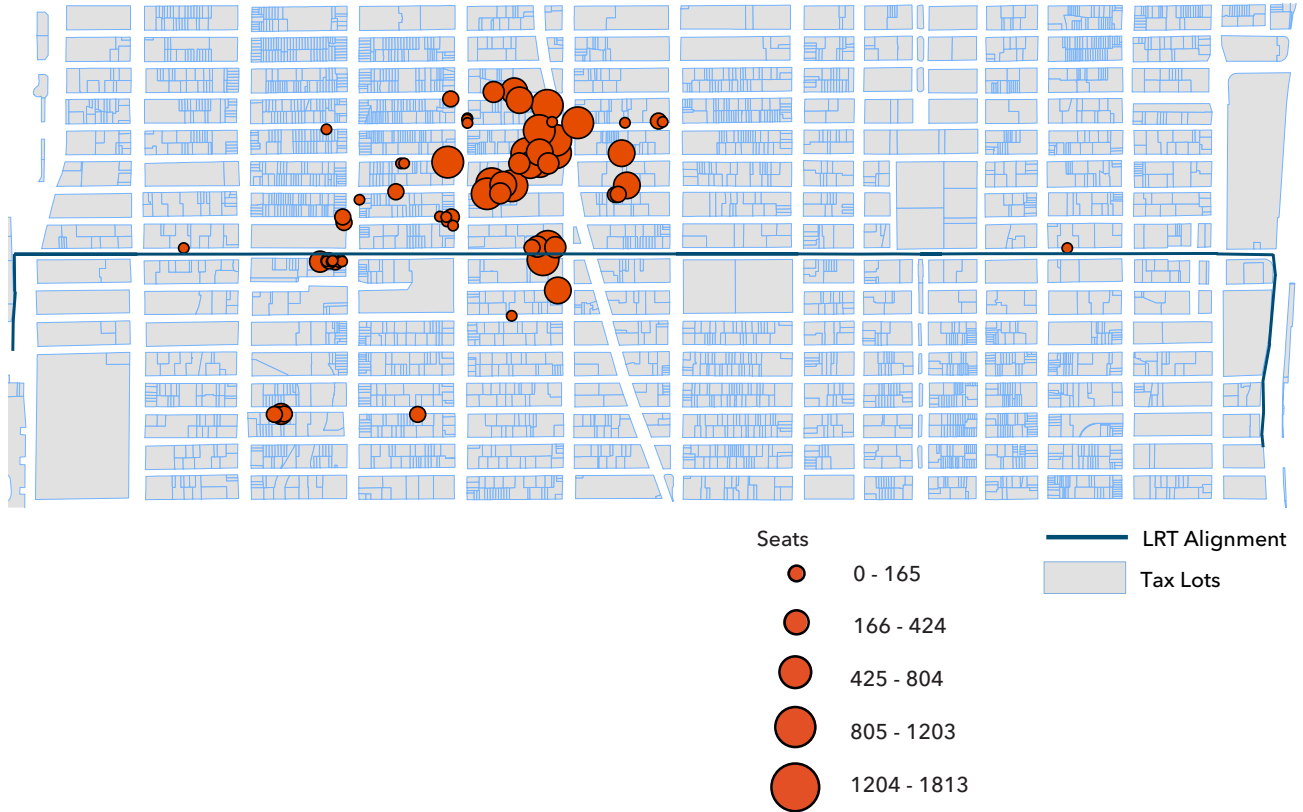


FIG 11.
 There are 6,738 legitimate theater
 seats and 8,132 movie-theater seats on
 42nd Street. In the total 37th-to-47th
 Street corridor, there are 67 legitimate
 theaters with 39,701 seats.



\$880.3 MILLION ANNUAL ECONOMIC AND FISCAL BENEFIT

In the first year of operation, allowing for a temporary impact due to the construction phase, the annual value of direct net benefits accruing to retail shops, restaurants, hotels and theaters is estimated to be \$358 million. In subsequent years, upon full operation of the light rail system, the positive net benefits rise to the above-noted \$483 million annually.

Increases in New York City and New York State tax revenues: \$23.1 million in additional tax revenue from gains in retail, restaurant, hotel and theater business in the first year of operation, taking into account the constraints due to construction activities, and \$28.4 million annually in subsequent years — 17 million to NYC and \$11.4 million to NYS.

An additional \$27.8 million in annual retail sales and a total of 338 new jobs are assumed, with the renting of currently vacant retail space upon opening of the light rail line and pedestrian street. Over all, some 1,000 new jobs will be created in the retail and restaurant sectors.

Strong positive interest among 42nd Street businesses: A survey regarding the favorability of the **vision42** plan among senior managers and owners of establishments on 42nd Street found that, on a scale of 1 to 5 (5 being the highest), representatives of hotels expressed an approval rating of 4.6, of retailers 4.0, of restaurants 3.9, and of theaters 3.4. After discussing the pros and cons of the plan, 82 percent of retail respondents willing to speculate felt that **vision42** would increase their business.



FIG 12.

The three Business Improvement Districts that cover much of 42nd Street could handle maintenance and security of the pedestrian street, and have expressed openness to extending their areas of responsibility.

- Times Square Alliance
- Bryant Park Corporation
- Grand Central Partnership
- LRT Line and Station



FIG 13

vision42 at Times Square, Bryant Park and Grand Central Terminal. High quality paving, furnishings and other pedestrian amenities will be important for this major boulevard. *(Images by Maria Theresa Facchinetti)*

COST STUDY

Halcrow, Inc., a global engineering firm with extensive experience in the design of light rail systems, performed the **vision42** cost study in association with Langan Engineering & Environmental Services and Sam Schwartz Engineering. Cost estimates were based on 100 percent low-floor light rail vehicles operating within a high-quality pedestrian street, including distinctive paving, furnishings, landscaping, and other amenities. Key technical features and operating characteristics of the light rail system were explored. Per passenger operating costs for the light rail will be only one-third of those for the bus service it replaces, as the light rail line will have three times the capacity. Three different capital cost scenarios were developed, based upon the extent of utility relocations and the choice of propulsion system. *(See Table A on page 28 for a breakdown of these costs.)*

KEY FINDINGS AND RECOMMENDATIONS

Light rail costs less to operate than buses and carries three times as many riders.

With its low-floor boarding, light rail will cut travel time in half, taking an average of only 21 minutes to travel crosstown from river to river, even with speeds limited for pedestrian safety to 15 mph.

Light rail is more accessible and convenient for short journeys than the subway, which it complements.

Self-propelled streetcars using fuel cell or other advanced technology will suit the operating requirements of this short system, and will achieve the maximum environmental benefit.

