

**Official Written Comments on  
Columbia’s Proposed Manhattanville in West Harlem Zoning and  
Academic Mixed-Use Development Environmental Impact Statement  
Draft Scope of Work**

**West Harlem Environmental Action  
(WE ACT) for Environmental Justice**  
January 6, 2006

**TABLE OF CONTENTS**

<u>ISSUE</u>	<u>PAGE</u>
I. Introduction	1
II. Overall Deficiencies of the Draft Scope	3
A. Procedural deficiencies	3
B. Inappropriate Study Methodology	7
C. Inappropriate Study Area	8
D. Inappropriate Study Year	8
E. Inappropriate Worst-Case Scenario Analysis	10
F. Omission of Required Cumulative Impacts Analysis	11
G. Impermissible Project Segmentation	12
H. Untruthful Fiscal Analysis	14
III. Incomplete Project Description	17
IV. Inadequate Attention to Analysis of CEQR Technical Areas	20
A. Land Use Conditions	20
B. Socioeconomic Conditions	22
1. Housing and Residential Displacement	22
a. Direct Displacement	23
b. Indirect Displacement	30
2. Jobs and Business Displacement	35
C. Community Facilities	37
D. Shadows	39
E. Historic Resources	40
F. Urban Design/Visual Resources	43
G. Neighborhood Character	44
H. Open Space and Recreational Facilities	45
I. Hazardous Materials	47
I. Natural Resources	49

WEACT Comments on Columbia Expansion – Draft Scope of Work

J.	Waterfront	53
K.	Infrastructure	55
	1. Solid Waste	55
	2. Energy	57
	3. Sewage and Sanitation	59
	4. Water	60
K.	Traffic and Parking	62
L.	Transit and Pedestrian Safety	64
M.	Air Quality	66
N.	Noise	73
O.	Construction Impacts	77
Q.	Public Health	81
	1. Diminishing Mental Health of Residents	81
	2. Decrease Physical Health of Residents	83
	3. Bioresearch Poses Threat to Release of Disease Agents	83
R.	Mitigation	85
S.	Alternatives	86
T.	Commitment of Resources	88
V.	Omission of Environmental Justice Analysis	89
VI.	CONCLUSION	91
VII.	Appendix	
A.	Attachment # 1 West Harlem Master Plan, N.Y.C. Econ. Dev. Corp. (Aug. 2002).	
B.	Attachment # 2	
	1. Peggy M. Shepard, <i>Issues of Community Empowerment</i> , 21 FORDHAM URB. L.J. 739.	
	2. David France, <i>Harlem Proposal Is Attacked Anew</i> , N.Y.C. Voice, Feb. 1988.	
C.	Attachment # 3 Letter to Jordi Reyes-Montblac, Chair, Comm. Bd. 9 from Maxine Griffith, Vice Pres., Off. Gov't & Comm. Affairs, Columbia U. (Oct. 19, 2005).	
D.	Attachment # 4	
	1. <i>New Jobs and Economic Opportunities Fact Sheet</i> , Columbia U., Comm. Bd. 9 Pub. Mtg. (Oct. 11, 2005).	
	2. <i>Proposal for a Manhattanville Campus</i> , Columbia U., Comm. Bd. 9 Pub. Mtg. (Oct. 11, 2005).	
	3. <i>Research at the Proposed Manhattanville</i>	

WEACT Comments on Columbia Expansion – Draft Scope of Work

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WEACT Comments on Columbia Expansion – Draft Scope of Work

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WEACT Comments on Columbia Expansion – Draft Scope of Work

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WEACT Comments on Columbia Expansion – Draft Scope of Work

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## I. INTRODUCTION

In one of New York City's largest and most extensive proposal for a planned development in many years, Columbia University has requested that the City make a major change in zoning regulation of 35 acres of Manhattanville in West Harlem. Columbia plans to build a new 17-acre campus on this site (but its intentions regarding the remaining 18 acres is unclear). The proposed expansion presents a unique opportunity for Columbia to assume a leadership role in changing how development programs are planned and implemented in New York City. Indeed, this project can serve as a model for a revolutionary government-private interest-community collaboration in urban renewal and economic planning nationwide. With the new campus spreading out over eight city blocks along the waterfront and indefinite operation planned, Columbia will leave a permanent mark of unprecedented size and scope on the future of the West Harlem community. Therefore, it is vital that the Department of City Planning [hereinafter *DCP*], as the public agency legally charged with the protection of this community's environmental and public health, conduct a thorough and thoughtful investigation of the environmental impacts of Columbia's proposed development. In order to fulfill its legal mandate, DCP must require Columbia to prepare a complete, detailed, and specific description of its plans and the associated environmental impacts.

Columbia wants to build the new 17-acre campus because it claims to need the space in order to compete with its elitist Ivy League peer institutions, such as Yale, Princeton, and Harvard.<sup>1</sup> Columbia plans to satisfy its space needs by moving into an occupied neighborhood that is already vibrant with a unique synergy of ethnic, cultural and socioeconomic diversity – one of the few such communities in the City. Despite Columbia's efforts to paint Manhattanville as a virtual economic dead zone, the neighborhood has recently attracted some major businesses that promise to anchor a period of renewed economic growth. Additionally, although some of the area into which Columbia wishes to build has been plagued with slow economic growth as a result of years of government neglect and economic disinvestment, community efforts have developed and implemented programs designed to spur Manhattanville's revitalization, much of which is already underway.

West Harlem residents have recently won a hard-fought battle to build a park on the previously neglected waterfront. The park's construction has already begun and will be complete by 2007. Additionally, the New York City Economic Development Corporation [hereinafter *EDC*], in a collaborative effort between West Harlem residents, Community Board 9 [hereinafter *CB9*], potential developers, and economic and civic leaders, had completed the West Harlem Master Plan [hereinafter *Master Plan*] that represents the community's vision for the redevelopment of the West Harlem waterfront.<sup>2</sup> The Master Plan calls for a Manhattanville that is zoned for mixed uses integrating retail and service businesses with affordable residential housing developments and community spaces. Under the Master Plan, the community envisioned a revitalization zone that

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<sup>1</sup> Draft Scope of Work [hereinafter *draft scope* or *DSOW*] at 1.

<sup>2</sup> EDC, Master Plan (Aug. 2002), Excerpted at Attachment # 1.

would connect the Harlem waterfront with the 125<sup>th</sup> Street corridor. The revitalization zone was intended to promote the community's use of the new park for exercise and recreation as well as to attract additional, sustainable economic growth. Indeed, the Master Plan has already drawn the attention of developers and businesses that want to locate their operations in West Harlem.

Unknown to West Harlem community members, Columbia was acting on a parallel track, hatching a plan to develop their waterfront into an academic-biotech industrial complex.<sup>3</sup> Columbia made its intentions known to the public in the Winter of 2003. Despite an intense community effort to convince Columbia to include residents and local leaders in the planning process, Columbia has flatly refused. Instead, the University chose to conduct a series of "public meetings," hosted by CB9,<sup>4</sup> where it gave grand presentations, lecturing residents about the "benefits" that the new campus would bring to the West Harlem community. Although Columbia has claimed to be considerate of the community's concerns,<sup>5</sup> it has never allowed the community any input into its proposed development.

Columbia's only recently revealed plan lands the expansion campus squarely in the middle of the Manhattanville revitalization zone and will physically come between the community and the waterfront park residents had fought for so long and hard to build. In fact, with the heavy building and the University's notoriously heavy-handed security measures (including the heavy gates and guarded doors used at all its campus sites), the new development will likely altogether deprive West Harlem residents the use of the waterfront park.

Columbia cannot be allowed to continue along its path of secrecy and exclusion. The approach Columbia has followed forces the community to fit its development vision within Columbia's expansion ambitions; this is an arrogant, backward tactic of inexcusable injustice that the DCP must not allow, particularly because the community has already drafted a Master Plan for its development. Before allowing it to go forward with the environmental review process, the DCP must demand that Columbia work with Manhattanville residents and the City to fit its needs into those of the West Harlem community. At a minimum, the DCP must hold Columbia to task to fulfill its legal obligation in conducting an Environmental Impact analysis that thoroughly addresses and indeed mitigate, eliminate, or avoid the significant, adverse impact its expansion will have on the economy, environment and health of the Manhattanville community.

Pursuant to New York City's environmental impacts review provisions mandating government consideration of public comments, West Harlem Environmental Action, Inc.

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<sup>3</sup> *Research at the Proposed Manhattanville Campus*, Columbia U., CB9 Pub. Mtg. (Oct. 11, 2005), Attachment # 4.

<sup>4</sup> *Community Consultation and Public Review Fact Sheet*, Columbia U., CB9 Pub. Mtg. (Oct. 11, 2005), Attachment # 4.

<sup>5</sup> *Id.*

[hereinafter *WE ACT*] for Environmental Justice has reviewed Columbia's draft scope. We have the following comments.

## **II. COLUMBIA AND THE DCP HAVE FAILED TO MEET BASIC CITY AND STATE REQUIREMENTS FOR DESCRIBING THE SCOPE OF AN ENVIRONMENTAL IMPACT ANALYSIS**

Environmental review statutes at both the state and federal levels are designed to compel governmental decision makers to “take a hard look” at the environmental impacts of a development proposal and to put this analysis at the forefront of pending government decisions.<sup>6</sup> In New York City, the City Environmental Quality Review Law [hereinafter *CEQR*] governs the environmental review process.<sup>7</sup> *CEQR*'s extensive environmental review criteria are delineated in the *CEQR* Technical Manual [hereinafter *CTM*].

Columbia's planned development requires City approval for very sweeping zoning changes. Pursuant to *CEQR*'s provisions, the Department of City Planning has been identified as the “lead agency” responsible for conducting the environmental impact review for the project.<sup>8</sup> As such, the DCP is responsible for evaluating the project's environmental impacts in order to ensure compliance with applicable City and state laws that protect public health and the environment.<sup>9</sup> Importantly, the DCP is charged with careful consideration of the project's impacts in order to ensure the public's welfare according to the criteria laid out in the *CTM*.<sup>10</sup> Despite the very comprehensive, in-depth guidance provided in the *CTM*, the DCP has failed its legal function and allowed Columbia to submit a grossly inadequate and incomplete draft scope for public review. *WE ACT* has the following comments on the DCP's conduct of the project's environmental review process and the draft scope Columbia has put forth.

### **A. The Department of City Planning's Public Review Procedure Violates *CEQR* Because It Denies the Public Meaningful Participation in the Environmental Review Process**

*CEQR*'s drafters intended that the public should play an extensive and early role in the environmental impact review process. Consequently, the *CTM* clearly requires that applicants of development projects and the City include the public in the project planning stages.<sup>11</sup> Decisionmakers must consider and use public comments to shape the analyses that would be required in the final scope of work and ultimately the draft Environmental Impact Statement, because defining the scope of a project is a

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<sup>6</sup> *Matter of WEOK Broadcasting Corp. v Planning Bd. (WEOK)*, 583 N.Y.S.2d 170, 175 (App. Div. 1992).

<sup>7</sup> Environmental Impact Review in New York, [hereinafter *EIR NY*] § 8A.02.

<sup>8</sup> *DSOW* at 1.

<sup>9</sup> *CTM* § 1.B.200 at 1-4.

<sup>10</sup> *Id.* at 1-5.

<sup>11</sup> *Id.* § 1.B.230 at 1-7.

fundamental step in the environmental review process.<sup>12</sup> To ensure meaningful public participation, the CTM demands that the lead agency make the draft scope publicly available, hold a public meeting in order to receive oral comments from community members, and to accept written comments following the meeting.<sup>13</sup>

Despite the CTM's very plainly spelled out prescriptions, the DCP's public participation procedure to now has been legally deficient.<sup>14</sup> First, the City has failed its legal mandate to make Columbia's draft scope document accessible to the public in order to ensure public participation in the project scoping process. Access to any specific information regarding the Project plan, outside of Columbia's generic press releases and rose-tinted presentations of supposed community benefits, has been difficult to obtain. For residents (like those living around Manhattanville) who may not own computers, this task has been nearly impossible. Indeed, as late as one week before the scoping hearing, residents who wished to review the draft scope in order to prepare written and oral comments were still confused as to where to obtain a copy. One Manhattanville resident was even told that if he wanted to look at the draft scope document, he would have to travel to the DCP's office, located all the way downtown, or that of Community Board Nine. Considering that most Manhattanville residents must work for a living and the DCP's office is only open during work hours, the City's procedure effectively denies concerned residents access to the draft scope.

Second, the DCP has approved for public circulation a document that is replete with jargon and highly technical language that makes absolutely no effort to be accessible to community residents even though CEQR clearly mandates a draft scope that allows the public to participate in meaningful review of the proposed project.<sup>15</sup> Apparently, the DCP and Columbia intend to communicate Columbia's plans only to urban planners and landscape designers, but certainly not the general public. By hiding behind its technical "lingo," Columbia has been able to evade CEQR's ultimate goal of providing stakeholders, specifically community residents, with detailed and specific information that would allow a full and informed evaluation of the project's environmental impact.

Third, the DCP has allowed Columbia to put forth a draft scope document that is at best incomplete in its exposition of the type, level and methodology of the required analyses. CEQR's primary purpose in requiring the preparation of a draft scope is to allow governmental decision makers and the public to identify project components and to evaluate the applicant's methodology for studying the environmental impacts of each of these components. The CTM demands that the draft scope identify "in detail ... the proposed methods for study, possible alternatives to the proposed action, and mitigation measures."<sup>16</sup> To aid the project applicant, the CTM even provides extensive instruction

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<sup>12</sup> *Id* at 1-8.

<sup>13</sup> CTM § 1.B.230 at 1-7.

<sup>14</sup> *Id.*

<sup>15</sup> *Id.*

<sup>16</sup> *Id.* at 7.

on the analytic methodology to be used, the sources of information relevant to the analysis, and criteria for determining significance.

By contrast, Columbia's discussion falls woefully short of the legal standard; this deficiency makes meaningful review nearly impossible. As written, Columbia's explanation of its plans are so vague, the typical reviewer is hard-pressed even to understand the reach of the project much less to determine the changes that will need to be made.

Among its inadequacies, Columbia neglects key areas requiring analysis. Despite CEQR's requirement that mitigation and project alternative analyses must be completed for each technical area for which significant adverse impacts are expected,<sup>17</sup> Columbia makes little more than an obligatory mention of project alternatives and mitigation, completing the discussions in three to five paragraphs. Even with this grossly incomplete study plan, the "discussion" of alternatives and mitigation is relegated to the back of the document rather than included in the analysis of individual technical areas. This approach undermines CEQR's goal in juxtaposing an impact analysis with that of mitigation and alternatives in order to allow for side-by-side comparison the available options.<sup>18</sup> Furthermore, Columbia altogether ignores any mention of the legally required cumulative impacts analysis, even though its expansion could result in environmental degradation in a number of different CEQR technical areas and exacerbate the impacts of other planned developments in the area.

The DCP has also allowed Columbia to rely on a number of key assumptions in planning its method of study without forcing Columbia to discuss how it would modify this plan should these assumptions prove incorrect. Indeed, Columbia has had free reigns to pick and choose which project component it wishes to disclose and how much detail to give. For example, according to the draft scope, Columbia intends to build university facilities either on top of the existing Manhattanville Metro Transit Authority [hereinafter *MTA*] Bus Depot or move the facility underground and build facilities on top of it.<sup>19</sup> For one thing, this proposal would entail a separate City action that would require the approval of the MTA and a new EIS process, but the draft scope makes no mention of what Columbia would do if its assumptions regarding the MTA's cooperation prove incorrect. Furthermore, the DCP has not required Columbia to discuss the feasibility of this plan.

The Manhattanville Bus Depot is a twelve-story facility that garages and repairs 240 (and more) New York City Transit buses. Considering the absence of underground bus depots of this size almost anywhere in the country, Columbia's assumption that it can be done is at best a very weak one. The plan to build on top of the bus depot is even less reasonable. The MTA once put forward a proposal to build housing on top of this bus

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<sup>17</sup> CTM § 1.B.230 at 7.

<sup>18</sup> *Id.* at 1-10.

<sup>19</sup> DSOW at 5, 13.

depot, and the proposal was defeated on health grounds.<sup>20</sup> Consequently, any plan to build other uses on top of the bus depot will likely meet a similar fate. The ignorance of the history and actual current land uses of the project area that is pervasive in the draft scope exposes Columbia's lack of cooperation with community residents yet highlights the urgency of that need in completing this environmental impact review process.

Columbia's tactic of secrecy and evading disclosure of the details of its plan also denies community residents input on decisions that will profoundly affect their health and economic well-being. If, in the future, Columbia's development plans should change, how will Columbia notify the public of the changes? More importantly, if negative impacts are associated with these changes, what processes will be available for the City and the public to evaluate and avoid the harm?

In putting forth this scope document for public review, the DCP has impermissibly delegated the burden and costs of identifying the necessary elements and detailing the analytic methodology to the City and the public. The public should not be made to perform what the law intended to be Columbia's job. The City must demand that Columbia prepare a draft scope document that discloses completely its plans for the new campus and provide the legally mandated detail of its study methodology.

Fourth, the City has failed its legal mandate in holding a scoping hearing that was patently undemocratic. Despite DCP's assertion that the City's Rule of Procedure [hereinafter *CRP*] constrains its procedural conduct of the hearing, nowhere in the *CRP* itself is there any mention that community residents should be relegated to last place in the speaking order (behind Columbia representatives and City elected and appointed officials).<sup>21</sup> As a result of the DCP's undemocratic hearing procedure, even if a community member arrives and registers to speak early, he or she will not be allowed to do so until late in the evening when the dynamics, and indeed momentum, of the meeting has shifted.<sup>22</sup> Furthermore, the DCP's procedure defeats the purpose behind CEQR's public participation mandate because the conduct of the hearing might have even discouraged some residents from testifying at all. For example, many residents who assumed that testimonies would be received on a "first-come, first-served" basis left early without having aired their grievances because they became frustrated by the long wait.

The City must remedy these procedural deficiencies in order to comply with its legal obligations under CEQR.

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<sup>20</sup> Peggy M. Shepard, *Issues of Community Empowerment*, 21 FORDHAM URB. L.J. 739, 748 (1994); David France, *Harlem Proposal is Attacked Anew*, The N.Y. Voice, Feb. 1988; Attachment # 2.

<sup>21</sup> Robert Dobruskin, Director, Environmental Assessment and Review Division, New York City Department of City Planning, Responding to community members' questions at the CB9 Meeting (Nov. 09, 2005).

<sup>22</sup> *CRP* § 5.07(d) requires that listed elements should be met for scoping hearings in New York City but does not prescribe the order with which they must be met.

**B. Columbia's Planned Study Methodology as Described in the Draft Scope Is Inappropriately Incomplete and Thus Will Not Uncover Information Crucial to the Analysis of the Project's Environmental Impacts**

A key preliminary task in the CEQR process is description of the study methodology. Anticipating that environmental impacts assessment may be difficult in many technical areas, CEQR details a study methodology for each impact category.<sup>23</sup>

Columbia fails to identify the proper study methodologies that the law requires it to conduct. For most technical areas, the draft scope's analysis is little more than a skeleton of the methods to be used, providing little more than rote recitation of the CTM guidance's language. The DSOW lacks any insight into how investigations would be conducted (e.g. the types of surveys to be used, how information will be recorded) or how data would be evaluated (e.g. modeling or criteria) in order to determine the significance of any resulting impact. Even when specific sources of information, such as the U.S. Census Bureau statistics, are identified, Columbia fails to discuss how it would validate the continued reliability of the data – especially when secondary sources will be outdated by the time the EIS is conducted. The Census Bureau's 2000 Census Survey's information, for example, will be at least six years old.

In stark contrast to Columbia's approach, the CEQR Technical Manual repeatedly emphasizes that in-field surveys with personal observations as well as interviews with local residents and community members (done in the affected areas) are vital in order for project proponents to obtain accurate information about the area's existing conditions.<sup>24</sup> Yet Columbia insists on pursuing a single-minded reliance on secondary sources. Aside from being outdated, these data were gathered for other purposes and therefore may not address or be compatible with CEQR concerns.

Considering that the CTM provides such comprehensive and detailed guidance, Columbia has no excuse for the laughably half-done, wholly inadequate document it has put forth. Columbia must not be allowed to use outdated data when the CTM has already identified alternative methodologies that will allow the University to obtain the required information. Therefore, DCP must fulfill its legal mandate and require Columbia to submit a complete and detailed description of the study plan it will use in determining the environmental impacts of its proposed development.

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<sup>23</sup> See generally, CTM, Chapter 3 *et seq.* addressing individual technical areas.

<sup>24</sup> *Id.* § 3D.300 at 3D-5 to 3D-16.

**C. Columbia's Choice of Study Area Is Inappropriate Because It Uses the Same ¼- and ½-Mile Study Area for All Technical Areas Even Though the Project Will Affect a Greater Proportion of West Harlem in Some Technical Areas Than Others**

The CEQR Technical Manual requires that a project applicant define a study area for each of the technical area in which adverse impacts may occur.<sup>25</sup> Moreover, the CTM anticipates that the size and location of study areas would differ depending on the type of impact under consideration.<sup>26</sup> Columbia, on the other hand, uses the same study areas for all technical areas. Even worse, it limits analysis to the area within a ¼- and ½-mile radius of the project site. This approach violates the CTM's guidance because the project's impact in some technical areas (particularly traffic and residential displacement) will be felt over a much wider expanse of West Harlem than others.

Additionally, Columbia's description of the study area is confusing. Although the DSOW identifies the 35-acre rezoning area as the project site, its analyses focus entirely on the 17-acre parcel that will contain the expansion campus.<sup>27</sup> The 18-acre difference between the two "project sites" has profound implications for the impact of the project, particularly if Columbia already has designs on the future use of this very large swath of Manhattan real estate that it has chosen not to disclose to the public.<sup>28</sup> The DCP must demand that Columbia analyze the true impact of its development by fully disclosing its land use plans and identifying the appropriate study area for each CEQR technical area.

**D. Columbia's Choice of Build Years 2015 and 2030 Is Inappropriate Because the Full Impact of Its Expansion Will Not Become Felt Until After the Project's Planned Activities Are in Full Operation**

CEQR intends that an environmental impacts review should analyze an action's effects on the environmental setting as it would exist at the project's completion and during operation; this is the project's "build year."<sup>29</sup> Consequently, the CTM requires a project applicant to analyze its impact in the year when the project would be "substantially operational, since this is when the action's effects would begin to be felt, and when mitigation of project impacts would have to be in place."<sup>30</sup> CEQR specifically recognizes that when a project is to be constructed in phases, the environmental impacts

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<sup>25</sup> CTM § 2.C.200 at 2-5.

<sup>26</sup> *Id.*

<sup>27</sup> See generally the DSOW.

<sup>28</sup> The non-disclosure of plans for and omission of the necessary environmental impacts analysis on the remaining 18 acres would constitute impermissible segmentation under SEQRA and NEPA. *Matter of Concerned Citizens for the Env't v. Zagata (Concerned Citizens)*, 672 N.Y.S.2d 956, 22 (App. Div. 1998).

<sup>29</sup> CTM § 2.C.100 at 2-4.

<sup>30</sup> *Id.*

analysis must include a study of the project impact in interim years as well as at its completion.<sup>31</sup>

Because the expansion project will be constructed over a 25-year span with the first part becoming complete in 2015, Columbia has chosen the years 2015 and 2030 as the build years in its analysis. The choice of 2015 and 2030 as the analysis' endpoints is fatally flawed for a number of reasons.

