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Columbia University and the Business Case for Responsible Redevelopment

Kevin Leichner
Kasey LaFlam
Stefanie Garry

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Preface: About the Authors

Kevin Leichner is earning a dual-degree Master of Business Administration and Master of Science in Urban Planning from Columbia University, with concentrations in local economic development, real estate, and social entrepreneurship. His internships have included community banking, new venture planning for parks in New York City and the San Francisco Bay Area, and adaptive reuse of historic buildings in Kobe, Japan. Prior to the Columbia program, Kevin worked for public-private partnerships charged with large-scale planning and project implementation for the National Park Service. He holds an MFA in writing from New College of California and a Bachelor of Art in Architecture from the University of California, Berkeley.

Kasey LaFlam recently earned a Master of Science in Urban Planning from Columbia University, with a concentration on community development. While at Columbia, Kasey served as a Manhattan Borough President's Office Urban Planning Fellow to the Community Board of Lower Manhattan. She also worked with Community Impact, the non-profit organization affiliated with Columbia University, dedicated to improving the quality of life in the surrounding neighborhoods. Prior to moving to New York, Kasey worked as an advocate with victims of domestic and sexual violence in Keene, New Hampshire. She is originally from New Hampshire and received her Bachelor of Art in Social Science from Keene State College.

Stefanie Garry is currently working with the International Labor Organization in Geneva, Switzerland, performing research and data analysis for the Sectoral Activities Department. She received her Master of Science in Urban Planning from Columbia University and a Bachelor of Art in Geography and History from The George Washington University. She served Manhattan Community Board Six as an Urban Planning Fellow through the Manhattan Borough President's Office for the 2008-2009 academic year. She has also worked with the Urban Justice Center as a research and policy intern, looking at issues of gentrification and business development in New York City's Chinatown. Stefanie's interests are in international community development.

Columbia University – Making a Business Case for Responsible Redevelopment

Executive Summary

As an educational and research institution, Columbia University in the City of New York plays an important global role in the growth and dissemination of knowledge. The University – including its affiliated hospital system and laboratories – estimates that it contributes $11 billion annually to the regional economy. At the same time, Columbia has a tense relationship with the community, including a flashpoint in 1968 that resulted in reputational and academic damage that took decades to repair.

As Columbia has continued to expand, it has also aggressively purchased most of the surrounding residential property, literally pushing out thousands of residents. The dense urban fabric that surrounds the university, a major component of Columbia's brand value, places it at odds with many other stakeholders as it competes for scarce resources. Many argue that this is the case with the new 17-acre Manhattanville campus, which entered the construction phase this year.

As a non-profit entity, Columbia University has an $11 billion-plus advantage in the local economy for goods, land, and labor. At the same time, the university also costs New York City in direct annual tax receipts that a for-profit corporation would be forced to pay: $83 million in property taxes, $12 million in corporate taxes, and an unknown amount of sales taxes. This year alone, Columbia is also the recipient of government grants worth $667 million, $192 million in revenue from research activities that are at least partially attributable to government investment, $3 million in direct state aid, federal subsidies for student loans and tuition support, and state subsidies in the form of subsidized construction bonds. As one of more than 100 institutions of higher education in New York City alone, and thousands nationwide, Columbia represents just a small piece of an enormous network of institutions that are benefiting many times over from the public largesse.

While Columbia does make limited direct investments in community-facing programs, supports many other programs through in-kind donations and student labor, commits to workforce development measures, and tries to be a good neighbor through physical environment and safety improvements, it is an open question whether that would or would not occur in the normal course of university business. As a result, the Return on Investment (ROI) on the modest direct community investment is enormous. In the specific case of the Manhattanville expansion, which will be home to lucrative life sciences research and development and a source of licensable technology, there is a high ROI on the Community Benefits Agreement that Columbia was compelled to sign with the community. At a net present value to the community of $75 million through the terminal year of 2045, Columbia paid very little to mitigate the political risks to a $6.3 billion project and future revenue streams.

Our initial hypothesis for building a business case for responsible redevelopment was the following: If Columbia University engages in responsible redevelopment, then the University will benefit from a strengthened competitive advantage, a stronger institutional culture, more political and community capital, lower costs of (financial) capital, and more efficient markets for local goods and services. Through both qualitative and quantitative measures, we certainly found this to be the case.

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Introduction: Anchor Institutions, Responsible Redevelopment, and Columbia University

Universities, which often include affiliated hospitals, enjoy tax-exempt not-for-profit status and, collectively, these university-hospital-laboratory alliances play a dominant role in the economies of many towns and cities throughout the United States. Furthermore, many of them have also become some of the largest landholders in these municipalities, removing large swaths of property from the tax rolls.[1] New York City, with its constellation of universities and affiliated hospitals, is no different. We estimate that if Columbia University were evaluated as a for-profit corporation, the tax liability would be $83 million in property taxes and $12 million in corporate income taxes this year alone. Columbia University is also exempt from sales taxes, receives Federal tuition support, state aid, Federal research grants, and borrows construction bond funds from New York State at a subsidized rate.

While universities can claim that the indirect benefits of employment, faculty and student spending, procurement, scientific research and development, business incubation, and improvements to the built environment more than compensate municipalities for the loss of potential taxable income, the reality is that universities and affiliated hospitals must do much more – and this realization is leading to efforts to quantify the regional economic impact of universities.[2] In 2007, Manhattan Borough President Scott Stringer added to this argument:

> The benefits… are more than just the sum of its economic parts. Research institutions have positive impacts that are ultimately incalculable. Universities are where cures to diseases are found, where life-changing inventions and innovations are developed, and where new scientific discoveries are made. They serve important aesthetic, cultural, intellectual, and social goals, as well as economic ones.[3]

Particularly as many universities continue to expand program revenue and even for-profit operations behind their non-profit shields, they will continue to face greater scrutiny in terms of the benefits returned to their communities.

It is possible that in the near future a higher level of criticism that would result in some form of taxation may be directed toward the university-hospital-laboratory complex. As a result, it is imperative that university systems cultivate good community and political relationships, and also demonstrate that they are giving back. Maintaining these good relations, and avoiding taxation, is an important – and quantifiable – component of the business return to the universities on their investment in community

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[1] The New York State Property Tax Code for Not-For-Profit Corporations. *http://www.nysl.nysed.gov/libdev/excerpts/rpt420a.htm,* accessed October 11, 2009.

[2] Columbia University, for example, quantified its indirect benefits for a new 17-acre campus with 6,000 permanent new jobs and construction-related activity over 25 years as, "…$5 billion in direct compensation to employees, $11 billion in economic activity, and nearly $430 million in new tax revenues." Tax revenues are based on non-Columbia business activity and payroll taxes. Manhattan Borough President Scott Stringer (2007) "Recommendation on ULURP application..."

[3] Manhattan Borough President Scott Stringer (2007) "Recommendation on ULURP application..."

relations. This potential tax savings can be weighed against the cost of community-facing programs and direct community benefits in order to develop a sense of a financial return.

Columbia University is the seventh-largest employer outside of the government sector in the New York City. In the neighborhoods in which it operates, it exerts an especially large influence upon the local economy, workforce, built environment, and political sphere. This is exacerbated by a sharp demographic divide between the university and its neighborhood, which is less affluent than the rest of Manhattan, and also New York City as a whole. Historically, this has led to strong town-gown tensions.

In 1968, Columbia students took over 5 campus buildings in protest when the university tried to alienate parkland in Morningside Park for the construction of a new athletic facility that would have been accessible only to Columbia faculty, staff, and students. The ensuing confrontation between the police and students contributed to Columbia's decline in rankings and desirability, with the departure of many key faculty and lasting reputational damage that stretched into the 1980s. Neighborhood relations were so poor that people associated the frightening conditions in Morningside Heights with Columbia's brand.[4]

In an attempt to rebuild community relationships, Columbia University has, in many ways, already played the role of 'responsible redeveloper' – at least from its point-of-view – as it has transformed the surrounding neighborhood through direct investments, workforce development, the built environment, and the political sphere. Many people who experienced Morningside Heights 20 years ago find the neighborhood around Columbia nearly unrecognizable today. There is certainly a higher level of affluence surrounding the campus, which is now ringed by thriving retail establishments and rebuilt streetscapes including sidewalk cafes. At the same time, thousands of poor residents, mostly of color, have been displaced as Columbia has purchased nearly all of the apartment buildings surrounding the campus.[5]

In spite of this incursion into the Morningside Heights neighborhood, Columbia University continues to experience severe overcrowding[6] and is unable to house more than a small portion of its student population. The single greatest opportunity to relieve this overcrowding, one of the few remaining constraints on Columbia's rankings and desirability, has come to the forefront. Columbia has nearly purchased all of the land necessary to build a second 17-acre,[7] $6.3 billion campus in Manhattanville, just a few blocks north of its existing 36-acre Morningside campus. The process, however, has been

[4] Lee, Trymaine. (2007). "The gymnasium was never built, but as Mrs. Fountain, the university spokeswoman, suggests, its shadow hangs over Columbia's current plan. "I think it's a huge battle for us to overcome," she said. "I can tell you that almost any discussion I have with a reporter, every discussion I have with the community or with a student, it always points back to 1968."

[5] Eviatar, D. (2006)

[6] Columbia, "…is constrained by its current facilities to a size that is not competitive with its peer universities – less than half the space per student of Harvard University and a third of that of Princeton and Yale." Manhattan Borough President Scott Stringer (2007) "Recommendation on ULURP application..."

[7] The Special Manhattanville Mixed-Use District covers 35 square acres, but includes land beneath the waters of the Hudson River, as well as rights-of-way, infrastructure, and open space. 17 acres are buildable. Manhattan Borough President Scott Stringer (2007) "Recommendation on ULURP application..."

fraught with community tensions that have constituted real political and financial threats to this expansion. If Columbia had not spent the past few decades patching its political and community relationships, the university could never even have contemplated the Manhattanville project.

More specifically, to gain the necessary planning and regulatory approvals for the Manhattanville expansion, Columbia needed to demonstrate a real financial return to the surrounding community. This return also helps to compensate New York City as a whole for the loss of taxable revenue on the very large assemblage of parcels that the university is removing from the taxable rent rolls.

In the summer of 2009, the Regents of the University of Columbia and the West Harlem Local Development Corporation (WHLDC) signed a Community Benefits Agreement (CBA). WHLDC was formed under the aegis of the Manhattan Borough President, an elected official. The WHLDC Board is composed of 18 appointed representatives of community stakeholders. This was the only community group that Columbia would acknowledge in negotiations.[8]

The CBA as a vehicle for exactions (promises and financial conveyances) has not been tested by the Courts and may not be legally binding. The CBA also contains punitive non-performance measures if either party violates the agreement. New York City's only other notable experience with a CBA is the Atlantic Yards project, a highly contentious mega-development in downtown Brooklyn proposed by Forest City Ratner that continues to face court challenges that have dragged on for years. This means that the CBA has never been rigorously tested in New York City.

The CBA between Columbia University and WHLDC claims to indemnify Columbia University from future lawsuits contemplated by the community. In exchange, Columbia promises to conduct its project-related business according to certain standards, promises not to use eminent domain against any remaining property holdouts within the Manhattanville campus footprint, and outlines financial and in-kind community investments. Any actual dollar investments will be held by a 3rd party in an escrow-type account, to be drawn down by WHLDC upon satisfactory documentation and a sign-off from Columbia's designated representatives.

As a purely business proposition, from Columbia University's perspective, the promises and exactions contained in the CBA are a pittance.[9] From almost any evaluative standpoint, the Net Present Value of all promised community benefits dollars is dwarfed by (a) the benefits to the university of the Manhattanville expansion, (b) any other measure of Columbia University's financial worth, (c) the price paid for the properties that will constitute the Manhattanville campus, or (d) the savings in taxes that any private entity would have had to pay for this new land holding.

Clearly, the improved political and community relationships that Columbia has developed since 1968 have yielded yet another financially quantifiable benefit, particularly as the approval process is, to a significant degree, highly political and could have been short-circuited at any point by a disgruntled

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[8] Columbia University Senate Minutes (September 21, 2007).

[9] In fact, Community Board 9 criticized the amount of money as too little, as well as the way it would be spent. Astor (2009).

party. There are a number of clearly defined leverage points in New York City's Uniform Land Review Procedure [see Appendix A] at which Columbia's plans could have been seriously challenged.[10] Or, even if the entire project had not been called off, there could have been significant quantifiable costs due to delays, failure to gain zoning change approvals for greater density, or other concessions or exactions.