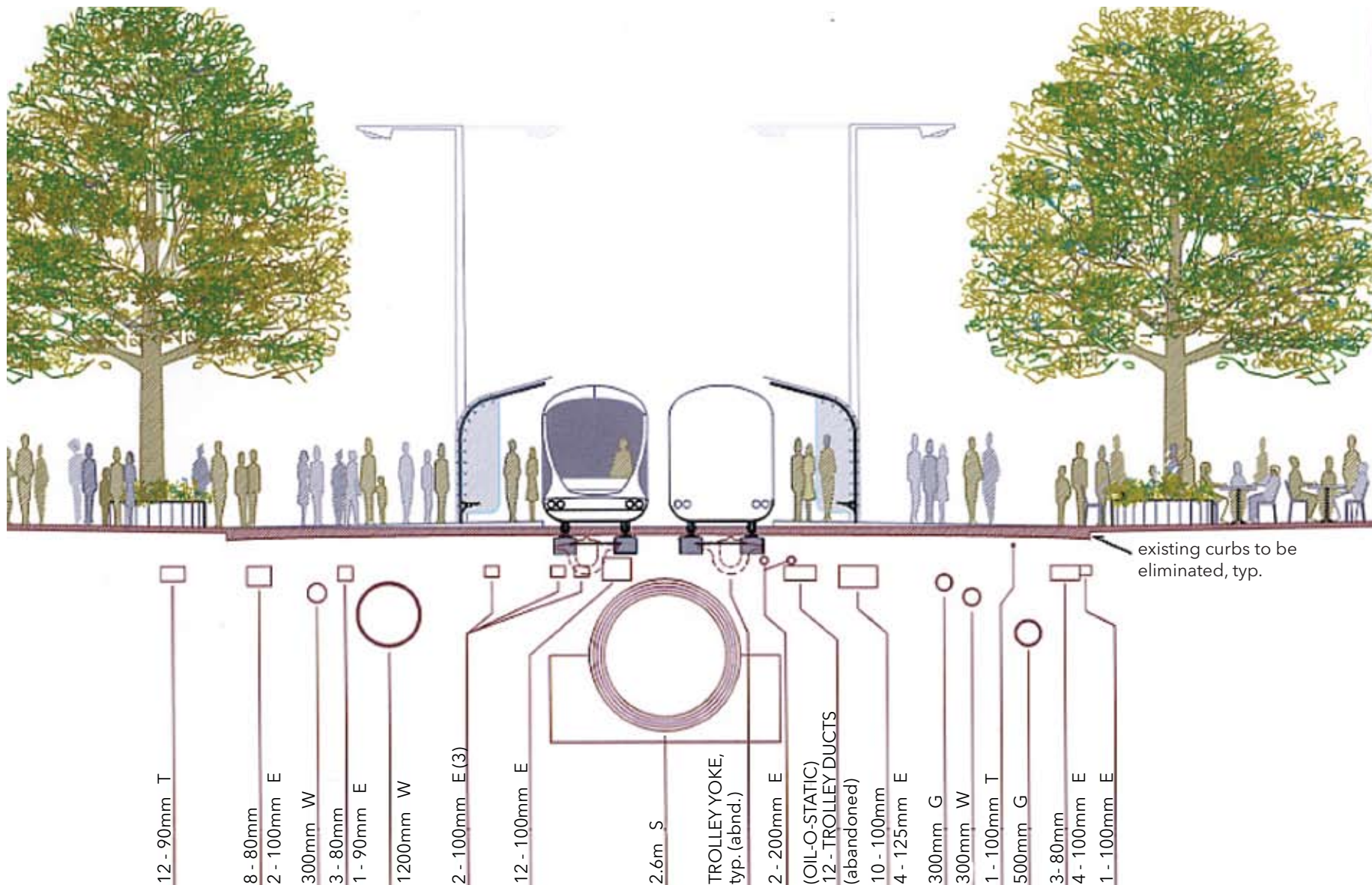


FIG 14. Cross Section through utilities at 10th Avenue. Until they were removed in 1946, streetcars, which were heavier than today's low-floor light rail vehicles, ran for decades over the underground utilities, without major problems. Where the utilities or subway structures preclude tree planting, steel pergolas for foliage can provide shade and greenery.



SELF-PROPELLED STREETCARS USING FUEL CELL OR OTHER ADVANCED TECHNOLOGY WILL SUIT THE OPERATING REQUIREMENTS OF THIS SHORT SYSTEM, AND WILL ACHIEVE THE MAXIMUM ENVIRONMENTAL BENEFIT

The 2.5-mile surface light rail line running river-to-river, integrated into a landscaped pedestrian street, with 16 pairs of LRT stops, creative landscaping and pedestrian amenities, will cost between \$411.3 and \$582.3 million in 2007 dollars. The cost per mile for the light rail plus landscaping is approximately 10 percent of that for subway construction.

The costs of utility diversions requested by the utility companies and agencies for a rail-based system are significant and would dominate the capital costs. However, until 1946, NYC trolleys ran over the utilities without major problems. Modern, low-floor light rail vehicles are lighter than either the old trolleys or the many trucks that use the street today. Unless current restrictive policies are modified regarding relocation of utilities, this will also produce substantial temporary disruption during the construction phase, as well as higher costs.

FIG 15.
 Projected Level of Service – No-Build.
 Weekday Traffic in 2010, PM . A data base
 was complied from the data of three major
 environmental impact studies for projects
 in the study area. The worst congestion is
 around the Lincoln Tunnel, a condition that
 will only be improved by the adoption of
 congestion pricing.

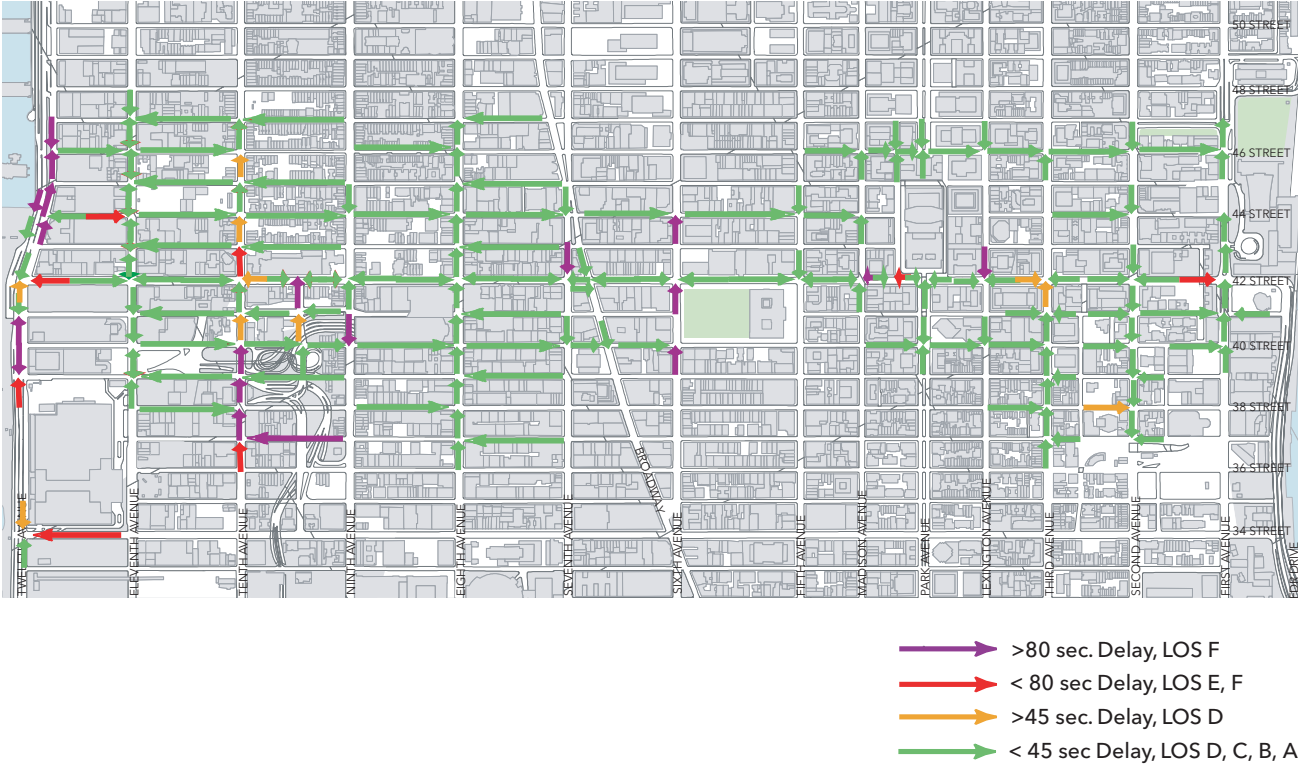


FIG 16.
 Projected Level of Service – With
vision42 Built. Weekday Traffic, 2010,
 PM. Using accepted standard practices
 for mitigating traffic impacts, such as
 changes in signal timing, lane markings,
 and parking regulations, the relocated
 traffic can be accommodated, while
 maintaining lowered, but sustainable
 levels of traffic performance on adjacent
 crosstown streets.

