

Memorandum

To: Ann Hulka
From: Kathy Kazanas
Subject: Atlantic Yards - Economic Impact Analysis
Date: October 18, 2006

It is my understanding that there have been several requests from public officials and the general public asking for the economic impact analysis that was performed by the ESDC policy division with respect to Atlantic Yards Land Use Improvement and Civic Project (the "Project"). As you know those findings were summarized in the General Project Plan that was presented to the Directors on July 18, 2006. In response to those inquiries, I have set forth below a more complete description of the analysis that was performed and the basis for the conclusions set forth in the General Project Plan.

I have been advised that there will likely be modifications to the General Project Plan that will be presented to the Directors at a later date. Those modification may impact the findings that were set forth in the July 18, 2006 General Project Plan.

Based on the original General Project Plan, please note the following:

I. Project Description

The Project, to be developed by Forest City Ratner Companies and its affiliate ("FCRC") is comprised of the construction of an 18,000-seat arena for the New Jersey Nets basketball team and for other events, an improved LIRR train yard and subway improvements and one of two possible variations of mixed-use development: a residential mixed-use development (GPP Plan) and a commercial mixed-use development (Alternative Plan). Table 1 compares the two plans at full build-out:

Table 1: Atlantic Yards GPP Plan and Alternative Plan Description

Uses	GPP Plan (Residential Mixed-Use)	Alternative Plan (Commercial Mixed-Use)
Residential*	6,790,000 gsf (6,860 units)	5,730,000 gsf (5,790 units)
Hotel (180 rooms)	165,000 gsf	0 gsf
Retail	247,000 gsf	247,000 gsf
Commercial	606,000 gsf	1,829,000 gsf
Arena	850,000gsf	850,000 gsf
Parking (spaces)	3,800	3,800
Private Open Space	≤1 acre	≤1 acre
Public Open Space	7+ acres	7+ acres

Space allocations as shown in the Draft EIS. Of the total residential units in either plan, 4,500 will be rental units, 50% of which will be low and moderate income housing. The rest of the residential units will be market rate rental and condominiums.

II. Summary of Impacts

Construction Impacts

Table 2 presents the estimated one-time construction economic and fiscal impacts of the overall Project at full build-out under each plan. The overall Project construction period is assumed to be 2006-2016, during which construction will proceed in two phases in both plans.

Table 2: One-Time Construction Impact: Economic and Fiscal Benefits*

GPP Plan		
	NYC	NYS
Employment		
Direct		15,344
Indirect & Induced		11,459
Total	23,476	26,803
Personal Income (billions 2006\$)		
Direct		0.721
Indirect & Induced		0.780
Total	1.103	1.501
Tax Revenues (millions 2006\$)		
	50.456	109.479
Alternative Plan		
	NYC	NYS
Employment		
Direct		15,865
Indirect & Induced		11,850
Total	24,273	27,715
Personal Income (billions 2006\$)		
Direct		0.749
Indirect & Induced		0.810
Total	1.146	1.559
Tax Revenues (millions 2006\$)		
	52.482	113.490

*Dollar values are in 2006\$ net present value over 10 years. Construction employment is the total number of construction job-years by full build-out (2006-2016). NYS employment and personal income are inclusive of NYC.

GPP Plan: At full build-out in 2016, construction spending under the GPP Plan will generate employment impacts of an estimated 15,344 direct job-years and total of 26,803 direct, indirect, and induced construction-related jobs in New York State. The New York State total includes 23,476 construction-related jobs in New York City.

Total personal income earned by direct, indirect, and induced construction-related wage earners is estimated to be \$1.1 billion in New York City and \$1.5 billion in New York State (inclusive of New York City). Tax revenue collected by New York City as a result of construction-related activity and employment is estimated to be \$50.5 million and \$109.5 million for New York State.

Alternative Plan: Construction spending under the Alternative Plan will generate employment impacts of an estimated 15,865 direct job-years and 27,715 total construction-related jobs (direct, indirect, and induced) in New York State. The New York State total includes 24,273 construction-related jobs in New York City.

Total personal income earned by direct, indirect, and induced construction-related wage earners is estimated to be \$1.2 billion in New York City and \$1.6 billion in New York State (inclusive of New York City). Tax revenues collected by New York City as a result of construction-related activity and employment are estimated to be \$52.5 million and \$113.5 million by New York State.

Permanent Impacts

Permanent economic and fiscal impacts will result from the operations of the arena and mixed-use development and the net new employment generated by such activity. Table 3 reports average annual net new employment over a 30-year period. Dollar values are in 2006 dollars net present value over 30 years at a 6% discount rate.

Table 3: Permanent Economic and Fiscal Impact of Total Project at Full Build-Out

GPP Plan	NYC	NYS
Employment		
Direct	3,639	3,639
Indirect & Induced	2,934	3,739
Total	6,573	7,378
Personal Income (billion 2006\$)	9.705	12.715
Tax Revenues (million 2006\$)	522.806	862.279
Alternative Plan	NYC	NYS
Employment		
Direct	8,021	8,021
Indirect & Induced	6,790	8,758
Total	14,811	16,779
Personal Income (billion 2006\$)	23.888	31.287
Tax Revenues (million 2006\$)	1,160.124	2,026.202

*Dollar values are 2006\$ net present value over 30 years using a 6% discount rate. NYS employment and personal income are inclusive of NYC.