There may have been an implied threat that Columbia would have relocated this campus expansion if it had not been able to receive the necessary support and approvals, but the reality is that Columbia's future depends on the Manhattanville expansion. Manhattanville represents the last opportunity in Upper Manhattan for any kind of large institutional campus, and the only opportunity for Columbia to expand near its existing campus. For a research university that depends on the exchange of ideas among faculty and graduate students, this proximity is essential.

[10] For example: "ULURP [The Uniform Land Use Review Procedure] has involved a series of reviews, starting with Community Board 9, which held a hearing and a nonbinding vote on August 15. The vote was no, with a set of 10 conditions for Columbia to meet, including a ban on eminent domain, a call for an independent study of certain impacts the project would have, and a ban on the infrastructural "basin" the university plans to provide for the development zone." Only one of these conditions, the ban on eminent domain, was included in the final Community Benefits Agreement. "The next step was Manhattan Borough President Scott Stringer's public meeting on September 19, but he was also expected to vote no, with conditions." Columbia University Senate Minutes (September 21, 2007).

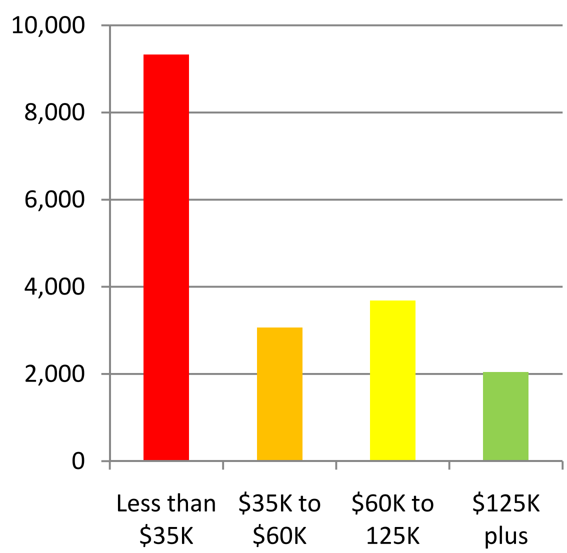
Context: Demographics

Columbia University's main campus in Morningside Heights and the new Manhattanville campus are both located within Manhattan's Community Board 9. CB-9 was one of the most important stakeholders in negotiating the Community Benefits Agreement with Columbia for the Manhattanville campus. Columbia Medical Center is located in Community Board 11, and Columbia's main athletic facilities are located in Community Board 12, at the northern tip of Manhattan along the Harlem River.

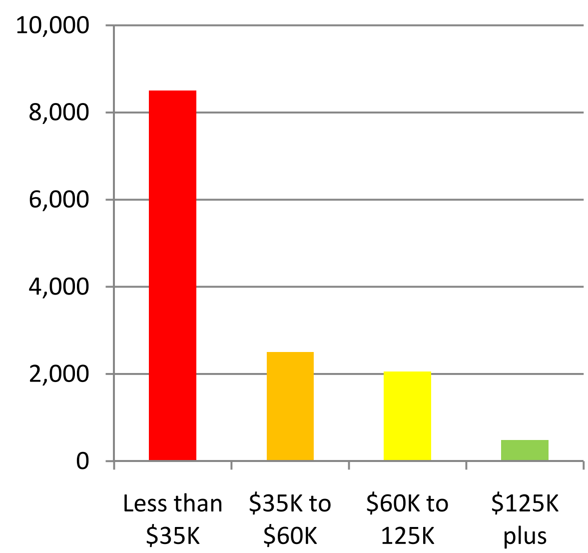
The smallest level of American Community Survey census data available for 2007 approximates the Community Board level. In comparing Community Board 9 to New York City as a whole, overall trends appear very similar. The percentage of families living in poverty is nearly identical, with 17.9% for CB-9 and 17.6% for New York City. Gross rent as 35% or more of household income, an important indicator for vulnerability to displacement through gentrification, is 36.4% for Community Board 9 and 33% for New York City.

While they are dated, the Census tract level analysis of year 2000 data reveals the income disparities and more concentrated poverty adjacent to the Morningside and Manhattanville campuses. There were 94,280 residents within ½ mile of the Morningside campus, with a 28% poverty rate, and 64,263 residents within ½ mile of the Manhattanville campus, with a 35% poverty rate, both significantly higher than the rest of CB-9. The following illustrative graphs demonstrate the income gap that has developed in both of these neighborhoods.

FIGURE 1: CAMPUS NEIGHBORS, ANNUAL FAMILY INCOME PROFILE, 2000 CENSUS, ½-MILE PROXIMITY



MORNINGSIDE CAMPUS



MANHATTANVILLE CAMPUS

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Context: Community-Facing Programs

Quantitatively measuring Columbia University's community-facing programs is not easy: the vast majority of the contributions are in-kind donations of office space or used equipment, student labor, or professional and advisory services. Among the medical, life sciences, and public health community contributions, many community-facing programs are the result of partnerships that are funded separately through government grants, corporate sponsorships, or charitable contributions. To further complicate matters, nearly all of these programs are rolled into the budgets and under the governance of individual graduate schools or units of the medical campus such as the pediatrics division.[11]

While in-kind, student labor, and 3rd-party support make many of these programs possible – and these programs provide indispensible support to the community – we excluded them from our Return on Investment (ROI) calculations. We justified this because we felt that these contributions would occur regardless of Columbia's community context. We believe that these are the typical products of a major research and education institutional complex, and not specific community-benefiting measures. These contributions would still occur because they provide invaluable teaching and research tools, particularly for public health studies.

There is also a government and community relations department, which includes strategic physical space, capital, and land use planning. This is typical to any university, and so we also did not feel that this was a uniquely community-based contribution that should be included in our ROI analysis.

As a result, we were left with only two programs that we could locate that are direct beneficiaries of Columbia University funding:

- Community Impact[12]
- Columbia Community Services, Incorporated[13]

Columbia University provided just under $604,000 in direct monetary funding for these two organizations in 2008. We could find no records (such as 990 IRS tax return forms, which by law must be made publicly accessible) for Columbia Community Services, Incorporated, prior to the 2007 tax year.

Between 2002 and 2008, Columbia's direct contributions more than doubled, with very large spikes in contributions in 2004 and 2005, and again in 2007and 2008. This coincides with the timing of major developments in the Manhattanville expansion project. The project was announced in 2004, there was a great deal of controversy and an initial non-binding 'no' from the Planning Commission in 2005, and the most intense community negotiations for the Community Benefits Agreement took place in 2007 and 2008. [See Figure 3: Timeline].

[11] *Community Services: A Directory of Columbia University Programs and Partnerships in Upper Manhattan.* 2008.
[12] Community Impact annual reports, all years 2002-2008, and IRS Form 990 filings, 2005-2008.
[13] Columbia Community Services Incorporated IRS Form 990 filings, 2007, 2008.

Context: Manhattanville

The future $6.3 billion Manhattanville Campus covers 17 acres of buildable space, or approximately 10 city blocks, and will contain 8.8 million square feet of built space. Roughly, the boundaries are Broadway on the east, 125th Street on the south, the Hudson River on the west, and 133rd Street on the north. The New York City Department of City Planning rezoned this area from low-rise manufacturing to an above-ground Floor-Area Ratio (FAR) of 6.0. 'Above-ground' is a key descriptor here: more than half of the project's built square footage will be located below ground, to a depth of 6 stories, and will be a contiguous space that stretches under existing streets to form an enormous 'basin,' derided as a 'bathtub' by project critics.

Historically, Manhattanville was a separate town with its own small port operation that was absorbed as the main settlement of Manhattan spread northward at the turn of the 20th Century. Manhattanville retained a base of small manufacturing and low-rise uses until the present-day, with some additional municipal buildings serving the Metropolitan Transit Authority (MTA). The MTA maintenance and garage uses will be retained, but integrated into new buildings within the Manhattanville footprint.

While it was predominately low-rise, Manhattanville is ringed by high-rise housing developments, including two New York City Housing Authority complexes, General Grant Houses and Manhattanville Houses. The City College of New York's main campus is just a few blocks north of Manhattanville along Broadway, which further contributes to the sizeable student and faculty presence in the area. Residents fear being displaced, just as the residents of Morningside Heights and, now, Manhattanville, have been. In fact, Columbia estimated that the Manhattanville expansion would indirectly displace 1,318 residents,[14] in addition to 219 residents in 132 units that would be directly displaced – although the CBA and other agreements commit to relocating and compensating them.

Columbia University had acquired the majority of the land in Manhattanville before publicly announcing its intentions to build a new campus five blocks to the north of its existing campus. The Manhattanville campus will add 6.8 million square feet, to be built out in two phases over the next 25 years, to Columbia's facilities. Columbia placed priority on two major sources of program revenue in determining which portions will be built first: the sciences, including biomedical and Level 3 research laboratories, the second-highest risk-safety designation for medical laboratories, a major recipient of Federal funding and a new home for the business school. The laboratories will also bring in another revenue stream in the form of licensable technology, which already earns Columbia University $167 million annually.

Immediately, Columbia launched a $4 billion alumni giving campaign to support the new development;[15] at the same time, immediate neighbors of Manhattanville organized against the project, and even the

[14] Draft Environmental Impact Statement, Columbia University Manhattanville.
[15] Donors immediately began to give, with one pledge for $200 million for the new Jerome L. Greene Science Center, to be built within the new Manhattanville campus, the single largest gift ever received by Columbia University – or any American university for one single facility. Columbia Public Affairs (March 20, 2006).

New York City Council, which must vote to approve any project as part of the legal planning approval process, voiced its opposition. [Please refer to Appendix A: Uniform Land Use Review Process (ULURP).]

When it came to light that Columbia might have cultivated a backdoor relationship with the Empire State Development Corporation (ESDC) in order to have Manhattanville declared blighted, opening the door to the possibility of eminent domain to acquire the land that it did not already own, Columbia faced criticism from many quarters. Additional outcry surrounded the Level 3 research laboratories. What followed was an intense 3-year negotiation, funded by the City of New York, between community representatives and Columbia University.

The negotiation was brokered by the Manhattan Borough President, who has advisory approval rights through the ULURP process.[16] The result was a 50-page Community Benefits Agreement (CBA), plus Exhibits. The CBA extracted a number of community-serving promises and exactions from Columbia, placed covenants on some development actions, but also contained some provisions that will ultimately benefit Columbia's institutional quality. In order to execute the CBA and convey many of the benefits to the community, the West Harlem Local Development Corporation (WHLDC), a non-profit, formed.

The CBA provisions include:

- CU will create a $76 million Benefits Fund – the first payment four months after signing with regular installments over 16 years. $3 million will fund immediate capital improvements at the General Grant Houses and Morningside Houses. An undetermined portion will be used to upgrade the 125th Street subway access.
- CU will contribute $30 million of in-kind expertise and support toward the creation of a Demonstration Community Public School starting by 2015, or to local schools until such time as the school is constructed, through 2045.The school is to be owned and operated by the New York City Department of Education, with teaching, pedagogical, and curriculum support from Columbia University Teacher's College.[17]
- CU will contribute $20 million to an affordable housing fund and $4 million from January 1, 2009 to December 31, 2030 in related legal fees. $10 million is payable to the affordable housing fund when the first Manhattanville building permit is issued. The affordable housing is intended to act as leverage for affordable homeownership through innovative financing, matching, and other public-private vehicles.
- CU will provide $20 million in in-kind benefits until 2045 – access to CU facilities, services, and amenities based on availability/feasibility.

[16] Columbia University Senate Minutes (September 29, 2007). "The President said the hearings in the ULURP process have been difficult, especially at Community Board 9, where organized groups shouted down anybody who spoke on Columbia's behalf… CB9 voted 32 to 2 against Columbia's plan, but the President agreed… that this was not a total rejection, but a set of conditions to be met."

[17] This exaction did not come about as a result of the CBA, but would have already occurred. In fact, some children were already taking preparatory classes in anticipation of the creation of the new school. Columbia University Senate Minutes (September 29, 2007).