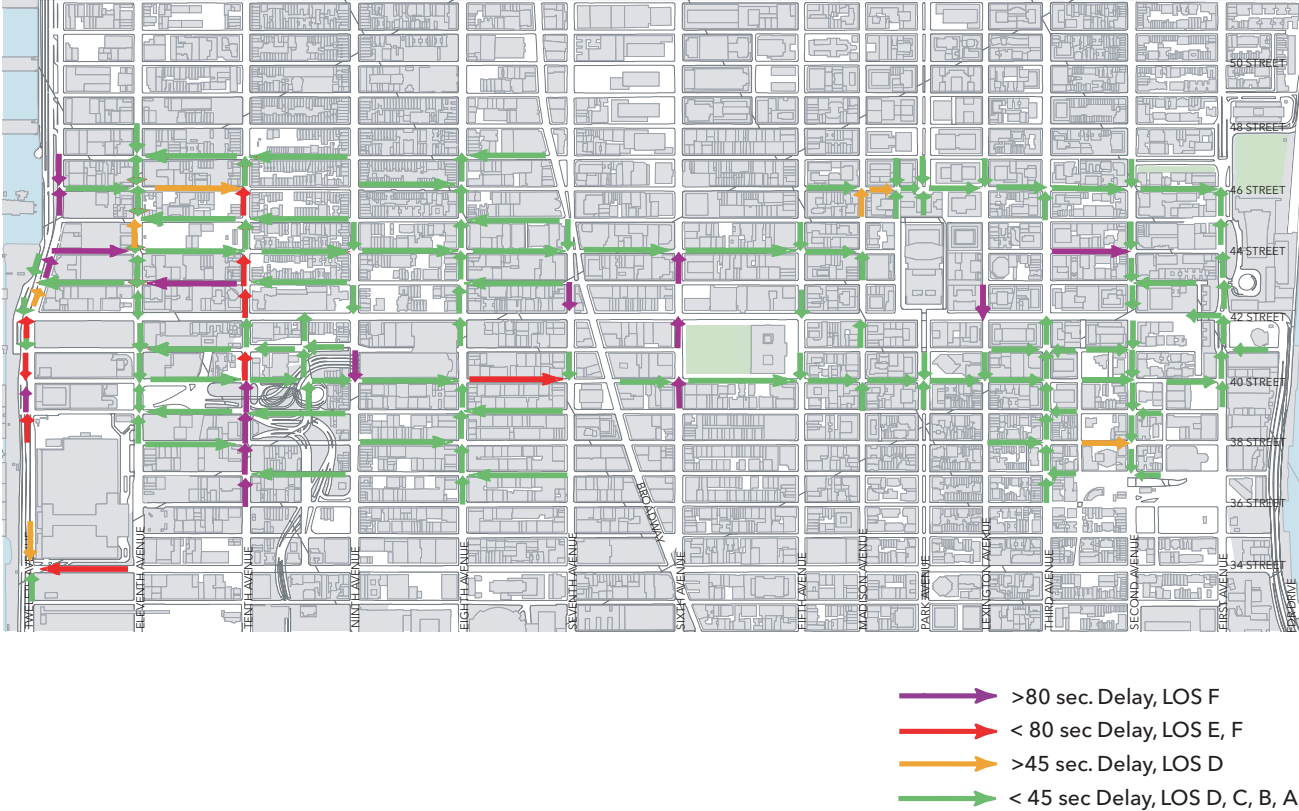
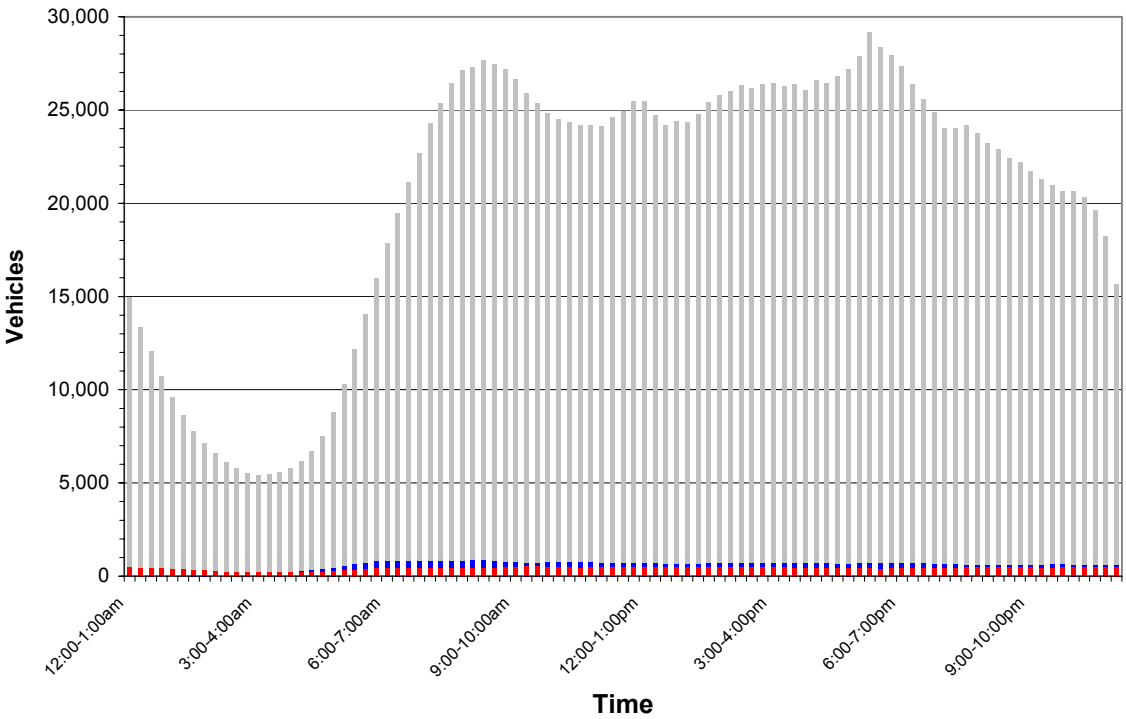


FIG 17.
 Histogram: Existing Weekday Traffic in the Study Area: Less than 5 percent of the traffic within the corridor extending from 37th to 47th Streets is actually on 42nd Street. The heaviest traffic is north-south, on the avenues.

- Study Area
- Eastbound 42nd Street
- Westbound 42nd Street



CLOSING 42ND STREET TO MOTOR VEHICLES IS FEASIBLE FROM THE STANDPOINT OF TRAFFIC, WITHOUT MAJOR IMPACTS

Sam Schwartz Engineering (SSE), a highly regarded transportation and engineering firm founded by a former NYC traffic commissioner, conducted traffic and delivery truck parking studies to assess the consequences of closing 42nd Street to motor vehicles.

The firm assembled a data base of traffic and pedestrian counts for a river-to-river crosstown corridor in Midtown Manhattan, extending from 37th Street to 47th Street, producing an up-to-date inventory of current conditions in the corridor. Using City projections of new development, future conditions were estimated for 2010, the year that the light rail transit boulevard could be placed in service.

Although the experience around the world has been that traffic in a corridor “shrinks” when street space for motor vehicles is withdrawn, the SSE traffic study did not include estimates of shrinkage and projected only a very modest shift from auto and taxi travel to the light rail line.

FIG 18.
Inventory of existing delivery truck parking locations at the peak midday hours of usage for each curb; the curb feet-minutes occupied were carefully observed and compared with the curb space available.



FIG 19.
Adequate space for delivery truck parking can be reserved on the avenues. There will be more opportunities for allocating truck loading curb-space there because vehicles will not be turning into an auto-free 42nd Street. Required changes to parking regulations were identified in the study.



TRUCK DELIVERIES

SSE also did an extensive delivery truck analysis.

Most large office buildings on 42nd Street have their freight entrances on 41st or 43rd Street, since ground floor rents on 42nd Street are too high for this function.

The added cost to 42nd Street businesses for longer delivery routes was found to be under \$300,000 — only a small fraction of the significant economic gains that are projected.

Taxi access: At Grand Central Terminal, this could be provided on the west side of Vanderbilt Avenue, between 43rd and 44th Streets. Most taxi passengers destined for buildings on 42nd Street will be dropped off at avenue entrances or rear entrances on the side streets. Empty taxis now using 42nd Street would cruise on the avenues instead.

FIG 20.
 42nd Street Building Access – Only a few curb cuts and parking garage entrances have been allowed on 42nd Street in the past because of its high pedestrian traffic.

Options exist for providing access to the three parking garages that are served directly from 42nd Street, such as converting Dyre Avenue into an exclusive access drive for the Manhattan Plaza garage.