By 2015, no project component will yet be in operation, because this is the year that Columbia will just have completed construction on the first expansion facilities – only one academic and one research building will have been constructed.<sup>32</sup> Thus, analysis of conditions existing in 2015 is wholly inappropriate for determining impacts arising from the operation of these facilities. Indeed, 2015 is inappropriate even for determining construction impacts, because by that time construction would have ended; at most, it could be useful as a baseline for the analysis of construction impacts of the second phase of the development. Columbia must study a build year, such as 2012, during which construction activities are anticipated to be at their peak in order to determine the impacts of construction. Moreover, it must analyze a build year in which facilities planned for Phase I will be operating in full swing in order to determine the project's operational impacts.

Likewise, 2030 is an inappropriate study year because, as with the choice of 2015, this is the year when Columbia will just have completed construction on the second phase, the remaining facilities in the Academic Mixed-Use area.<sup>33</sup> Therefore, the majority of the expansion project would not yet be operational as of 2030. Unlike 2015, 2030 is not even appropriate as an interim analysis date. On one hand, it is useless for determining construction impacts, because construction will have been complete at this point. On the other hand, it has no utility in determining operational impacts because no component from the second phase will yet be operational. A more appropriate endpoint date would be 2035, when the development's various components including the bioresearch facilities will be in full swing and their true impacts can be determined.

Second, although the draft scope defines the study year for the development of Subdistricts B and C as 2015,<sup>34</sup> the document makes no mention of what specific facilities will be located on these sites. Instead, the draft scope's text describes the plans for these subdistricts strictly in terms of building heights and Floor Area Ratios [hereinafter *FAR*], following the familiar strategy of hiding its impacts behind jargon and technical lingo.<sup>35</sup> The reviewer has to study the attached figure and even then only guess at what Columbia's plans really are. Because Subdistrict B contains the 7-acre portion of the project area that will be constructed under water, we assume that this subdistrict will

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<sup>31</sup> *Id.*

<sup>32</sup> DSOW at 13.

<sup>33</sup> *Id.*

<sup>34</sup> *Id.* at 22.

<sup>35</sup> *Id.* at 18-22.

house at least some part of the proposed steam and chilled water facility – and perhaps the associated cogeneration plant.<sup>36</sup> Subdistrict C seems to be slated for bioresearch developments, but the draft scope fails to provide any textual description of its intended use.<sup>37</sup> Even without information on the actual use planned, 2015 is clearly an inappropriate study date to determine operational impacts, because none of these project components will be in operation as of that date. To be sure, the DSOW is unclear on whether facilities in these subdistricts will even be built as 2015. Therefore, Columbia must provide the essential details on the intended use for the facilities to be built in Subdistricts B and C, when construction will begin and become complete, and when the facilities will be in operation. Once this information has been determined, Columbia must use as the build year for purposes of the relevant CEQR analysis, a year in which peak construction activities will be conducted in order to determine construction impacts and one in which operation will be in full swing in order to determine operational impacts. Without this vital disclosure, any analysis of the project's environmental impacts would be meaningless and useless to the City's deliberations.

**E. Columbia's Use of an Omnibus Worst-Case Scenario for All Technical Areas Is Inappropriate Because CEQR Requires a Separate Worst-Case Scenario Analysis for Each Technical Area**

CEQR requires that project applicants identify and describe a “reasonable worst-case scenario” for every CEQR technical area.<sup>38</sup> The worst-case scenario is defined as the worst conditions existing in an area; its inclusion in the environmental impact analysis is intended to serve as a departure point for investigations of “the worst possible effects of the project that might reasonably occur.”<sup>39</sup> For example, an analysis of the traffic impacts of a project should use the periods when the great number of vehicular, pedestrian and transit trips that would occur in a project site. This could reasonably be between 8-9 AM, 11-1 midday, and 5-6 PM.<sup>40</sup> However, a single reasonable worst case may be incapable of becoming isolated from other events that could occur in tandem such as the trip generation of a project may not coincide with an area's rush hour traffic and thus an analysis of the project's trip generation alone may be too conservative an analysis of its impact on the area's traffic patterns. In such a case, the CTM requires that the project applicant include both periods in its analysis.<sup>41</sup>

For the analyses of most technical areas, Columbia neglects to describe the worst-case scenario; its strategy, instead, is to describe an omnibus worst-case scenario against which the project's impacts on a wide range of technical areas are to be measured.<sup>42</sup> Although the omnibus worst-case scenario includes some description of the expected

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<sup>36</sup> *Id.* at Fig. 7.

<sup>37</sup> *Id.*

<sup>38</sup> CTM § 2.C.300 at 2-5.

<sup>39</sup> *Id.*

<sup>40</sup> *Id.*

<sup>41</sup> *Id.*

<sup>42</sup> DSOW at 16-22.

conditions of most technical areas, it approach plainly violates CEQR's purpose in requiring the identification of a worst-case scenario at all.

CEQR intended that worst-case scenario's description of existing conditions should appear in the analysis of a project's impact on individual technical areas in order to provide a side-by-side comparison of environmental conditions as they currently exist with conditions that would result from the development. Columbia's worst-case descriptions are of the highest build-up option that it will follow. Columbia has apparently chosen this tact because it wishes to preserve the "flexibility" it wants in order to develop its campus in a way that best fits its ambitions rather than that considers the needs of its neighbors.

Even if Columbia's evasive behavior was allowed under CEQR, which it is not, conducting the analysis as Columbia describes decouples the process because by the time the reader reaches the description of the individual technical areas, he or she has already forgotten what the worst-case scenario for that topic is (or what Columbia considers it to be). Without an idea of what the existing conditions are, evaluation of the project's environmental impacts is virtually impossible. Therefore, Columbia must analyze the expansion project's environmental impacts with the proper juxtaposition of the required discussions.

**F. Columbia's Ignoring Mention of Cumulative Impacts Analysis Violates the Law and Hides the True Effects of the Expansion Development by Slicing Its Project into Palatable Pieces**

CEQR requires that applicants identify and analyze the cumulative impacts of their proposed projects.<sup>43</sup> Cumulative impacts are generally long-term impacts that include "two or more individual effects on the environment that, when taken together, are significant or that compound or increase other environmental effects."<sup>44</sup> Moreover, a cumulative impacts assessment should be conducted when a "number of actions in a given area that may have minor effects if considered singly but when considered together might have significant effects."<sup>45</sup> The rationale behind a cumulative impacts analysis is that project components may interact with each other (and with other uses in an environment) in ways that cause greater environmental degradation than any independent use may cause on its own.<sup>46</sup> Therefore, an environmental impact analysis that considers each project component on its own or isolated from other operations that may exist in an area will fail to capture the full range of and thus the true environmental impacts of a development project.

Columbia's expansion will adversely affect Manhattanville's environment in every factor considered in the CEQR technical areas. Moreover, with the Sewage

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<sup>43</sup> CTM § 2.C.230 at 2-8.

<sup>44</sup> *Id.*

<sup>45</sup> *Id.*

<sup>46</sup> *Id.*

Treatment Plant, the West End Highway entrance and exit traffic, numerous MTA facilities, particularly the Manhattanville Bus Depot, and the ever-looming possibility that the Marine Transfer Station could be re-opened, West Harlem is already disproportionately impacted by public facilities that benefit the entire City. Without even an attempt to study the pressure of the added density and bio-industrial uses associated with its expansion operations, Columbia is now asking West Harlem residents and workers to bear the additional burden of its development. Because Columbia's expansion will interact negatively with other environmentally damaging operations in West Harlem, the University must analyze the cumulative impacts of these interactions. Indeed, Columbia must identify and plan for implementing mitigation measures and project alternatives that will eliminate or avoid the negative consequences that will result from construction and operation of the proposed Manhattanville campus. Furthermore, the University must set forth and create an appendix for analytical methodology it will use in the environmental impact analysis in order to facilitate evaluation of these methodologies.

**G. Columbia's Deferring Permitting Procedures for Individual Project Components Constitutes Impermissible Segmentation Under State Environmental Impact Review Criteria**

Segmentation is the "dividing for environmental review of an action in such a way that the various segments are addressed as though they were independent and unrelated activities."<sup>47</sup> The New York State Environmental Quality Review Act<sup>48</sup> [hereinafter *SEQRA*], with which CEQR procedures must comply, specifically prohibits segmentation of a project's environmental review process.<sup>49</sup> Legislative and judicial hostility for segmentation arises because of a two-fold concern. "First is the danger that in considering related actions separately, a decision involving review of an earlier action may be 'practically determinative' of a subsequent action ... The second danger occurs when a project that would have a significant effect on the environment is broken up into two or more component parts that, individually, would not have as significant an environmental impact as the entire project, or indeed, where one or more aspects of the project might fall below the threshold requiring any review."<sup>50</sup> "For the purpose of determining whether an action may cause (significant adverse environmental impact) the lead agency must consider reasonably related long-term, short-term, direct, indirect[,] and cumulative impacts."<sup>51</sup> In short, the environmental impacts review process must comprehensively consider all components of a development project in a simultaneous analysis; the project applicant may not submit its plans piecemeal to separate agencies because this tactic would inadequately address the combined effects of the total project.<sup>52</sup>

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<sup>47</sup> Concerned Citizens, *supra*.

<sup>48</sup> N.Y. Env'tl. Conserv. Law § 8-0101 *et seq.*

<sup>49</sup> CTM § 1.B.130 u 1-3.

<sup>50</sup> Concerned Citizens, *supra*.

<sup>51</sup> 6 NYCRR § 617.7(c)(2).

<sup>52</sup> *Id.*

Columbia has proposed to rezone a full 35-acre parcel in West Harlem yet it describes build plans for only 17 acres of this rezoned district.<sup>53</sup> Why is Columbia asking for such a large rezoning if it intends to develop less than half of this land? Does Columbia plan to reserve the remaining 18 acres for future build-up while evading scrutiny? This is exactly the sort of long-term impact and “broken up” environmental review that the *Concerned Citizens Court* decided the law forbids. The DCP cannot make a determination on the environmental impacts of the University's expansion project until and unless it reveals its true development plans.

Columbia has impermissibly segmented even the part of its build plan that it has chosen to reveal. The University wants to site seven acres of its proposed Manhattanville facilities under the Hudson River, to move the MTA's Manhattanville Bus Depot several stories underground, and build a cogeneration plant – all in an area that contains an active fault-line.<sup>54</sup> Yet Columbia has refused full disclosure of its specific plans for the expansion development. While Columbia's failure to be forthcoming has allowed the University to defer environmental review of major project components, this tactic has denied the DCP and other decision makers the opportunity to consider the development *in toto*, and thus to adequately consider all environmental impacts.

Although SEQRA permits segmentation in limited situations, the law requires that the lead agency must genuinely believe doing so is necessary; even then, the City must ensure that “the reasons for proceeding in a segmented manner [is] clearly stated, and [demonstrate] that the segmented review is no less protective of the environment than an unsegmented review,” and identify and discuss the related actions fully.<sup>55</sup> “Moreover, each of the segments must have independent utility and not commit the agency to continuing with the remaining segments.”<sup>56</sup> In spite of the clear guidelines provided by CEQR and SEQRA,<sup>57</sup> the DCP has entirely failed to take any of the required steps before allowing Columbia to carve up its expansion project and thus avoiding CEQR's mandated “hard look” at the project's adverse impacts. The DCP must require Columbia to revise its scope of work to include full disclosure of its development plans and require simultaneous review of all project components so that their environmental impacts can be adequately addressed.

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<sup>53</sup> DSOW at 1.

<sup>54</sup> DSOW at 3, 13, 46.

<sup>55</sup> CTM § 1.B.130 at 1-4.

<sup>56</sup> *Id.*

<sup>57</sup> See e.g., *Id.*, and SEQRA Handbook, New York State Department of Environmental Conservation [hereinafter *DEC* or *NYS DEC*] (1996).

## **H. Columbia's One-Sided Fiscal "Benefits" Analysis Obscures the True Economic Costs of Its Expansion to the Manhattanville Community and the City**

Columbia's draft scope claims that its development in Manhattanville would bring thousands of new jobs and spur a new Harlem renaissance. Columbia promises the project's operation alone will create some 1,203 jobs with the new campus expansion.<sup>58</sup> However, this claim does not stand up to close scrutiny. While the new campus will generate thousands of new jobs in their neighborhood, Manhattanville residents will not benefit.

Most of the positions that will be created for the operation of the new campus will require highly specialized technical training and education, which Manhattanville residents do not presently possess.<sup>59</sup> Even with a cursory analysis of Columbia's "promise" of increased employment opportunities for Manhattanville residents, Columbia's plans will only benefit Columbia affiliates. For one thing, 493 of Columbia's "new jobs" will be faculty positions<sup>60</sup> that will likely go to Columbia recruits from outside the community, likely from academic and industrial institutions in other states and perhaps even outside the U.S. An additional 265 jobs will be research positions<sup>61</sup> that will require graduate- or postdoctoral-level training, and these will also likely go to outside and/or foreign recruits. Of the remaining 445 jobs, 180 are officer-level administrative and 60 are librarian positions<sup>62</sup> that will also require specialized training and will likely be filled by transfer of Columbia's present workforce at other campuses or from outside the Manhattanville community. Columbia identifies another 108 positions as "other;" therefore the skill-level and applicant pool for this job category cannot be determined. That leaves only about 96 support, clerical, and technical staff positions<sup>63</sup> that may be available to Manhattanville/Harlem workers.

In addition to its assertion that Columbia's job creation power will virtually create an economic renaissance of West Harlem, Columbia has claimed that University spending will equally benefit the City and the community in the economic activity it will spur and the tax revenues it generate.<sup>64</sup> Columbia projects that construction, maintenance and operation alone would generate billions of dollars in economic activity in the City – the University will spend \$7.4 billion in construction-related activity over the 25-year

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<sup>58</sup> Letter from Maxine Griffith, Vice President of Government and Community Affairs, Columbia University to Jordi Reyes-Montblanc, Chair, Manhattan CB9, (Oct. 19, 2005), Attachment # 3.

<sup>59</sup> Caroline K. Bhalla et al., *supra*.

<sup>60</sup> Letter from Maxine Griffith, *supra*.

<sup>61</sup> *Id.*

<sup>62</sup> *Id.*

<sup>63</sup> *Id.*

<sup>64</sup> See e.g., *New Jobs and Economic Opportunities, Fact Sheet (New Jobs Fact Sheet)*, Columbia University, CB9 Meeting (Oct. 11, 2005), Attachment # 4

development period and \$1.7 billion a year to maintain and operate the new facilities.<sup>65</sup> The development would supposedly generate \$216 million dollars in construction taxes (to be divided between the City and the state) and \$62 million dollars annually in operational taxes thereafter.<sup>66</sup> With student and staff spending on local goods and community partnerships for additional programs and services that would develop new opportunities rounding out the roster, Columbia contends it will “revitalize” and “improve” West Harlem.<sup>67</sup>

Columbia exaggerates the economic “benefits” its expansion will bring to West Harlem, because its analysis assumes that the development is the only economic use that will be made of the area. To the contrary, Manhattanville already hosts a lively and eclectic mix of retail, manufacturing, and industrial activity. Furthermore, the EDC's Master Plan also advocates a rezoning of Manhattanville in order to accommodate more varied uses and diversification of the neighborhood's economic base.<sup>68</sup> What is more, the Master Plan would generate economic activity to equal that of Columbia's without the heavy toll on the environment and without the neighborhood's total dependency on Columbia as the single landowner and almost sole employer.

On the job creation front, despite the disingenuous claims Columbia has made at community meetings regarding its job training and professional development programs,<sup>69</sup> the jobs Manhattanville residents will be eligible for are often low-paying, low-skill jobs that have little or no opportunity for career and salary advancement. Even at that, this paltry number of “new jobs” does not even come close to the number of jobs that will be lost due to Columbia's displacement of existing and future businesses.

When the new waterfront park and the economic development that will accompany it are factored into the analysis, Columbia's empty promises whittles to a game of bait and switch. Alarmingly, Columbia's misleading claim of job creation actually hides a disturbing economic problem for the City and particularly the residents of Manhattanville. The City will lose a sizeable proportion of affordable housing units through direct displacement alone. The costs of relocating these residents will already be great, but the City will also have to contend with increased public health problems such as mental depression and respiratory maladies. On top of these, the City and the community will lose a major source of tax revenue. Through their tax dollars, present owners of residential and business property support City schools, street cleaning and maintenance work, and public safety services such as fire and police protection.

Because of its non-profit/education status, the lion's share of Columbia's development, which comprises academic research and University housing facilities, will be exempt from state property taxes under the NY Real Property Tax Law [hereinafter

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<sup>65</sup> *Id.*

<sup>66</sup> *Id.*

<sup>67</sup> DSOW at 4.

<sup>68</sup> Master Plan, *supra*.

<sup>69</sup> New Jobs Fact Sheet, *supra*.

RPTL],<sup>70</sup> even though the University will profit from lucrative biotechnology licensing contracts as an private research and development entity would. Permissible non-profit uses under Section 420-a have been read to include dormitories and campus housing.<sup>71</sup> Additionally, Columbia may even be able to obtain exemption from some of their taxable activities under many of the State and City incentives intended to draw private development in economically neglected areas.<sup>72</sup>

Development projects that are eligible for property tax exemptions ranging from those that create housing to those that create community facilities and businesses. Private development projects that create the prescribed number of low-income units or qualified arts and cultural facilities are exempt from state property tax.<sup>73</sup> Moreover, qualified newly constructed private multi-family dwellings are or can be exempt from state and/or local taxes for some time in the early part of their existence.<sup>74</sup>

Ordinarily, New York corporations and other business entities are liable for “a tax of one-twentieth of one per centum upon the amount of the par value of all the shares with a par value which it is authorized to issue and a tax of five cents on each share without a par value which it is authorized to issue, and a like tax upon any shares subsequently authorized.”<sup>75</sup> Additional taxes on some changes in the structure of an organization's corporate stock also apply when such changes occur.<sup>76</sup> Other business taxes will be lost. For example, the state levies a four-cent tax on each gallon of gasoline sold by relevant facilities.<sup>77</sup> Therefore, any tax income that would have been generated by displaced gas stations will be lost as well.

Because Columbia's presence in the project area will preclude tax-liable businesses from locating their operations there, the City and the Manhattanville community will be denied a major source of revenue. Despite the severity of its potential impact, Columbia can easily mitigate this problem; it can install programs to benefit the community. With its self-proclaimed unmatched power as the eighth largest non-governmental employer in New York City,<sup>78</sup> Columbia can at the very least implement the following measures: 1) provide job and skills training to qualify Manhattanville

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<sup>70</sup> NY CLS RPTL § 420-a (LEXIS through 2005 Sess.)

<sup>71</sup> Foundation for “A Course In Miracles”, Inc. v. Theodore 568 N.Y.S.2D 666, *app. den.* 78 N.Y.2d 856 (App. Div. 1991).

<sup>72</sup> Harlem is included in the federally designated Upper Manhattan Empowerment Zone. Businesses here are eligible for substantial tax relief for activities ranging employee taxes to purchases of material for building and repair. See generally, U.S. Department of Housing and Urban Development, Tax Incentives Guide for Businesses in Renewal Communities, Empowerment Zones, and Enterprise Communities. FY 2003 (2003).

<sup>73</sup> NY CLS RPTL §§ 420-a, b, and c. (LEXIS through 2005 Sess.)

<sup>74</sup> NY CLS RPTL § 421 *et seq.* (LEXIS through 2005 Sess.)

<sup>75</sup> NY CLS Tax § 180 (LEXIS through 2005 Sess.)

<sup>76</sup> *Id.*

<sup>77</sup> NY CLS Tax § 284 (LEXIS through 2005 Sess.)

<sup>78</sup> See e.g., New Jobs Fact Sheet, *supra*.

residents for the positions that will be created; 2) fund local school programs in critical skill areas such as communication, math, science, and computing; 3) give Manhattanville students access to its vast educational resources such as instruction from its eminent scholars or the use of its world-renowned libraries; 4) build affordable housing on the project site and make units available to Manhattanville residents; 5) fund/endow the operation and maintenance of the waterfront park and environmental education center thereon.

The measures available to Columbia to show its goodwill and willingness to become a participant in Manhattanville's civic life are only limited by its imagination; and yet Columbia makes no mention of any desire to explore any of them. If even a part of Columbia's goal in pursuing expansion into Manhattanville is to revitalize a formerly neglected community (as the draft scope boldly claims), Columbia should commit to implementing measures that will truly provide "public improvements" in West Harlem.

### **III. COLUMBIA'S FULL ENVIRONMENTAL IMPACT CANNOT BE DETERMINED BECAUSE THE DRAFT SCOPE'S PROJECT DESCRIPTION IS INCOMPLETE AND INADEQUATE**

SEQRA's fundamental policy is to inject environmental considerations directly into governmental decisionmaking.<sup>79</sup> In order to facilitate this, CEQR requires that project proponents submit a scoping document that identifies "in detail all topics to be addressed in the [Environmental Impacts Statement], including the proposed methods for study, possible alternatives to the proposed action, and mitigation measures. The scope must describe the proposed action in sufficient detail to allow the public and interested and involved agencies to understand it."<sup>80</sup> Yet CEQR and SEQRA are more than disclosure statutes;<sup>81</sup> the purpose of the Environmental Impacts Review process, which is the heart of SEQRA, is to compel the lead agency to seriously consider "'the relevant areas of environmental concern' and take a 'hard look'" at them.<sup>82</sup> That is, decisionmakers must fully consider the environmental consequences of the project and the alternatives identified in the Environmental Impact Statement [hereinafter *EIS*].<sup>83</sup> Moreover, whatever the lead agency decides about the sufficiency of a project's EIS, it "must set forth a reasoned elaboration for its determination."<sup>84</sup> Accordingly, the CTM delineates a specific set of technical areas that must be addressed and requires that the draft scope define the study areas and analysis methodologies that will be used for each of them.<sup>85</sup> Additionally, the CTM anticipates that a project could adversely affect a

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<sup>79</sup> *Matter of Coca-Cola Bottling Co. v Bd. of Estimate (Coca-Cola)*, 72 N.Y.2d 674, 679 (App. Div. 1988).

<sup>80</sup> CTM § 1.B.230 at 1-7.

<sup>81</sup> *In the Matter of the Town of Henrietta et al. v. Dept. of Env'tl Conserv. of the State of New York (Town of Henrietta)*, 430 N.Y.S.2d 440, 445 (App. Div. 1980).

<sup>82</sup> WEOK, *supra*.

<sup>83</sup> *Town of Henrietta, supra*, at 446.

<sup>84</sup> *Matter of Chemical Specialties Mfrs. Assn. v. Jorling (Chemical Specialties)*, 626 N.Y.S.2d 1, 9 (App. Div. 1995); *Coca-Cola Bottling Co., supra*, at 680.

<sup>85</sup> CTM § 1.B.230 at 1-8.

community in a way not considered by the prescribed technical areas but nevertheless requires an analysis of this impact.<sup>86</sup>

Columbia's project description is woefully inadequate and incomplete. The draft scope spends an inordinate amount of time discussing in a lyrical narrative the history of Columbia, its self-proclaimed pre-eminence in the academic and social life of New York City, and its supposed benevolent purpose of revitalizing Manhattanville in order to allow West Harlem residents to participate in the economic renaissance that has swept over the City but evaded this section.<sup>87</sup> The pre-amble itself paints a utopian picture of the intended land uses, projected productivity, and community interactions.