- CU will contribute $750,000 worth of workforce training starting when construction commences.
- CU agreed it would not ask ESDC to use eminent domain to acquire any residential properties.
- CU will provide for the lawful relocation of residential tenants within the project footprint.
- CU shall construct at least 822 units of University Housing within the project footprint.
- CU will create a program to incentivize employees to live outside of the immediate community.
- CU will provide advice and guidance for a bulk purchase program of heating oil and other residential essentials to reduce costs to residents.
- CU will pay all project employees a living wage.
- CU will set a target of 50% Minority/Women/Local construction workers and 35% of the dollar value for Manhattanville, and also push for local inclusion in construction pre-apprenticeship and apprenticeship programs.
- CU will set a target of 35% of non-construction dollars to be spent with M/W/L firms and 30% of non-construction hires during the course of the project.
- 18,000 GSF of small-format retail space within the Manhattanville footprint will be earmarked for local retailers, with displaced retailers receiving first priority.
- CU will continue to operate the existing community-oriented Career and Employment Center, with an estimated minimum value of $325,000 per year
- CU will partner with the City on an M/W/L program, with up to $250,000 in matching funds per year for up to 5 years
- CU will create up to 15 high-school summer internships per year.
- CU would create an on-site curriculum-based community-oriented science outreach center.
- CU would create 3 part-time (total of 18 units per year) and 2 full-time teaching education scholarships for teachers who commit to teaching in local schools.
- CU would create 40 full-time undergraduate scholarships commencing upon agreement signing until 2033.
- CU would sponsor on-campus training and activities for a cohort of 10 community scholars until 2033.
- CU commits to all new buildings meeting LEED Silver requirements and establishing a $10 million revolving fund to encourage energy efficiency measures, already included in project.
- CU will pay the Department of Parks and Recreation $500,000 annually from 2008 to 2032, escalating at 3% per annum, for the maintenance of the nearby West Harlem Piers Park.

Background on Anchor Investment Concepts, in Alphabetical Order

Community Benefits Agreement (CBA) – The CBA records an agreement between a developer and the community that will be impacted by the development. The CBA as a vehicle for exactions (promises and financial conveyances) has not been tested by the Courts and may not be legally binding. The CBA also contains punitive non-performance measures if either party violates the agreement.

Community-Facing Programs – Programs sponsored or supported by an anchor institution that serve as a public interface for delivering services and/or community benefits between the institution and the community. Examples include public health clinics, community service providers, business incubators, and professional advisory services.

Competitive Advantage – An anchor institution's business concept, marketing strategy, perceived value, and retained value that gives it a positioning, recruiting, cultural and revenue advantage over other peer institutions.

Donations – Restricted or unrestricted corporate and alumni gifts to endowment and operating funds.

Government Relations – The institutional interface between an anchor institution's leadership and the framework of elected, appointed, and civil service government officials; also manages compliance for the anchor institution's participation in government and public process.

Grants – Project-based restricted and unrestricted development funds from government and corporate entities. Grants are major sources of program revenue from anchor institutions. Not only do they act as catalysts for funding major research, but they include administrative and overhead earmarks that provide a major component for Return on Investment on institutional capital improvements.

Land Use Review – The process through which major institutions seek approval for facility expansion and redevelopment efforts. In New York City, this process is known as the Uniform Land Use Procedure (ULURP). [See Appendix A]. For a developer, each step that requires an approval represents a potential risk to the overall development, or to specific aspects of the project such as desired variances, density, or scale.

Licensing, Patents, and Technology Transfer – This is a major source of program revenue for institutions engaged in research. The life sciences have become the most lucrative source of this type of revenue.[18]

Mission Strategic Fit – The ultimate determining factor of the anchor institution's core governance, research agenda, educational approach, and community relations. Competitive advantage flows from this strategic fit.

[18] Bulut, Harun (2006). "Evidence cited in Mowery and others (2004) reveals that gross licensing revenues for Columbia University, Stanford University, and the UC system were dominated by a small number of patents. For each university, the top five patents accounted for more than 65 percent of gross licensing revenues. The top five patents were mainly biomedical inventions. Universities that lack a major biomedical research program may not produce such "home run" patents and therefore may reap lower gross revenues."

Risk-Reward – A useful metric for prioritizing the cost-benefit of potential projects. The most desirable projects are low risk-high reward.

Sensitivity Analysis – Another facet of risk-reward analysis is sensitivity analysis, which models the impacts of changed inputs and changed external conditions on strategic outcomes, cash flows, and other project or process outputs.

Tax Savings – For non-profit educational institutions, the benefits of tax exemptions can be weighed against the costs of community-facing programs. Non-profit institutions have major tax exemptions including property taxes, net revenue taxes (net profit in the private sector), and sales taxes.

Tuition Growth (Net) – Net tuition growth is an indicator of the financial health and competitive stature of the institution. Net tuition is the gross tuition, less financial aid awards, plus Federal and state student aid. Nominal tuition fees represent the market value of the competitive advantage of the institution. Most nominal tuition fees are discounted in reality by financial aid awards, which represent a portion of the institution's efforts to encourage socioeconomic outreach and diversity in the student body.

Yield per Square Foot – Yield per square foot is a tool for measuring an anchor institution's Return on Investment of new capital investment in facilities. For life sciences laboratories, gross yield represents government grants plus technology and licensing fees from research, development, and technology transfers, donations such as endowment contributions due to facility expansion, plus net tuition fees due to additional student population. Net yield represents the administrative and overhead earmarks of government grants plus net proceeds from research, development, and technology transfers, plus net revenue after expenses due to additional student population that is made possible by facility expansion.

Description of Investment Approaches Analyzed

We investigated two broad investment narratives to support our Return on Investment (ROI) analysis.

- For **community facing programs**, we contrasted the cost of supporting the programs with the following:
    - A qualitative analysis of the contributions to Columbia University's competitive advantage of the direct and indirect support of all of the community-facing programs that the university sponsors or supports
    - A quantitative analysis of the direct dollar support of Community Impact and Columbia Community Services, Incorporated in contrast to Columbia University's hypothetical corporate tax burden, hypothetical property tax burden
    - A quantitative inflation-controlled equalized comparison of growth rates among the direct dollar support of Columbia's community-facing programs and (a) net tuition and fees, (b) government grants, and (c) total net assets

- For the **Manhattanville** expansion, we contrasted the project-specific costs of the Community Benefits Agreement with the following:
    - A qualitative analysis of the contributions to Columbia University's competitive advantage of the Manhattanville expansion
    - A quantitative analysis of the cost (nominal and Net Present Value) of the Community Benefits Agreement to the following:
        - Nominal purchase price of Manhattanville properties that Columbia University owns as of present (November 2009)
        - The value of the property tax shelter as Columbia University removes Manhattanville properties from the tax rolls
        - Cumulative cost of project delays (holding cost) due to community concerns already paid since the announcement of the Manhattanville project in 2004
        - Annual cost of ongoing delay (holding cost) on property owned by Columbia University
        - Likely final purchase price of the land that Columbia University needs for the full Manhattanville build-out
        - Total estimated nominal project cost

Return on Investment (ROI) Framework

Columbia University makes a direct investment in the local community, seeking outcomes that we have attempted to quantify based on documentary evidence and interviews. In developing a framework for quantifying ROI, we determined that Columbia University desired, by being a responsible redeveloper, the following five positive business outcomes:

(1) A strengthened competitive advantage among peer schools
(2) A strengthened institutional culture
(3) Increased social, political, and community capital
(4) A lower cost of financial capital for major projects
(5) A more efficient local goods and services market

These business outcomes are, in some ways, interrelated and could have been parsed in other ways. In fact, the town-gown relationship and the community benefits of institutions of higher learning have been hotly debated in the academic and popular press for decades. As we were seeking a highly specific goal that has not been addressed nearly as much – quantifying the business return of positive community relations to Columbia University – we were able to propose our own methodology.

We sought to find complete narratives that would allow us to make concrete studies. While social barometers such as crime, poverty, and housing statistics were important for a portrayal of Columbia University's community context, these were not going to be clear-cut enough – in Columbia's case – to provide a definitive ROI story. As Columbia University is not located in a small town, but is in a community that is fully interconnected with the rest of the New York City metropolitan area, its actions cannot be considered in isolation. Many social indicators – a significant decrease in crime over the past 20 years, for example – are correlated to New York City or to the nation as a whole.

Ultimately, we did find two broad narratives that allowed us to examine Columbia's success at achieving its business outcomes. These two narratives are, as follows:

(A) Community-facing programs that receive direct backing from Columbia University

(B) The process for the development of the nearby Manhattanville Campus

Narrative A: Community-Facing Programs: Qualitative Analysis of Return on Investments (ROI)

DESIRED BUSINESS OUTCOMES	**Strengthened Competitive Advantage**	**Strengthened Institutional Culture**	**Greater Political and Community Capital**	**Lower Cost of Capital**	**More Efficient Local Goods and Services Market**
OUTPUTS	Brand value of immersion in New York City that aids recruiting for faculty and students Access to test population (public health, for example) that allows for better grant applications Direct impacts on rankings: desirability of CU experience, improved community factors, safer physical environment Marketing and image value that strengthens the brand	More cohesive campus (as opposed to fracturing in 1968) Improved rates of alumni giving, especially for capital funds Recruiting stronger Board representation Positive associations of 'making a difference'	Stronger community and political goodwill (proved invaluable for Manhattanville land use review process) Reduced tension due to socioeconomic disparities between campus and community Enhanced brand image and press Elected official endorsements for major initiatives	Easier to raise alumni capital for project self-financing Larger endowment value, coupled with necessary project approvals, leads to favorable bond issues from Dormitory Authority Better project performance and yields per square foot results in better bond performance and credit ratings	Entrepreneur incubation results in greater availability of goods and services Workforce development results in higher quality of job candidates to fill CU positions Greater flexibility in sourcing Building capacity and loyalty of Minority/ Women/ and Local firms Better M/W/L performance makes subsidized capital more readily available

Narrative A: Community-Facing Programs Quantitative Analysis of ROI

The first step in analyzing ROI is to gain an understanding of Columbia University's direct investments in community-facing programs. For an understanding of direct investments, please refer to page 9 of this report.

Table 1 presents our analysis of these investments from 2002 to 2008, the period of time for which data was available. We gained this information from the annual reports and IRS Form 990 tax filings of the two non-profit organizations that receive direct investments from Columbia University: Community Impact and Columbia Community Services, Incorporated. Table 1 shows the following:

- Direct investment refers to nominal dollars invested
- Inflation refers to the Bureau of Labor Statistics inflation index [please see Exhibit E for the BLS inflation index]
- Discount is the discount rate applied to the nominal dollars investment based on the inflation index
- Adjusted is the real dollar value of the nominal dollars invested, based on the 2002 value of a dollar
- Growth reflects the real dollar value growth, corrected for inflation
- Cumulative growth reflects the running total of inflation-adjusted growth

Table 1: Direct Investments in Community-Facing Programs, 2002-2008 ($ in thousands)

	2002	2003	2004	2005	2006	2007	2008
Investment							
Direct	$198	$208	$261	$273	$294	$415	$604
Inflation	1.59%	2.27%	2.68%	3.39%	3.24%	2.85%	3.85%
Discount	1	98.41%	96.14%	93.46%	90.07%	86.83%	83.98%
Adjusted	**$198**	**$205**	**$251**	**$255**	**$264**	**$360**	**$507**
Growth		4%	23%	2%	4%	36%	41%
Cumulative Growth		4%	26%	24%	5%	40%	77%

Table 1 demonstrates that Columbia University's direct dollar community investments have grown at a rapid pace, increasing 77 percent during the measurement period of 2002-2007. There are spikes in 2004, when Columbia announced the Manhattanville project, in 2005, when the community and student groups organized protests against the project and the *Columbia Spectator* exposed secret negotiations between Columbia and the Empire State Development Corporation, and in 2007 and 2008, when

Columbia University and the WHLDC were negotiating the Community Benefits Agreement for Manhattanville. We have no evidence that there is causation, but we are noting correlation.

Next, we divided the nominal value of Columbia University's direct investment in community-facing programs to the hypothetical nominal value of the municipal corporate tax that the university would pay if it was a for-profit entity operating in New York City. 2004 is an outlier year and should be disregarded. We found that, as a percentage of the total, the university's contribution would range between 2 and 6 percent. This is comparable to a typical for-profit corporation's charitable giving, and **represents an annual ROI of between 16x and 50x**.

Please refer to Exhibit A for an understanding of our calculation of Hypothetical Corporate Tax, which is based on the Net Revenue reported by Columbia University in its annual publicly disclosed financial statements, multiplied by New York City's corporate tax rates. This is shown in Table 2a.

Table 2a: Community-Facing Programs v. Hypothetical Corporate Tax ($ in thousands)

	2002	2003	2004	2005	2006	2007	2008
Investment	$198	$208	$261	$273	$294	$415	$604
"Corp Tax"	$10,056	$3,238	~~$693~~	$8,080	$15,030	$11,851	$12,319
Percent Value	**2%**	**6%**	~~38%~~	**3%**	**2%**	**4%**	**5%**

For the sake of comparison, we also divided Columbia University's property tax shelter by the nominal value of the direct investment in community-facing programs, shown in Table 2b. We only had tax assessment data for 2009. Please refer to Exhibit B for Columbia University's New York City property tax roll and total tax shelter value. To derive the 2008 values, we divided by the 3.85% 2008 inflation rate that was reported by the Bureau of Labor Statistics, as a proxy for the appreciation of the land value.