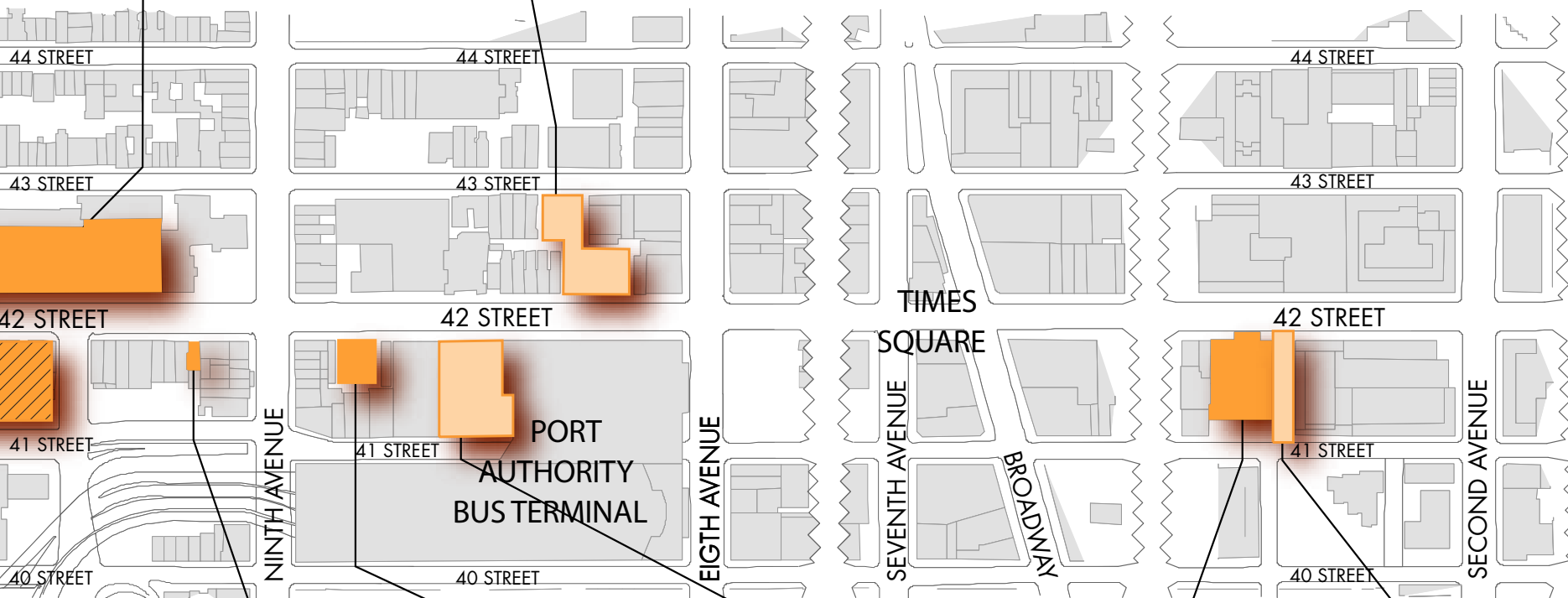




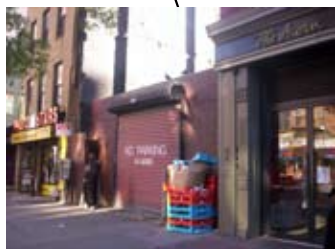
TAN PLAZA GARAGE



IMPARK



SS



TRUCK ACCESS



ICON PARKING



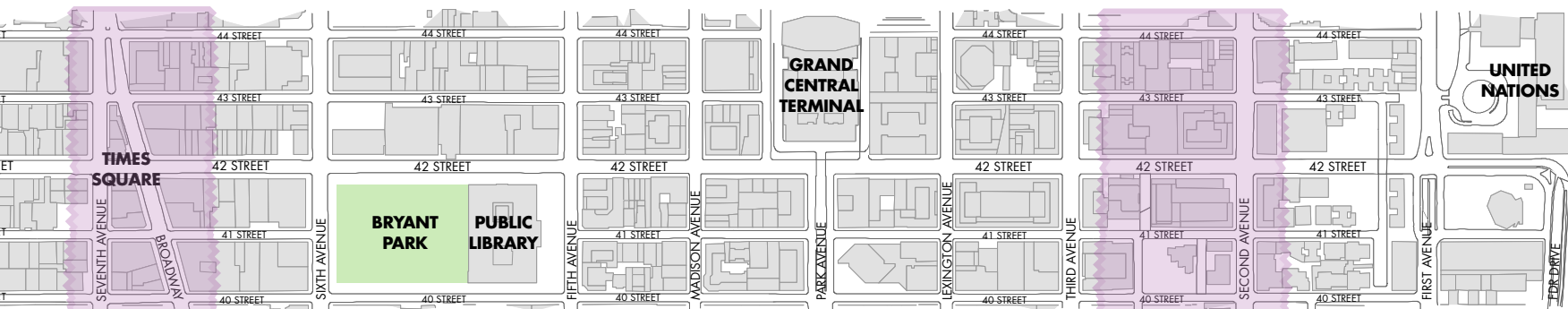
PORT AUTHORITY ACCESS



HELMSLEY HOTEL LAY-BY



DRIVEWAY



AN AUTO-FREE LIGHT RAIL BOULEVARD FOR 42ND STREET

TABLE A: ITEMIZED COST ESTIMATE FOR VISION42 ESTIMATE OF CAPITAL COSTS FOR ALTERNATIVE LRT OPTIONS

COST FIGURES ARE IN MILLIONS, IN 2007 DOLLARS

COMPONENT	CATENARY SYSTEM, FULL UTILITY REPLACEMENT	SELF-POWERED LRT, FULL UTILITY REPLACEMENT	SELF-POWERED LRT, MINIMUM UTILITY WORK
Utility Relocation	\$364.01	\$364.01	\$215.27
Streetwork, Landscaping, and LRT Stops	66.97	66.97	66.97
Trackwork	22.31	22.31	22.31
Electrification – Feeder Substations	4.19	3.42	3.42
Electrification – Overhead Wire or Power Rail	5.59	–	–
Control & Communications	3.82	3.82	3.82
Land & Property Acquisitions	5.70	5.70	5.70
Yard & Buildings	13.12	13.12	13.12
Subtotal	\$485.72	\$479.36	\$330.62
Vehicles (quantity, 14)	63.89	83.06	83.06
Contingencies (10%)	54.96	56.24	41.39
Engineering & Construction Management	24.29	23.97	16.53
Net Savings in Capital Cost From Eliminating Bus Routes (Over 30-Year LRT Vehicle Lifespan)	(60.33)	(60.33)	(60.33)
Net Capital Costs	\$568.54	\$582.31	\$411.25



FIG 21.

At Manhattan Plaza – creating an outdoor urban room for residents and theater-goers. (Image by Mathieu Delorme)

TABLE B: THE BOTTOM LINE: ECONOMIC AND FISCAL BENEFITS AND COSTS OF VISION42

FIGURES ARE IN MILLIONS, IN 2007 DOLLARS

ANNUAL ECONOMIC BENEFITS

Travel Time Savings	\$152.0
Office Rent & Occupancy Increases	181.1
Accident Reduction Savings	1.2
LRT Operational Savings	.1
Increased Business Revenues	
Restaurant/Retail	\$408.4
Hotels	5.7
Theaters	14.3
Increased Worker Earnings	<u>26.2</u>
Total Benefits	\$789.0
Increased Costs of Traffic Diversion	\$83.8
Increased Costs of Deliveries	<u>.3</u>
Total Costs	\$84.1
Net Gain	\$704.9

ANNUAL FISCAL BENEFITS

NYC Property Taxes	\$55.1
Other NYC Taxes	54.0
NYS Taxes	<u>66.3</u>
Total NYC+NYS Tax Gains	\$175.4

COMBINED ANNUAL BENEFITS

Economic	\$704.9
Fiscal	<u>181.2</u>
Total	\$880.3

COMPARED WITH ONE-TIME CAPITAL COSTS OF \$411.3M TO \$582.3M



FIG 22.

At the Hudson River Ferry Terminal – linking conveniently with ferries at both rivers. *(Image by Mathieu Delorme)*



FIG 23.

Helsinki – transparent construction fencing allows the public's interest to be engaged.

CONSTRUCTION PHASING STUDY

Halcrow, Inc. developed a construction staging plan aimed at reducing the negative impacts of light rail construction on businesses and pedestrians on 42nd Street. The firm found that resourceful design could minimize utility relocation requirements, thereby accelerating completion.

KEY FINDINGS AND RECOMMENDATIONS

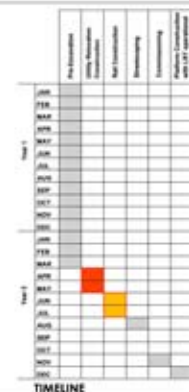
Sidewalks shall remain untouched throughout construction in order to facilitate access to stores.

Construction on each block segment can be accomplished in six months.

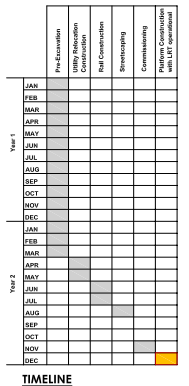
Construction for the entire light rail system can be accomplished in two to three years.

Self-propelled light rail vehicles, using fuel cell or other advanced technology, would expedite construction, provide a cleaner power source, and avoid overhead wires.

Stage 2 for Minimum Utility Replacement: While work on utilities and tracks takes place in the center of the street, temporary bus service is located in the curb lanes.



Stage 4 for Minimum Utility Replacement: While landscaping work proceeds, temporary bus service runs over the rails in the center of the street.



CONSTRUCTION FOR THE ENTIRE LIGHT RAIL SYSTEM CAN BE ACCOMPLISHED IN TWO YEARS WITH THE MINIMUM UTILITY RELOCATION PLAN

ASSUMPTIONS RELATED TO THE CONSTRUCTION PHASING PLAN

- 1.**
The street will be made car-free at the outset of construction.
- 2.**
Transit lanes for temporary buses will be maintained until light rail service begins, running in the curbside lane during the work on utilities and tracks, and in the middle of the street over the rails, once the rails are installed.
- 3.**
The sidewalks shall remain untouched and open for pedestrian access to the buildings.
- 4.**
Delivery methods will be in place for the hand carting of goods from the avenues.
- 5.**
In areas of straight track (most of the line), the rails will be supported on beam strips, rather than on a continuous slab, which will allow manhole access for utility repairs.
- 6.**
The street will be ramped up to sidewalk levels, forming a continuous surface, to avoid tripping hazards.
- 7.**
Transparent construction fencing, seating, exhibit panels and plantings will be used to engage the public's interest during all phases of construction.
- 8.**
The more complex construction at intersections is performed in nighttime hours, as is testing of the light rail system prior to its commissioning.