The reality is that the project that Columbia has actually planned does not deliver on this empty promise, but the incompleteness of the draft scope makes evaluation of the project very difficult. Once Columbia gets passed the flowery language of its introduction and gets into the description of its development components, the type methodology of analysis that will be used to study their environmental impacts, and identifying mitigation and alternatives, the literary value of its discussion degrades into technical jargon that evades any level of specificity. The project description itself offers little more than discussions of parades of incomprehensible numbers describing FAR, building heights, and zoning designation, with the occasional alarming but incomplete and confusing revelation of facilities such as a power cogeneration plant, a steam and chilled water plant, and bioresearch laboratories. Without a clear and detailed discussion of the actual planned structures and specific uses therefore, the true environmental impacts of this development will remain hidden and thus impossible to evaluate.

The proper identification of mitigation and alternatives also requires a full description of the project including "its background, purpose, public need and benefits" because this information sets the action in its full context.<sup>88</sup> Columbia claims that in addition to fulfilling its need for additional space, a major impetus for its choosing West Harlem as an expansion site is that the University wants to facilitate West Harlem's participation in the economic renaissance that has largely evaded this neighborhood.<sup>89</sup> Yet, the project components described in the draft scope seems to focus entirely on Columbia's needs. The draft scope discusses facilities – including bioresearch facilities, galleries and performance space for university activities, teaching and classroom facilities that will serve Columbia students and staff, office facilities for Columbia's administrative staff, and support facilities that supply and serve Columbia activities – that will only be accessible by and for the benefit of Columbia affiliates. With this focus, obviously, the only alternatives and mitigation that can be identified must fit within a Columbia-oriented framework. However, it also serves to marginalize Columbia's other claimed objective – that of benefiting West Harlem, because a project that accomplishes this goal will look very different from one that only fulfills Columbia's space needs.

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<sup>86</sup> *Id.*

<sup>87</sup> DSOW at 3-10.

<sup>88</sup> CTM § 1.B.241.3 at 1-10.

<sup>89</sup> DSOW at 1, 7-8.

In order to support its assertions of facilitating West Harlem's economic growth, Columbia makes sweeping statements that its development will be consistent with EDC's revitalization plans, "and fulfill[] the vision of the community."<sup>90</sup> Upon closer examination, these insincere contentions are born of Columbia's, by now familiar, tactic of picking and choosing components of the EDC's plans that fit within its own ambitions, rather than trying to fit its plan into that of the community's. Still, nowhere in the draft scope are the actual needs of the Manhattanville community considered. The "consistency" Columbia speaks of merely describes those components of the Master Plan that benefit its expansion designs. Accordingly, the draft scope only discusses the waterfront park (which is already underway), transportation improvements, and added building bulk – all of which fit very nicely with Columbia's plans.<sup>91</sup> However, Columbia ignores the EDC's intention that Manhattanville's development should be a community-oriented integration of public gather places coexisting with commercial and educational facilities that will encourage further "economic development of the West Harlem neighborhood, job creation, local entrepreneurship and the creation of retail corridors."<sup>92</sup> The EDC's plan calls for an iterative process that develops "a sequence of individual small-scale parcels over time with maximum flexibility and community input."<sup>93</sup> Moreover, the EDC has determined that, although development of the area around the waterfront should provide connectivity with the retail activities of the Upper Manhattan Empowerment Zone [hereinafter *UMEZ*], Manhattanville should not be developed into a "fictional 'festival' shopping" place.<sup>94</sup>

If Columbia truly intends to provide the economic engine in the revitalization of Manhattanville and West Harlem, it should do more than allow armchair consultants to propose economic measures that are convenient for Columbia and serves its public relations needs. To be the true neighbor that Columbia supposedly aspires to, it must work with community residents and leaders to identify and analyze project alternatives and/or mitigation measures that will achieve the community's vision as well as its own goals – without exacting a heavy cost on the environment, health, and economic well-being of West Harlem residents.

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<sup>90</sup> See e.g. "Project Description" discussion in *Id.* at 5-8.

<sup>91</sup> *Id.* at 7-8.

<sup>92</sup> Master Plan at 33.

<sup>93</sup> *Id.*

<sup>94</sup> *Id.* at 34.

#### **IV. THE CEQR TECHNICAL MANUAL DEMANDS THAT COLUMBIA ADDRESS SPECIFIC TECHNICAL AREAS IN ITS ENVIRONMENTAL IMPACT ANALYSIS**

CEQR requires City agencies to assess, disclose, and mitigate the environmental consequences of their decisions to fund, directly undertake, or approve an action.<sup>95</sup> This process is intended to compel decision makers to deliberate seriously on the toll that development can have on a range of issues important to the environment.<sup>96</sup> Consequently, CEQR drafters have defined specific technical areas that need to be addressed and detailed a procedure by which decisionmakers can make this difficult determination. The level of specificity required of the analysis naturally depends on the type and scope of the development under consideration, but the CEQR Technical Manual identifies the minimum elements that must be studied.<sup>97</sup>

##### **A. Columbia's Expansion Plans Are Inconsistent with New York City's Land Use Needs and Public Policy Because It Will Demolish Publicly Accessible Affordable Housing While Adding Density to an Area That Is Already Caught in an Affordable Housing Shortage**

The City employs land use and zoning regulation to control growth, density, bulk of development, and to meet community demands for facilities such as housing, City sanitation and waste management services, health, and recreation. Important factors in determining the level of detail required in the EIS analysis of a project's impact on land use and zoning provisions is its size and whether it seeks to introduce new uses into the area in question. The CEQR Technical Manual demands a very detailed analysis where the project will affect a broad area of land and/or introduces entirely new uses into the area thus making former uses obsolete.<sup>98</sup> The CTM also requires the project applicant to analyze the proposed development's consistency with the City's policy for determining specific land uses and zoning laws. The CTM provides in-depth guidance on how the analysis should be structured and the type of information that must be gathered.

Of paramount importance to the land use and/or zoning analysis is the determination of the "study area."<sup>99</sup> Although CEQR generally recommends a ¼- to ½-mile study area for some projects that may be anticipated to have both primary and secondary effects, such as building a single 20-story office building,<sup>100</sup> the regulations explicitly state that a larger study area is appropriate in cases where the planned development has a more wide-ranging influence on land use patterns or regulations.<sup>101</sup> Consequently, the CTM guidance requires that where a project's impact on land use and

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<sup>95</sup> CTM § 1.B at 1-2.

<sup>96</sup> *Id.* § 1.A at 1-1.

<sup>97</sup> *Id.* § 1 at 1-1.

<sup>98</sup> *Id.* § 3A.210 at 3A-5.

<sup>99</sup> *Id.* § 3A.311 at 3A-6.

<sup>100</sup> *Id.*

<sup>101</sup> *Id.*

zoning is intimately related to its impact on other technical areas, the study area must be enlarged accordingly.<sup>102</sup> In determining the appropriate study area, only size, not shape, should be considered; indeed the CTM guidelines specifically anticipates that the shape of the study area may be irregular if needed to capture the full range of neighborhoods that will be affected by a development.<sup>103</sup>

Columbia proposes to build a 17-acre campus on the West Harlem waterfront. The proposed plans call for changing a formerly industrially zoned area to a mixed-use zone with uses ranging from biological research to theater/performing arts, from residential to medical services, and from hotel and conference centers to energy cogeneration with a steam and chilled water plant. Therefore, Columbia's development will both result in a physical presence of unprecedented magnitude and cause a radical change in the City's land use/zoning regulation that make former uses obsolete.

Under CEQR, Columbia is required to perform a detailed analysis of the area's land use patterns and zoning laws. By its own admission, one of Columbia's primary objectives in choosing West Harlem as its expansion site is to provide connectivity between its Morningside and Washington Heights campuses.<sup>104</sup> Therefore, the proper north-south borders of the study area should be the full three-mile stretch between the campuses, from 110<sup>th</sup> Street to 170<sup>th</sup> Street, rather than the ¼ to ½ mile presently under study. Moreover, because Columbia's proposed use will likely attract higher-income students, staff, and faculty members into West Harlem in general, the proper east-west border of the study area should be from 12<sup>th</sup> Street to Malcolm X Boulevard, not the area bordering the waterfront to Broadway, as proposed in the draft scope. This constitutes a reasonable "walking distance" to the new campus facilities, thus the area most likely to experience the highest rent increases (and consequent secondary displacement) due to Columbia's presence. Finally, in drawing its study area perimeter, Columbia should consider the project's impact on entire neighborhoods and not allow imaginary assumptions that neighborhoods form around some regular shape, like a circle, to define its study area.<sup>105</sup>

Another important facet of a project's environmental impact analysis is the study of the development's consistency with the City's land use policies, including revitalization programs and resource protection.<sup>106</sup> The EDC, in collaboration with community leaders, residents, and government offices, has developed a Master Plan for the development of the waterfront and the area surrounding it, which includes the Project site.<sup>107</sup> Columbia should address how its expansion development fits into the EDC's overall plan rather than choosing to discuss only those project components that are consistent with the Master Plan and ignoring those that may actually hinder the objectives

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<sup>102</sup> *Id.*

<sup>103</sup> *Id.*

<sup>104</sup> DSOW at 9.

<sup>105</sup> CTM § 3A.311 at 3A-6.

<sup>106</sup> *Id.* § 3K.100 at 3K-1.

<sup>107</sup> See generally, Master Plan.

of the Master Plan, the approach taken by the current draft scope. For example, the EDC envisions that the West Harlem Waterfront should be developed for diverse uses that integrate community-oriented activity and education with sustainable job-generating businesses and retail. Importantly, the Master Plan aims to avoid turning this area into a “festival” shopping place.<sup>108</sup> By contrast, Columbia intends to devote the commercial portions of its development to “ground floor retail” facilities<sup>109</sup> that sounds like difficult to sustain restaurants and shopping ventures – exactly the opposite of the community’s vision for this area. Therefore, Columbia must revise its draft to explain how its diametrically inconsistent proposal will impact the community’s economic and cultural development.

Given the public interest at stake in this application’s proposal to rezone of a major portion of West Harlem,<sup>110</sup> the City should demand that Columbia perform the necessary analysis with the legally required level of detail and specificity. If Columbia’s application for the zoning change is approved, future development in this area will be considered “as of right,” which in most cases means that future construction that fall within the same zoned use will require no further environmental impact review; therefore, the City will have limited, if any, ability to control its development.

**B. Columbia’s Expansion Will Adversely Impact Socioeconomic Conditions in Manhattanville by Displacing Residents, Workers, and Businesses**

The CTM requires a detailed analysis of socioeconomic impacts where the project would result in direct or trigger or accelerate socioeconomic trends that would in turn cause displacement of residents, businesses, and community institutions enough to change a neighborhood’s character.<sup>111</sup> If the project’s impact on these factors is significant, the project applicant must develop mitigation or alternatives to reduce, eliminate, or avoid this impact.<sup>112</sup> Although Columbia’s actual build plan for the project site is incompletely and vaguely described, one thing is clear – it plans to conduct expansive demolition of existing buildings and excavate most of the grounds within the project site in order to install underground support, storage, and research facilities.<sup>113</sup> Therefore, Columbia’s expansion will cause the direct displacement of residents, businesses, and community institutions that will have to be moved out of the Manhattanville neighborhood. Additionally, through land speculation and increased housing and facilities demand from higher-income populations, Columbia will also cause gentrification, and thus extensive indirect displacement, of the Manhattanville community.

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<sup>108</sup> *Id.* at 34.

<sup>109</sup> DSOW at 11.

<sup>110</sup> See discussion on the project’s commitment of resources, *infra*.

<sup>111</sup> CTM § 3B.400 at 3B-15.

<sup>112</sup> *Id.* § 3B.500, 600 at 3B-15, 16.

<sup>113</sup> DSOW at 10-15.

**1. Columbia's Expansion Will Decrease the Availability of Quality, Affordable Housing and Displace Thousands of Manhattanville Residents And Their Families**

As developers purchase more and more of the City's land for luxury condominiums and other residential developments, the availability of quality, affordable housing is quickly becoming one of the biggest concerns for the residents and government of New York City.<sup>114</sup> Indeed, Mayor Bloomberg has formed a task force in order to study and find solutions to this very serious housing shortage.<sup>115</sup>

The lack of quality affordable housing is particularly pronounced in middle to low-income communities such as Manhattanville,<sup>116</sup> where the median household income is \$16,896<sup>117</sup> and at least 22.1% of the households pay more than 50% of their monthly income on rent.<sup>118</sup> With larger family sizes and a greater proportion of residents who are seniors (and senior heads of household) than most other communities in New York City, Manhattanville residents are especially vulnerable to increases in housing costs. Columbia's plans to demolish a number of currently residential buildings to make room for its development of academic and bioresearch facilities will directly displace a sizeable proportion of West Harlem residents. Although Columbia intends to develop some of its Mixed-Use site for residential use, this housing will only be available to Columbia faculty and research staff, not current Manhattanville residents. The DCP must require Columbia to adequately address the housing shortage it will create and properly analyze mitigation and alternative options that will reduce, eliminate, or avoid this problem.

**a. Columbia's Expansion Will Directly Displace Hundreds of Manhattanville Families and Residents Because Its Plans Call for the Demolition of Residential Buildings Without Providing Replacement Housing and Relocation Assistance**

**Analytic methodology** – CEQR mandates that a detailed analysis should be conducted where it would be obvious from the outset that a significant impact on residential, business and institutional displacement would result from the activities of a development project.<sup>119</sup> To assist applicants in their analysis, the CTM provides specific stepwise guidance on the type of information needed, how it should be gathered, the

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<sup>114</sup> Janny Scott, *Mayor Wins Wide Praise for Initiatives on Housing (Initiatives on Housing)*, NY Times, Nov. 4, 2005 at B1; Attachment # 5.

<sup>115</sup> *Id.*

<sup>116</sup> Janny Scott, *supra*.

<sup>117</sup> (Thom/West (2005), available at <http://www.westlaw.com> in the POPDEMO database.)

<sup>118</sup> Caroline K. Bhalla et al., *State of New York City's Housing and Neighborhoods 2004*, Furman Center for Real Estate and Urban Policy, School of Law, and Robert F. Wagner Graduate School of Public Service, New York University (2004).

<sup>119</sup> CTM § 3B.300 at 3B-1.

analytical methodologies that should be used, and criteria to be used in determining significance.<sup>120</sup> Accordingly, the CEQR Technical Manual recommends a 3-step analysis of the study area's population demographics.

**Step 1** – As a first pass, Columbia may rely on secondary data to arrive at the population profile of the residents who will be displaced from the Project site. To further define the displaced population, the CTM recommends the collection of primary data through field visits and on-site interviews.<sup>121</sup>

Interviews are particularly important in Manhattanville because immigrants make up a large proportion of the tenant population of the existing housing stock,<sup>122</sup> and many of these individuals are undocumented. These residents have traditionally lived in the worst housing, too fearful of government investigations into their immigration status to report even the most severe housing violations. Additionally, undocumented immigrants are more likely to live in very crowded conditions – beyond the stated capacity of a single apartment (as would be reported in real estate or fire insurance documents) – because they prefer to seek shelter with relatives who already have secured housing rather than risk exposure to government authorities by obtaining their own apartment. Most landlords are very aware that a two-bedroom apartment, rented to an immigrant family, could actually be occupied by many more individuals than the typical 4-person family. But the residents themselves are unlikely to respond to U.S. Census surveys or even to make their presence known to realtors or city housing agencies, because they fear that any reporting would backfire from the increasing government hostility to undocumented immigrants. However, this information would be available through in-field surveys and first-hand interviews conducted by individuals who are able to gain the community's trust, such as a person who speaks their language or who is also an area resident.

In determining the population characteristics of the residents who will be displaced in the Manhattanville Project area, field visits and on-site interviews are particularly important tools. Rote reliance on secondary sources such as the U.S. Census or City housing data, as Columbia proposes to do, would not reveal the crucial yet complex characteristics – such as household size, per capita income, occupancy rates, and density – of this community.

**Step 2** – The CTM requires that project applicants compare the characteristics of the displaced residents with those of the general population living in the study area in order to determine whether the displaced residents comprise a disproportionately high number of individuals from a particular demographic category (e.g., low-income households or elderly persons).<sup>123</sup> The analysis must consider whether the “loss of these residents would affect the basic mix of the study area.”<sup>124</sup>

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<sup>120</sup> *Id.*

<sup>121</sup> *Id.* § 3B.331 at 3B-2.

<sup>122</sup> Caroline K. Bhalla et al., *supra*.

<sup>123</sup> CTM § 3B.331 at 3B-3.

<sup>124</sup> *Id.*

Although the neighborhoods surrounding Manhattanville are comprised of a culturally and economically diverse population, residents of the Project area itself are primarily low-income racial minorities and immigrants. Many of these residents are families with senior members and/or senior heads of household who live on fixed incomes and participate in government housing assistance programs of one type or another. The loss of these residents as a result of Columbia's direct displacement of current residents will cause a radical change in the character and feel of the neighborhood, particularly because Columbia will introduce a new population of residents comprised of high-income, professionals who are members of the ethnic and racial majority to Manhattanville.<sup>125</sup>

**Step 3** – The applicant must examine the prevailing trends in vacancies and rental and sale prices of units in the Project site and within the study area to determine whether: 1) displaced residents may be relocated within the study area; 2) the type of housing to be displaced is a defining element of the neighborhood character; and 3) the removal of on-site housing would contribute to, accelerate, or create an indirect displacement trend.<sup>126</sup>

By Columbia's own admission, the sheer size and scope of its expansion project will have an unprecedented physical, cultural, and economic impact on the face of West Harlem for generations to come.<sup>127</sup> The University also concedes that its project site contains residential units that will become displaced (e.g. demolished) in order to make way for new Columbia facilities.<sup>128</sup> Therefore, it is surprising that the University all but ignores the CTM guidance, proceeding instead to describe its strategy for tackling the project's socioeconomic impact, arguably the most complex and difficult of the CEQR technical areas, as if Columbia's consultants were conducting a preliminary assessment rather than the detailed analysis required by CEQR.

Columbia's development will demolish 33 units of residential housing that are involved in the Tenant Interim Lease [hereinafter *TIL*] low-income homeownership program. Because displaced residents from these units are low-income and rely on the program to continue to live in Manhattanville, which is closer to their job-sites, schools for their children, and recreational facilities, the removal of this housing stock will force residents to move out of this neighborhood, and perhaps Harlem in general. Therefore, Columbia's expansion will have a tremendously negative impact on the character of the Manhattanville neighborhood.

As Columbia's development begins, land speculation will undoubtedly intensify, resulting in a concomitant rise in housing prices. Moreover, the expansion's introduction of high-income residents and retail services will accelerate West Harlem's gentrification.

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<sup>125</sup> The draft scope discloses that residential buildings will be developed for housing faculty members and graduate and doctoral research staff. DSOW at 3.

<sup>126</sup> CTM § 3B.331 at 3B-4.

<sup>127</sup> DSOW at 7-8.

<sup>128</sup> *Id.* at 27.

These forces will exacerbate the shortage of affordable housing that Columbia will have created with the removal of on-site housing. This is a disturbing trend that Columbia must address in its housing impacts analysis.

**Characterizing the displaced population** – CEQR requires the project applicant to provide detailed information – including population size, sex, age, income, household number and size, family status, poverty status, education, whether occupants are renters or owners, car ownership, place of work, mode of work-trip travel – on current residents and housing stock of the impacted area.<sup>129</sup> These data will serve as the baseline that must be used in the determination of the development's socioeconomic impact. Therefore, the applicant must also collate this demographic profile by relevant categories including, among others, income per family size and proportion of families with senior heads of households in order to determine whether the project area encompasses groups that are particularly vulnerable to displacement. Additionally, because many Manhattanville residents are dependent on government regulations and/or programs designed to provide renters with rental assistance or protection from rent increases, one of the most important CEQR demographic determinations in this area is whether the residents who will be displaced are renters or owners of the property on which they live.

Columbia takes a glib approach to the required CEQR analyses in its determination of demographic conditions in Manhattanville. Whereas the CTM prescribes a thorough investigation,<sup>130</sup> Columbia's planned analysis is little more than a skeletal sketch of the required information with virtually no discussion of how it plans to conduct the necessary surveys.<sup>131</sup> To wit Columbia claims it will determine residential demographics and assess the housing characteristics of Manhattanville "to the fullest extent permitted by available data and field investigations,"<sup>132</sup> but it gives no information on how this information will be gathered or what is the "fullest extent" of its efforts to obtain a complete profile of this community. Columbia's method will altogether miss the complexity of this community's social fabric and inadequately address the residents' vulnerability to displacement. Furthermore, Columbia's study plan makes no mention of the inevitable impact on neighborhood character that would result from the loss of so many low-income residents who are primarily ethnic and racial minorities and their replacement by higher-income majority residents. Displacement of these residents is of particular concern because CEQR defines a development project as having a significantly adverse impact on an area if it eliminates a low-income or ethnically diverse neighborhood and replaces it with an affluent, low-diversity one.<sup>133</sup>

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<sup>129</sup> CTM § 3B.110 at 3B-1.

<sup>130</sup> Including determination of the project area's existing conditions, future condition without the Action, future condition with the Action considering the unique characteristics of the affected population, housing, businesses, institutions, and industries that presently occupy the area. *Id.* § 3B.200 *et seq.*

<sup>131</sup> DSOW at 27.

<sup>132</sup> *Id.*

<sup>133</sup> CTM § 3B.321.1 at 3B-4.

Columbia's expansion will decrease the availability of affordable housing through demolition of a number of affordable housing units. These will be replaced with University facilities accessible only to higher-income Columbia affiliates. Against the backdrop of affordable housing loss is Manhattanville's low-income community, which is particularly vulnerable to displacement and high housing costs. While the hope is that many of these residents can find suitable housing nearby, the reality is that because many of their rent assistance programs (such as the state Mitchell-Lama program and the federal Section 8 housing subsidies) are scaled to a set percentage of the prevailing market rates, the expansion development will price many residents out of Manhattanville altogether.<sup>134</sup> Yet Columbia disingenuously dresses its analysis of this very severe problem in a discussion of government "relocation benefits" available to displaced landowners and residential tenants.<sup>135</sup> This approach misses the mark. At issue is not whether displaced residents would have the social safety net of government benefits to fall back on in order to obtain housing elsewhere. Rather, it is whether Columbia's plans would deny the area's long-time residents of the rental subsidies and assistance that have allowed them to live near their jobsites and the community on which they have come to rely. Low-income communities have historically been pushed further and further to the periphery of cities and neighborhoods where housing conditions are poor and few social and family support services exist. Therefore, it is vital that the required demographic information is gathered as completely and thoroughly as possible in order to allow the public and the City to evaluate the severity of the Project's adverse impact.

**Future No Action Condition** – CEQR mandates that project applicants assess the future demographic characteristics of a study area.<sup>136</sup> Accordingly, the applicant must analyze existing information, including planned developments, and emerging trends to determine whether: 1) the housing stock in the study area is likely to increase or decrease; 2) rents are likely to stabilize or increase; 3) population demographics and land use are likely to change; 4) relocation is likely and possible; and 5) the displaced residents' information would change (e.g., rent increases, or family size increases).

The City is presently in the midst of a growing housing shortage, of particular concern is the availability of affordable housing for middle- to low-income families.<sup>137</sup> Therefore, the analysis of the future condition without the Project is particularly important to our ability to evaluate the impact of the Columbia Expansion on the displacement of residents within the Project area. Columbia has, however, violated CEQR's requirement that an analysis of the future housing condition without the project must be completed,<sup>138</sup> thus making comment difficult.