Table 2b: Community-Facing Programs v. Hypothetical Property Tax ($ in thousands)

	2008	2009	
Direct Invest	$604	*unknown*	
Property Tax	$80,336*	$82,693	
Percent Value	0.75%		**(discounted to 2008)*

In comparison to Columbia University's overall annual property tax shelter, the university's annual direct investment in community-facing programs is less than 1 percent. **The ROI on this value is an annual factor of 133x**.

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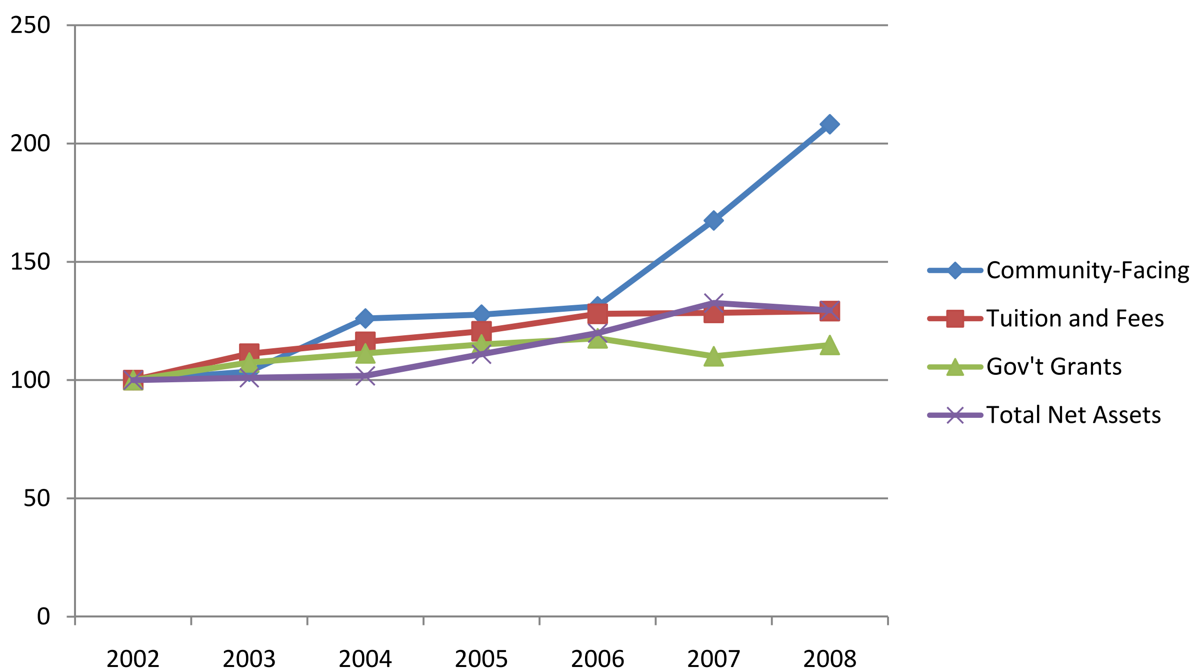
Finally, in our analysis of the ROI on community-facing programs, we contrasted the direct investment in these programs with other indicators of Columbia University's financial health, as shown in Figure 2. To do this, we adjusted nominal dollar values for inflation to derive real dollars, and then we equalized these real dollars to the y value of 100 in the year 2002 in order to derive comparative growth rates.

Figure 2: Graph of Community-Facing Direct Investment and Columbia University Financial Indicators



Notes: controlled for inflation, all values equalized at x=2002, y=100

The direct investment in community-facing programs experienced the fastest growth, doubling in value between 2002 and 2008. Tuition and fees, and net assets, growth significantly outpaced inflation, ending with a y-value, or equalized dollar value, of approximately 125. Government grants also represented a growth center, outpacing inflation. As described in our qualitative analysis on page 17 of this report, we strongly believe that the university's investment in community-facing programs has a direct bearing on the success of tuition and fee growth, government growth, and the accumulation of net assets, which includes endowment gifts and land accumulation.

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Narrative B: Manhattanville Campus Expansion: Qualitative Analysis of Return on Investments (ROI)

DESIRED BUSINESS OUTCOMES	**Strengthened Competitive Advantage**	**Strengthened Institutional Culture**	**Greater Political and Community Capital**	**Lower Cost of Capital**	**More Efficient Local Goods and Services Market**
OUTPUTS	Brand value of new campus New biosciences and R&D research laboratories that will attract new government grants and result in new licensing revenue streams Goal of attracting 500 new award-winning researchers that will greatly raise brand value New business school will attract significant new corporate giving	Much higher award yield of faculty Relieve overcrowding of Morningside Campus Increased student body cohesion with more common spaces Improvement in space per student metric Much higher rates of alumni giving and endowment growth tied to major capital expansion and foray into sciences/R&D Additional housing to slightly offset 'commuter culture'	Increased research and government grant clout Increased corporate clout Even larger population base in Community Board 9 that will be receptive to CU's interests Even larger economic force that will attract attention of political actors Community Benefits Agreement should indemnify university against community-based lawsuits	Larger endowment value and larger asset base leads to favorable bond issues from Dormitory Authority Better yields per square foot results in better bond performance and credit ratings More rapid debt retirement due to enhanced revenue yields, and revenue and assets as collateral Higher hypothetical assessed value of all university holdings in CB9	Likely dramatic expansion of private sector R&D, tech, and professional services providers in CB9 to take advantage of inexpensive space and proximity to research cluster Larger bulk purchases of goods such as fuel due to larger procurements Greater flexibility in local competition and sourcing, unless university becomes so much larger that it drives up prices

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Narrative B: Manhattanville Campus Expansion: Background to ROI Analysis

Figure 3: Manhattanville Expansion Project Timeline [refer also to Appendix A: ULURP Process]

2002	**Fall 2002 – CU announces expansion plan, but not location**	**2003 – Endowment growth due to imminent 250th anniversary**	**January 2004 – CU creates community advisory board**	**April 2004 – CU officially releases expansion plan**
2004	**June 2004 – CU dismantles comm. adv. board when it backs comm. plan over CU**	**2005 – NYC commits $$ to fund CBA, spurs formation of WHLDC**	**April 2005 – *Columbia Spectator* exposes CU negotiations with ESDC**	**Nov 2005 – Planning Commission announces it is against CU Plan**
2005	**December 2005 – CU launches $4 billion endowment campaign**	**March 2006 – WHLDC Board finalized, WHLDC incorporates**	**April 2005 – *Columbia Spectator* exposes CU negotiations with ESDC**	**August 2006 – ESDC begins blight study, precursor to use of eminent domain**
2007	**January 2007 – more secret dealings between CU and ESDC revealed**	**March 2007 – CU attempts first evictions in M'ville**	**June 18, 2007 – DCP certifies CU's expansion proposal, triggering 200-day ULURP**	**Sept 25, 2007 DCP announces rezoning intention to fit CU proposal**
2008	**Sept 26, 2007 – Borough President announces deal with CU on comm. ben.**	**August 2008 – Judge upholds rezoning and ESDC project approval**	**May 8, 2009 – WHLDC approves CBA**	**May 20, 2009 – PACB approves plan, Governor and Mayor publicly endorse**

Narrative B: Manhattanville Expansion Quantitative Analysis of ROI

Nominal dollar and Net Present Value calculations of the value of the benefits contained in the Manhattanville Community Benefits Agreement, which has a terminal year of 2045, form the basis of the quantitative analysis of the Manhattanville ROI. Page 11 and 12 of this report list the dollar investments, exactions, and promises enshrined in the CBA.

Table 3a represents the first five years of quantifiable benefits, including the real dollar values assigned to in-kind donations and professional services. Some benefits that began before the CBA took effect in 2008 were included in the CBA, so they have been assigned a Year -1 value and, for simplicity, had the same 5 percent discount (or incremental increase in the event of Year -1) applied. The NPV value through 2025 is much higher than the final 20 years of the CBA, when nominal benefits drop to less than $1 million per year. We chose 5 percent as a proxy opportunity cost for the funds that Columbia will be expending.

Table 3a: Value of Community Benefits Agreement, Including In-Kind Benefits, Through Year 5 ($ in millions)

	2008	2009	2010	2011	2012	2013	2014
Year	-1	0	1	2	3	4	5
$76M Benefits Fund		$0.80	$0.75	$2.00	$3.00	$3.20	$3.50
$30M In-Kind Edu							
$20M Afford Hsng		10.00	0.48	0.48	0.48	0.48	0.48
$4M Legal Defense		0.18	0.18	0.18	0.18	0.18	0.18
$20M In-Kind Fund		2.00	2.00	1.50	1.00	0.50	0.50
$.75M Workforce		0.03	0.03	0.03	0.03	0.03	0.03
$.325M/yr Car Cntr	0.33	0.33	0.33	0.33	0.33	0.33	0.33
$.25M M/W/L prog		0.25	0.25	0.25	0.25	0.25	
$.5M/yr w/esc Park	0.50	0.52	0.53	0.55	0.56	0.58	0.60
Annual Nom Total	0.83	14.10	4.54	5.31	5.83	5.54	5.61
Discount @5%	1.05	1.00	0.95	0.91	0.86	0.82	0.78
NPV value	**$0.87**	**$14.10**	**$4.33**	**$4.82**	**$5.03**	**$4.56**	**$4.40**

However, as stated elsewhere in this report, we questioned the inclusion of in-kind donations and valuations of professional services, which would probably be provided otherwise though the normal operations of a major educational and research institution as teaching and real-world experience for students. As a result, we revalued the CBA by excluding in-kind donations, as shown in Table 3b.

Table 3b: Value of Community Benefits Agreement, Dollar Benefits Only, Through Year 5 ($ in millions)							
	2008	2009	2010	2011	2012	2013	2014
Year	-1	0	1	2	3	4	5
$76M Benefits Fund		$0.80	$0.75	$2.00	$3.00	$3.20	$3.50
$20M Afford Hsng		10.00	0.48	0.48	0.48	0.48	0.48
$4M Legal Defense		0.18	0.18	0.18	0.18	0.18	0.18
$.75M Workforce		0.03	0.03	0.03	0.03	0.03	0.03
$.325M/yr Car Cntr	0.33	0.33	0.33	0.33	0.33	0.33	0.33
$.25M M/W/L prog		0.25	0.25	0.25	0.25	0.25	
Ann Nom Total	0.33	11.59	2.01	3.26	4.26	4.46	4.51
Discount @5%	1.05	1.00	0.95	0.91	0.86	0.82	0.78
NPV value	$0.34	$11.59	$1.92	$2.96	$3.68	$3.67	$3.54

As would be expected, the nominal dollar value decreases, as does the NPV value, by 25-50 percent per year. Table 3c provides a summary of both methods of valuation.

Table 3c: Value of Community Benefits Agreement Through Terminal Year 2045		
	Full Incl. In-Kind	Direct $ Only
Nominal Sum	$182.25	$114.03
NPV Sum	$109.73	$74.51

Table 3c demonstrates that, when nominal value and NPV value are calculated to the terminal year, value decreases by about 40 percent when in-kind benefits are excluded.

Table 3d: Community Benefits Agreement in Perspective	
Community Benefits Agreement	
Nominal Value	$114 million
NPV Sum	$75 million
Year Zero Value of Payout	$12 million
Typical Annual NPV Payout through Year 15	$2-4 million
Manhattanville Property Values	
Already Purchased by CU (Nominal Value)	$188 million
Property Tax Savings for CU in Year Zero	$3.67 million
Cumulative Cost of Delay Already Paid Since 2004	$9.3 million
Annual Cost of Delay at 5% Opportunity Cost	$9.5 million
Likely Final Purchase Price of Land	$235 million
Project Costs	
Total Nominal Estimated Cost	$6.3 billion
Nominal Cost Per Sq Ft, including land value	$689.15
Science Labs Gross Prog Rev Projected Break-Even	<10 years

Table 3d provides some indicators for comparison to the value of the CBA. We have used the valuations that exclude in-kind benefits. Due to uncertainty in the capital and real estate markets, as well as a rationalization that the cash value of the CBA will be exposed to similar inflationary pressures, we are using a nominal-to-nominal comparison of values.

The ROI of signing the CBA as quickly as possible is a contrast between the Year Zero Value of Payout, $12 million, and the Year Zero annual cost of delay, at $9.5 million. Here we find an **ROI factor of 0.79** on immediate community investment. (We consider the cumulative impact of delay to be a sunk cost). This negative year zero ROI is quickly corrected in future years; year zero is an outlier because of an upfront community payment.