SEGMENT I

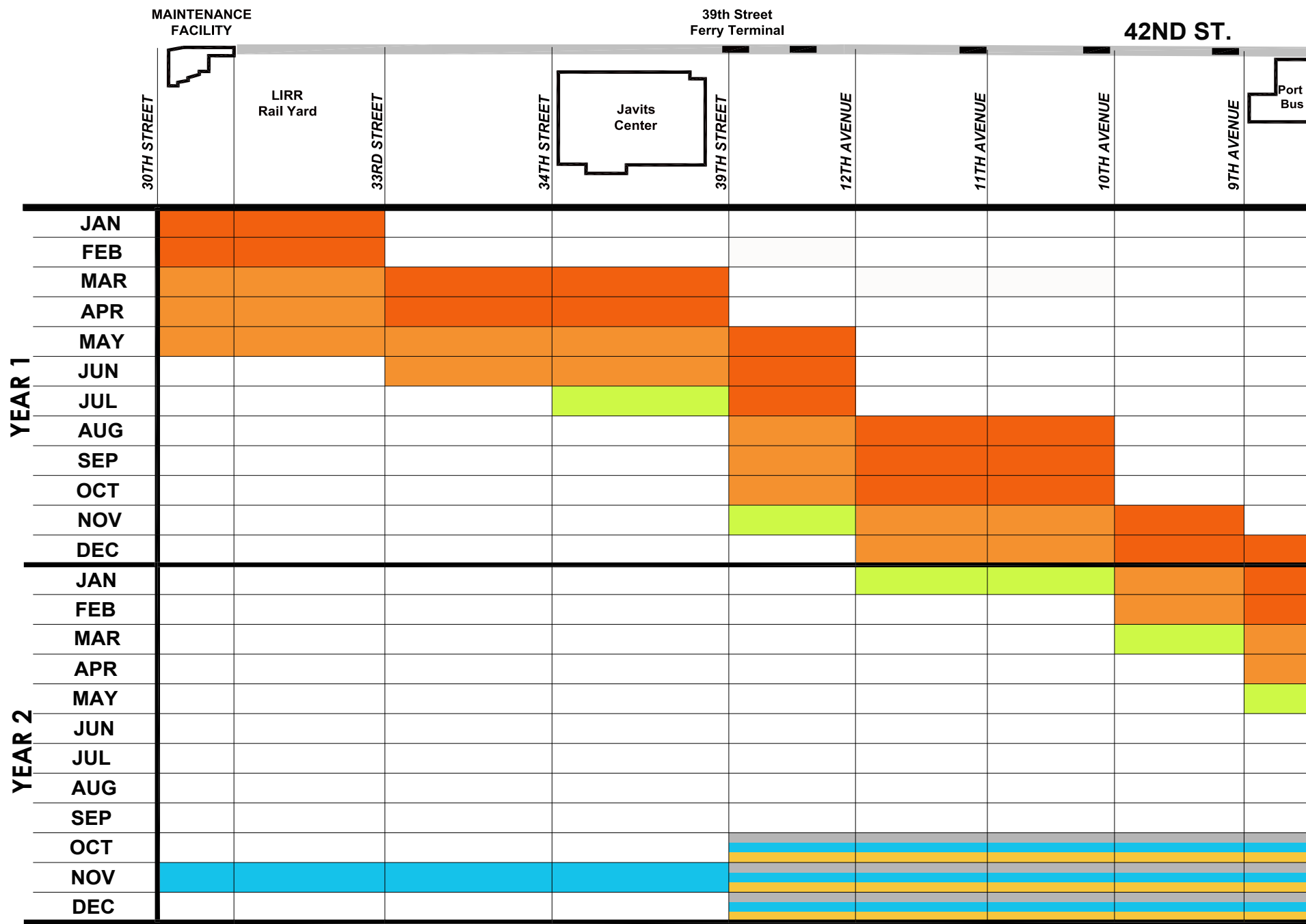
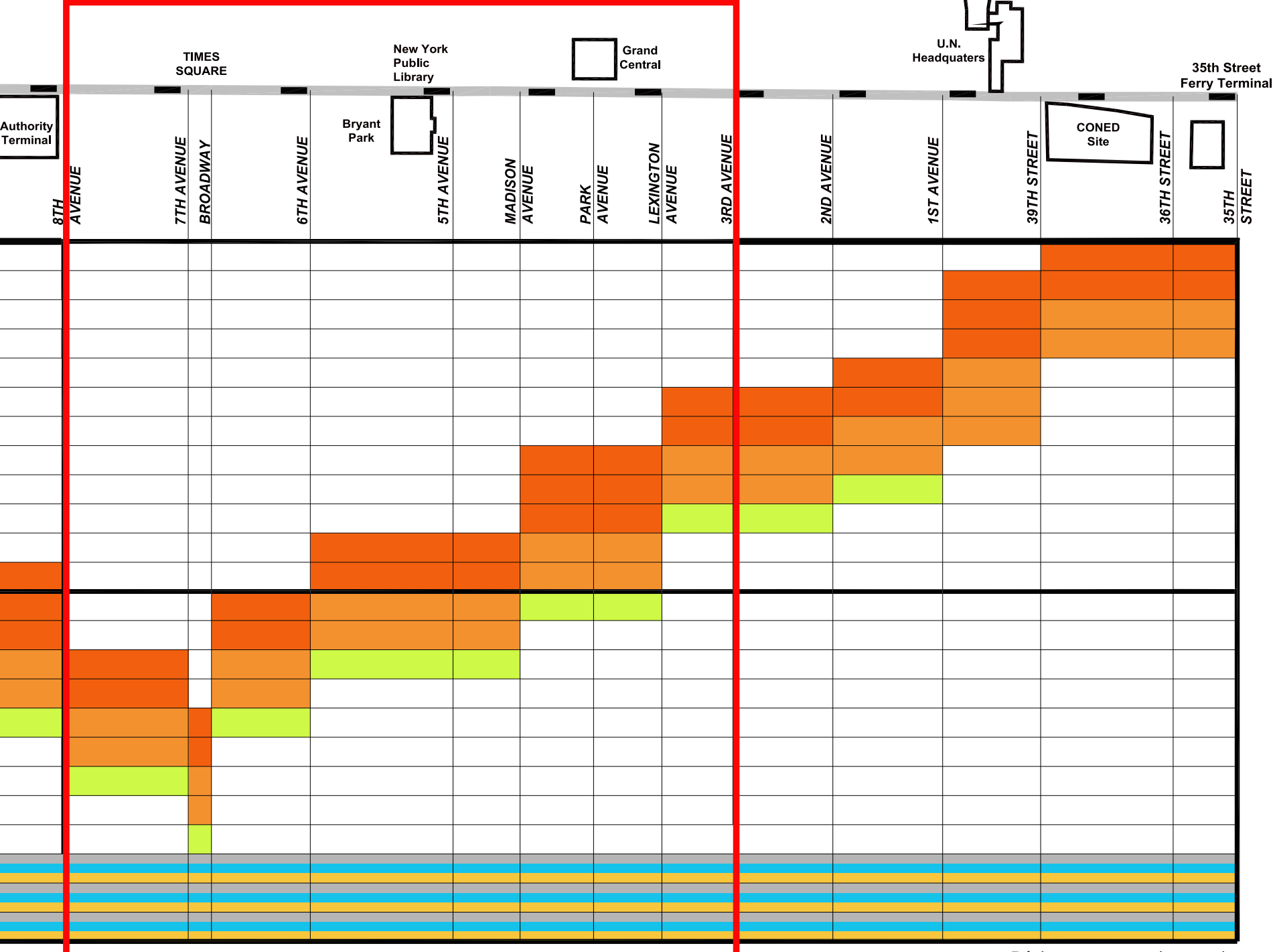


FIG 26.
Two-Year Construction Schedule. With the Minimum Utility Replacement Plan, and with work commencing on three segments of the route simultaneously, construction is estimated to take two years, with one six-month phase of digging per block. Each block is under construction for approximately six months..