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<sup>134</sup> Daniel J. Stern, *Mitchell-Lama Housing: What Is It and How Does It Compare to Mental Health Housing?*, New York City Voices (2003); New York State Division of Housing and Community Renewal, *Mitchell-Lama Housing Program*, Attachment # 6, also available at <http://www.dhcr.state.ny.us/ohm/progs/mitchlam/ohmprgmi.htm>.

<sup>135</sup> DSOW at 27.

<sup>136</sup> CTM § 3B.331 at 3B-6.

<sup>137</sup> *Initiatives on Housing, supra*.

<sup>138</sup> CTM § 3B.331.2 at 3B-9.

Columbia's disregard of the future housing condition analysis is very telling of the way it views the expansion's impact on the West Harlem community and residents. Clearly, Columbia is not and does not intend to be the good neighbor it purports to be. Columbia's expansion, planned without any input from the community, will actually hurt the West Harlem residents by demolishing a number of residential buildings thus removing them from the housing stock. Although not properly analyzed in the draft scope, the EDC's Master Plan<sup>139</sup> exists as an alternative to Columbia. Under the Master Plan, the project area will be developed in order to increase economic activity and opportunities for the benefit of West Harlem residents. Under this plan, the existing housing stock would remain intact. Moreover, because the plan includes a mechanism for flexibility and re-evaluation with community input,<sup>140</sup> affordable housing conditions could be improved with the development of additional affordable and/or low-rent units. Columbia must revise its draft scope to address anticipated future condition without the expansion project that includes the housing condition that will likely result from the EDC's Master Plan.

**Future Action Condition** – CEQR requires project applicants to compare the housing availability, costs, and population profile in the scenario of the “future action condition” with that of the “future no action condition” in order to determine whether the project will have a significant impact on direct residential displacement.<sup>141</sup> A project has a significant adverse impact under CEQR if it will cause a substantial number of units to be displaced and “the loss of the existing residential population or the types of units being demolished would result in a significant change in the socioeconomic profile or housing character of the study area.”<sup>142</sup> Additionally, if the displaced residents will represent a sizable proportion (generally greater than 5%) of the study area in the future and a population with a similar demographic profile would not be able to relocate within the project area, then the project may contribute to a significant impact on neighborhood character.<sup>143</sup>

Columbia concedes that its expansion development will likely have a significantly adverse impact on the socioeconomic condition of West Harlem.<sup>144</sup> This is particularly true in the area of direct residential displacement. Columbia seems to imply that the future action condition will replace the demolished housing stock with additional housing, and thereby eliminate the impact on availability of housing facility in the project area.<sup>145</sup> However, Columbia's planned residential buildings will only be available to its affiliates<sup>146</sup>, and not to current residents whose needs are the actual targets of the required

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<sup>139</sup> Master Plan, *supra*.

<sup>140</sup> Master Plan, *supra*, at 33.

<sup>141</sup> CTM § 3B.331 at 3B-7.

<sup>142</sup> *Id.*

<sup>143</sup> *Id.*

<sup>144</sup> DSOW at 26.

<sup>145</sup> *Id.* at 24.

<sup>146</sup> Graduate students, faculty, and other employees. *Id.*

CEQR analysis. Moreover, Columbia altogether ignores any discussion of the fact that the future action condition would exclude a sizeable portion of the current Manhattanville residents and thus radically change the ethnic, cultural, and cultural mix of this neighborhood. Columbia must revise its draft scope to describe plans for a proper analysis of the development's impact on direct residential displacement in order to allow decision makers to evaluate the extent of the adverse impact that Columbia's expansion will have on this community.

**Public Health** – The CEQR Technical Manual specifically provides that project proponents must study the public health impacts of their project.<sup>147</sup> Because public health is a field that evolves swiftly, the CTM does not prescribe study methodologies for its analysis as it does with other technical areas.<sup>148</sup> Rather, the project proponent's methods for these studies can be included in the analysis of the environmental impacts of the individual technical areas.<sup>149</sup>

Housing displacement can have tremendous impacts on the health of individuals and families that are forced to move from their neighborhood, away from the things that are most familiar to them. This phenomenon is known as “root shock.”<sup>150</sup> Displaced children experience stress that often goes unrecognized as such but nevertheless may result in severe consequences.<sup>151</sup> Likewise, adults who are displaced suffer from similar from emotional imbalance.<sup>152</sup> Moreover, the loss of supportive family and community relationships can increase stress and stress-induced illnesses.<sup>153</sup> This is because strong social relationships and community cohesion are protective of health in multiple ways. Neighbors, friends, and family provide material as well as emotional support. This support, whether perceived or real, can buffer the impact of stressful events by contributing to an increased sense of self-esteem and value.<sup>154</sup> Thus, individuals who have fewer social contacts (e.g. unmarried, no friends or family nearby, etc.) have twice the risk of early death.<sup>155</sup> This is true regardless of the existence of risk factors such as race, income, smoking, obesity, and exercise activity.<sup>156</sup> Moreover, the sense of loss is felt by both residents who are forced to move away from their neighborhoods and those who remain.<sup>157</sup> The economic ripple effects of these negative outcomes of displacement

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<sup>147</sup> CTM § 3T.100 at 3T-1.

<sup>148</sup> *Id.*

<sup>149</sup> *Id.*

<sup>150</sup> See generally Mindy Fullilove, *ROOT SHOCK* (2004).

<sup>151</sup> Including grade repetitions, school suspensions, and emotional and behavioral difficulties at home and at school. *Id.*

<sup>152</sup> They report an increased sense of isolation, increased fear of crime, decreased sense of belonging and feelings of safety, and decreased involve in community affairs – all of which leads to a stigmatization of an area as a bad place to live. *Id.*

<sup>153</sup> *Id.*

<sup>154</sup> *Id.*

<sup>155</sup> *Id.*

<sup>156</sup> *Id.*

<sup>157</sup> *Id.*

are easily predictable and very damaging to the continued productivity and health of this community and its residents.

**b. Columbia's Expansion Will Displace Thousands of Manhattanville Families Who Will Be Forced to Move Away from Their Homes and Neighborhoods Because of Sharp Increases in Rent and Housing Costs**

CEQR requires the assembly of a detailed profile of the residents who would be vulnerable to indirect displacement by the implementation of a development plan.<sup>158</sup> Because this profile will be used to identify populations vulnerable to displacement (both primary and secondary), the demographic analysis must also identify key distinctions that make subgroups unique. The CEQR guidelines anticipate that secondary sources may paint an incomplete picture of the true diversity in on-the-ground conditions and specifically call for supplementation with primary investigations of in-field observations and personal interviews.<sup>159</sup> Although the CTM does not require personal interviews with residents in obtaining the "existing condition" population and housing profile, CEQR's ultimate mandate is the development of complete demographic and housing profiles.<sup>160</sup> It stands to reason that development applicants like Columbia must use whatever methods are necessary to gather the required information.

Columbia's current study plan is at best incomplete and a rote yet selective recitation of the CEQR guidelines, and at worst a confusing maze of methodologies that forces the reader to conduct a virtual "treasure hunt" in order to piece together its plans. Moreover, the study plan violates its CEQR mandates by altogether ignoring the legally required mitigation and project alternative analyses, even though CEQR demands that development applicants identify and analyze mitigation and alternatives for each technical area.

**Study methodology** – From what little clarity we can gather of Columbia's study plan, it will collect demographic data "to the fullest extent by available data and field investigations." In the previous section, Columbia states it will rely on U.S. Census Bureau statistics as a source of available data but provides no discussion of the type of field investigations it will conduct. On the other hand, field studies that include in-field observations and personal interviews with residents are crucial to develop the required profile with any level of completeness, because government surveys fail to capture the true character of neighborhoods around the Manhattanville study area.<sup>161</sup>

The area around Columbia's planned development is home to residents who, for many reasons, have escaped government attention. After decades of neglect and abusive treatment such as racial profiling, many residents have become suspicious of government

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<sup>158</sup> CTM § 3B.332 at 3B-10 to 3B-11.

<sup>159</sup> *Id.*

<sup>160</sup> *Id.*

<sup>161</sup> See discussion of direct displacement, *supra*.

inquiries into their personal lives. Even gathering data as seemingly innocuous as information on age, income, or employment status may meet with resistance if done by “outsiders” to the community.

Layered onto this lack of trust is the fact that many residents who live around the Project area are undocumented immigrants, who have traditionally avoided government interaction. Traditionally, undocumented immigrants have lived in the worst quality housing and are most vulnerable to high housing costs. Because of housing shortages, low paying jobs, and difficulties with transitioning into American life, immigrants are more likely to seek shelter with relatives who already have housing in the United States. Secured in the knowledge that an undocumented tenant is less likely to know his/her rights and less likely to seek legal redress with government housing authorities, landlords exploit their vulnerability by overcharging on rent and neglecting necessary but basic repairs. Thus, overcrowding is another typical, yet serious, concern facing residents in the Manhattanville study area. Most landlords are very aware that a two-bedroom apartment rented to an immigrant family could actually house up to twelve or more occupants.

Like their immigrant neighbors, many residents of the Manhattanville study area are low-income or living at (or below) poverty level.<sup>162</sup> Due to these financial constraints, many tenants are unable to relocate to better quality housing, and with no threat of vacancy, owners have less incentive to make repairs. WE ACT's Healthy Homes Campaign has already illustrated that poor quality housing correlates with poor health outcomes.<sup>163</sup> Low-income residents are more likely to suffer from a host of disease conditions including asthma and other respiratory illnesses, obesity, heart disease, type-2 diabetes, high infant mortality, and a host of other housing-related maladies such as pesticide and toxic mold poisoning.<sup>164</sup>

**Rising housing prices** – Columbia's expansion will directly displace some 44 low- to moderate-income units, indirectly affect 3300 subsidized units, and, through gentrification, displace residents who are dependent on a host of other City-rent-regulated and federally subsidized housing facilities within just the ¼- to ½- mile study area alone,<sup>165</sup> to say nothing of other parts of West Harlem that Columbia should actually

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<sup>162</sup> Census Bureau data, *supra*.

<sup>163</sup> WE ACT, Healthy Homes Newsletter, 2004; *Healthy Homes Handbook: WE ACT's Guide to a Clean, Energy-Efficient, Environment*, WE ACT (2003); *Housing is a Health Issue, Fact Sheet*, Alliance for Healthy Homes; *Housing is an Environmental Issue, Fact Sheet*, Alliance for Healthy Homes, Attachment # 5.

<sup>164</sup> *Low Income, Not Race or Lifestyle, Is the Greatest Threat Health (Low Income)*, NATIONAL PROGRAM PROJECT REPORT (The Robert Wood Johnson Foundation, Princeton, N.J.), Jan. 2001, available at <http://www.rwjf.org/reports/grr/026422.htm>, Attachment # 5.

<sup>165</sup> Caroline K. Bhalla et al., *supra*, at 131; Tanveer Ali, *Harlem Building Ends Low Rent Program: Owner of 3333 Broadway to Terminate Participation in Mitchell-Lama*

analyze. In fact, the owner of 3333 Broadway, a residential building that has been participating in the Mitchell-Lama Housing Program for the past 20 years, has already announced a "buyout" to tenants – the building will no longer participate in the program.<sup>166</sup> Many residents face certain rent increase because the owner will not be required to enter a rent stabilization program and can charge market rate rent, because the building was first occupied after 1974.<sup>167</sup>

**Poor quality housing stock** – This Project will also worsen housing conditions because of the inevitable tighter squeeze on an already decreasing housing stock and an exceedingly vulnerable tenant population. A likely result of Columbia's expansion will be that tenants in the Manhattanville area will be forced into the periphery of the City where housing standards are even lower, exacerbating their already poor health quality. Many residents may even be relocated to other boroughs, which would place higher demands on their time and energy with longer commute time, decrease family time, and magnifying the root shock that is especially hard on children and seniors.<sup>168</sup>

Rote reliance on government-gathered demographic information will be insufficient to understand the demographic complexity of our community. Instead, Columbia must be made to detail a plan that would develop a complete demographic profile. This plan must include in-field observations and personal interviews in languages that the residents are able to understand and comfortable to express themselves. Moreover, the profile generated must expose the residents' vulnerability to displacement; therefore, relevant information should identify: 1) type and condition of housing stock, 2) number of units per structure, 3) number of owner- versus renter-occupied units, 4) vacancy rates, 5) fair market rate of housing in areas within walking distance of the campus, 6) rent regulation status of the housing stock and whether owners can opt out of the regulatory program, 7) number of residents within the project area receiving government subsidies and whether they have been admitted to the Emergency Assistance Unit, 8) number of homeless residents who are on the City housing waiting list expecting to return to the Manhattanville community, 9) the 30-year trend as an indication of the likely future demand for affordable housing, 10) specific groups such as seniors or disabled persons who depend on subsidized housing and community facilities such as health clinics, and 11) rate of land speculation and likelihood of apartment warehousing.

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*Program for Low Income Tenants*, Columbia Spectator (Apr. 28, 2004), Attachment # 6, also available at <http://www.columbiaspectator.com>.

<sup>166</sup> Tanveer Ali, *supra*.

<sup>167</sup> Letter from Alan G. Hevesi, Comptroller, State of New York Office of the State Comptroller, to Judith A. Calogero, Commissioner, NYS Div. Hous. And Community Renewal (Aug. 22, 2005) (Attachment # 5).

<sup>168</sup> Children will experience the additional stress of having to switch schools and make new friends; and seniors will be stressed with the loss of the community and facilities they had cultivated over a lifetime. Mindy Fullilove, *supra*.

Columbia has neglected an analysis of the project's cumulative impacts on the housing stock in West Harlem and Manhattanville. The purpose of the cumulative impacts analysis is to determine how the project's components may interact with other planned developments or existing uses to result in effects of much greater magnitude than either condition alone.<sup>169</sup> New York's economic revival, while creating more jobs, is also spurring a real estate prospecting frenzy<sup>170</sup> that has resulted in a shortage of affordable housing to low- and middle-income families. For this reason, rent regulated buildings all over the City are increasingly choosing to opt out of their subsidy programs in pursuit of market rate rent in order to take full advantage of this economic boon.<sup>171</sup> Therefore, Columbia must analyze how its proposed expansion will contribute to this Citywide housing shortage and develop the appropriate mitigation and/or alternative.

**Public health** – Researchers have reported that the stress of increasing rent (e.g. a doubling of rent prices) causes a corresponding increase in standardized mortality rates.<sup>172</sup> This high mortality is attributable to the household's inability to afford sufficient food.<sup>173</sup> Moreover, an increase in rent of as little as 15% has been documented as a barrier to employment opportunities; that is, at this level of rent increase, wage earners feel that they are compelled to take lower-paying, less career-oriented positions in order to meet their family's immediate housing needs.<sup>174</sup> This compromise in career choices entails a whole host of negative mental and physical health outcomes including depression and reduced life expectancy.<sup>175</sup> The risk of life expectancy is particularly alarming because residents of Manhattanville already have shorter life expectancy than the rest of the City.<sup>176</sup>

Although the draft scope is silent on the issue, there is a very real possibility that the homelessness rate in the City will increase as a result of the unaffordability of housing. Homelessness exposes individuals to a range of severe health risks including exposure to the elements and disease, decreased self-esteem and depression, and loss of control and social stigma. Lack of housing and overcrowding in homeless shelters contributes to morbidity through respiratory infections and activation of tuberculosis.<sup>177</sup>

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<sup>169</sup> CTM § 2.D.100 at 2-8.

<sup>170</sup> Charles V. Bagli, *Manhattan's Real Estate Boom Spreads to the West Side, With or Without a Stadium*, NY Times (Jun. 14, 1998) at Metropolitan Desk Section 1 at 39, Attachment # 5.

<sup>171</sup> David Schwartz, Mitchell Lama, *Gotham Gazette* (Apr. 9, 2001), available at <http://www.gothamgazette.com/iotw/mitchell-lama>, Attachment # 5.

<sup>172</sup> *Low Income, supra.*

<sup>173</sup> *Id.*

<sup>174</sup> *Id.*

<sup>175</sup> *Id.*

<sup>176</sup> Adam M. Karpati et al., *Health Disparities in New York City* (Report from the New York City Department of Health and Mental Hygiene) (2004), excerpted in Attachment # 7, full text also available at <http://www.nyc.gov/html/doh/downloads/pdf/epi/disparities-2004.pdf>.

<sup>177</sup> *Id.*

**Mitigation** – Columbia violates its CEQR mandate by ignoring any mention of mitigation or alternatives that would minimize the development's impact on the housing condition in West Harlem. Under CEQR reasonable mitigation measures include providing housing of equivalent quality and close proximity to the residents' present location. Columbia should commit to building or funding housing facilities of comparable quality in the project area or within a reasonable distance (within the same neighborhood) of their present location for the residents who will be displaced by the development. Additionally, Columbia should live up to its self-proclaimed role as a leader in civic, social, and technological innovation by constructing their new facilities within the LEEDS environmentally sustainable building guidelines<sup>178</sup> and/or use green design and building principles in order to ensure the health and well-being of students and staff as well as the West Harlem residents with whom it will be co-existing for many years to come.

To facilitate Columbia's planning process, WEACT and Environmental Defense have collaborated in drafting the Health and Urban Environment Guide for Developers [hereinafter *HUEGD*], an environmental guidance of sorts that describes environmentally friendly and sustainable building principles. The HUEGD also makes recommendations for energy-efficient building materials and equipments and resources for their acquisition, including: 1) building material that provide proper insulation in order to reduce heating and cooling costs, that resist mold and minimize emission of allergens in order to reduce asthma and other respiratory ailments, and that resist pests in order to reduce pesticide use and attendant poison cases (a problem particularly damaging to young children); 2) residential building designs that maximize ventilation and solar access in order to maximize personal comfort and minimize the risk of adverse mental health effects such as depression as a result of poor access to sunlight; 3) building designs that incorporate green roofs, advocated by the US EPA as a cost-effective measure to manage stormwater in winter months and reduce the heat island effects in summer months; and 4) design and implement an integrated pest management program for both occupied space (such as residential and office units) and open space landscaping in order to minimize exposure to pesticide toxicity.

Because of the stakes at risk, it is vital that the study information is gathered as completely and thoroughly as possible in order to allow the public and the City to evaluate the significance of the Project's adverse impact. Therefore, Columbia must revise its planned scope of work incorporating the legally required analysis with the mandated detail and specificity before the City can allow it to go forward with the CEQR process.

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<sup>178</sup> LEED Standards, *supra*.

## 2. Columbia's Expansion Will Displace Local Businesses and Cause the Loss of Hundreds of Jobs in Manhattanville

CEQR requires an analysis of a project's displacement (both direct and indirect) of the businesses currently operating in the study area.<sup>179</sup> As part of a complete socioeconomic impact analysis, project proponents are required to characterize current businesses, institutions, and industries currently located in the study areas, the people who are served by these entities, and the population groups and businesses that are dependent on the affected entities for services.<sup>180</sup>

The importance of this analysis is three-fold. First, CEQR seeks to determine whether the impacted businesses provide a necessary and valuable service or product to the City or the community in which it exists.<sup>181</sup> Second, CEQR aims to maintain New York City's economic viability by encouraging businesses to locate in the City and ensuring that they have access to the materials and "locational" needs of their operation.<sup>182</sup> Third, CEQR endeavors to preserve neighborhood character and therefore requires developers to consider the effect of a loss of keystone businesses, or businesses that contributes to a neighborhood's "personality," to the impacted neighborhood.<sup>183</sup>

Although Columbia pays lip service to CEQR's requirement that the project proponent must determine whether the displaced businesses provide a necessary and valuable service to the community, the analysis it describes is wholly inadequate, giving no more than a recapitulation of the language in the CTM.<sup>184</sup> Determination of whether a business contributes to the character of a neighborhood or whether it provides a valuable service to the community cannot be done without input from residents and community members. Yet nowhere in the draft scope does Columbia make any mention of on-site surveys or personal interviews with residents. Further, because of complex interactions between businesses, the economic impact of the loss of a business may be felt over an area much greater than the immediate neighborhood in which it is located. For example, Despatch Moving and Storage [hereinafter *Despatch* or *Company*], a Manhattanville moving and storage business, operates out of Manhattanville but serves a variety of commercial, academic, and private customers all over New York City's five boroughs as well as the entire eastern seaboard.<sup>185</sup> Therefore, Columbia must analyze its impact over a larger area than the generic ¼- and ½-mile study area it identified for the entire project.

Despatch's displacement exemplifies another of CEQR's purposes for the business impact analysis; the project proponent must identify the material and locational

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<sup>179</sup> CTM § 3B.120, 140 at 3B-1 to 3B-2.

<sup>180</sup> *Id.* § 3B.321.2 at 3B-1.

<sup>181</sup> *Id.* § 3B.321.2 at 3B-4.

<sup>182</sup> *Id.*

<sup>183</sup> *Id.*

<sup>184</sup> DSOW at 28.

<sup>185</sup> For more information on the Company's operational needs see e.g., <http://www.despatchmoving.com/>.

needs of displaced businesses.<sup>186</sup> The Company operates a 55,000-square-foot fireproof steel, concrete and brick warehouse on Broadway at 130th Street in Manhattan.<sup>187</sup> With such a large and specialized facility, it would be virtually impossible for Despatch to move anywhere in Manhattan.

Columbia fails to address the need to maintain the economic viability and productivity of Manhattanville. An important task in this respect is the protection of workers' rights, including providing union support, and job stability in order to ensure that skilled, living wage jobs are retained. Without this customer base, businesses will fail, destroying further economic development for the neighborhood.

In an apparent attempt to stave off anticipated criticism that it will cause mass displacement of local businesses, Columbia has made grand claims of its job creation ability to project stakeholders in the series of community meetings held throughout the past almost three years. In its "New Jobs and Economic Opportunities" Fact Sheet, *supra*,<sup>188</sup> the University claims that it will generate some 14,500 new jobs: 1) will generate 6,900 new jobs within the Columbia organization alone; 2) 2,300 new retail and restaurant jobs will result from University facilities that will be made available to local businesses; and 3) an additional 5,200 new jobs will be generated throughout New York City. Furthermore, it anticipates that its expansion development will support some 2,000 construction-related jobs over the project's 25-year life.<sup>189</sup>

Columbia's analysis is at best misleading, because it assumes that the University's expansion will be the only economic use that will be made of Manhattanville.<sup>190</sup> In reality, the EDC already has a plan to generate more economic activity in the area. Therefore, Columbia's job and business displacement analysis should at least really draw on the EDC's Master Plan's planned development<sup>191</sup> as the "existing condition" baseline with which to determine the project's impact. Otherwise, the DCP should examine the EDC plan as a viable alternative for the economic development and rezoning therefore of Manhattanville.

Columbia has also failed to identify and analyze mitigation for its negative impacts on jobs and businesses in West Harlem. We proposed that Columbia consider the following options. In order to lessen the sting of the business displacement and job loss in Manhattanville, Columbia can ensure (through a binding agreement with a community coalition) that jobs that are created within the Columbia organization will: 1) provide a living wage and health benefits; 2) become filled through a referral program that identify and place qualified residents before recruiting from outside the impacted

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<sup>186</sup> CTM § 3B.321.2 at 3B-4.

<sup>187</sup> See e.g. Despatch, *supra*.

<sup>188</sup> New Jobs Fact Sheet, *supra*.

<sup>189</sup> *Id.*

<sup>190</sup> Section II-H, *supra*, discussion on the project's Fiscal Benefits.