One of our more interesting ROI findings for the CBA is that, in rough terms, the NPV of the annual payments of the CBA, without in-kind contributions and up until 2025, is approximately the same as the property tax exemption for the Manhattanville properties that CU has already purchased. Similar interesting ROI proportions are that the nominal price of the CBA is approximately ½ the likely price of all of the land acquisition.

Yield

One of the key concepts left to be addressed is yield. This is a central concept to real estate, as the cap rate is calculated by dividing Net Operating Income (NOI) by the acquisition price and correcting for opportunity costs over time and expected future growth rates. Unfortunately, we are not privy to the university's pro forma for net revenue projections (a proxy for NOI in the case of not-for-profit institutions) for Manhattanville.

At least for the biosciences portion of the Manhattanville project, which is the highest priority portion of the new campus, we can begin to speculate about future yield. Columbia University has stated the intention of adding 500 researchers in the life sciences, and housing them all in the Manhattanville facility. Based on project descriptions, we estimate that 2 million square feet at an average cost of $689.15/square foot of the new physical plant will be dedicated to bioscience laboratory space.

- In 2008, Columbia University received $460 million in Federal awards from the Department of Health and Human Services and the National Science Foundation for the research and development cluster.[19]
    - We can assume that at least 10 percent of that amount was earmarked for overhead and administration.
    - Grants have been growing at 5.28 percent annually between 2002 and 2008.
    - We further assume that the new facilities will add gross and net revenue of at least half of that amount.

[19] In all, there were $500.5 million in Federal grants for the research and development cluster, and $633.3 million in grants in all. "The Trustees of Columbia University in the City of New York: Summary Schedule of Expenditures of Future Awards, Year ended June 30, 2008."

- Licensing income has grown to $167 million in 2008, increasing by 8.73 percent annually.[20] Again, we assume that the new facilities will add revenue of at least half that amount.
- We do not know of additional net tuition growth due to the new facilities.
- We do know that donations have been coming in for the new campus, including the $200 million gift made in 2006 for the new Jerome L. Greene neuroscience center.[21]

Taking all of these assumptions into account, setting 2010 as Year 0 – the start of construction, and utilizing a discount rate of 5 percent, we project that the university could handily break even on the bioscience lab investment in 10 years. We also provided a 3-year construction period, with program revenue only beginning to be generated in 2013. This is shown in Table 4.

Table 4: Speculative Yield and Break-Even on Bioscience Complex in Manhattanville ($ in millions)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Year	0	1	2	3	4	5	6	7	8	9	10
Build-Out Cost	-459	-459	-459								
Founding Donor	232										
Federal Grant G&A				23	24	25	27	28	30	31	33
Licensing				127	138	150	163	177	193	210	228
Nominal Sum	-228	-459	-459	150	162	176	190	206	223	241	261
NPV Discount	1.00	0.95	0.91	0.86	0.82	0.78	0.75	0.71	0.68	0.64	0.61
NPV Value	-228	-438	-417	129	133	138	142	146	151	155	**160**
Sum NPV	**72.29**										

If our speculations are correct, the biosciences portion of Manhattanville could be generating net present value net revenue of $160 million by year 2020. If more donors step forward to support the capital campaign, which is likely, the break-even point would occur earlier.

If the annual NPV of Columbia University's Manhattanville project-related community investments from the CBA are worth an NPV of $4.1 million year for the year 2020, and net revenue is $160 million, then **the ROI for that year is a factor of 39, or $39 of net biosciences revenue for every $1 spent on community benefits.** A project return that is this substantial is yet one more compelling argument for Columbia University to take on the role of responsible redeveloper.

[20] "Former Executive Director of Columbia University's Technology Transfer Joins General Patent Corporation's Advisory Board of Directors." 2009.
[21] Columbia University Public Affairs. 2006.

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Stakeholder Summary

Columbia University

- Students
- Faculty
- Staff
- Alumni
- Donors
- *Columbia Spectator*
- Columbia's Student Coalition Against Expansion and Gentrification

Manhattanville

- Displaced residents
- Displaced workers
- Displaced business owners
- Property owners

Harlem Neighborhood Groups

- Coalition to Preserve Community
- The Mirabal Sisters of West Harlem
- Harlem Tenant's Council
- WEACT for Environmental Justice

Additional Supporters for Manhattanville Expansion

- NAACP New York State Conference
- Regional Plan Association
- Partnership for New York City

Additional Detractors for Manhattanville Expansion

- New Yorkers for Parks

Metropolitan Transit Authority

New York City Housing Authority residents – General Grant Houses and Morningside Houses

Community Boards 9, 11, and 12

- Community Board 9 197-a plan
- Community Board 9 designees to WHLDC Board (Manhattanville)

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Elected Officials

- City Councilmembers
    - Manhattanville: Robert Jackson and Inez Dickens
- State Senators and State Assemblymembers for Upper Manhattan
- Manhattan Borough President Scott Stringer
- New York City Council and Speaker Christine Quinn
- Mayor Michael Bloomberg
- Governor David Paterson

Appointed Officials

- New York City Department of City Planning Chair Amanda Burden

Authorities

- Dormitory Authority of New York State
- Empire State Development Corporation
- Metropolitan Transportation Authority
- New York State Public Authorities Control Board

Additional Stakeholders

- Eminent domain partisans
- Council of Schools of Continuing Education, New York City
- Research/science complex
- Potential donors/sponsors
- Corporate interests
- Government grant-making bodies

Conclusion: Applicability of Findings

Many of the findings from *Columbia University and the Business Case for Responsible Redevelopment* are applicable to the experiences of other anchor institutions. One of the more interesting facets of the Columbia story is that the university incurred such damage from being an irresponsible redeveloper in the late 1960s and was able to rebound from that traumatic experience. This lesson offers hope to other anchor institutions that have cultivated poor town-gown relationships and are now faced with brand impairment, negative economic impacts, or a weakened competitive advantage among peer schools.

A real danger in assuming that institutions of higher learning are able to hold themselves apart from the community is that this shows a lack of recognition about how much the institution is *taking* from the community. The non-profit shelter from property tax, corporate income tax, and sales tax all diverts revenue from the community treasury, even as the university draws upon community resources. In addition to avoiding these contributions that all other corporations and property holders must make, institutions of higher education are then also the recipient of public money in the form of government grants, student aid, and inexpensive capital financing. Furthermore, these sources of public money – particularly life sciences funding – are growing in an overall environment of contraction.

Research institutions must recognize the incredibly unique and protective niche that they occupy in the American economy – and must also be sure that it is not taken for granted. Potential new sources of tax revenue are constantly being scrutinized at the Federal, state, and municipal level.

One of the main takeaways from our ROI analysis is that a relatively minor community investment (a) paves the way for meeting later institutional needs, (b) has an outsized impact on the recipient community, and (c) can leverage an extremely large monetary return on ROI. Particularly in the area of capital investment on future program revenue-generating facilities, there is an extremely convincing case for community investment, with ROIs that would make a venture capital investor proud. Recipient communities are also likely to become advocates for the university, and raise political and community goodwill that strengthens the university's competitive advantage.

The final takeaway is that community investment – and maintaining good community relations – should be core to the mission of every university. Embedded within the core principles, an eye toward the community should imbue every strategic decision. There are often sharp divides between the campus population and the residents of the surrounding neighborhoods. These differences should form a basis for mutual respect, open dialogue, learning, and cooperation. Together, the university and community are much stronger than if they are adversaries. Even in purely economic terms, the payoff for this policy is substantial.

Exhibits

Columbia University – Making a Business Case for Responsible Redevelopment

Exhibit A: Columbia University Revenue and Asset Growth, Hypothetical Corporate Tax

The Trustees of Columbia University in the City of New York
Highlights of Consolidated Statements of Activities
(dollar amts in thousands)

	2008	2007	2006	2005	2004	2003	2002
Operating Activities							
Revenues and Support (incl. restricted)							
Tuition and Fees							
Net	564,647	542,093	520,515	467,000	434,753	404,319	357,938
Gov't Grants & Contracts							
Direct	507,035	463,475	497,351	461,551	432,128	405,039	374,770
Indirect	160,221	152,499	145,266	142,071	133,255	126,949	112,306
Private Gifts, Grants, Contracts							
Direct	391,222	343,535	320,763	316,909	231,814	230,584	221,246
Indirect	10,746	9,871	7,994	7,411	7,920	10,472	9,740
Rev from Research Activities	191,744	195,045	*418,919*	*338,655*	*294,581*	*276,085*	*320,741*
Patient Care Revenue	703,503	663,466	*395,315*	*388,343*	*344,804*	*316,933*	*308,809*
Investment Income and Gains	379,957	335,102	296,149	264,264	233,119	232,869	229,093
Sales and Services of Enterprises	107,920	102,002	95,116	92,438	94,257	68,978	64,425
State Aid	3,263	3,447	3,076	2,932	3,066	3,066	3,526
Other Sources	13,744	11,732	9,401	8,704	7,654	8,651	6,147
Total Op Revenues & Support	3,034,002	2,822,267	2,709,865	2,490,278	2,217,351	2,083,945	2,008,741
Total Expenses	2,894,809	2,688,355	2,540,033	2,398,983	2,209,522	2,047,354	1,895,116
Net Asset Growth - Operating Activities	139,193	133,912	169,832	91,295	7,829	36,591	113,625
Total Net Assets incl. Endowment, Land, Facilities, Patents, Receivables, Etc.	9,169,191	9,153,443	7,828,015	6,926,327	6,168,916	5,977,224	5,824,857
Endowment Gifts (Non-Op Revenue)	130,131	123,756	112,454	85,903	57,431	61,957	64,705
Endowment Total (Recession - 2008)	5,036,703	7,244,125	6,097,245	5,215,675	4,238,751	4,074,009	4,674,417
Hypothetical Tax on 'Net Asset Growth'							
NYC Corporate Tax Rate is 8.85% of Net Income (minimum)	**12,319**	**11,851**	**15,030**	**8,080**	**693**	**3,238**	**10,056**

Sources: Trustees of Columbia University Financial Statements 2002-2008

Exhibit B: Columbia University Property Ownership, Assessed Value, and Tax Savings

BBLE	OWNER	TAX CLASS	ASSESS RATIO	TAX RATE	FULL APPRAISED VALUE	STREET ADDRESS	2009-10 TAX SAVINGS
1018860001	TRUSTEES CU	4	0.45	10.241	241,000,000.00	1100 WEST 114 STREET	**11,106,364.50**
1021390250	TRUSTEES CU	4	0.45	10.241	197,000,000.00	100 HAVEN AVENUE	**9,078,646.50**
1019610001	TRUSTEES CU	4	0.45	10.241	115,000,000.00	1145 AMSTERDAM AVENUE	**5,299,717.50**
1019630060	TRUSTEES CU	4	0.45	10.241	98,000,000.00	1255 AMSTERDAM AVENUE	**4,516,281.00**
1021390219	TRUSTEES CU	4	0.45	10.241	96,500,000.00	78 HAVEN AVENUE	**4,447,154.25**
1021240017	TRUSTEES CU	4	0.45	10.241	84,600,000.00	1132 ST NICHOLAS AVENUE	**3,898,748.70**
1019610039	TRUSTEES CU	4	0.45	10.241	55,100,000.00	1165 AMSTERDAM AVENUE	**2,539,255.95**
1021390051	TRUSTEES CU	4	0.45	10.241	43,000,000.00	1 HAVEN AVENUE	**1,981,633.50**
1018810004	TRUSTEES CU	4	0.45	10.241	39,100,000.00	2828 BROADWAY	**1,801,903.95**
1019610057	TRUSTEES CU	2	0.45	12.596	37,100,000.00	74 MORNINGSIDE DRIVE	**2,102,902.20**
1018670042	TRUSTEES CU	4	0.45	10.241	29,900,000.00	1125 AMSTERDAM AVENUE	**1,377,926.55**
1021240035	TRUSTEES CU	4	0.45	10.241	25,000,000.00	1148 ST NICHOLAS AVENUE	**1,152,112.50**
1021240025	TRUSTEES CU	4	0.45	10.241	24,100,000.00	40 AUDUBON AVENUE	**1,110,636.45**
1018851001	TRUSTEES CU	4	0.45	10.241	21,500,000.00	2900 BROADWAY	**990,816.75**
1019620019	TRUSTEES CU	2	0.45	12.596	18,800,000.00	88 MORNINGSIDE DRIVE	**1,065,621.60**
1018960030	TRUSTEES CU	4	0.45	10.241	17,500,000.00	606 WEST 115 STREET	**806,478.75**
1019950063	TRUSTEES CU	2	0.45	12.596	16,600,000.00	564 RIVERSIDE DRIVE	**940,921.20**
1018751002	TRUSTEES CU	4	0.45	10.241	16,300,000.00	2700 BROADWAY	**751,177.35**
1018950055	TRUSTEES CU	2	0.45	12.596	13,200,000.00	2901 BROADWAY	**748,202.40**
1018960009	TRUSTEES CU	4	0.45	10.241	12,800,000.00	611 WEST 114 STREET	**589,881.60**
1021240033	TRUSTEES CU	4	0.45	10.241	11,900,000.00	554 WEST 168 STREET	**548,405.55**
1018830059	TRUSTEES CU	4	0.45	10.241	11,700,000.00	2874 BROADWAY	**539,188.65**
1018930003	TRUSTEES CU	2	0.45	12.596	11,200,000.00	362 RIVERSIDE DRIVE	**634,838.40**
1018960057	TRUSTEES CU	4	0.45	10.241	11,000,000.00	609 WEST 115 STREET	**506,929.50**
1018751001	TRUSTEES CU	4	0.45	10.241	10,400,000.00	2700 BROADWAY	**479,278.80**
1019950044	TRUSTEES CU	4	0.45	10.241	10,400,000.00	628 WEST 125 STREET	**479,278.80**
1018950023	TRUSTEES CU	2	0.45	12.596	9,820,000.00	2891 BROADWAY	**556,617.24**
1018840001	TRUSTEES CU	4	0.45	10.241	9,560,000.00	2880 BROADWAY	**440,567.82**
1021390275	TRUSTEES CU	4	0.45	10.241	9,540,000.00	154 HAVEN AVENUE	**439,646.13**
……………………………-BREAK-………**272 TOTAL PROPERTIES IN NEW YORK CITY**…………………………………							
TOTALS, 272 properties					**1,708,881,021**		**82,693,214**