SEGMENT II

SEGMENT III



- Utility Relocation Construction
- Rail Construction
- Streetscaping
- Temporary Platform Construction
- Commissioning
- Platform Construction with LRT operational

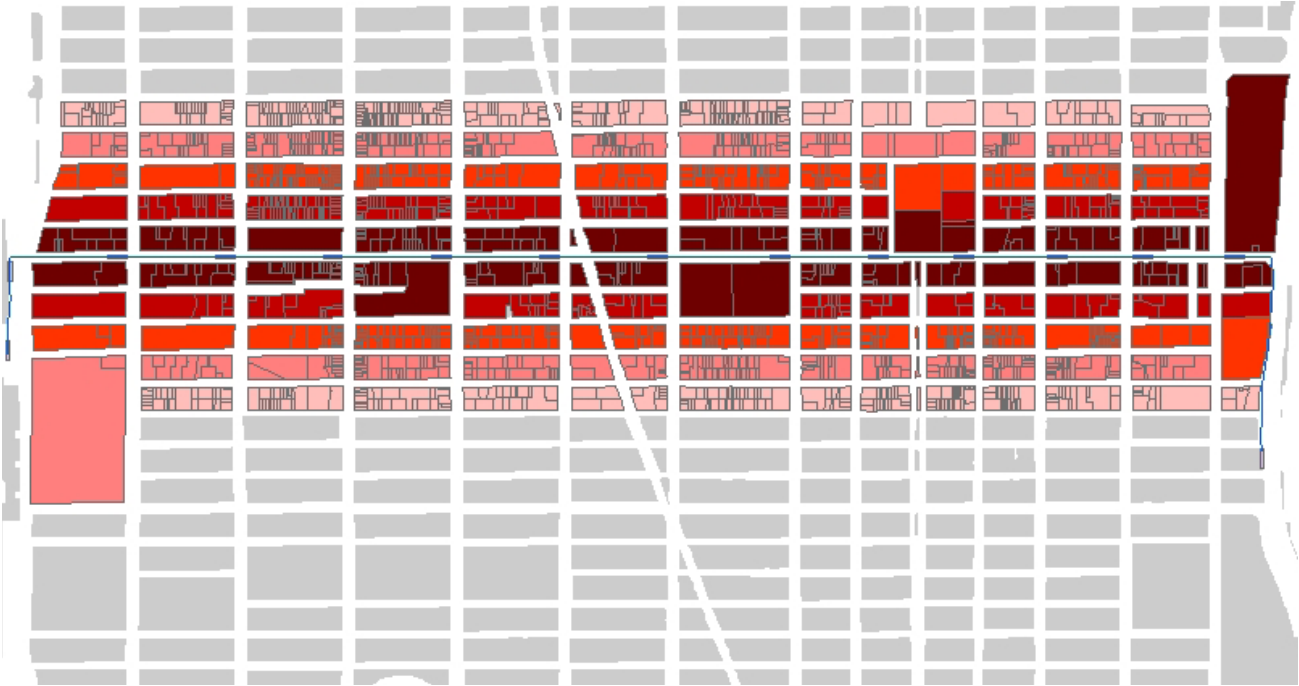
FIG 27.
The **vision42** Financing Study Area incorporates existing and new development five blocks to the north and five blocks to the south of the light rail line, and excludes the Hudson Yards District.

- LRT Alignment
- LRT Station Platforms
- V42 study area
- Hudson Yards Financing District
- Tax Lots



FIG 28.
For the Transit Improvement District option, gradients of levy would be established corresponding to the proximity of each block to the light rail transit line.

- LRT Alignment
 - LRT Station Platforms
- District Gradients
- 1
 - 2
 - 3
 - 4
 - 5



CITY AND STATE GOVERNMENTS CAN EXPECT ANNUAL TAX GAINS OF \$175.4 MILLION RESULTING FROM THE INCREASED PROPERTY VALUES AND BUSINESS ACTIVITY

FINANCING MECHANISMS

Urbanomics, Inc., studied a variety of mechanisms for funding the **vision42** project, and focused on devising a plan that would capture the value created by an auto-free light rail boulevard. The plan would not compete for scarce public funds committed to other transit projects that are currently in planning or construction. Similarly, it excludes parcels in the Hudson Yards District already earmarked to fund the #7 subway extension. The **vision42** financing study area incorporates all other existing and new development within five blocks to the north and five blocks to the south of 42nd Street, a quarter-mile in each direction. Commercial and residential parcels, mixed uses, hotels and parking would be subject to a levy; industrial uses, theaters, parks, transportation and utility uses would be exempt.

With the capital costs of **vision42** estimated at between \$411.3 million and \$582.3 million (in 2007

dollars, and depending upon the extent of utility replacements and the choice of propulsion system), the annual debt service requirement for these amounts will range from \$36.1 million to \$51.1 million. As detailed in Table B, on page 30, the city and state governments can expect annual tax gains of \$175.4 million resulting from the increased property values and business activities resulting from **vision42**. Of these fiscal gains, NYC's annual property tax gain of \$55.1 million alone exceeds the required annual debt service.

FIG 29.

Tax Increment Financing (TIF) would earmark the tax gains expected to be received by the city, some 3 percent in land value increase generated by improved transit access, to fund the project. This method would yield \$53.0 million per year.

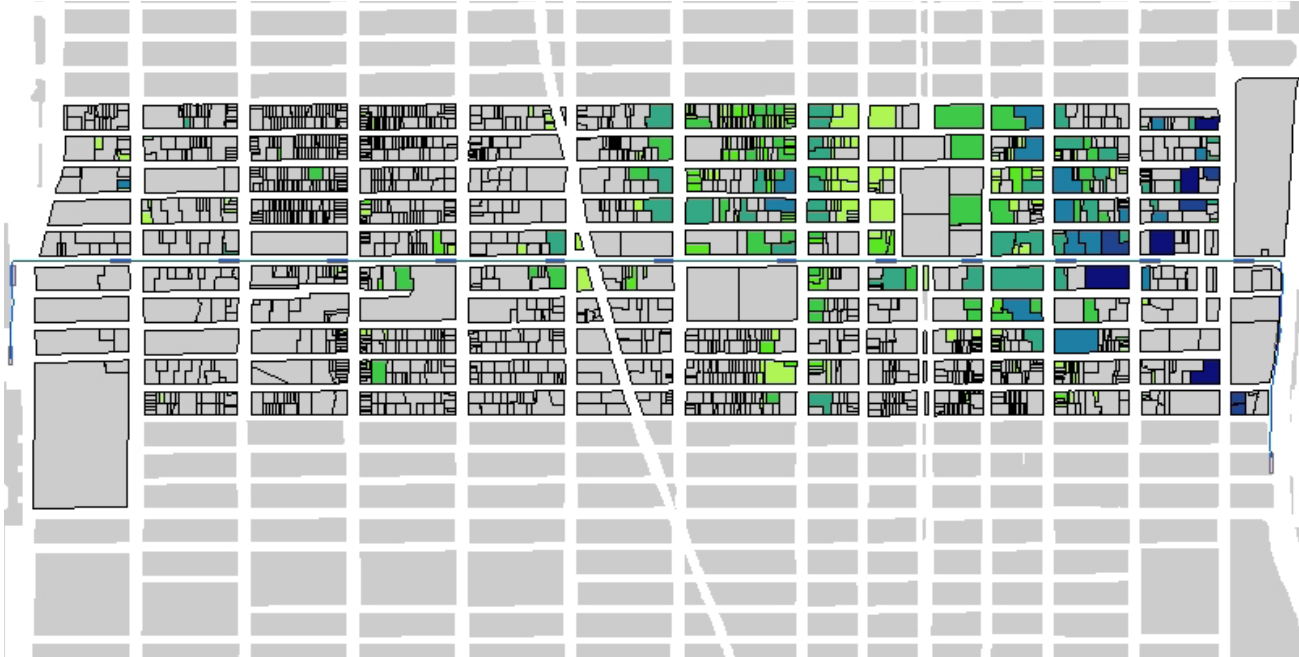
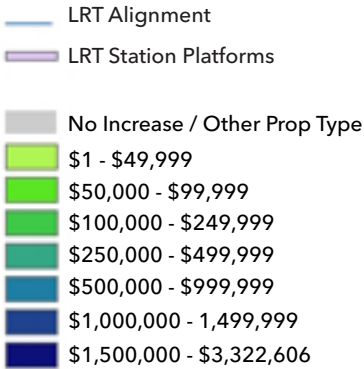
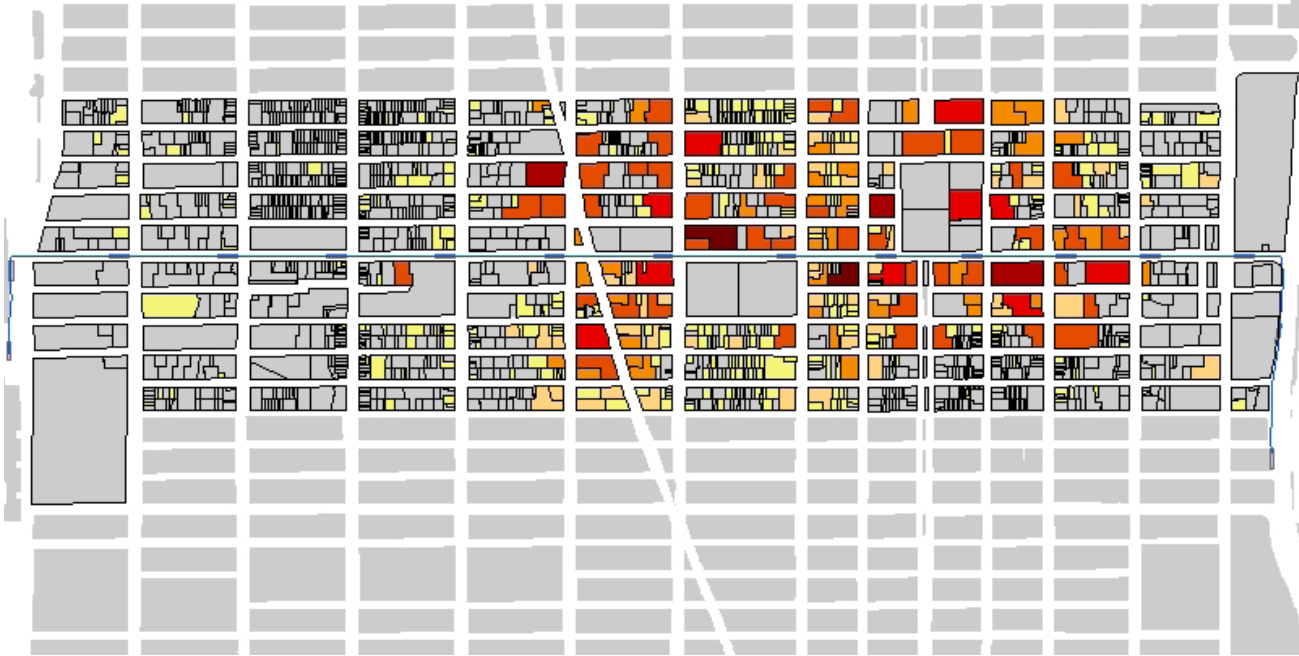
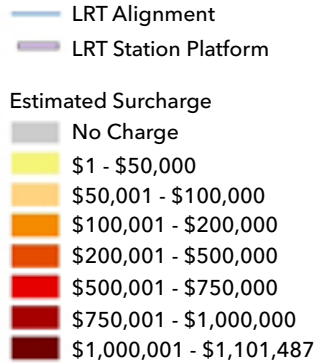