<sup>191</sup> Master Plan, *supra*.

areas;<sup>192</sup> 3) include job protection and benefits bargaining capability; 4) use best efforts to recruit qualified people of color; and 5) offer ongoing professional and career development. Columbia should also develop a mechanism for relaying information regarding its technical needs to community job skills developing organizations in order to prepare the local workforce for the jobs that will be offered by the University. Furthermore, Columbia should commit to requiring its contractees, lessees, and vendors to follow similar labor practices. Finally, Columbia should contribute to the continued economic productivity of West Harlem and allow diversification of the local economy by committing to purchase from local vendors first before outsourcing to fill its needs.

**C. Columbia's Expansion Will Displace Community Facilities on Which Manhattanville and West Harlem Residents Depend for Support, and Social Services**

CEQR clearly considers a development project's impact on community facilities of paramount importance in determining its overall environmental impact. Consequently, CEQR demands a detailed analysis of the project's impact on existing community facilities and services. The CEQR guidelines specifically indicates that this is not a "needs analysis" of new or additional services; rather, the analysis must focus on functions that the City must provide to residents on an ongoing basis, such as education or police and fire protection. The CEQR Technical Manual provides an extensive framework for the required analysis including the type and detail of information to be collected and criteria for determining the magnitude of a project's impact.<sup>193</sup>

Columbia makes the bold assumption that because it is not expected to introduce more than 600 low- to moderate-income residential units nor more than 50 children "eligible for day care" into the project area, no health- or childcare analysis is required.<sup>194</sup> However, without a more detailed and specific exposition of the project plan, stakeholders cannot evaluate the validity of this assertion. For example, students and research staff may qualify for public childcare services. Even families that do not qualify for publicly funded services will choose to send their children to local facilities, thus placing greater demands on them. Columbia must analyze this impact.

Columbia altogether ignores analysis of the project's impact on other community facilities. First, Columbia will cause direct displacement of an important substance abuse and HIV treatment and prevention center – Reality House<sup>195</sup> – that is located in the Project area at 637 West 125<sup>th</sup> Street. Residents from Harlem, Washington Heights, and the South Bronx depend on this facility to "culturally-appropriate" services.

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<sup>192</sup> See e.g., First Source Hiring Program model pioneered by the North Hollywood Mixed-Use Redevelopment Project in the Community Benefits Program (Nov. 2001) at 2-3, Attachment # 8.

<sup>193</sup> CTM § 3C at 3C-3 to 3C-13.

<sup>194</sup> DSOW at 30.

<sup>195</sup> See generally the Reality House Homepage at <http://www.realityhousesny.org/aboutus.html>

Second, the project's construction and operation will impact accessibility and use of senior centers through noise and air pollution. Many of the senior residents of the Manhattanville neighborhood have lived in this area for most of their lives, and they depend on activities at the senior centers for community and support; maintaining these relationships is vital to maintaining their mental and physical health. Importantly, many seniors have limited mobility and depend on community facilities for everything from health care to obtaining food.

Third, the increased density and intensity of use that would result from the development's introduction of new residential units and users into the Manhattanville area will impact space availability, activity, and cultural focus of youth centers and services. There are over 12,240 youths under 18 years of age who reside in Manhattanville alone.<sup>196</sup> The increased population will place an added burden on the quality of self-expression and cultural identity these young people will have in utilizing community service. The burdens range from increased competition to removal of publicly available community services to be replaced by privatized and restricted campus services. The draft scope fails to address the impact the development will have on the schools, churches and libraries and other community facilities designed to enrich these young peoples' lives.

Columbia's expansion is also in an environment that is adversely affected by poor air quality, substandard living conditions and restricted access to civic services. This development will also change the way community services are used in the area and will create an added burden to already vulnerable populations such as the elderly and youth populations. For example, 3333 Broadway, a former participant in the New York State Mitchell-Lama Housing Program, has are opted out of the program in anticipation of the higher market rates that will result from developments like Columbia's.<sup>197</sup> If senior and youth residents are pushed out of the units, they will be deprived of the community center and the senior centers connected to the building.

Fourth, project construction and operation will impact community institutions such as places of worship and community centers with disruptive noise and air pollution. The added density the project will bring to Manhattanville will further decrease the quality of use of these facilities – through overcrowding and increased demands for public gathering spaces – to current residents. Yet Columbia makes no mention of this problem in its draft scope, and certainly devotes no part of its environmental impact analysis to study it.

Fifth, the project will affect fire, emergency and police services during both construction and operation. Construction will undoubtedly cause the obstruction of rescue routes and increase response time. Project operation will increase the serviced

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<sup>196</sup> U.S. Census Bureau, 2000 Census Survey, available at <http://factfinder.census.gov/servlet/>.

<sup>197</sup> Tanveer Ali, *supra*.

population and place additional demand on a system that is already overstressed and under-funded.

Even the areas that Columbia chose to address received casual treatment. Columbia acknowledges that its expansion into West Harlem will affect schools and libraries. However, the study plan provided in the draft scope does no more than describe at most a laundry list of information that will be collected. Columbia gives no detail on how this information will be collected or analyzed to determine the magnitude or significance of impact. Further, Columbia ignores the cultural impact of introducing a new population of different racial/ethnic makeup and higher incomes into the low-income, ethnically diverse Manhattanville neighborhood. Because libraries and public facilities generally stock books relevant to and center activities around the cultural and racial/ethnic needs of the surrounding community, Columbia's introduction of a high-income, racial majority population into the study area will radically change the services offered at community facilities. Thus, Columbia will have a tremendously negative impact on the cultural, ethnic, and racial identity and pride therein of Manhattanville residents, particularly the youth in the community.

Columbia must be made to address each of these issues in a specific and detailed analysis.

**D. Columbia's Expansion Will Increase Shadows and Decrease Access to Sunlight to Manhattanville Residents, Workers, and Visitors by Developing Heavy Building Bulk**

Shadows under CEQR regulations are defined as the "circumstance in which a building or other built structure blocks the sun from the land."<sup>198</sup> CEQR requires an analysis of the shadows generated as a result of development projects because shadows can affect the project's impact in other technical areas such as access to open space, lighting on historic resources, and access of natural resources to light.<sup>199</sup>

Columbia will develop building heights of between seven and 20 stories, and the zoning designation it seeks will allow building heights of up to 325 feet (or approximately 35 stories).<sup>200</sup> With this heavy building bulk in an area whose current building heights rarely exceed seven stories, Columbia's expansion will inevitably create a "circumstance in which a building or other built structure blocks the sun from the land;" thus negatively impacting the quality and accessibility of the open space in Manhattanville. Furthermore, despite Columbia's refusal to discuss details of its development plans for its proposed West Harlem expansion campus, the few details that it does disclose, albeit cryptic reveals that Columbia may have plans to build a pedestrian sky bridge above the streets (this information was buried in the section describing the

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<sup>198</sup> CTM § 3E.100 at 3E-1.

<sup>199</sup> *Id.*

<sup>200</sup> Manhattanville Development Proposal: Project Description [hereinafter *Manhattanville Development Proposal*],<sup>200</sup> excerpted at Attachment # 9.

regulatory approvals the University will need in order to complete the project).<sup>201</sup> Even though this bridge will severely restrict street access to sunlight, particularly in the winter months, Columbia fails to explain how this structure will be evaluated shadowing or describe the area over which shadows will spread. The Manhattanville project area's access to natural sunlight is already very poor because of the harsh shadowing effects of the Riverside Drive viaduct, the Henry Hudson Parkway, and the Amtrak Empire Corridor. Consequently, the area sometimes appears depressed and lacks the safety that comes from the presence of sunlight. Considering that the neighborhood already suffers the economic and mental health costs of low light, Columbia's disregard for the necessary impact analysis is surprising. Importantly, Columbia has not even provided the rationale for creating yet another obstruction to the sunlight.

**E. Columbia's Expansion Will Deny Current Manhattanville's Residents Access to a Historical Resources That Includes A Rich Literary, Musical, and Political Heritage That Has Shaped Modern West Harlem**

CEQR defines "historical resources" broadly to include historic districts, buildings, structures, sites, and objects of historical, aesthetic, cultural, and archaeological importance.<sup>202</sup> The CEQR breaks the analysis of historic resources into two categories – those that affect archaeological sites and those that affect architectural sites.<sup>203</sup>

A determination of a project's impacts on an area's archaeological resources is usually required for actions that would entail "any in-ground disturbance."<sup>204</sup> That is, any action that would cause "disturbance to an area not previously excavated, and includes new excavation deeper and/or wider than previous excavation on the same site."<sup>205</sup> These include below-ground construction such as "installation of utilities or excavation."<sup>206</sup> Likewise, an assessment of the impacts on the study area's architectural resources is necessary when, *inter alia*, the project would result in "a change in scale, visual prominence, or visual context of any building, structure, or object or landscape feature," or when the project would create significant new shadows or lengthening of the duration of existing shadows.<sup>207</sup>

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<sup>201</sup> Columbia will ask the New York City Department of Transportation's [hereinafter *NYCDOT*] Bureau of Bridges "to approve the rebuild of West 130<sup>th</sup>, 131<sup>st</sup>, and possibly 132<sup>nd</sup> Streets above the Academic Mixed-Use Development below-grade support facility." DSOW at 5.

<sup>202</sup> CTM § 3F.110 at 3F-1.

<sup>203</sup> *Id.*

<sup>204</sup> *Id.* at § 3F.210 at 3F-6.

<sup>205</sup> CTM § 3F.110 at 3F-6.

<sup>206</sup> *Id.*

<sup>207</sup> *Id.*

In addition to examining impacts on known historical resources, a project proponent must also investigate unknown resources.<sup>208</sup> For archaeological resources, the study must simultaneously determine the likelihood that the site is one of historic or prehistoric importance and determine the significance of any remains on the site.<sup>209</sup> One method of arriving at the needed information is through investigations of the site's prior uses in order to determine whether historical objects or structures would have survived.<sup>210</sup> Similarly, the determination of the historical value of an architectural structure may depend on its past use – for example, the property may be associated with significant historical events or persons as well as its representation of work of a specific architectural style, architect, or builder.<sup>211</sup> Additionally, the historical value of a structure may include its aesthetic and cultural value to a community.<sup>212</sup> The CTM identifies field surveys as an important investigatory tool in this respect.<sup>213</sup>

Columbia plans to site a substantial portion of its expansion campus underground.<sup>214</sup> “Below-grade support facilities would include centralized steam and chilled water plants, research support facilities, parking and loading facilities, storage space, [] recreational facilities,” as well as a cogeneration power plant that will be associated with the steam and chilled water plants.<sup>215</sup> The extensive building plan will require substantial excavation of the project area. Because the below-grade facilities will spread out several stories underground, this excavation will cover a wide area and burrow deep into the ground.<sup>216</sup> Therefore, under CEQR's requirements, Columbia needs to assess Manhattanville's archaeological resources in constructing its expansion campus. Columbia will have to conduct an assessment of the as yet unregistered architectural historical sites. The technical determination of the architectural historic resources is one of the few detailed descriptions of the draft scope.

But more important than the mundane list of archaeological artifacts and the architectural structures and buildings that Columbia plans to examine, Harlem's very cultural and ethnic diversity has traditionally served as the crucible for the development of artistic, social, and political individuals and movements of the 20<sup>th</sup> century. In addition to the cultural developments that are more visible to the majority population, such as the 1920's Harlem Renaissance and jazz music, Harlem has been both safe haven and home of social change for Americans, and particularly for the African-American community.<sup>217</sup>

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<sup>208</sup> *Id.* § 3F.321.2 at 3F-8.

<sup>209</sup> *Id.*

<sup>210</sup> *Id.*

<sup>211</sup> *Id.* § 3F.322.2 at 3F-11.

<sup>212</sup> *Id.*

<sup>213</sup> *Id.*

<sup>214</sup> DSOW at 11.

<sup>215</sup> *Id.* at 11, 46.

<sup>216</sup> Manhattanville Development Proposal, *supra*, at 30.

<sup>217</sup> James Weldon Johnson, BLACK MANHATTAN (1930).

Since its founding in the 17<sup>th</sup> century, Harlem, including Manhattanville, has been a community with a mix of ethnic, cultural and economic residents. Indeed, Harlem has hosted black intellectuals and social advocates from the abolitionists Frederick Douglass and Harriet Tubman to civil rights leaders like Malcolm X and Reverend Martin Luther King, Jr.<sup>218</sup> Because of a combination of, *inter alia*, low housing costs (from a recent real estate collapse) and an existing black middle-class, by the turn-of-the 20<sup>th</sup> century, northern cities like Harlem were the destination of choice for thousands of African Americans migrating from all over the United States, especially individuals fleeing the destitution, racism, and oppression of the South (in the Great Migration).<sup>219</sup> Harlem quickly became the largest African-American district in the world.<sup>220</sup> In the late 20<sup>th</sup> century, Harlem experienced yet further ethnic diversification with the arrival of immigrants from the Caribbean, particularly the Dominican Republic.<sup>221</sup>

Harlem's population strength has allowed it to support a vibrant black professional and merchant class, elect the first black Congressman in the northeast (and perhaps the country) – Adam Clayton Powell, and foster the growth of such political movements as Marcus Garvey's "back to Africa" campaign, the first National Association for the Advancement of Colored People's [hereinafter *NAACP*] chapter, and Malcolm X's United Afro-American Organization [hereinafter *UAAO*], just to name a few.<sup>222</sup> In more modern times, the spirit of social innovation and political activism has made Harlem the chosen home of social advocates and advocacy groups including former President Bill Clinton and environmental justice organizations such as WEACT. In short, Harlem's historical resource is its very spirit of cultural/ethnic diversity and readiness to accept new ideas and new peoples.

Columbia will introduce high-income individuals of the racial and ethnic majority into West Harlem. In addition to the adverse impacts of residential and economic displacement of the community, this new population will radically change the social and cultural fabric of Manhattanville. Because community facilities such as libraries and cultural centers typically serve the cultural needs of the populations they serve, Columbia's effect will be to swamp out Manhattanville's unique ethnic identity, whether the university intends to do so or not. For this reason, Columbia must consider its impact on the rich historical resource that Harlem is to New York City and to the country, and the University must mitigate its significantly adverse impact on this resource.

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<sup>218</sup> *Id.*

<sup>219</sup> Emmett J. Scott, *NEGRO MIGRATION DURING THE WAR* (1920).

<sup>220</sup> Gilbert Osofsky, *HARLEM: THE MAKING OF A GHETTO, 1890-1930* (1971).

<sup>221</sup> *Gotham Gazette*, Searchlight on Campaign 2001: District Seven (Apr. 2001), available at <http://www.gothamgazette.com/searchlight2001/dist7.html>

<sup>222</sup> Arthur Alfonso Schomburg, *BLACK NEW YORKERS: THE SCHOMBURG ILLUSTRATED CHRONOLOGY* (1999).

**F. Columbia's Expansion Will Add Heavy Building Bulk That Will Disrupt Manhattanville's Urban Design Elements and Deny Residents of the Visual Resources That They Have Traditionally Enjoyed Access**

CEQR requires the project applicant to study the project's effect on the visual character, including urban design and visual resources, of the study area.<sup>223</sup> Among the vital elements of a CEQR analysis is the consideration of the building bulk and use as well as the visual resources such as view corridors and special features of the neighborhood.<sup>224</sup> Accordingly, a project would have a "substantial" impact on urban design if it would result in buildings that are considerably different from those existing in the project site.<sup>225</sup> Similarly, the visual resources would be substantially impacted if an action would result in or change above-ground development or would impair the public's ability to view and enjoy visual resources.<sup>226</sup>

If a project is anticipated to have a substantial impact on the urban design and visual resources of the project area, CEQR requires that the applicant conduct a thorough investigation into both.<sup>227</sup> A priority in the CEQR study methodology is the conduct of extensive field surveys in order to identify and document urban design elements and visual resources within the study area.<sup>228</sup> CEQR specifies that, particularly with the analysis of visual resources, the project applicant must, when appropriate, look beyond the land use area or the study area to identify the visual resources that exists in a community. Often, the determination of a view corridor may require study of locations outside the project study area in order to identify visual landmarks.<sup>229</sup>

Columbia's planned development will have a significantly adverse impact on both the urban design and the visual resources of the Manhattanville neighborhood. Columbia will construct buildings that will be up to 20 stories tall (and the zoning category it has requested allows buildings of up to 35 feet) in an area where buildings heights are seldom greater than five to seven stories. Furthermore, Columbia's proposal calls for a radical change in the zoning regulation of the entire neighborhood, which will likely also change the visual resources available to the community.

The urban design and visual resources of this neighborhood, from the multiple viaducts to the stunning views of the Hudson River, are one of the most defining assets of the community and is greatly cherished by local residents. Many of these visual resources will be occluded because Columbia has chosen to place its expansion campus with building bulks up to 20 stories high<sup>230</sup> right between to the community and the

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<sup>223</sup> CTM § 3G.100 at 3G-1.

<sup>224</sup> *Id.* at §§ 3G.100, 120 at 3G-1.

<sup>225</sup> *Id.* § 3G.410 at 3G-5.

<sup>226</sup> *Id.* §§ 3G.210, 420 at 3G-2 and 3G-6.

<sup>227</sup> *Id.* § 3G.310 at 3G-2.

<sup>228</sup> *Id.* § 3G.20 at 3G-2 to 4.

<sup>229</sup> *Id.* § 3G.310 at 3G-2.

<sup>230</sup> DSOW at 12.

waterfront. Residents who have been able to enjoy these spectacular views will now be cut off from them unless Columbia designs its development so as to preserve them. Therefore, a paramount concern in the analysis of the project's impact on Manhattanville's visual resources is the identification of these resources. West Harlem residents, many of whom have lived in the area all of their lives, have been appreciating its visual resources for years and therefore know where the vista points. It is difficult to see how outside consultants, some of whom have probably never been to Harlem, can accurately assess Manhattanville's visual resources without close collaboration with local residents. Yet Columbia has chosen to do just that – it plans to conduct this field research without any community consultation.<sup>231</sup>

Because the planned development will have significant adverse impact on the urban design and visual resources of West Harlem, Columbia must identify and study mitigation measures and project alternative that will avoid or reduce this harm. The development of mitigation measures should also be done collaboratively with community residents.

**G. Columbia's Expansion Will Radically Change Manhattanville's Neighborhood Character by Developing Heavy Building Bulk That Will Block Residential Access to Visual Resources, Obscuring West Harlem's Ethnic History, Replacing Racially Diverse Residents with A High-Income Racial Majority Population, and Introducing Heavy Traffic and Noise**

CEQR a neighborhood's character as an amalgam of elements including land use, urban design and visual resources, historical resources, socioeconomic factors, traffic, and noise – all the flavors that give neighborhoods their “personality.”<sup>232</sup> A threshold significance finding in any of the enumerated technical areas contributes to the determination of significance of the project's adverse impacts on the study area.

The CEQR guidelines specify both field visits and interviews with local users as primary among the information gathering tools that a project applicant should use in this analysis.<sup>233</sup> The CTM is admittedly inconsistent in identifying personal interviews as an information-gathering tool and in defining neighborhood character as “perceived and contextual” in one breath, and in the next, stating that interviews are useful but may not be necessary in all cases.<sup>234</sup> However, considering the complexity existing in Manhattanville, with its unique mix of human (ethnic/racial, cultural, age, inter-generational interactions, and income) and architectural diversity as well as historical value, this is one project where personal interviews with local residents and workers are necessary for a complete analysis of the neighborhood's character.

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<sup>231</sup> See e.g., DSOW at 34.

<sup>232</sup> CTM § 3H.100 at 3H-1.

<sup>233</sup> *Id.* § 3H.300 at 3H-2.

<sup>234</sup> *Id.* § 3H.400 at 3H-4.

Given the population demographics, cultural, and socioeconomic differences between Columbia University affiliates and the present Manhattanville community, the “perceived and contextual” nature of neighborhood character cannot be accurately assessed without, at a minimum, interviews with community members. Indeed, a far more equitable and accurate methodology, beyond merely interviewing local residents, would create a workgroup and an open, continuing process in order to assess current neighborhood character conditions and develop exercises that would identify changes and potential harm. This group process, comprised of local residents, community leaders, and organizations, can then help to develop reasonable mitigation and alternatives that would reduce or avoid environmental damage.

Columbia should take advantage of this tremendous opportunity to create a collaborative analytical process between itself and its new community. In lieu of than an outside consultant (or consulting firm) completing the analysis called for in this and other sections of the EIS, Columbia should adopt the group process model that includes the consultants (who would typically be hired for this type of work) as well as local community residents and other independent health and safety professionals.

**H. Columbia's Expansion Will Diminish the Quality of Open Space Available to Manhattanville Residents by Developing Heavy Building Bulk that Will Severely Limit Access to Light and by Increasing Residential and Worker Density Without Concomitantly Adding New Publicly Accessible Open Spaces**

CEQR requires that project applicants study whether their development would eliminate, alter, or overtax the available open space in the study area.<sup>235</sup> Accordingly, the applicant must conduct a rigorous quantification of a project's impact on the study area's open space, including a determination of total area and location of the available open spaces in the study area; identification of the user population parsed out by age groups, types, and intensity of use; and assessment of the accessibility and quality of the open space.<sup>236</sup> Importantly, the study must determine the adequacy of the available open space, expressed as a ratio of the available open space to number of users, with and without the proposed project. The project has a significant adverse impact on open space if it would displace existing users or overburden the existing facilities.<sup>237</sup> User displacement is further described as elimination or alteration of the available open spaces or imposition of noise, air pollutant emissions, odors, or shadows so great that it decreases the quality of the space for prior uses.<sup>238</sup>

Although creation of additional open space *in situ* or elsewhere in the study area are potential mitigation measures, CEQR specifies that the only relevant open space in the quantitative analysis is public open space. That is, “open space that is accessible to

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<sup>235</sup> CTM § 3D.100 at 3D-1.

<sup>236</sup> See e.g. *Id.* § 3D.320 to § 3D.400 at 3D-5 to 3D-15.

<sup>237</sup> *Id.* § 3D.400 at 3D-15.

<sup>238</sup> *Id.* § 3D.100 at 3D-1 and § 3D.322.2 at 3D-12.

the public on a constant and regular basis or for designated daily periods.”<sup>239</sup> Private open space, which is “not publicly accessible or is available only to limited users and is not available to the public on a regular or constant basis,” cannot be included in the quantitative analysis and may only be used in a qualitative assessment of open space impacts.<sup>240</sup> Included in the CEQR definition of private open space are arcades and sidewalks,<sup>241</sup> this is so presumably even if the area is landscaped or setback from pedestrian walkways, because CEQR makes no exception for such areas.

Columbia's development in West Harlem will undoubtedly adversely impact the open space available to the community. The planned heavy building bulk (ranging from seven to 20 stories<sup>242</sup>) will diminish the quality of open space for current residents and workers by decreasing the availability of light and airflow while increasing uninviting shadows onto local streets, sidewalks, and playgrounds. Additionally, Columbia will exacerbate this loss by adding even more users, both residential and non-residential, into this shrinking resource with its planned housing, research, academic and performance facilities. The loss of open space will take a particularly heavy toll on West Harlem residents, who over the last few decades, have fought for the creation of open spaces in which community members could recreate with their families, build ties within their neighborhood, and enjoy the contemplative benefits of the outdoors.

Columbia promises “to construct a significant new privately owned, publicly accessible open spaces [that] will amount to 50-70,000 square feet (1-1.5 acre of space).”<sup>243</sup> Columbia masquerades these landscaped areas as “privately owned public open space” in order to obfuscate the obvious fact that a large part of Manhattanville's open spaces will be lost or their enjoyment will be diminished as a result of the development's noise and odor pollutants (especially during construction), not to mention the shadows that will be created from the heavy building bulk. Additionally, Columbia claims that the new campus will be one without gates and therefore open and available for community use.<sup>244</sup> However, if Columbia's security measures at its other campuses (namely Morningside and Washington Heights) are any indication of how the University will control access to a West Harlem campus, any open space that occurs on Columbia-owned property will be privately owned, publicly inaccessible open space. If there is no requirement that forbids Columbia from using traditional campus walls or gates and if Columbia does not legally commit to excluding gates in the future, it is reasonable to assume that some type of campus gate will eventually be a part of the Columbia design. Yet Columbia provides no process for ensuring that this will not occur.