Source: New York City Department of Finance Tax Assessment Table 2010

Columbia University – Making a Business Case for Responsible Redevelopment

Exhibit C: Columbia University Manhattanville Acquisitions, Already Closed & Holding Costs

Block	Lot	Owner	Date Acquired	Purchase Am.	Phase	Timeline Start	Timeline Finish
1986	1	Columbia Trustees	2006	3,990,000	2	2015	2030
1986	6	Columbia Trustees	2004	3,400,000	2	2015	2030
1986	10	Columbia Trustees	2004	1,169,000	2	2015	2030
1986	30	Columbia Trustees	2007	10,420,800	2	2015	2030
1986	65	Columbia Trustees	2004	30,500,000	2	2015	2030
1987	1	Tuck-it-Away Storage			2	2015	2030
1987	7	Columbia Trustees			2	2015	2030
1987	9	Columbia Trustees			2	2015	2030
1995	31	Columbia Trustees	2002		1	2009	2015
1995	35	Kaur, Parminder			1	2009	2015
1996	14	Columbia Trustees	2006	12,800,000	1	2009	2015
1996	15	Columbia Trustees		unknown	1	2009	2015
1996	16	Columbia Trustees	2006	4,000,000	1	2009	2015
1996	18	Columbia Trustees		4,000,000	1	2009	2015
1996	20	Columbia Trustees	2004	2,000,000	1	2009	2015
1996	21	Columbia Trustees	2002		1	2009	2015
1996	23	Columbia Trustees	1967	262,500	1	2009	2015
1996	29	Columbia Trustees	2006	4,143,750	1	2009	2015
1996	34	Columbia Trustees	2009	5,242,000	1	2009	2015
1996	36	Columbia Trustees	2002	unknown	1	2009	2015
1996	50	Columbia Trustees	2006	750,000	1	2009	2015
1996	56	Tuck-it-Away Storage			1	2009	2015
1996	61	P.G. Singh Enterp			1	2009	2015
1997	1	Columbia Trustees	2005	3,875,000	1	2009	2015
1997	6	NYC TRANSIT			1	2009	2015
1997	9	Columbia Trustees		unknown	1	2009	2015
1997	14				1	2009	2015
1997	17	Columbia Trustees	2008	5,250,000	1	2009	2015
1997	18	Columbia Trustees	2003	2,550,000	1	2009	2015
1997	21	Columbia Trustees	2007	825,000	1	2009	2015
1997	27	Columbia Trustees	2006	4,300,000	1	2009	2015
1997	29	Columbia Trustees		1,100,000	1	2009	2015
1997	30	Columbia Trustees	2008	14,800,000	1	2009	2015
1997	33	Columbia Trustees	2004	1,004,000	1	2009	2015
1997	34	Columbia Trustees	2006	4,854,295	1	2009	2015
1997	40	Columbia Trustees	2009	12,500,000	1	2009	2015
1997	44	Tuck-it-Away Storage			1	2009	2015
1997	47	Columbia Trustees	2004	1,004,000	1	2009	2015
1997	48	Columbia Trustees	2009	2,995,000	1	2009	2015

Columbia University – Making a Business Case for Responsible Redevelopment

Block	Lot	Owner	Date Acquired	Purchase Am.	Phase	Timeline Start	Timeline Finish
1997	49	Columbia Trustees	2000	unknown	1	2009	2015
1997	52	Columbia Trustees	2006	2,300,000	1	2009	2015
1997	55	Columbia Trustees	2005	775,000	1	2009	2015
1997	56	Columbia Trustees	2005	1,000,000	1	2009	2015
1997	61	Columbia Trustees	2008	6,968,044	1	2009	2015
1997	64	Columbia Trustees	2007	1,578,000	1	2009	2015
1998	1	Columbia Trustees	2003		1	2009	2015
1998	3	Columbia Trustees	2009	4,863,593	1	2009	2015
1998	6				1	2009	2015
1998	10	Columbia Trustees	2003	4,000,000	1	2009	2015
1998	13	Columbia Trustees			1	2009	2015
1998	16				1	2009	2015
1998	17	Columbia Trustees	2007	18,603,126	1	2009	2015
1998	24				1	2009	2015
1998	26	Columbia Trustees	2008	2,534,894	1	2009	2015
1998	29	Spray-Tuck, Inc.			1	2009	2015
1998	57				1	2009	2015
1998	61	Columbia Trustees	2007	8,000,000	1	2009	2015
1999	1	NYC TRANSIT			2	2015	2030
1999	29	NYC HPD			2	2015	2030
1999	30	NYC HPD			2	2015	2030
1999	31	NYC HPD			2	2015	2030
1999	32	NYC HPD			2	2015	2030
1999	33	NYC HPD			2	2015	2030
1999	36	Comm. Preservation Corp.			2	2015	2030
		All Prop Recorded Purchases		**$ 188,358,002**			
		All Prop Ann Holding Cost @ 5%		**$ 9,417,900**			
		Only Phase 1 Prop		**$ 6,943,910**			
		Phase 2 Prop		**49,479,800**			
		Phase 2 Ann Holding Cost @ 5%		**$ 2,473,990**			
		Possible Total Purchase Cost Present Total (80% ownership) **x1.25**		**$ 235,447,503**			

Sources: New York City Department of Finance Automated City Registration System (ACRIS); Project Timeline from Manhattanville Community Benefits Agreement

Exhibit D: Columbia University Property Ownership, Assessed Value, and Tax Savings

Block	Lot	Owner	Tax Class	Assess Ratio	Tax Rate (%)	"Full Value" Market Value	Street Address	Tax Bill 2010
1986	1	Columbia Trustees	4	0.45	10.241	765,000	3260 BROADWAY	**35,255**
1986	6	Columbia Trustees	4	0.45	10.241	1,220,000	573 WEST 131 STREET	**56,223**
1986	10	Columbia Trustees	4	0.45	10.241	548,000	555 WEST 132 STREET	**25,254**
1986	30	Columbia Trustees	4	0.45	10.241	1,070,000	3270 BROADWAY	**49,310**
1986	65	Columbia Trustees	4	0.45	10.241	13,100,000	3280 BROADWAY	**603,707**
1987	1	Tuck-it-Away Stor	4	0.45	10.241	3,250,000	3300 BROADWAY	149,775
1987	7	Columbia Trustees	4	0.45	10.241	1,240,000	553 WEST 133 STREET	**57,145**
1987	9	Columbia Trustees	4	0.45	10.241	703,000	547 WEST 133 STREET	**32,397**
1995	31	Columbia Trustees	4	0.45	10.241	1,660,000	3207 BROADWAY	**76,500**
1995	35	Kaur, Parminder	4	0.45	10.241	521,000	619 WEST 125 STREET	24,010
1996	14	Columbia Trustees	4	0.45	10.241	5,890,000	637 WEST 125 STREET	**271,438**
1996	15	Columbia Trustees	4	0.45	10.241	256,000	635 WEST 125 STREET	**11,798**
1996	16	Columbia Trustees	4	0.45	10.241	1,420,000	633 WEST 125 STREET	**65,440**
1996	18	Columbia Trustees	4	0.45	10.241	1,250,000	627 WEST 129 STREET	**57,606**
1996	20	Columbia Trustees	4	0.45	10.241	703,000	623 WEST 129 STREET	**32,397**
1996	21	Columbia Trustees	4	0.45	10.241	503,000	613 WEST 119 STREET	**23,181**
1996	23	Columbia Trustees	4	0.45	10.241	969,000	603 WEST 129 STREET	**44,656**
1996	29	Columbia Trustees	4	0.45	10.241	822,000	3221 BROADWAY	**37,881**
1996	34	Columbia Trustees	4	0.45	10.241	1,590,000	3229 BROADWAY	**73,274**
1996	36	Columbia Trustees	4	0.45	10.241	145,000	3233 BROADWAY	**6,682**
1996	50	Columbia Trustees	4	0.45	10.241	226,000	632 WEST 130 STREET	**10,415**
1996	56	Tuck-it-Away Stor	4	0.45	10.241	1,440,000	651 WEST 125 STREET	66,362
1996	61	P.G. Singh Enterp	4	0.45	10.241	615,000	663 WEST 125 STREET	28,342
1997	1	Columbia Trustees	4	0.45	10.241	884,000	2283 DIMAGGIO HWY	**40,739**
1997	6	NYC TRANSIT	4	0.45	10.241	1,510,000	641 WEST 130 STREET	69,588
1997	9	Columbia Trustees	4	0.45	10.241	717,000	631 WEST 130 STREET	**33,043**
1997	14	Columbia Trustees	4	0.45	10.241	1,330,000	625 WEST 130 STREET	**61,292**
1997	17	Columbia Trustees	4	0.45	10.241	89,000	623 WEST 130 STREET	**4,102**
1997	18	Columbia Trustees	4	0.45	10.241	1,170,000	617 WEST 130 STREET	**53,919**
1997	21	Columbia Trustees	4	0.45	10.241	569,000	615 WEST 130 STREET	**26,222**
1997	27	Columbia Trustees*	3	0.45	12.137	-	603 WEST 130 STREET	-
1997	29	Columbia Trustees	4	0.45	10.241	308,000	3241 BROADWAY	**14,194**
1997	30	Columbia Trustees	4	0.45	10.241	2,430,000	3247 BROADWAY	**111,985**
1997	33	Columbia Trustees	4	0.45	10.241	131,000	3249 BROADWAY	**6,037**
1997	34	Columbia Trustees	4	0.45	10.241	2,290,000	3251 BROADWAY	**105,534**
1997	40	Columbia Trustees	4	0.45	10.241	1,190,000	604 WEST 131 STREET	**54,841**
1997	44	Tuck-it-Away Stor	4	0.45	10.241	1,880,000	614 WEST 131 STREET	86,639