FIG 30.

Transit Improvement District (TID) method, with which levies would be established as a percentage (from 6 to 1) of current tax rates, paid by property owners in anticipation of gains in value. This method would yield \$68.8 million per year.



Property owners, as well as retail, restaurant, hotel and theater businesses on 42nd Street and visitors, employees and residents are positioned to gain considerable annual net economic benefits due to the **vision42** project — some \$704.9 million. While capturing all of these benefits to finance construction of the light rail and pedestrian street, would be difficult, if not impossible, it would be reasonable to capture a portion of those benefits accruing to property owners through one of two basic funding mechanisms:

TAX INCREMENT FINANCING

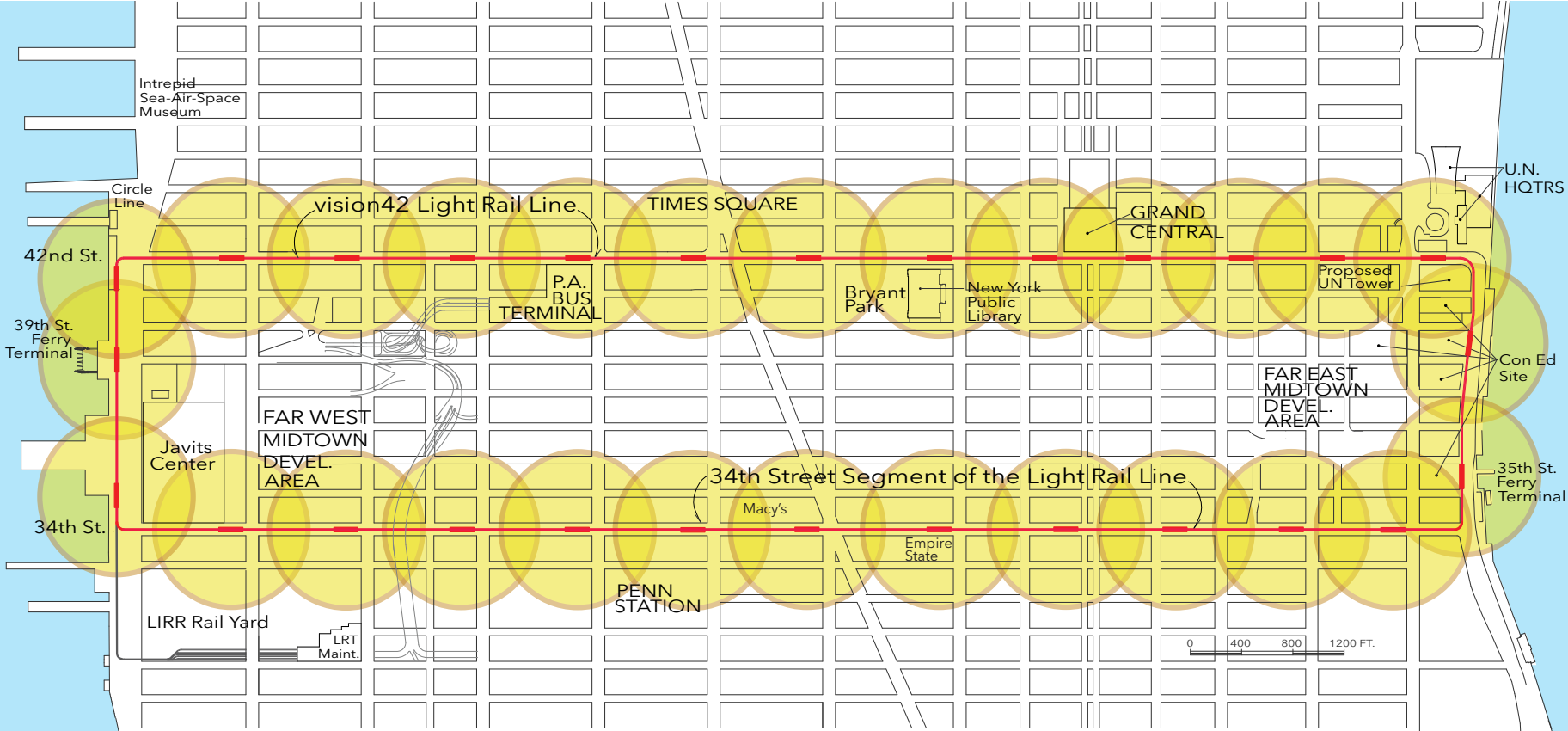
Tax Increment Financing (TIF), the method similar in some ways to the mechanism being used to finance the #7 subway extension, would have the City assume the risk and earmark the estimated 3 percent increase in tax levies resulting from land value increases generated by improved transit access, to fund the annual debt service of the project. It is estimated that the TIF approach would yield annual revenues of \$55.1 million at current tax liability. As in the case of the Hudson Yards District, if the expected revenues fail to materialize, the City would be responsible for covering the gap. The alternative would be to shift the risk to the property owners in the district, by establishing a transit benefit improvement district.

TRANSIT BENEFIT IMPROVEMENT DISTRICT

A Transit Benefit Improvement District (TID) would yield adequate annual revenues to retire the full debt service of even the most costly LRT option, while still excluding overlap parcels within the Hudson Yards District. For example, a TID flat rate levy of 5 percent per annum, or a graduated rate of 6 to 1 percent, depending upon proximity to the light rail line, is estimated to yield annual revenues of some \$79.9 million or \$68.8 million, respectively. As new properties come into use and the total assessable floor area of the district increases, the benefit district assessments would be adjusted downward to equitably distribute the burden at the constant debt service requirement level. Public infrastructure improvements that benefit specific property owners, like the construction of a new sewer line that permits development in the suburbs, are often paid through TIDs.

Initiating the Transit Benefit Improvement District would entail the following steps:

- 1.** Form a Transit Benefit Assessment Task Force, to specify the district boundaries and determine the rate structure on a theoretical and empirical basis;
- 2.** Gain support of the MTA, as potential builder and operator of the light rail;
- 3.** Conduct a referendum by district property owners, to accept implementation of the benefit assessment district at the proposed rate structure;
- 4.** Gain approval by Community Boards, the City Council, and other bodies.



- Light Rail Line
- Light Rail Stop
- Access to Light Rail Maintenance
- 700-ft Access Radius Around Light Rail Stops

FIG 31.
A logical extension of the light rail line along 34th Street, forming a continuous Midtown Light Rail Loop.

FIG 32.
Major new development has been stimulated in nearby Jersey City by the new Hudson Bergen Light Rail Transit line. This suggests considerable potential for light rail-related development on Manhattan's West Side. *(Photo by Alexis L. Goldman)*



ISSUES

DEVELOPMENT ON THE WEST SIDE

The potential for development on Manhattan's Far West Side is substantial: by some estimates some 75 million square feet of commercial and residential development might be expected to occur over the next two to three decades. This will create more demand for increased and varied transit alternatives. In advancing the #7 subway extension, the City should also explore the potential for surface light rail transit, and for "Regional Rail" operating on the existing Amtrak West Side Line, to meet travel demand in the Hudson Yards area.