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<sup>239</sup> *Id.* § 3D.100, *supra*.

<sup>240</sup> CTM § 3D.100 at 3D-1.

<sup>241</sup> *Id.*

<sup>242</sup> DSOW at 12.

<sup>243</sup> *Id.* at 12.

<sup>244</sup> *Id.* at 11; describing “[t]he Academic Mixed-Use Area [as one that] would remain open to the community without traditional campus walls or gates.”

Many of the open space benefits asserted in this draft scope rely on the assumption that the campus open space is truly accessible to the public. With no guarantee that this privately owned space will indeed remain publicly accessible, all “reasonable worst case” scenarios in this technical area should be characterized all privately owned and not publicly accessible. To do otherwise hides the true impact of this development on the environment of West Harlem.

With the proposed development landing squarely between West Harlem and the waterfront park, the residents' access to the park will be severely limited by Columbia's presence. Columbia's draft scope does not even address how the population increase it will generate will impact the waterfront park. Increased foot traffic and access will place an unexpected wear and tear and maintenance burden on the park.

Columbia avoids the required open space analysis by falsely relying on its disingenuous claim that the campus will incorporate open space that will be available to the community. Columbia plans to devote an area of 1- to 1.5-acre (from 130<sup>th</sup> to 131<sup>st</sup> Streets between Broadway and 12<sup>th</sup> Avenues) to open space – one block from the waterfront park that is already underway (and will likely be complete by the time Columbia even begins construction).<sup>245</sup> The existing West Harlem waterfront park, which will be an inviting and well-maintained recreational space for the entire community, is yet to have a mechanism for funding maintenance in order to ensure its safe use. Yet just one block away Columbia wants to build a separate park. The only difference is that the Columbia “park” will be deemed privately owned and publicly accessible. This scheme appears to be an unreasonably redundant use of land unless Columbia intends to build the open space only for its private use, namely a park that is accessible only to its students and staff. But, what is the logic of creating another large-scale open space literally next to an existing park when the current one does not have the operational funds necessary for maintenance and long-term oversight?

**I. Columbia's Expansion Will Increase Exposure of Manhattanville Residents and Workers to Hazardous Materials Including Petroleum-Based Chemicals, Pesticides, and Biological Disease Agents**

CEQR's purpose in requiring an environmental impact study of hazardous material handling and waste disposal is “to determine whether a proposed action could lead to increased exposure of people or the environment to hazardous materials and whether the increased exposure would result in significant public health impacts or environmental damage.”<sup>246</sup> The CEQR Technical Manual defines a hazardous material broadly as “any substance that poses a threat to human health or the environment.”<sup>247</sup> To ensure public and environmental safety, the CEQR Technical Manual identifies the necessary investigations and provides specific guidance on how to uncover an area's hazardous material inventory and history of contamination.<sup>248</sup> In addition to consultation

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<sup>245</sup> DSOW at 12.

<sup>246</sup> CTM § 3J.100 at 3J-1.

<sup>247</sup> *Id.*

<sup>248</sup> *Id.* § 3J.130 at 3J-2.

with secondary sources such the United States Environmental Protection Agency [hereinafter *EPA* or *US EPA*] and DEC inventory databases, CEQR prescribes in-field surveys and personal interviews with individuals familiar with current and past uses of the property and practices thereon in order to determine the presence of hazardous material.<sup>249</sup> Where significantly adverse impacts are expected, the project applicant must discuss mitigation and alternatives designed to reduce or eliminate the project's effects.<sup>250</sup>

Columbia plans to build a 17-acre campus in an area that is presently used by a variety of light manufacturing and industrial operations including meatpacking, auto repair, gasoline filling station, moving and storage, and toymaking. Past activities included the auto manufacturing and a municipal gas plant, which has known problems with ongoing underground leaks. Thus, both past and present uses involve industrial solvents and petroleum products among other hazardous materials. Under Columbia's plans, the university itself will generate will hazardous waste from its planned biological research, steam heating and cooling, and cogeneration facilities. Therefore, the potential that West Harlem residents will be exposed to hazardous materials during both construction and operation is great. Yet Columbia's analysis and plan of study falls woefully short of meeting its CEQR mandate.

Flying in the face of CEQR's specific command, Columbia's plans for determining whether hazardous materials are present on properties within the project area are restricted to review of secondary sources of data, such as historical fire insurance maps and databases from the EPA and DEC.<sup>251</sup> The closest the study plan comes to an in-field survey is "a visual inspection" of the property (from sidewalks and public right-of-ways); the draft scope makes no mention of personal interviews and neglects to describe how necessary excavations will be conducted to minimize exposure of community residents and on-site workers to hazardous materials. Moreover, as relates to the construction period, Columbia fails to explain how it will determine whether a source of contamination is significant or what strategies it will use to identify the steps will need to be taken in order to contain or eliminate contamination. Finally, Columbia fails to discuss how it plans to study and implement plans for reducing the amount of hazardous materials and waste it will generate during its operation. Constructing a narrative history of land use in the project area, and a 1000-foot perimeter around the project area (as the CTM prescribes<sup>252</sup>) will require extensive collaboration with local residents and organizations. This should be specified in the draft scope.

Columbia's expansion project will operate bioresearch activities that will generate solid and liquid waste that cannot be directly sent to the solid waste or sewage systems. Some of this waste will likely become classified as hazardous waste, including radioactive, chemical, and biohazardous material. However, Columbia has chosen to ignore all analysis of the possibility of a spill (or other accidental/intentional release) that

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<sup>249</sup> *Id.* § 3J.320 at J-4.

<sup>250</sup> *Id.* §§ 3J.400, 500 at 3J-17 to 3J-22.

<sup>251</sup> DSOW at 35-36.

<sup>252</sup> CTM § 3J.310 at 3J-4.

could threaten the health and safety of both its workers and the Manhattanville community. Columbia's disregard for this CEQR requirement is in direct violation of the protection that the law intended; a detailed assessment is needed any time a project presents a threat to human exposure, not merely when the action will definitively give rise to such exposure. Therefore, Columbia must revise its draft scope document in order to conform with its CEQR mandates before being allowed to proceed with the environmental impact study process.

**J. Columbia's Expansion Will Degrade West Harlem's Already Sensitive Wildlife and Natural Resources by Adding Demand on the Drainage Systems, Increasing Run-Off Pollution into the Hudson River, and Threatening Groundwater Resources with Hazardous Material Contamination**

CEQR is committed to protecting New York City's natural ecosystems and environmental balance, including wetland and upland resources as well as surface- and groundwater, drainage systems, and built resources such as piers and pilings that could serve as habitat for aquatic species.<sup>253</sup> Therefore, a CEQR impact analysis is required for a wide breadth of projects, specifically those that will affect surface and groundwater, soils, drainage systems, parks, gardens, and landscaped areas must conduct appropriate studies of its environmental context.<sup>254</sup> This analysis must include a thorough inventory of wildlife and plant populations, determine the available habitats and habitat types, determine whether threatened or endangered species are present in and around the study area, assess their sensitivity to project activities, and design mitigation and alternatives that would reduce or eliminate this impact.<sup>255</sup> Additionally, special attention must be paid in cases where species that are threatened, rare, endangered, or otherwise sensitive or worthy of protection.

Columbia will be building and operating its expansion campus within a one-block radius of the Hudson River, a key estuary in New York State. Over the last decade, the State has been working to improve the water quality of the Hudson by mitigating past environmental damage to the watershed in order to restore the habitat for the endemic flora and fauna (and for aquatic and terrestrial wildlife). Among the wildlife supported by the Northern Manhattan Hudson Estuary are several species of large fishes including the Atlantic sturgeon, shortnose sturgeon, Alewife, blueback herring, American shad, Atlantic tomcod, bay anchovy, bluefish, and striped bass.<sup>256</sup> This means that this waterway also supports the plant and invertebrate species on which these fishes feed.

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<sup>253</sup> CTM § 3I.100 *et seq* at 3I-1 to 3I-8.

<sup>254</sup> *Id.* § 3I.100 at 3I-1.

<sup>255</sup> *Id.* § 3I.150 at 3I-8 to 3I-14.

<sup>256</sup> U.S. Department of Commerce, National Oceanic and Atmospheric Administration [hereinafter *NOAA*], National Marine Fisheries Service Northeast Region, Northeast Fisheries Science Center Woods Hole, Massachusetts, (Sept., 1999), *Habitat Use and Requirements of Important Fish Species Inhabiting the Hudson River Estuary: Availability of Information* (NOAA Technical Memorandum NMFS-NE-121) at 15-20.

The Hudson's food web also includes subsistence fishermen who fish along the West Harlem waterfront and beyond.

Through its operational and construction activities, Columbia will also destroy and/or encroach upon habitat that is suitable for wildlife, including birds and aquatic life such as crabs, fish, and plants. Of particular concern in this regard is the fact that a full seven acres of the project's development area will actually be located underwater in the Hudson River.<sup>257</sup> This is a major disruption in the coastline that could endanger the support system for the entire waterfront area and a major encroachment and destruction of viable habitat. Studies have revealed that large built structures such as municipal piers can slow the growth of juvenile fish in the Hudson River estuary, and this delayed growth could make fish more vulnerable to predation, physiological stress, and disease.<sup>258</sup> Duffy-Anderson and Able found that juvenile fish feeding under large municipal piers experienced negative growth rates that mimicked laboratory-starved control animals.<sup>259</sup> Slow growth also correlated with the fish's distance from the pierheads.<sup>260</sup> That is, fish that fed under piers did worse than fish that fed at the pier's edge, which in turn did worse than fish feeding in open water.<sup>261</sup> They concluded that fish that were kept under piers "experienced poor feeding conditions and perhaps even periods of starvation."<sup>262</sup> For this reason, the U.S. Army Corps of Engineers [hereinafter *ACOE* or *Army Corps*] has determined that pier structures disrupt fish habitats and thus require mitigation.<sup>263</sup>

Columbia's 7-acre underwater facility is comparable to the 1.6 million square feet pier structures that these investigators studied. But, even worse than piers, the character and use of this 7-acre facility is undisclosed in the draft scope. The environmental impact may be even worse than that of a pier if this is instead a solid structure, such as a power plant-steam and chilled water cogeneration assembly. Aside from its structural impediment to water flow and disruption of tidal patterns, such a structure could generate thermal pollution and effluence that could have even more immediate negative impacts on the local aquatic wildlife. Despite the fact that it will cause severe degradation of the habitat for fish in the project area, Columbia makes a feeble attempt at analyzing its impact. The subsequent discussion is no more than an assessment of the natural resources, although no study area is identified to put this "inventory" into context.

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<sup>257</sup> DSOW at 7.

<sup>258</sup> J.T. Duffy-Anderson and K.W. Able, *Effects of Municipal Piers on the Growth of Juvenile Fishes in the Hudson River Estuary: A Study Across a Pier Edge*, Marine Biology 133: 409-418 (1999); Attachment # 11.

<sup>259</sup> *Id.* at 415.

<sup>260</sup> *Id.*

<sup>261</sup> *Id.* at 413-414.

<sup>262</sup> *Id.* at 415.

<sup>263</sup> *Waterfront Permits Required for Building West Harlem Waterfront Piers*, ACOE Public Notice Number 2003-00103-Y3 at 2-3; Attachment # 11.

Activities associated with the project will also have indirect effects on the Hudson River, and these may be of even greater concern. Columbia's project plans call for extensive landscaping of its campus, but it gives no mention of the analysis of how this activity will impact water quality of the river. Ordinarily, landscaping involves intensive pesticide and fertilizer use and introduction of non-native plant species that affect erosion and drainage patterns. However, new developments in pest management and landscaping design including use of native species can mitigate much of the negative effects. Unfortunately, Columbia altogether ignores this impact on local wildlife. Columbia's must perform the legally required analysis of its impact on wildlife in the West Harlem portion of the Hudson River.

Columbia also proposes to build a steam and chilled water system that will be coupled with a cogeneration power plant<sup>264</sup> – and it appears from the description of the plans that these facilities will be placed underground as part of the “Factory,” and likely even under the Hudson River.<sup>265</sup> Yet its analysis makes no mention of plans to study the impact of this structure on local wildlife. Even a cursory evaluation of the plans, albeit vaguely described, would reveal the need to study and mitigate thermal pollution and pollution from the power plant's emission fallout onto the water. Water temperature can drastically affect the survivorship and reproductive functions of aquatic organisms.<sup>266</sup>

Air pollution is another potential consequence of this facility. Specifically, particulate matter and chemical fall out from air pollution can severely obstruct physiological functions of aquatic plants and animals.<sup>267</sup> Yet another problem that could arise is the solid waste that would result from operation of this facility. The amount and type of waste would, of course depend on the fuel the facility will use. However, this impact cannot be determined, because Columbia refused to describe the facility and its operational needs. Indeed, the draft scope only revealed this part of the University's plan

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<sup>264</sup> DSOW at 3, 46.

<sup>265</sup> Although not discussed in the DSOW, this plan was publicly discussed by Columbia's representatives and circulated at the CB9 Public Meeting, Oct. 11, 2005.

<sup>266</sup> K.A. Christian and C.R. Tracy. *The effect of the thermal environment on the ability of hatchling Galapagos land iguanas to avoid predation during dispersal*. *Oecologia* 49:218–223 (1981); T.P. Johnson and A.F. Bennett. *The thermal acclimation of burst escape performance in fish: an integrated study of molecular and cellular physiology and organismal performance*. *J. Exp. Biol.* 198:2165–2175 (1995) K.A. Christian and C.R. Tracy. *The Effect of the Thermal Environment on the Ability of Hatchling Galapagos Land Iguanas to Avoid Predation During Dispersal*. *Oecologia* 49:218–223 (1981); T.P. Johnson and A.F. Bennett. *The Thermal Acclimation of Burst Escape Performance in Fish: An Integrated Study of Molecular and Cellular Physiology and Organismal Performance*. *J. Exp. Biol.* 198:2165–2175 (1995), Attachment # 12.

<sup>267</sup> Mark F. Gard. *Effects of Sediment Loads on the Fish and Invertebrates of a Sierra Nevada River, California*. *J. Aquatic Ecosystem Stress and Recovery* 9: 227–238 (2002); J. A. Servizi and D. W. Martens, *Sublethal Responses of Coho Salmon (Oncorhynchus kisutch) to Suspended Sediments*. *Can. J. Fish. Aquat. Sci.* 49:1389–1395 (1992), Attachment # 12.

at the very end of the analysis description and even then only in a passing statement.<sup>268</sup> All these effects can have severely adverse impacts on the Hudson River estuary; therefore, Columbia must identify and adopt habitat mitigation processes that will ensure that the structure itself, its operation-associated temperature changes, and waste stream will not contribute to the further degradation of the West Harlem portion of the Hudson River. Columbia must also discuss how its activity will affect New York City's continued compliance with EPA water quality standards. Columbia must revise its scope to detail plans for study and mitigation of this important impact before the City can in good conscience allow it to go forward with the environmental review process.

Although both project construction and operation will have negative impacts on habitats that are suitable for wildlife, Columbia's development will have an even more profound environmental impact on Manhattanville residents. Many low-income subsistence fishermen use the Harlem waterfront areas to fish and collect aquatic invertebrates such as crabs in order to feed their families. Currently, the NYS DEC has already issued health advisories warning New York City residents to limit their consumption of fish caught in water bodies around the City.<sup>269</sup> The advisory specifically states that pregnant women and children under 15 should not consume fish from these water bodies at all.<sup>270</sup> Therefore, any impact on the local fauna could affect the health of low-income residents. This problem, of course, is magnified when the potential for drainage of stormwater carrying toxic and hazardous material from the project's construction sites or landscaping areas is considered. Because aquatic animals that are exposed to typical hazardous waste material tend to concentrate them in their tissue rather than excrete them as waste, human consumers of aquatic animals that carry toxic material will also become ill.<sup>271</sup> Again, pregnant women, children, the elderly, and immune compromised individuals will be especially vulnerable. Despite the seriousness of this impact, Columbia ignores the legally required analysis of habitat protection and refused to identify or study any mitigation plans to avoid this problem.

Columbia has mentioned that it would investigate the effects of increased discharge from sewage overflows on water quality and aquatic biota. However, Columbia must address the public health problem of Harlem residents' consumption of contaminated fish. Furthermore, it should seek to create a zero (or reduced) waste management plan which addresses reducing runoff waste so it does not contribute to the waste at the North River Sewage Treatment Plant. Presently, the North River Sewage Treatment plant is exempt from treating waste on heavy rain days. Columbia should

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<sup>268</sup> *Id.* at 46.

<sup>269</sup> Melissa Cohen, Director, NYS DEC "I Fish New York" Program, New York State Environmental Justice Advisory Group Meeting (Nov. 30, 2005.)

<sup>270</sup> Melissa Cohen, *supra*.

<sup>271</sup> *Effects of Florida Red Tide on Marine Animals*, HARMFUL ALGAL BLOOM FACTS AND INFORMATION (Fish and Wildlife Research Institute, Florida Fish and Wildlife Conservation Commission, Florida), available at [http://www.floridamarine.org/features/view\\_article.asp?id=5964](http://www.floridamarine.org/features/view_article.asp?id=5964), Attachment # 12.

establish a means to reduce and treat its wastewater on rainy and overflow days, so the Hudson River watershed is not taxed and burdened with its overflow.

Columbia's expansion with its attendant high density use, run-off of construction debris, chemicals, and toxic pesticide residues, therefore, will significantly adverse impacts on this natural ecosystem and the environmental balance of West Harlem's resources.

**K. Columbia's Expansion Plans Are Inconsistent with New York City's Waterfront Revitalization Program Because the Heavy Build-out on Geologically Sensitive Land Threaten the Stability of the West Harlem Waterfront And the Proposed Campus Will Prevent Community Access to the New Waterfront Park**

CEQR requires a detailed analysis of a project's impact on New York City's Local Waterfront Revitalization Program [hereinafter *LWRP*] in order to determine the project's consistency with the policy set forth therein.<sup>272</sup> The Waterfront Revitalization Program carries out flood control, erosion protection, protection of people and property against erosion hazard areas, and ensures public access to recreational uses and visual corridors.<sup>273</sup> The CTM requires a detailed analysis of the project's consistency with the LWRP if the project meets any of the "Location Questions" criteria listed in the "WRP consistency form."<sup>274</sup> Important to the project proponent's analysis of its potential impacts on the study area is the identification of existing waterfront conditions including flood dangers, erosion rates and hazards, floodplains, bulkhead line, pierhead lines, public access to the waterfront, visual corridors, water-dependent uses – both commercial and recreational, and waterfront-enhancing uses such as activity and education centers that add to public enjoyment of the waterfront.<sup>275</sup>

Although the CEQR Technical Manual provides extensive guidance to determining whether a project will have a significant impact on the LWRP, Columbia ignores most of these. Instead, the University chose to casually state that it would simply study its own development plan to determine consistency with the LWRP.<sup>276</sup> Columbia leaves its reviewers to guess<sup>277</sup> at whether or how it will conduct the legally required studies, what plans will be developed in order to allow Columbia to comply with its mandates, and how these plans will be implemented.<sup>278</sup> Columbia's approach glib approach is unfortunate considering that seven acres of its build plan will be under the water.<sup>279</sup>

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<sup>272</sup> CTM § 3K.100 at 3K-1.

<sup>273</sup> *Id.*

<sup>274</sup> *Id.* § 3K.100 at 3K-15.

<sup>275</sup> *Id.* § 3K.110 at 3K-1 to 2.

<sup>276</sup> DSOW at 36.

<sup>277</sup> The discussion of the required analysis is no more than four lines.

<sup>278</sup> *Id.*

<sup>279</sup> *Id.* at 7.

Columbia fails to address how it will maintain the structural integrity of the Harlem Piers in order to support both the waterfront park and Columbia's planned development – which includes extensive build-up of the area around the waterfront. Importantly, Columbia must address the impact of the project's construction activity on the integrity of the piers, particularly with the extensive excavation that will be required in order to install the planned underground service facilities. This is a major yet crucial undertaking that cannot be completed without extensive planning and coordination with the NYS DEC and the Army Corps.<sup>280</sup> Therefore, Columbia's impact on the structural integrity of the waterfront cannot be determined until it releases the details of the plans.

With the increased density that will accompany the Columbia development, roadway and sidewalk paving, and building density and bulk, Columbia's plan is a veritable invitation to disaster for the area's drainage and erosion control. Yet nowhere does the draft scope discuss plans to study the scale of this environmental hazard. Moreover, Columbia fails to identify and analyze the necessary mitigation and/or alternatives that would reduce or avoid this problem. This failure represents yet another missed opportunity for Columbia to take a leadership role with this expansion project. The U.S. Green Building Council has promulgated environmentally sustainable building principles in its Leadership in Energy and Environmental Design Standards [hereinafter *LEED*]; these can be applied to commercial as well as residential facilities regardless of whether they are new constructions or renovation of existing structures.<sup>281</sup> The LEED Guidance includes building designs that incorporate landscaped rooftops (“green roofs”) that help direct drainage and decrease run-off while decreasing the heat island effect, landscaping principles that reduce erosion and decreases run-off, and other design principles that maximize energy efficiency.<sup>282</sup>

Finally, even though the expansion plans require extensive excavation of the project site, the draft scope fails to describe the processes that will be put in place to minimize run-off into and pollution of the Hudson River. Run-off is a year-round problem. In summertime, when the weather is dry, Columbia will likely have to spray the construction-exposed dirt in order to minimize particulate air pollution. Conversely, in fall, winter, and spring when precipitation levels increase, stormwater will run off into the Hudson, carrying construction debris and hazardous material. Once the expansion campus is operational, the intense build-up of impervious surfaces will increase stormwater flow. Currently, the North River Sewage Treatment Plant is already incapable of treating wastewater during heavy rains and storms. The added demand imposed by the activities associated with the expansion campus will overwhelm the system and cause thousands of tons of raw sewage to be poured out into the Hudson River during the storm season. This will pose a health threat to human lives as well as

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<sup>280</sup> See discussion on environmental justice considerations, *infra*.

<sup>281</sup> See generally LEEDS guidelines at <http://www.usgbc.org/DisplayPage.aspx?CategoryID=19>.

<sup>282</sup> *Id.*

viability of wildlife. Because potential for degradation is great, Columbia must revise the draft scope in order to address the project's impact on West Harlem's environment.

**L. Columbia's Expansion Will Overwhelm New York City's Ability to Provide Infrastructure Services Such as Water, Energy, and Sewage and Solid Waste Disposal to Manhattanville Residents and Businesses**

Columbia is planning a comprehensive development that incorporates residential, laboratory research, theater and gallery, teaching and office facilities in Manhattanville.<sup>283</sup> In addition to these University-related uses, Columbia hopes to attract retail and restaurant business lessees to its development.<sup>284</sup> This development will bring hundreds of new Columbia-affiliated residents and thousands of new workers and visitors into Manhattanville. At a time when New York City's facilities are already stretched and fuel costs are skyrocketing, this added density will overwhelm the overburdened City public facilities for providing sewage and sanitation, solid waste disposal, energy, water, and hazardous material protection services. Therefore, Columbia must address how its expansion project will impact the City's public infrastructure.