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Block	Lot	Owner	Tax Class	Assess Ratio	Tax Rate (%)	"Full Value" Market Value	Street Address	Tax Bill 2010
1997	47	Columbia Trustees	4	0.45	10.241	172,000	620 WEST 131 STREET	**7,927**
1997	48	Columbia Trustees	4	0.45	10.241	471,000	622 WEST 131 STREET	**21,706**
1997	49	Columbia Trustees	4	0.45	10.241	393,000	624 WEST 131 STREET	**18,111**
1997	52	Columbia Trustees	4	0.45	10.241	273,000	630 WEST 131 STREET	**12,581**
1997	55	Columbia Trustees	4	0.45	10.241	164,000	636 WEST 131 STREET	**7,558**
1997	56	Columbia Trustees	4	0.45	10.241	516,000	638 WEST 131 STREET	**23,780**
1997	61	Columbia Trustees	4	0.45	10.241	1,660,000	2293 DIMAGGIO HWY	**76,500**
1997	64	Columbia Trustees	4	0.45	10.241	219,000	2291 DIMAGGIO HWY	**10,093**
1998	1	Columbia Trustees	4	0.45	10.241	156,000	2301 DIMAGGIO HWY	**7,189**
1998	3	Columbia Trustees	4	0.45	10.241	550,000	2307 DIMAGGIO HWY	**25,346**
1998	6	Columbia Trustees	4	0.45	10.241	362,000	653 WEST 131 STREET	**16,683**
1998	10	Columbia Trustees	4	0.45	10.241	1,050,000	641 WEST 131 STREET	**48,389**
1998	13	Columbia Trustees	4	0.45	10.241	942,000	635 WEST 131 STREET	**43,412**
1998	16	Columbia Trustees	4	0.45	10.241	72,900	633 WEST 133 STREET	**3,360**
1998	17	Columbia Trustees	4	0.45	10.241	24,500,000	615 WEST 131 STREET	**1,129,070**
1998	24	Columbia Trustees	4	0.45	10.241	529,000	609 WEST 131 STREET	**24,379**
1998	26	Columbia Trustees	4	0.45	10.241	264,000	605 WEST 131 STREET	**12,166**
1998	29	Spray-Tuck, Inc.	4	0.45	10.241	4,100,000	3259 BROADWAY	188,946
1998	57	Columbia Trustees	4	0.45	10.241	649,400	640 WEST 132 STREET	**29,927**
1998	61	Columbia Trustees	4	0.45	10.241	1,460,000	2311 DIMAGGIO HWY	**67,283**
1999	1	NYC TRANSIT	4	0.45	10.241	83,700,000	2321 DIMAGGIO HWY	3,857,273
1999	29	NYC HPD	2	0.45	12.596	1,400,000	3281 BROADWAY	79,355
1999	30	NYC HPD	2	0.45	12.596	692,000	3283 BROADWAY	39,224
1999	31	NYC HPD	2	0.45	12.596	692,000	3285 BROADWAY	39,224
1999	32	NYC HPD	2	0.45	12.596	692,000	3287 BROADWAY	39,224
1999	33	NYC HPD	2	0.45	12.596	720,000	3289 BROADWAY	40,811
1999	36	Comm. Preservation	2	0.45	12.596	2,130,000	3291 BROADWAY	120,733
		**no assessed value for block 1997-lot 27*						
TOTALS		**COLUMBIA OWNERSHIP ONLY**				**79,591,300**		**3,667,925**

Source: New York City Department of Finance Tax Assessment Table 2010

Columbia University – Making a Business Case for Responsible Redevelopment

Exhibit E: Inflation Table

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ave
0.03%	0.24%	-0.38%	-0.74%	-1.28%	-1.43%	-2.10%	-1.48%	-1.29%				
4.28%	4.03%	3.98%	3.94%	4.18%	5.02%	5.60%	5.37%	4.94%	3.66%	1.07%	0.09%	3.85%
2.08%	2.42%	2.78%	2.57%	2.69%	2.69%	2.36%	1.97%	2.76%	3.54%	4.31%	4.08%	2.85%
3.99%	3.60%	3.36%	3.55%	4.17%	4.32%	4.15%	3.82%	2.06%	1.31%	1.97%	2.54%	3.24%
2.97%	3.01%	3.15%	3.51%	2.80%	2.53%	3.17%	3.64%	4.69%	4.35%	3.46%	3.42%	3.39%
1.93%	1.69%	1.74%	2.29%	3.05%	3.27%	2.99%	2.65%	2.54%	3.19%	3.52%	3.26%	2.68%
2.60%	2.98%	3.02%	2.22%	2.06%	2.11%	2.11%	2.16%	2.32%	2.04%	1.77%	1.88%	2.27%
1.14%	1.14%	1.48%	1.64%	1.18%	1.07%	1.46%	1.80%	1.51%	2.03%	2.20%	2.38%	1.59%
3.73%	3.53%	2.92%	3.27%	3.62%	3.25%	2.72%	2.72%	2.65%	2.13%	1.90%	1.55%	2.83%
2.74%	3.22%	3.76%	3.07%	3.19%	3.73%	3.66%	3.41%	3.45%	3.45%	3.45%	3.39%	3.38%
1.67%	1.61%	1.73%	2.28%	2.09%	1.96%	2.14%	2.26%	2.63%	2.56%	2.62%	2.68%	2.19%
1.57%	1.44%	1.37%	1.44%	1.69%	1.68%	1.68%	1.62%	1.49%	1.49%	1.55%	1.61%	1.55%

Source: U.S. Department of Labor, Bureau of Labor Statistics Inflation Index

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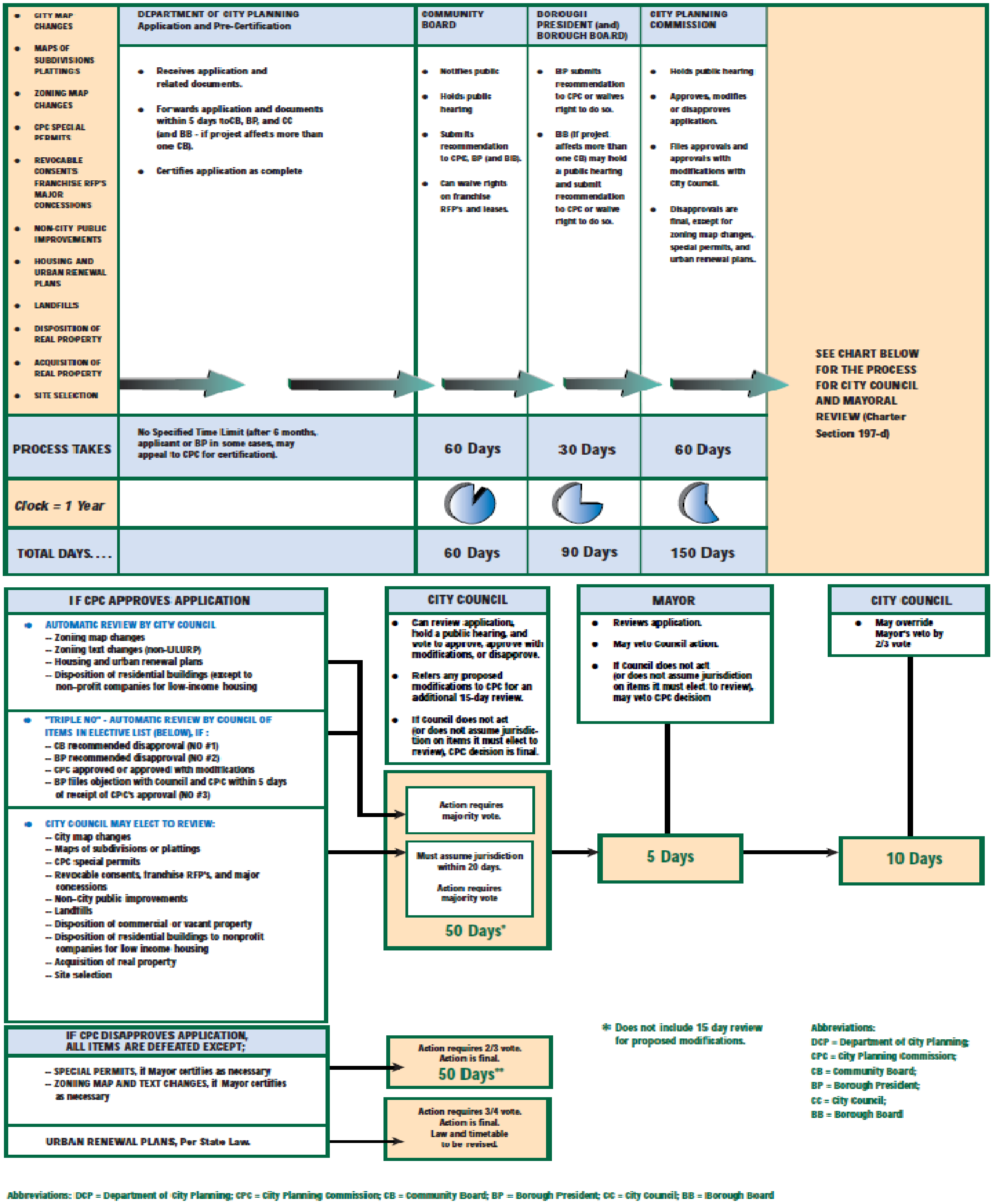
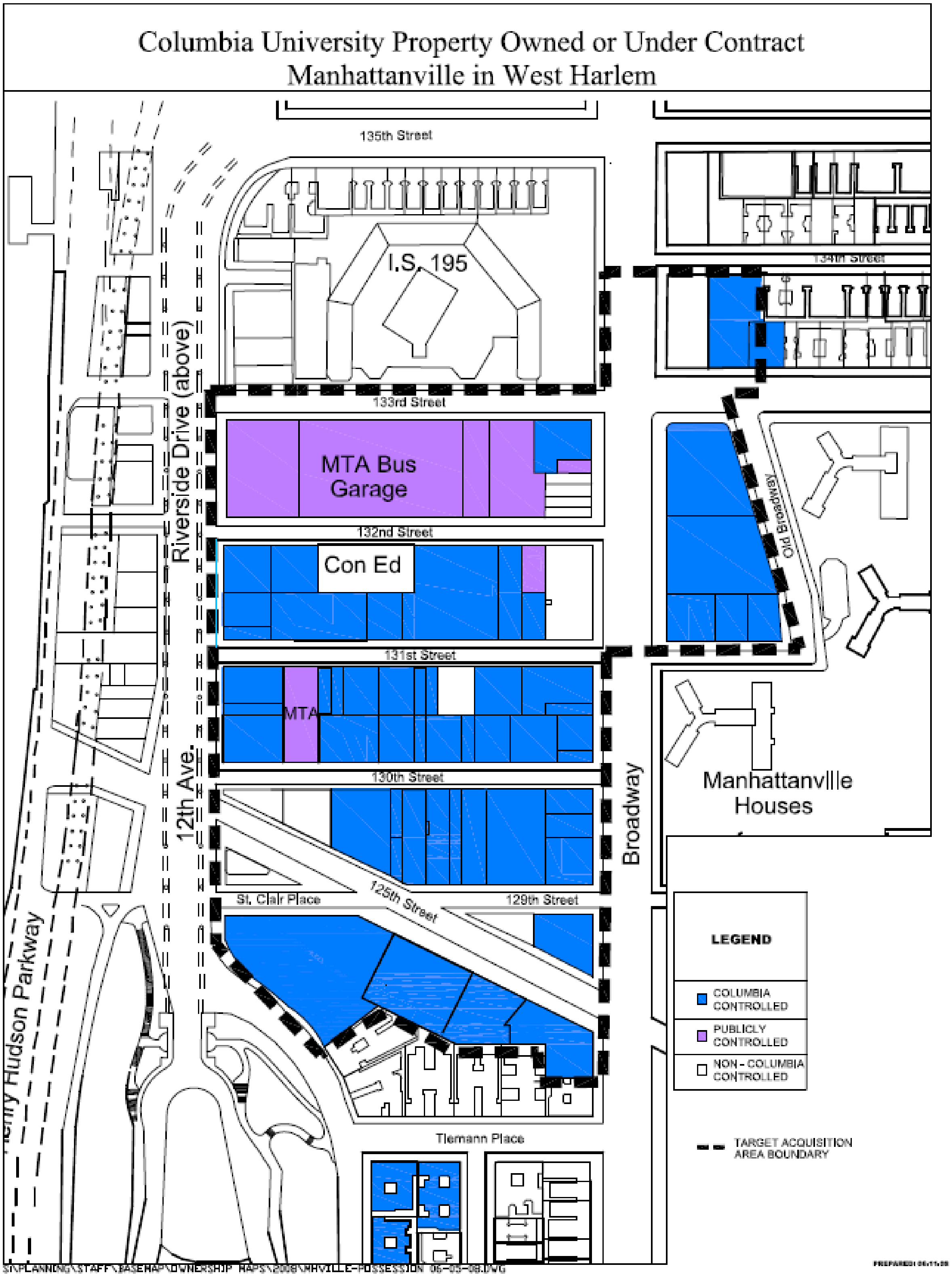
Appendix A: New York City Uniform Land Use Review Procedure

UNIFORM LAND USE REVIEW PROCEDURE

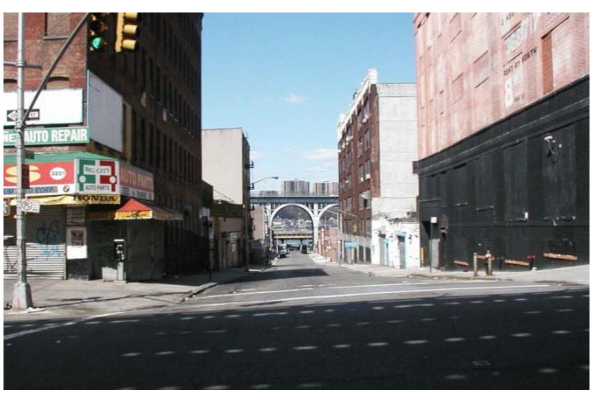


Courtesy of the New York City Department of City Planning, http://www.nyc.gov/html/dcp/pdf/luproc/lur.pdf, accessed 10/01/09.