Light rail can be an appropriate and affordable at-grade complement to the subways. It is also easily extendable. An obvious possibility is to extend the light rail line further south along the Hudson River to 34th Street, and by Penn Station, creating a complete 42nd/34th Street two-way loop.

A more comprehensive exploration of a variety of rail transit options is required at this time to correspond with the rapid development of the Far West Side.

Concept for a network of surface light rail for Manhattan, many of which could be placed in green pedestrian streets.



INTO THE FUTURE

A successful **vision42** project would stimulate interest in light rail throughout the city. An extensive network of surface streetcar lines once existed throughout the five boroughs. They were removed and replaced with buses, to make room for increased motor vehicle traffic.

Now with the city's streets overwhelmed with cars and trucks, bus service has slowed to a crawl. As part of a plan to enhance surface transit, many of the busiest bus lines could be replaced with modern, low-floor light rail; this is being done in many cities throughout the U.S.

NEW YORK CITY, EVEN WITH A SWELLING POPULATION, CAN BECOME A MODEL FOR URBAN LIVABILITY, AS ADDITIONAL STREETS ARE TRANSFORMED INTO LANDSCAPED PEDESTRIAN BOULEVARDS – DEFINED BY HIGH-QUALITY SURFACE RAIL TRANSIT LINES

EVOLUTION OF THE PROPOSAL

vision42 grew out of a plan for a crosstown light rail transit line that was advanced by the 42nd Street Development Corporation, beginning in 1978, conceived by its president, Fred Papert. That plan called for eliminating eastbound traffic on the south half of the street and locating a two-way light rail line in that portion of the street. Westbound traffic would have remained; therefore no significant increase in pedestrian space was planned. The earlier proposal was overwhelmingly approved by the City Council in 1994, and would have provided a very important upgrading of surface transit. Yet it failed to move forward because issues of cost and utility relocation could not be resolved, and the franchise to build it expired in 1999.

Planned and recently completed high-rise residential structures at the eastern and western ends of the corridor have further increased the need for better crosstown circulation. A new high-capacity ferry terminal has been completed on the Hudson River at 39th Street, and another

is planned for the East River at 35th Street, which will further encourage travel by waterborne transit, while increasing the demand for access from the waterfront to the core of Midtown. Likewise, new waterfront parks and tourist attractions require better access from the center.

With the dramatic revival of the Times Square portion of 42nd Street, brought about by the focused economic development policies of City and State agencies, commercial developments along this street have thrived. Restored theaters and new office buildings and hotels have greatly increased foot traffic on 42nd Street. Massive investment in facilities and innovative transit pricing packages have also resulted in substantial increases in the use of mass transit, bringing even more people to the core.

The resulting growth in pedestrian traffic — in many places exceeding available sidewalk capacity — has made it especially important to couple the installation of a crosstown light rail line with a provision that the street be made auto-free.

FIG 34.

A thriving auto-free district in central Vienna.



FIG 35.

A multi-block pedestrian boulevard in central Munich.



POTENTIAL FOR SUCCESS AS A PEDESTRIAN STREET

While not all pedestrian streets have succeeded, many have, even in highly car-dependent U.S. cities. For example, Minneapolis and Denver closed their principal commercial streets more than two decades ago and are quite pleased with the results. Attracting pedestrians is not a concern for 42nd Street; it is the space for them that is sorely needed.

Clearly, a street can be made lively and appealing without the presence of private vehicular traffic. In its design, an auto-free light rail boulevard on 42nd Street should be of a quality comparable to those in Denver, Paris, Vienna, Lisbon, and Zurich, attaining the kind of ambiance that we see in the best pedestrian zones of the world. New York deserves, and can achieve far better than a low-budget, minimum-standards public environment. A creative design could produce one of the most appealing urban places in the world, and a model for sustainable urban living.

CLOSING STREETS TO CARS, AND THE ELASTICITY OF TRAFFIC

The idea of pedestrian streets is neither new nor radical. It pre-dates the Roman Empire, but gained appreciable momentum after World War II, as the proliferation of motor vehicles inspired something of a citizens' insurrection against the effects of traffic in cities. Europe has been at the epicenter of this movement, and contains some of the most beautiful and best functioning examples.

Even in New York, after Robert Moses proposed the widening of Fifth Avenue as it passed through Washington Square Park, community groups strongly objected, and ultimately caused the complete closing of the park to motor vehicles. Significantly, and despite dire warnings by City officials, traffic actually declined on adjacent streets.

This is not an unusual phenomenon. Traffic is actually quite elastic, as people are generally rational beings, who change their travel routes and modes according to necessity. Studies of 47 cases of street closings around the world have demonstrated that, when city streets have been closed to traffic, not all of the traffic has relocated to other streets. Much of the traffic has simply disappeared. And these are examples of passive shrinkage, not shrinkage due to congestion pricing, which has been so successful in the heart of London, where traffic volumes are down by 17 percent, and motor vehicle delays are down by 30 percent.

FIG 36
Pedestrian plazas between all of the avenues.



THE V42 ADVISORY COMMITTEE

The **vision42** initiative was launched in July 1999 under the auspices of the Institute for Rational Urban Mobility, Inc. Presentations of the plan to more than 300 of the City’s decision makers and constituencies have received largely positive responses and led to the formation of an Advisory Committee of distinguished individuals:

Regina Belz Armstrong
Principal, Urbanomics, Inc.

Jean Claude Baker
Owner, Chez Josephine

Dan Biederman
President, Bryant Park Corporation

Jonathan Bowles
Director, Center for an Urban Future

Foster Burnett
General Manager, Times Square Hilton Hotel

Carter Craft
Director, Metropolitan Waterfront Alliance

Janine DiGioacchino
General Manager, Mme Tussaud’s Wax Museum, NYC

Douglas Durst
Co-President, The Durst Organization

Alfred E. Fazio
General Manager, Services, Bombardier Transportation

Jessica Flagg
Director, New York Climate Rescue

Robert F. Fox, Jr.
Partner, Cook + Fox Architects, LLC

Tom Fox
President & CEO, New York Water Taxi

Alexander Garvin
Principal & CEO, Alex Garvin & Associates

Ashok Gupta
Senior Energy Economist, Natural Resources Defense Council

Jeff Gural
Chairman & CEO, Newmark Knight Frank

Tony Hiss
Urbanist and Author

Arthur Imperatore, Jr.,
President, New York Waterway

Georges Jacquemart
PE, AICP

Fred I. Kent
President, Project for Public Spaces, Inc.

Theodore W. Kheel
Chairman, Nurture New York’s Nature

Charles Komanoff
Principal, Komanoff Energy Associates

Rocco Landesman
President, The Jujamcyn Theaters

Dr. Floyd Lapp
FAICP

Pamela Lippe
Executive Director, Earth Day New York

Philip Maccioli
President & CEO, 21st Century Rail Corporation

Russell Menkes
General Manager, Conrad Hilton Chicago

Howard Milstein
Chairman, Milstein Brothers Capital Partners

Maura Moynihan
Executive Director, Friends of Moynihan Station

Sotiris Pagdadis
Managing Director, McKenna Long & Aldridge, LLP

Lucius J. Riccio
PhD, PE, Professor, Columbia University

Elliot G. Sander
Executive Director & CEO, MTA

Mildred F. Schmertz
FAIA

Sam Schwartz
CEO, Sam Schwartz Engineering

Michael Sorkin
Director, Urban Design Program, CCNY

Joseph G. Tucker
Executive Vice President and CFO, D3 LED, LLC

Vukan R. Vuchic
PhD, Professor of Transportation, Univ. of Pennsylvania

Paul Steely White
Executive Director, Transportation Alternatives

ADVANCING THE PROPOSAL

The key to advancing the **vision42** plan is to gain the full support of the Mayor and other elected officials. This remains the principal challenge. The technical studies provide important new information that can support the proposal. Since the projected substantial economic and fiscal gains would not occur without **vision42**, a case could be made for funding the project by creating a separate tax mechanism similar to that used to fund the #7 subway extension. With MTA hard-pressed just to maintain its existing system in a state of good repair, it is unlikely that **vision42** could be funded through the regular MTA Capital Program. One of the two methods studied in the **vision42** Financing Study — Tax Increment Financing, or the creation of a Transit Benefit Improvement District — would allow the project to move forward, producing the substantial economic and fiscal gains described in the technical studies. These gains will become very important to the city as it struggles to make its way through the current fiscal crisis.

Readers are invited to examine the full studies on the **vision42** website, to offer their comments, and to suggest other forums for participation and discussion. Supporters who wish to be identified are encouraged to show their endorsement by joining Friends of **vision42** online at www.vision42.org

Roxanne Warren	George Haikalis
AIA	ASCE