GPP Plan: Under the GPP Plan, an annual average of 3,639 net new direct jobs and 7,378 total jobs (direct, indirect and induced) will be created by Project activity in New York State. Of this total, 6,573 net new jobs will be located in New York City.

The total personal income of arena and mixed-use development wage earners under the GPP Plan is estimated to be \$9.7 billion for New York City residents and \$12.7 billion in New York State (inclusive of New York City). Tax revenues collected by New York City as a

result of Project permanent activity and employment are estimated to be \$522.8 million and \$862.3 million by New York State

Alternative Plan: Under the Alternative Plan, an annual average of 8,021 net new direct jobs and 16,779 total jobs (direct, indirect and induced) will be created by Project activity in New York State. Of this total, 14,811 net new jobs will be located in New York City.

The total personal income of arena and mixed-use development wage earners under the Alternative Plan is estimated to be \$23.9 billion for New York City residents and \$31.3 billion in New York State (inclusive of New York City). Tax revenues collected by New York City as a result of Project permanent activity and employment are estimated to be \$1.2 billion and \$2.0 billion by New York State.

III. Summary of Assumptions and Methodology

The economic and fiscal impact of the Atlantic Yards project was estimated using the REMI model (Regional Economic Models, Inc.) of the New York City region. The REMI model is widely regarded as one of the more sophisticated regional economic and demographic models used for economic impact analysis. It is a dynamic model that forecasts project impacts on a regional economy. The model takes into account the adjustments that a regional economy makes over time in response to the project. Such dynamic models are considered an improvement over input-output models such as RIMS II and Implan, which provide estimates of impact for a single year with no adjustments. These differences make a comparison of estimated impact results using the different models difficult.

The Project description for each Plan is taken from the Draft EIS showing space allocations by type of use in the arena and mixed-use development.

REMI tax revenue estimates reported here reflect a broad set of state and local tax collections including personal income tax, corporate and business income tax, sales tax, property tax, and miscellaneous other taxes.

Construction Impacts:

The approximate construction schedule (start and end dates) and estimated cost of construction for the arena and each building in the mixed-use development were provided by FCRC to NYC EDC, and shared with ESDC. Construction economic and fiscal impacts were estimated over the ten-year period of construction 2006-2016 (full build-out).

Direct construction employment is the total number of construction job-years required for Project construction. Dollar values are in 2006 dollars expressed as net present value over ten years, using a 6% discount rate.

Arena Operations and Mixed-Use Development Impacts:

The analysis uses projected estimates of taxable ticket, concessions, and novelties sales at the arena provided by NYC EDC. FCRC provided information on current Nets players’ salaries, visiting team player salaries, basketball administration and Nets staff salaries, and arena workers’ payroll. These estimated tax collections were added to the REMI estimated tax revenues since the model’s estimates would not have captured the specific effects of the team and arena staff earnings and spending by salary earners. The following assumptions are used in estimating impacts from Nets and arena operations:

- The average annual salary for an NBA player is approximately \$4.5 million, based on information obtained from the NBA by FCRC. The analysis assumes that 30% of Nets players live in New York City and pay both City and State personal income tax. The other 70% live outside of New York City and pay New York State personal income tax only.
- 25% of visiting team players salaries is earned in New York City and pay only New York State personal income tax. All spending from income earned in New York City by visiting team players happens outside of the City and State.
- Both economic and fiscal benefits from arena operations are based on non-basketball event ticket revenues and surcharges, sale of novelties and concessions, sponsorship, and advertising. Sales tax revenues are based on both basketball and non-basketball event taxable items.
- Taxable consumption expenditures are assumed to be 40% of earned income. Sales tax rate is 8.375% (both State and City Sales Tax is 4% and an additional 0.375% collected for the MTA).
- Direct jobs for mixed-use development were estimated at full build-out using the following assumptions:

Table 5: Space Allocations by Use at Full Build-Out

GPP Plan	GSF	# Units	Occupancy	Direct Jobs
Office (250gsf/job)	605,653		0.93	2,253
Hotel (0.75 units/job)	164,652	180	0.80	108
Urban Room (1,000 gsf/job)	16,700			17
Retail (300 gsf/job)	247,090			824
Parking (spaces)		3,800		95
Residential (20 units/job)	6,784,612	6,860		343
				3,639
Alternative Plan				
Office (250gsf/job)	1,829,000		0.93	6,804
Hotel (0.75 units/job)	0			0
Urban Room (1,000 gsf/job)	16,700			17
Retail (300 gsf/job)	247,090			824
Parking (40 spaces/job)		3,800		95
Residential (20 units/job)	6,600,767	5,644		282
				8,021

- Direct commercial office jobs were adjusted by 75% to account for New York City residency. Direct jobs in all other categories of direct employment were considered 100% New York City resident.
- Total number of residential units used in the impact estimation was based on information provided by FCRC to NYC EDC.
- This analysis does not include any economic or fiscal benefit generated by net new households that are related to this project