**1. Columbia's Expansion Will Endanger Emergency Services to Manhattanville Residents and Businesses by Adding Thousands of New Residential and Non-Residential Users to Manhattanville's Already Tenuous Water Supply**

The Public Water Supply Program, first established in 1905 and now administered by the NYS DEC protects and conserves available water supplies by ensuring the equitable and wise use of these supplies by those who distribute potable (drinkable) water to the public for domestic, municipal, and other purposes.<sup>285</sup> Under SEQRA, a water supply permit is necessary whenever a project proposes to acquire, take or develop any new or additional source of water supply in connection with an existing water supply system.<sup>286</sup>

Accordingly, CEQR demands an impact analysis on the City's water supply in cases where a proposed development project would have an exceptionally high demand

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<sup>283</sup> DSOW at 1.

<sup>284</sup> *Id.* at 8, 12, discussing the University's to create street vibrancy with commercial and artistic enterprise.

<sup>285</sup> NYS DEC Policy on water supplies, available at <http://www.dec.state.ny.us/website/dow/watersupply.html#about>. New York City presently draws 94% of its drinking water from the Catskill/Delaware System (located in Delaware, Greene, Schoharie, Sullivan, and Ulster counties west of the Hudson River) and 5% from the Croton System, which maintains upstate basins in Putnam, Westchester, and Dutchess counties. NYC Department of Environmental Protection [hereafter *NYC DEP*], *New York City 2004 Drinking Water Supply and Quality Report* (2004.)

<sup>286</sup> 6 NYCRR § 601.3(c), *Envtl. Conserv. Law* §§ 3-0301(1)(f), 3-0301(2)(m), art. 15.

for water.<sup>287</sup> Additionally, the impact analysis must describe both the incremental increase in demand as a result of the project and the demand at peak use in order to determine whether the existing distribution system can sustain sufficient capacity to maintain supply and pressure.<sup>288</sup> A legally sufficient CEQR analysis must also include the area served by the local water pressure regulator, particularly where the project is anticipated to increase density or cover large areas.<sup>289</sup>

Although its plans are confusing and vague, the draft scope reveals that Columbia plans to build a 17-acre campus that will introduce a variety of new uses, including residential units, research facilities, public performance space, classroom facilities, and a hotel/conference center into a presently industrially zoned area. These new uses will undoubtedly have much higher water demands than the sparse manufacturing and light industry use to which the Manhattanville area is currently put; thus, the project will draw much more water from the existing water supply. Moreover, the increased stress on the water supply will endanger the function of City services, such as firefighting and other emergency and medical water users who depend on sufficient water pressure and availability.

Despite the tremendous size and scope of Columbia's expansion ambitions, it has chosen to ignore almost entirely this CEQR mandate. The draft scope casually mentions that Columbia will determine whether the ability of the "new water lines to handle the existing and estimated additional demand."<sup>290</sup> The draft scope neglects to explain exactly what the "additional demand" would be (e.g. how many residents and workers will be added to the project area), and for that matter, what the existing condition is or how Columbia will determine either of these parameters. Furthermore, the draft scope does not even mention that it will have to apply for a water supply permit from the NYS DEC, a process that will require disclosure of the uses the water will be put to and the intensity of that use. This strategy, while allowing Columbia the luxury of continued flexibility to explore its development options, undermines CEQR's purpose in requiring an environmental impact investigation – to provide decision makers and the public with enough specific and detailed information in order to make an informed evaluation of the environmental impact of a project in order to ensure the health of the environment and the public.

The DCP must not allow Columbia to flout state and City environmental protection laws and regulations in denying West Harlem residents the health and quality of life that is guaranteed of every citizen of this state.<sup>291</sup> Before the City allows Columbia to go forward with the scoping process, it must revise the discussion of the project scope to include the legally required analyses including a detailed discussion of mitigation mechanisms such as water conservation and reclamation measures.

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<sup>287</sup> CTM § 3L.200 at 3L-5.

<sup>288</sup> *Id.*

<sup>289</sup> *Id.*

<sup>290</sup> DSOW at 36.

<sup>291</sup> New York State Constitution § 1.

**2. Columbia's Expansion Will Add Thousands of New Users to the City's Solid Waste Disposal System, Posing a Public Health and Pest Management Danger to Manhattanville Residents and Workers**

The New York City Department of Sanitation [hereinafter *DOS*] is responsible for collection and disposal of municipal solid waste and recyclable materials generated by residences, some nonprofit institutions, tax-exempt properties, and City agencies.<sup>292</sup> Although most residential housing developments will not require an analysis of solid waste disposal impacts, unusually large project and projects that involve unusual waste generation characteristics must consider their impacts on the City's waste management facilities.<sup>293</sup>

Columbia's 17-acre expansion campus will include residential building, public performance and gallery space, bioresearch facilities, administrative offices, teaching halls, underground support and sports/recreational facilities, "privately owned publicly accessible open space," and retail and commercial uses.<sup>294</sup> The project will, thus, introduce thousands of new uses and users into Manhattanville, and the resulting solid waste generation and consequent disposal demands will be enormous. Moreover, if this waste is not properly transferred and disposed of, garbage could languish and attract rodents, mosquitoes, flesh flies, and other disease-carrying pests.

Community health research provides ample evidence that odorants and other solid waste emissions pose a health threat,<sup>295</sup> but the West Harlem community does not need studies to tell them about the dangers of mismanaged waste disposal; they have had first-hand experience with this problem. When the North River Solid Waste facility operated in non-compliance with federal and state standards, rates of asthma other respiratory diseases were much higher than what it is today, not to mention the extreme discomfort and negative impact on school and work performance that its consequent disturbance of mental concentration caused.<sup>296</sup>

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<sup>292</sup> CTM § 3M.111 at 3M-1.

<sup>293</sup> *Id.* § 3M.200 at 3M-4.

<sup>294</sup> DSOW at 3-4.

<sup>295</sup> Danuta O Lis, Krzysztof Ulfig, Agnieszka Wlazlo, and Jozef S. Pastuszka, *Microbial Air Quality in Offices at Municipal Landfills*, *J Occup Environ Hyg* 1 (2): 62-8 (Feb 2004); Krzysztof Fraczek and Wieslaw Barabasz, *Municipal Landfill Site in Krzyz near Tarnow as Source of Microbiological Factors Harmful to Environment and Human Health*, *Przegl Lek* 61 (Suppl) 3:36-9 (2004) – Original in Polish, Attachment # 13.

<sup>296</sup> Margaret H. Gram, *Combating Harlem's Asthma Epidemic*, *Alternet*, Nov. 2, 2003; News article Attachment # 14.

On top of the horrible odors and other damaging emissions garbage can attract disease-carrying pests such as rats and mosquitoes.<sup>297</sup> For example, tenants at a number of public housing facilities in West Harlem, successfully launched a waste disposal program to control the rodent and insect pest problem that was festering in their waste disposal facility.<sup>298</sup> That effort integrated residents' monitoring of each other's disposal habits with managerial efforts to contain and pick up garbage on time.<sup>299</sup> The pest problem arose because the management did not give residents clear instructions on how to package their waste and did not have a good plan for pickup and monitoring of waste. This mismanagement of waste resulted in overfull garbage cans (that attracted rats) and food particles becoming strewn over common areas and in apartment threshold (that attracted insects).

With the high density that Columbia will introduce into the relatively small area that is Manhattanville, a similar problem may arise if a good waste disposal/pickup and monitoring plan is not implemented. Columbia states in the draft scope that it considers the worst-case scenario for waste management to be a maximum residential build plan and will study its impact in this area accordingly.<sup>300</sup> However, out of a 7.3 million square foot development, Columbia will devote a mere 700,000 square feet maximum to residential use. Considering the waste generation capability of the current "take-out" culture of restaurant businesses and research laboratories alone, these uses would outpace the waste generation rates of any residential user. Therefore, Columbia must identify and study plans for managing the waste that will be generated as a result of its expansion development, including the waste resulting from the business ventures that will exist there. This may entail a preliminary comparison of the waste generation rates of different project components and intended uses in order to identify the worst-case scenario. Columbia will have to analyze the maximum build condition for different uses in its study of the worst-case scenario of solid waste disposal. Whatever the result, Columbia must not be allowed to offhandedly call the maximum residential use its "worst-case" scenario and analyze that impact with no further explanation for its decision.

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<sup>297</sup> The Office of Attorney General of New York State has documented these dangers, which are a particular problem for children. Michael H. Surgan, et al. *Pest Control in Public Housing, Schools, and Parks: Urban Children at Risk* (2002), Attachment # 15.

<sup>298</sup> *WE ACT Street Team Takes on Garbage in the City*, WE ACT Healthy Homes Project Newsletter 1 (Wint. 2005); Attachment # 15.

<sup>299</sup> *Id.*

<sup>300</sup> DSOW at 37.

**3. Columbia's Expansion Will Endanger the Mental and Physical Health of Manhattanville Residents and Workers by Adding Thousands of New Users to the West Side's Already Overburdened Sewage and Sanitation System**

CEQR Technical Manual declares the City's commitment to "adequately treating all wastewater generated in the City and to maintaining its wastewater treatment plants at or below" state and federal permits, orders, and decrees.<sup>301</sup> The CEQR guidelines indicate that very large developments with large flows require an analysis of impacts on the City's sewage treatment system because they are likely to have a significantly adverse impact on the City's capacity.<sup>302</sup> Consequently, the project applicant is required to disclose the increase in expected sewage generated by the action in order to allow the lead agency to determine whether the project would be consistent with flow limits, pollutant controls, or other applicable programs.<sup>303</sup>

Similarly, the City manages stormwater flow in order to ensure the integrity of its waterways, which includes minimizing pollutant loading. Ordinarily, rainwater is absorbed into the soil and runs off into streams only when the ground is saturated, but in large cities, extensively paved surfaces<sup>304</sup> allow stormwater to form sheets of flow<sup>305</sup> that collect human waste, toxic material and pollutants to be dumped into major waterways such as rivers and estuaries. Unlike wastewater, stormwater flows into storm sewer systems that channels flow directly into major waterways without pre-treatment. Therefore, projects that will result in significantly more paved areas would likely result in increased stormwater drainage and require an environmental impact analysis under CEQR.

Despite the project's addition of potentially tens of thousands of new users onto an already highly stressed sewage system, Columbia neglects to discuss its impact on the City's sewage capacity. The draft scope casually states that the EIS would "discuss" existing and anticipated demand on the City's sewage and stormwater management systems without giving any detail on how that demand would be analyzed or what impact the increased demand would have.

Columbia's approach flies in the face of the purpose and spirit of the CEQR environmental review process. Moreover, Columbia's planned development will affect the environmental justice balance of the City. West Harlem is already overburdened, forced to host sewage processing for Manhattan's entire west side at the North River

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<sup>301</sup> CTM § 3L.221 at 3L-5.

<sup>302</sup> *Id.*

<sup>303</sup> *Id.* § 3L.221 at 3L-6.

<sup>304</sup> Such as sidewalks and building roofs.

<sup>305</sup> Stormwater flows can sometimes reach very high speeds that could overwhelm treatment facilities.

Sewage Treatment Plant.<sup>306</sup> During periods of heavy storms, Manhattanville area residents must contend with raw sewage pouring into the Hudson River as the City's capacity is overwhelmed. This embattled community has traditionally been forced to accept a host of other unwanted facilities whose activities benefit the entire City, or large sections thereof. West Harlem is home to no less than six diesel-fueled, pollution-generating bus depots, and of course, Manhattanville has its very own. Manhattanville residents have also had to endure the odor, noise, and traffic of the Marine Transfer Station, which was only recently closed due to tremendous community pressure. Columbia would commit a travesty of justice if it continues to ignore the environmental racism perpetrated on this community. Therefore, Columbia's analysis must include mitigation and alternatives that avoids adverse impacts on Manhattanville residents and other low-income communities of color.

#### **4. Columbia's Expansion Will Overburden New York City's Already Tenuous Energy Supply by Adding Thousands of New Users**

CEQR requires a detailed analysis of the energy impact of development projects that are anticipated to have significantly adverse effects on energy consumption for any use – including heating, electricity, and transportation – and from any source – including fossil fuels (oil, coal, gas, etc.), hydroelectric power, and any other kind of fuel.<sup>307</sup> CEQR makes this demand even if project components only indirectly affect overall energy consumption in the City; for example, an analysis is required if a project will significantly increase vehicle miles traveled thus increasing fuel consumption.<sup>308</sup> Moreover, the project applicant is required to disclose its anticipated energy consumption during long-term operation; thus, the applicant must provide a complete profile of “operational energy, or the amount of energy that would be consumed annually after the activity facilitated by the action is operating.” Such activities may encompass heating, cooling, fans, water heating, light, power, and auxiliary uses.<sup>309</sup> Thus, the legally sufficient CEQR analysis describes the current energy consumption within the study area in BTUs and compares this with both the incremental increase in consumption as well as the increase in consumption during peak use as a result of the project.<sup>310</sup>

Columbia's draft scope fails to meet CEQR standards for the analysis of the project's energy consumption as well. In fact, the draft scope provides no discussion of the project's energy needs, not even a description of the structures or activities that will require energy inputs, and certainly no analysis of the impact that the project will have on the City's energy supply – for any energy type or source. Instead, the document makes broad and vague statements about the components of its EIS assessments, discussing

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<sup>306</sup> *North River Sewage Treatment Plant*, WASTE WATER TREATMENT (NYC DEP Feb. 15, 2002), available at <http://www.nyc.gov/html/dep/html/northri.html>.

<sup>307</sup> CTM § 3N.100 at 3N-1.

<sup>308</sup> *Id.* § 3 N.200 at 3N-1.

<sup>309</sup> *Id.* § 3N.300 at 3N-1.

<sup>310</sup> *Id.*

undefined terms such as “green measures to reduce energy consumption” and “new demands” that will be studied. About the only specific use identified in the draft scope is the centralized steam and chilled water plant.<sup>311</sup> Even this discussion is deficient because it provides no information on the number of residential, research or office units that the facility will serve or how Columbia plans to study the facility's own energy consumption needs, efficiency, or mitigation and alternative of the stress it will place on the City's energy supply. Columbia must detail its anticipated average and peak energy needs, the uses that this energy will be required for, the types of fuel that will be used to satisfy this need, and the impacts this use will have on the City's energy supply factoring in the needs of other developments that will occur, not just in West Harlem but in areas served by the current distribution system. Moreover, Columbia must study how it plans to mitigate this effect, including an assessment of sustainable energy-efficient building and landscaping designs and materials.

Ironically, energy consumption is one of the few areas for which Columbia has actually gone through the trouble of identifying a mitigation measure. According to the draft scope Columbia plans to lessen its impact on the City's electric power capacity by constructing a cogeneration plant in order to generate its own electricity.<sup>312</sup> However, the discussion of this plan is buried in the back of the document with a laundry list of other “potential” mitigation measures. Moreover, the University provides no context for the proposal to build the plant because it appears in a stand-alone “Alternatives” paragraph that confusingly discusses a whole host of other project options. This tactic undermines CEQR's objective in providing the public and decision makers with a project description that is sufficiently detailed and understandable in order to make an informed decision, which entails a side-by-side comparison of the project's impacts and the measures that will be taken to eliminate or lessen its negative effects. If Columbia indeed plans to construct a power cogeneration facility, it will need to disclose this fact, describe the plan with specific details<sup>313</sup> and analyze the plant's environmental impact, including the increase in chemical and thermal pollution output into the Hudson River and degradation of West Harlem's air quality and public health.

The City should fulfill its CEQR mandate and refuse to allow Columbia to proceed with the environmental review process until Columbia can provide enough details about its plans for the DCP and the public to intelligently evaluate its environmental impact on the Manhattanville community.

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<sup>311</sup> DSOW at 46.

<sup>312</sup> DSOW at 46.

<sup>313</sup> Including fuel-type, operational capacity, expected average and peak output, emissions, etc.

**M. Columbia's Expansion Will Increase Automobile, Service Vehicle, and Sanitation Traffic Throughout West Harlem and Exacerbate the Shortage of Parking Availability in Manhattanville**

CEQR's requires an analysis of a project's impacts on vehicular traffic and parking; the focus of such an analysis is to determine a project's effects on streets and roadway conditions as well as parking facilities and street parking availability.<sup>314</sup> A detailed analysis is necessary when a development introduces high-density uses into an area and thus generates additional trips; thus increasing demand on the City's transportation facilities.<sup>315</sup>

As part of the traffic and parking analysis, CEQR demands that the project proponent study traffic flow and operating conditions, goods delivery as well as parking conditions.<sup>316</sup> An important consideration in the analysis is an examination of vehicular and pedestrian safety as they relate to the pattern of pedestrian flow and density, particularly in high-accident locations and the project's potential for creating them.<sup>317</sup> The CTM impresses that these studies should also discuss how the project's impacts on traffic and parking affect air quality and noise.<sup>318</sup>

Of primary importance in the transportation analysis is the definition of the study area; the CEQR Technical Manual explains that it is vital for the analysis to capture key locations that would be impacted by the project.<sup>319</sup> Consequently, the applicant must provide a detailed profile of the routes traveled for access to the project site and the number of trips that would be generated at average and peak rates of use.<sup>320</sup> The applicant must also identify and study the project's impact on "problem" intersections, that are most capable of obstructing normal traffic flow, located along or next to routes used by project-generated transit and vehicular traffic. If the project is expected to cause a significantly adverse impact on streets, roadways and transit facility, the applicant must conduct a detailed analysis of mitigation and alternatives that will reduce or eliminate this impact.<sup>321</sup>

In conducting the traffic and parking impacts analysis, the Supreme Court of New York County has ruled that the project proponent may not artificially restrict its study to the area immediately adjoining the project itself, because such an approach would "fail to

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<sup>314</sup> CTM § 3O.100 at 3O-1.

<sup>315</sup> *Id.* § 3O.200 at 3O-1.

<sup>316</sup> CTM § 3O.100 at 3O-1.

<sup>317</sup> *Id.*

<sup>318</sup> *Id.*

<sup>319</sup> *Id.* § 3O.310 at 3O-3.

<sup>320</sup> *Id.*

<sup>321</sup> *Id.* § 3O.510 at 3O-29.

address potential traffic impacts on the streets most affected by the closures.”<sup>322</sup> In *Chatham*, New York City sought to create a “secure zone” around the New York City Police Department [hereinafter *NYPD*] Headquarters as a security measure in the wake of the September 11, 2001 bombing of the World Trade Center.<sup>323</sup> The establishment of the “secure zone” entailed, *inter alia*, the erection of street barriers and police-manned checkpoints, closure of a major street that prevented residents and their visitors from accessing their buildings without stopping to show identification, and diversion of heavily used bus routes.<sup>324</sup> This resulted in traffic congestion and increased local air pollution.<sup>325</sup> Despite the added burden on residents and local public facilities (such as a nearby hospital), the City’s Environmental Assessment Statement [hereinafter *EAS*] restricted its review to an evaluation of how the project would affect very localized bus service in finding that the project would not have a significantly adverse impact on the environment, thus not requiring an EIS.<sup>326</sup> The Court rebuffed the City’s methodology, finding that it failed to take the requisite “hard look” at the advisability of the action.<sup>327</sup> Accordingly, the Court ordered the NYPD to complete a comprehensive EIS that would examine a much wider study area and address a greater scope of issues including pedestrian safety, longer bus and vehicle routes, and traffic congestion.<sup>328</sup>

Like the NYPD in *Chatham*, Columbia has defined a wholly inappropriate study area. Considering the project’s size, it will likely attract staff and students from both the Morningside and Washington Heights campuses as well as new employees from other parts of Manhattan and other boroughs, such as the Bronx or even Queens. Columbia must examine traffic routes serving these areas and the potential for the project to cause congestion, because experience reveals that it will. Many West Harlem residents are low-income families who are already forced to work long hours, sometimes at multiple jobs, to meet their increasing financial burdens. The increased travel time will naturally translate to less time to spend with their families and loved ones, for recreation, and for physical exercise – activities important to maintaining physical and mental health.

Increased vehicle trip generation goes hand-in-hand with air and noise pollution. However, the draft scope makes no mention of how Columbia plans to study the project’s cumulative impact resulting from the interaction between traffic and transit impacts and other project components that could increase such pollution. Columbia must conduct this analysis.

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<sup>322</sup> *Chatham Towers, Inc. v. Bloomberg (Chatham)*, 793 N.Y.S.2d 670, 678 (App. Div. 2004).

<sup>323</sup> *Id.* at 672.

<sup>324</sup> *Id.* at 674.

<sup>325</sup> *Id.* at 675.

<sup>326</sup> *Chatham, supra*, at 679-680.

<sup>327</sup> *Id.* at 680.

<sup>328</sup> *Id.*

In addition to the analysis of traffic impacts, CEQR requires the project applicant to provide a detailed profile of the parking facility available in the study area and identify the project's impact on the capacity of these facilities.<sup>329</sup> Although the draft makes the obligatory mention of a parking analysis, it does not provide any detail on how this analysis will be made or the mitigation that will be required to minimize project effects. The residents of the Manhattanville project area depend primarily on free street parking for their vehicles. The removal of some parking spaces as a result of Columbia's physical structures and the additional residential density, not to mention workers and visitors, will undoubtedly significantly decrease the available parking for the already existing Harlem residents. Despite the project's potential for causing the greatest burden on the poorest members of our community, undercutting the ability to afford a vehicle to get to their worksites or to shop for groceries, Columbia makes no mention of how it plans to study the impact of this loss on the Manhattanville community. Further, Columbia continues to ignore studies of mitigation measures such as implementation of permitting plans that would preserve parking priority for Manhattanville residents or replacing this lost parking capacity by allowing Manhattanville residents access to Columbia parking structures.

**N. Columbia's Expansion Will Place Additional Demand on New York City's Already Overburdened Transit Facilities and Threaten Pedestrian Safety with High Density Use**

CEQR requires project applicants to analyze the development's impacts on transit and pedestrian traffic. This analysis should focus on the public transportation facilities and services and on pedestrian flow of the impacted area.<sup>330</sup>

**Pedestrian Safety** – The draft scope suggests that Columbia's transit and pedestrian analysis will focus on the likely impacts created by new pedestrians. Rather than such a narrow approach, the analysis should also consider the project's effect on the current pedestrian patterns, areas where accidents are likely to occur, and how the added density will impact the safety of residents and workers already in the area. For example, the intersection at 125<sup>th</sup> Street and Broadway, under the subway overpass, at present pose a danger to pedestrians wishing to cross Broadway. This problem is especially pronounced at night and on rainy days, because the street is dark and many cars speed through the area. Adding to this pressure, Columbia's construction will generate potentially hundreds of construction and delivery vehicle trips per day and its operation will generate similar volumes of delivery/pickup vehicles along with worker/visitor automobile traffic. Unless modifications to the streetscape, lighting regime, and traffic control mechanisms for the area, the added density will spell disaster for local users, especially resident children.

Another important and much needed assessment is whether the design of the project will contribute to discouraging local residents from walking in and around the

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<sup>329</sup> CTM § 30.312 at 30-5.

<sup>330</sup> CTM § 3P.100 at 3P-1.

study area. During construction, especially with the extensive excavation required to build the "Factory," the project will deter pedestrian use of the area because of the noise, odors, and dust that will be ever-present.<sup>331</sup> Also during construction, heavy machinery and scaffolding will probably divert foot traffic onto the surrounding streets, increasing pedestrian exposure to vehicular traffic. Both operation and construction will increase use and population density that will undoubtedly cause traffic and pedestrian safety hazards and injuries. Yet the draft scope provides no discussion of Columbia's plan for studying this problem and presents no mitigation or alternative that will reduce or eliminate this impact.