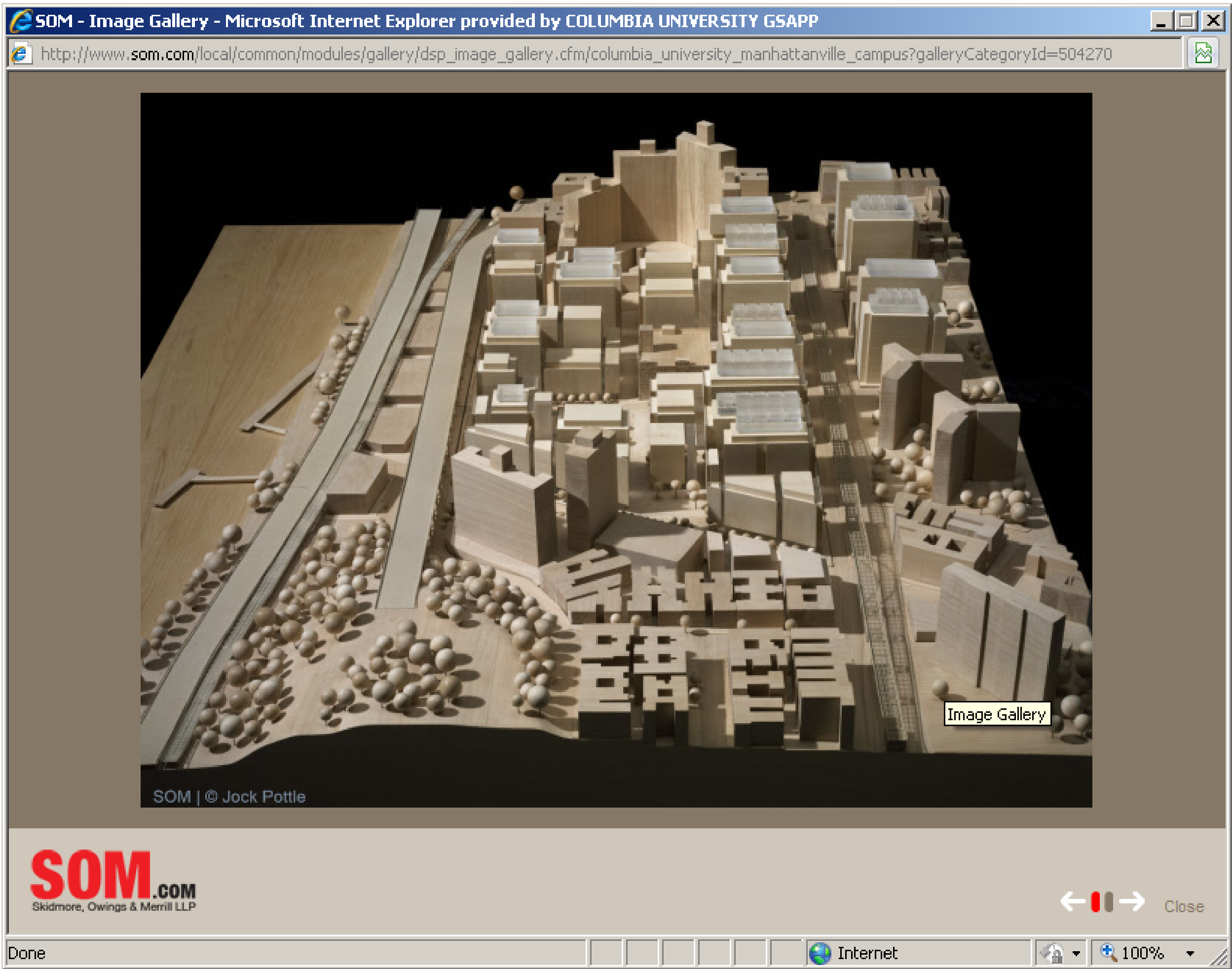
Appendix B: Manhattanville


Columbia University Property Owned or Under Contract
Manhattanville in West Harlem
135th Street
I.S. 195
134th Street
133rd Street
MTA Bus Garage
132nd Street
Con Ed
131st Street
MTA
130th Street
129th Street
125th Street
St. Clair Place
Tiemann Place
Riverside Drive (above)
12th Ave.
Henry Hudson Parkway
Broadway
Old Broadway
Manhattanville Houses
LEGEND
COLUMBIA CONTROLLED
PUBLICLY CONTROLLED
NON-COLUMBIA CONTROLLED
TARGET ACQUISITION AREA BOUNDARY

Before and After Images Web-Published by Columbia University



Columbia University – Making a Business Case for Responsible Redevelopment



Source: Skidmore.com, Skidmore, Owings & Merrill, LLP,
https://www.som.com/content.cfm/columbia_university_manhattanville_campus

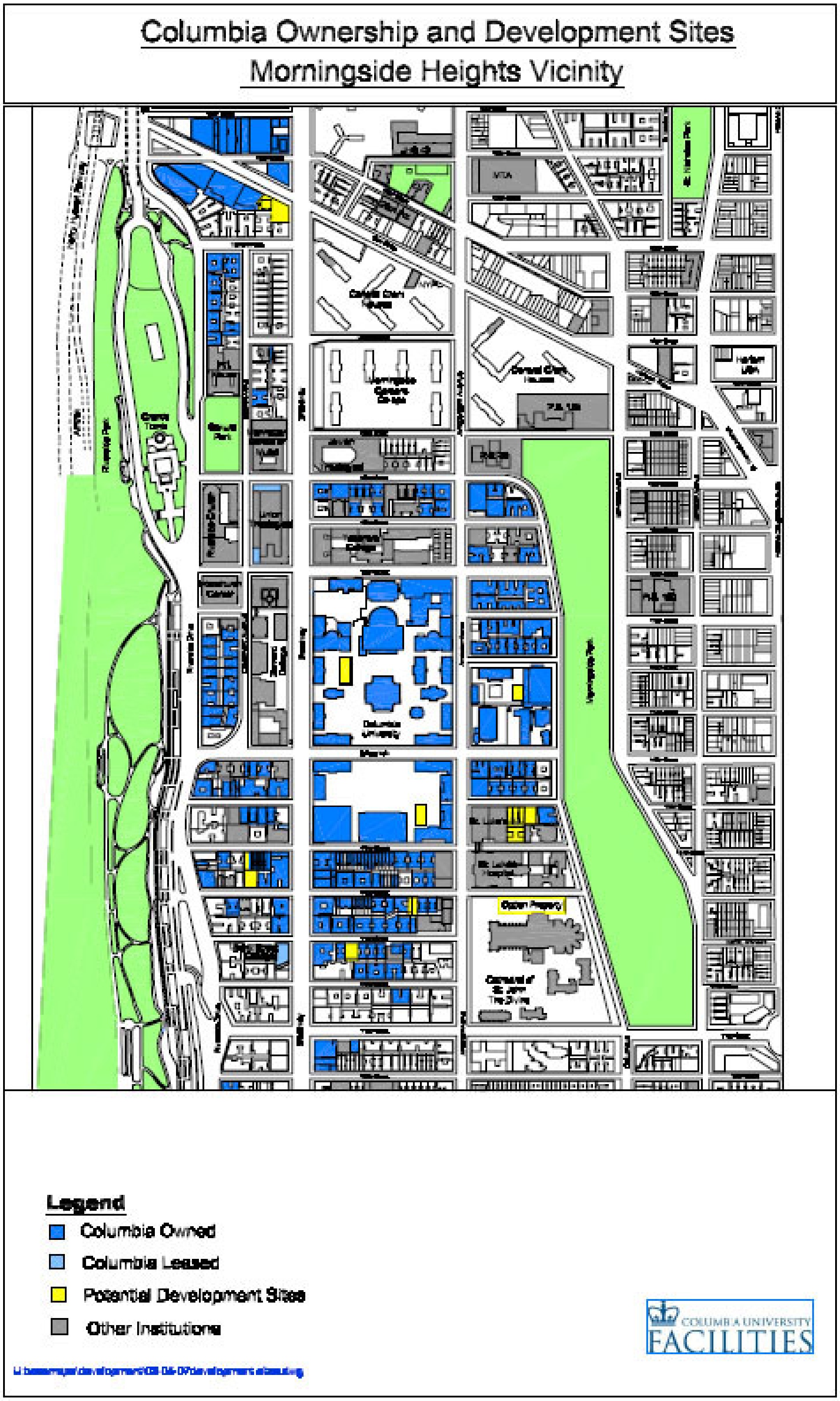
Columbia University - Manhattanville in West Harlem
Illustrative Site Plan, Phase I, 2015

December 2007

Source: Columbia University

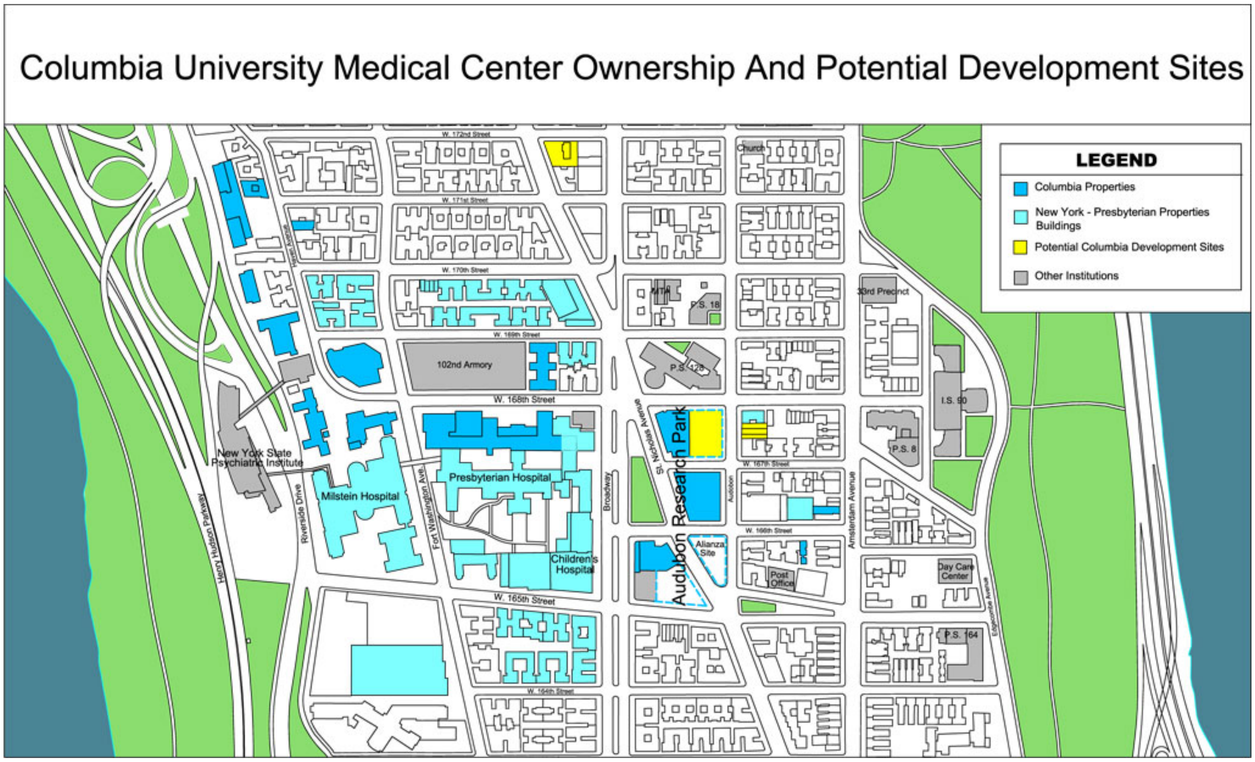
Source: Columbia University

Appendix C: Columbia Land Ownership Maps



Source: Columbia University Facilities.

Columbia University – Making a Business Case for Responsible Redevelopment



Source: Columbia University Facilities.