Once the project is operational, Columbia's proposed facilities will stand between many current residents and two important community assets – the Fairway grocery store located on Marginal Way between 132<sup>nd</sup> and 133<sup>rd</sup> Streets, and the Harlem Waterfront Park located on the waterfront between St. Clair Place and 133<sup>rd</sup> Streets. The development's impact on the current and future pedestrian routes to and from these invaluable community facilities should be included in the analysis for this section.

**Columbia Will Overwhelm Transit Capacity** – Columbia has failed to complete its mandated tasks and responsibilities to study its transit impacts. First, Columbia defines a wholly inappropriate study area. Considering the project's size, it will likely attract staff and students from both the Morningside and Washington Heights campuses as well as workers from other parts of Manhattan, New York City, and nearby suburbs. Columbia must examine the transit routes that serve these areas and assess the impacts of the project's added pressure on lines that are already heavily used and congested. For example, the project area is located along the MTA Subway 1, A, C, B, and D lines and bus routes along 125<sup>th</sup> Street, Broadway, and Amsterdam. Subway service along these routes is already highly impacted with overcrowding and aged tracks. Riders frequently experience significant delays from crowded trains that skip stops because they cannot take on additional riders and tracks that break down with increasing frequency.

Many West Harlem residents are low-income families who are already forced to work long hours, sometimes at multiple jobs, to meet their increasing financial burdens from rising rents and food prices. The increased travel time due to train delays and malfunctions will naturally translate to less time available to spend with their families and loved ones, for recreation, and for physical exercise – activities important to maintaining good physical and mental health. Because Columbia's development will have a tremendously negative impact on the health and well-being of the Manhattanville community, it must conduct the proper analysis and identify mitigation and alternatives that will either eliminate or avoid the problem.

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<sup>331</sup> *Manhattanville Development Proposal* at 26.

**O. Columbia's Expansion Will Further Degrade West Harlem's Already Poor Air Quality by Increasing Emission of A Wide Range of Pollutions Including Particulate Matter 2.5, Nitrogen Oxides, Sulfur Oxides, Carbon Monoxide and Dioxide, Hazardous Air Pollutants and Airborne Biological Disease Agents**

A project may impact ambient air quality through pollution emission from mobile and stationary sources during both construction and operational phases.<sup>332</sup> In order to control air quality, federal and state regulations identify a number of air pollutants that are of concern nationwide and statewide ("pollutants of concern" or "criteria pollutants").<sup>333</sup>

At the federal level, guidelines have been established under the Clean Air Act (the National Ambient Air Quality Standards, [hereinafter *NAAQS*]) for six of the seven targeted criteria pollutants: carbon monoxide, hydrocarbons, nitrogen oxides, photochemical oxidants (ozone), lead, particulate matter (PM10 and PM2.5), and sulfur oxides.<sup>334</sup> Additionally, the United States Environmental Protection Agency [hereinafter *US EPA*] has developed the National Emission Standards for Hazardous Air Pollutants [hereinafter *NESHAP*], which limits the emission rates of certain highly toxic compounds.<sup>335</sup> US EPA has particular regulations governing Hazardous Air Pollutants [hereinafter *HAP*] for new facilities that generate up to 10 tons per year [hereinafter *TPY*] of any individual HAP or 25 TPY of any combination of the listed HAPs.<sup>336</sup>

New York State air quality regulations are more environmentally protective than the federal government's. In addition to adopting the NAAQS, the State has implemented standards for additional pollutants, including suspended particulates, hydrocarbons, hydrogen sulfide, fluorides, and beryllium.<sup>337</sup> Further, the NYS DEC has established maximum allowable emission concentrations for some pollutants for which EPA has not established standards; these are known as "noncriteria pollutants."<sup>338</sup> Finally, although it is not addressed in federal legislation, New York State regulates any airborne pollutant that can result in the detection of "malodorous smells" (odors) by the general public at any off-site location.<sup>339</sup>

At the City level, CEQR requires an air quality analysis when a project is expected to cause a significant mobile source increase or create new stationary sources of the federal and state regulated air pollutions.<sup>340</sup>

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<sup>332</sup> CTM § 3Q at 3Q-1.

<sup>333</sup> *Id.* § 3Q.120 at 3Q-2.

<sup>334</sup> CTM § 3Q.121 at 3Q-2.

<sup>335</sup> *Id.*

<sup>336</sup> *Id.*

<sup>337</sup> *Id.*

<sup>338</sup> *Id.*

<sup>339</sup> *Id.* at § 3Q.121.1 at 3Q-4.

<sup>340</sup> *Id.* at §§ 3Q.210, 220 at 3Q-9, 12.

**Construction** – Columbia plans to build facilities on 17 acres of Manhattanville, in a densely populated, heavily used neighborhood.<sup>341</sup> Furthermore, it will construct these facilities over a project lifetime of at least 25 years.<sup>342</sup> The construction phase of the expansion project alone will add thousands of tons of air pollution from both mobile and stationary source emission, including criteria pollutants and HAPs. Mobile source emission in Manhattanville will be increased because of the introduction of dirty, diesel-burning construction vehicles as well as their supply and delivery vehicles. Additionally, because of the heavy excavation that will be conducted, the project will cause substantial increases in particulate matter pollution in Manhattanville. Importantly, PM2.5, a known asthma trigger, will be increased in an area where the asthma rate is three times higher than the City-wide level and 25% of all children already have asthma. Likewise, stationary source emissions will increase as a result of the facilities that will be used to support the construction effort.

Despite the severity of the air quality degradation and consequent health impacts of Columbia's expansion project, the draft scope merely goes through the motions of "describing" the construction period's air quality analysis – really no more a listing of some CEQR technical areas along with summary recitations of the relevant CEQR Technical Manual recommendations with no detail of what facilities will be built, how they will be built, or the methodology Columbia will use to study their impacts. In fact, even with this grossly inadequate list, Columbia goes no further than to state that it will follow the very brief CEQR guidance on the matter. Furthermore, the document makes no mention of an analysis of HAPs levels as required by SEQRA. These are egregious omissions considering the magnitude, intensity, and duration of proposed construction activities, not to mention the very close proximity of the development to schools and high-density residential buildings. This approach is especially inappropriate because CEQR anticipated a project-specific air quality analysis.

Columbia must revise its draft scope to provide the appropriate details of its construction plans along with descriptions of, among other things: 1) the facilities that will be built, 2) the amount of excavation and soil disturbance their construction will cause, 3) the types of equipment that will be used in their construction, including light and heavy vehicles, 4) the hours of the day construction activity will take place, 5) how many hours a day each piece of equipment will operate, 6) a detailed analysis of the types and amount of emissions that each is expected to generate, 7) the type of fuels that will be consumed by construction equipment and vehicles, 8) the routes construction-related vehicles will travel, and other relevant information in order for the DCP and the public evaluate the construction period's air quality impacts. This analysis should include a study of the cumulative impacts the construction phase will have on West Harlem air considering the other pollution-generating uses in the air including the Manhattanville Bus Depot and other such facilities. Additionally, the University must analyze mitigation

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<sup>341</sup> DSOW at 1.

<sup>342</sup> *Id.*

and alternatives that will eliminate or avoid these severe and negative impacts on Harlem's air quality. This study must be conducted according to the NYS DEC Policy.<sup>343</sup>

**Operation** – Columbia plans to operate a host of facilities that will be generated industrial-level pollution emissions. These include the steam and chilled water plant(s), the cogeneration power plant, bioresearch facilities that will require at least Biosafety Level-3 security clearance, parking facilities, kitchen facilities for the hotel and convention center, and vehicle delivery and support facilities all of which will have to be ventilated and exhausted into the environment and thereby contribute to ambient air pollution. Yet Columbia's description of its analysis of impacts on criteria pollutants is minimal and nowhere in the section does Columbia describe how the impacts on non-criteria pollutants will be assessed, even though guidance for their analysis (including for odors and several volatile organic chemicals) are provided in the NYS DEC's DAR-1. If Columbia persists in refusing to address these emissions, it must be made to explain why these pollutants would not need to be assessed, particularly when West Harlem has already been designated the US EPA as a "hotspot" for asthma-triggering air pollutants.<sup>344</sup>

**Mobile Source Analysis** – A project is expected to have a significantly adverse impact on the environment (and thus must conduct a thorough analysis of the air quality impacts) where it would generate additional mobile source emission such as increasing or changing the patterns of vehicle traffic or generating new diesel vehicle trips in an area.<sup>345</sup> In conducting the mobile source analysis, the impacts of some criteria pollutants such as PM2.5 and PM10 must be studied at the microscale level while impacts of other criteria pollutants such as nitrogen oxides and hydrocarbons must be analyzed at the mesoscale level.<sup>346</sup> Accordingly, sensitive receptors of PM2.5 and PM10 must be identified locally. This means that air monitoring must be conducted at relevant locations such as intersections most likely to experience increased automobile and diesel vehicle traffic.<sup>347</sup> Sensitive receptors of nitrogen oxides and hydrocarbons, on the other hand, must be identified regionally. The existing ambient air quality in both analyses must include data from monitors measuring air quality at "breathing height" – in other words, not exclusively from the NYS DEC air monitoring network which locates monitors exclusively on top of buildings but at elevations with air quality relevant to that local children and adults experience everyday as they are going about their activities. At a minimum, the baseline air quality data from the 1996 WE ACT-EPA collaborative Air

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<sup>343</sup> NYS DEC, *CP-33/Assessing and Mitigating Impacts of Fine Particulate Matter Emissions* (Dec. 29, 2003).

<sup>344</sup> See e.g., *Manhattan Community Based Particulate Study Northern Manhattan (Harlem & Washington Heights) (Manhattan Community Based Particulate Study)*, US EPA Region 2 (February 1997), Attachment # 16.

<sup>345</sup> CTM § 3Q.200 at 3Q-9.

<sup>346</sup> *Id.* § 3Q.310 at 3Q-13.

<sup>347</sup> *Id.*

Monitoring study, and the 1996 WE ACT-Columbia collaborative study must be included in the University's air quality analysis.<sup>348</sup>

Importantly, current background levels of PM<sub>2.5</sub> are above the recently promulgated NAAQS promulgated by US EPA.<sup>349</sup> The State of New York is developing a State Implementation Plan [hereinafter *SIP*] that will bring Northern Manhattan into compliance. New York County will need to take measures to reduce ambient PM<sub>2.5</sub> to come within the SIP level. For this reason, future background PM<sub>2.5</sub> conditions will actually be lower than existing conditions. Therefore, Columbia's assessment of the project's generation of PM<sub>2.5</sub> pollution should use the values identified in the new NAAQS, and not the current PM<sub>2.5</sub>.

The determination of receptor locations for CO and PM<sub>2.5</sub> microscale analysis should be done in collaboration with local community residents and organizations. West Harlem is a community with a strong history of participation in air quality studies. Among these are a 1996 study, *supra*, in which local youth measured PM<sub>2.5</sub> at the intersection between 133<sup>rd</sup> Street and Broadway,<sup>350</sup> and a short-term U.S. EPA air monitoring study for PM<sub>2.5</sub>.<sup>351</sup> In both studies, local residents played a key role in ensuring that the intersections selected and the height of the air monitors were representative of large scale human exposure.

Finally, Columbia should analyze the potential for increase in black carbon as an indicator of diesel exhaust specifically. Diesel exhaust pollution must be included in the air quality impacts analysis, because it is a potent asthma trigger. Black carbon is important in this analysis, because it is better indicator of heavy-duty vehicle traffic than PM<sub>10</sub> or PM<sub>2.5</sub>. Because the Manhattanville Bus Depot is a major generator of air pollution in West Harlem, Columbia must also include an analysis of future emissions from the MTA Manhattanville Bus Depot (which houses 240 diesel-fueled buses) as part of the cumulative air quality impacts of its expansion project. This analysis should focus on PM<sub>2.5</sub>, even though the CEQR Technical guidance suggests that PM<sub>10</sub> is the primary pollutant of concern for parking lots used by heavy-duty diesel vehicles.<sup>352</sup> In light of recent general consensus among air pollution scientists that PM<sub>2.5</sub> represents a more accurate, and biologically relevant pollutant from diesel vehicles, the information provided in the CTM is outdated.

In addition to the proper scope and location of air monitoring, the air quality impacts analysis needs the proper modeling of the spread of pollutants. Columbia's proposed model for studying mobile source emissions involves an iterative process that

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<sup>348</sup> Patrick L. Kinney et al., *Airborne Concentrations of PM<sub>2.5</sub> and Diesel Exhaust Particles on Harlem Sidewalks: A Community-Based Pilot Study Black Carbon (Airborne Concentrations)*, *Envtl. Health Persp.* 108:213-218 (2000), Attachment # 16.

<sup>349</sup> US EPA data, available at <http://www.epa.gov/oar/oaqps/greenbk/qnstate.html>.

<sup>350</sup> *Airborne Concentrations, supra*, (2000).

<sup>351</sup> *Manhattan Community Based Particulate Study, supra*, (1997).

<sup>352</sup> CTM § 3Q.321.1 at 3Q-24.

develops assumptions about the volume of various types of traffic in order to identify their pollution output. A general criticism of these models is that their analytic output is only useful insofar as the assumptions made in their generation is accurate and reflect conditions on the ground. Unless the data inputs are based on actual traffic counts, rather than assumed counts developed by the New York State or City Departments of Transportation, the predictions of pollution output will be useless. Therefore, Columbia must conduct the proper field surveys of on-the-ground traffic patterns. Moreover, these surveys must be done at intersections whose traffic will be impacted by project users. In order to conduct this analysis, Columbia will have to disclose the exact use the project facilities will be put to, the type and number of users who will be involved, and their impacts on the local traffic.

**Stationary Source Analyses** – The threshold for designing measures to reduce pollutants emitted from the centralized steam and chilled water plants, and other Heat Ventillation and Air Conditioning [hereinafter *HVAC*] systems, should be a significant increase in local levels of those pollutants, not a violation of ambient air quality standards.

In the absence of details about the size and fuel needs of the proposed central steam and chilled water plant, it is impossible to comment on what Columbia needs to do in order to adequately assess the air quality impact of this facility. If Columbia cannot provide more information about the plant, then they should assume a reasonable worst-case scenario for the plant – one with maximum size that is continuously burning high-sulfur oil, and not other types of fuel such as natural gas.

For section L, the cumulative impact analysis must include PM2.5. There is no logical explanation for why Columbia would include a PM2.5 analysis in all other activities under this task, but not this one.

**Chemical Spills** – Columbia intends to use a substantial part of its expansion facilities for bioresearch.<sup>353</sup> Yet the University plans to use the United States Occupational Safety and Health Administration's [hereinafter *OSHA*] standard for triggering a finding of a "potentially hazardous" situation arising from a chemical spill. This strategy is entirely inappropriate, because the OSHA standards were intended for use in work settings rather than community settings. OSHA's Short-Term Exposure Levels were designed to be protective of the "typical worker," which by definition is an adult who is presumably healthy enough to be working. Clearly, these standards were not designed to be protective of children or the elderly, the immune-compromised, people with asthma, people with heart disease, or people who are otherwise ill. Indeed, any chemical spills taking place during a typical workday will impact people who fall 100% outside of OSHA's definition of "worker." Affected will be people who are at home because they are too young, old, or ill to work. Sadly, because Columbia's expansion campus will be in a densely populated urban center, near schools and communities, any chemical or biohazardous spills will also affect children attending the many local schools

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<sup>353</sup> DSOW at 13-14, 17, and 21.

and elders participating in community activities. Therefore, Columbia must devise better standards for protecting the health of these vulnerable receptors.

Considering that bioresearch facilities will be a key component of the expansion project's land use, Columbia must also include "release of biohazardous or potential hazardous biological agents or materials," in all analysis, particularly because many of these will be airborne disease agents. To this end, Columbia must disclose the type of research that will be conducted in the planned bioresearch laboratories and the names and amounts chemicals these laboratories are expected to use. The University must also analyze and study the buffers that will adequately protect the public against harm. Specifically, Columbia must include the "procedures and systems that would be employed...in the event of a chemical spill in one of the proposed laboratories." This analysis must be extended to include an accidental release of biohazardous materials or other biological agents from the proposed laboratories. For example, the California Environmental Protection Agency [hereinafter *Cal EPA*] has recommended that health buffers should be built around facilities that use specific chemicals.<sup>354</sup>

**Industrial Source Analysis** – The US EPA has developed models that allow industrial facilities to predict the dispersion of air pollution from a variety of industrial sources.<sup>355</sup> The Industrial Source Complex 3 [hereinafter *ISC3*] Model, the dispersion model Columbia has proposed to use to predict its pollution output, is not accurate in estimating dispersion across areas as wide as the quarter-mile distance from the source that the draft scope has identified as the study area. Furthermore, ISC3 is inappropriate for use in the complex terrain of the project site's urban setting, because tall buildings and potential "street canyon" effect might concentrate rather than disperse airborne pollutions. Columbia must identify a better model to predict pollution dispersion through this urban setting.

**New Source Review** – Columbia intends to build a number of new industrial sources. Although the University has been evasive in providing details of its plans, the draft scope makes clear that Columbia's expansion campus will contain an underground service, support, and delivery facility, parking facilities (that may or may not be underground), major bioresearch facilities, steam and chilled water plant(s), and a hotel/convention center that will include kitchen facilities, all of which will require exhaust of air pollution, including criteria pollutants and HAPs, into the environment. Moreover, Columbia plans to construct a cogeneration power plant that will also be a major source of industrial emission.<sup>356</sup> The severity of the environmental degradation that will result from this project cannot yet be determined because Columbia has not

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<sup>354</sup> See generally, Cal EPA and California Air Resources Board, *Air Quality and Land Use Handbook: A Community Health Perspective* (2005), available at <http://www.arb.ca.gov/ch/handbook.pdf>.

<sup>355</sup> *Technology Transfer Network Support Center for Regulatory Atmospheric Modeling*, US EPA, available at [http://www.epa.gov/scram001/dispersion\\_alt.htm#isc3](http://www.epa.gov/scram001/dispersion_alt.htm#isc3).

<sup>356</sup> DSOW at 46.

disclosed the size of these facilities, the specific uses to which they will be put including operating hours and intensity, nor the types of fuel they will require.

Although Columbia fails to discuss these its obligations under existing environmental laws and regulations, its new “industrial” facilities will be subject to a new source review [hereinafter *NSR*] under the federal Clean Air Act [hereinafter *CAA*].<sup>357</sup> Under EPA regulations, individual states can elect to administer their own air programs as long as such programs bring them into compliance with the EPA's NAAQS for that region.<sup>358</sup>

In New York State, the NYS DEC administers the air program.<sup>359</sup> Industrial sources that qualify as major sources of air pollution emission are subject to the *Title V* permitting process, which includes application review by EPA and other states that may be affected by their emissions.<sup>360</sup> Under NYS DEC regulations, part of the review process for applications to operate new, major industrial sources is a requirement that the applicant conduct a Lowest Achievable Emission Rate [hereinafter *LAER*] analysis for nonattainment pollutions.<sup>361</sup> The LAER standard is a stringent requirement, and it is one that Columbia must meet. As part of the application for a permit to build its pollution emitting facilities, Columbia must study its pollution generation and identify the equipment necessary to achieve the emission goals.<sup>362</sup> Moreover, Columbia must implement these measures without regard for costs.<sup>363</sup>

In addition to the technical analysis, Columbia will need to study the environmental justice impacts of its expansion. In 2003, the NYS DEC Commissioner announced the DEC's policy to incorporate an environmental justice analysis into all its permitting actions under State and Federal Environmental Review laws.<sup>364</sup> “This policy provides guidance for incorporating environmental justice concerns into the New York State Department of Environmental Conservation (DEC) environmental permit review process and the DEC application of the State Environmental Quality Review Act. The policy also incorporates environmental justice concerns into some aspects of the DEC's enforcement program, grants program and public participation provisions.” Therefore, under the NYS DEC Environmental Justice Policy, Columbia will have to conduct a full investigation of the disparate impacts of its expansion project on the health and environment of West Harlem's predominantly African American and Latino community.

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<sup>357</sup> CAA § 111 (42 U.S.C. § 7411).

<sup>358</sup> 40 C.F.R. § 51.165.

<sup>359</sup> NYS DEC, <http://www.dec.state.ny.us/>

<sup>360</sup> 6 NYCRR § 201-64 *et seq.* (1996).

<sup>361</sup> 6 NYCRR § 231-2.6.

<sup>362</sup> *Id.*

<sup>363</sup> *Id.*

<sup>364</sup> NYS DEC Environmental Justice Policy, available at <http://www.dec.state.ny.us/website/ej/ejpolicy.html>.

**P. Columbia's Expansion Will Pollute Manhattanville's Environment with Excessive Noise at A Wide Range of Decibel Levels during Both Construction and Operation of Its Facilities**

Under CEQR, noise is defined simply as any unwanted sound.<sup>365</sup> Accordingly, noise raises environmental concerns because even at relatively low levels<sup>366</sup>, noise can cause stress-related illnesses, disrupt sleep and interrupt activities requiring concentration.<sup>367</sup> Noise in New York City is regulated as three types: mobile sources, stationary sources, and construction sources.<sup>368</sup> Whereas mobile sources of noise<sup>369</sup> are those that move relative to a sensitive receptor, stationary sources noise<sup>370</sup> do not move in relation to a noise-sensitive receptor.<sup>371</sup> Construction noise results from both mobile and stationary sources but is analyzed separately because such noise is temporary, even though they may last for years.<sup>372</sup>

The most important step in the analysis of noise impacts is the identification of source, path, and receptor.<sup>373</sup> The source of noise is discussed *supra*; the path of noise is the medium through which sound propagates<sup>374</sup>; and the receptor is the final destination of the sound, which for all intents and purposes under CEQR, is the person hearing the noise.<sup>375</sup>

The law demands the detailed analysis of a development's noise impacts when the project will generate or reroute vehicular traffic, be located within 1,500 feet of a railway, place a stationary source within 1,500 feet of a sensitive receptor, or cause construction equipment to operate within 1,500 feet of a sensitive receptor.<sup>376</sup>

**Construction** – Columbia wants to rezone a full 35-acre portion of West Harlem in order to build its 17-acre expansion campus, including mechanical facilities that will be needed to support the project's intended bioresearch, performing arts theater, hotel/convention center, and residential uses.<sup>377</sup> This very ambitious construction plan will take more than a generation to complete.<sup>378</sup> In the interim, West Harlem community

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<sup>365</sup> CTM § 3R at 3R-1.

<sup>366</sup> Such as noise that is beneath levels that can cause hearing loss.

<sup>367</sup> *Id.*

<sup>368</sup> *Id.*

<sup>369</sup> Eg. trucks, buses, aircrafts, and trains.

<sup>370</sup> E. machinery or mechanical equipment associated with industry or manufacturing and building related equipment such as heating, ventilation, and air conditioning systems.

<sup>371</sup> *Id.* § 3R.100 at 3R-1.

<sup>372</sup> *Id.*

<sup>373</sup> *Id.* § 3R.120 at 3R-1.

<sup>374</sup> E.g. air, water, solid materials.

<sup>375</sup> *Id.* § 3R.121 at 3R-1.

<sup>376</sup> CTM § 3R.220 at 3R-8.

<sup>377</sup> DSOW at 1.

<sup>378</sup> *Id.*

members, and especially those in and around Manhattanville, will be burdened with the significant environmental degradation and health risks posed by the extraordinary noise, air, and water pollution (see discussion *supra*) generated from the construction activity. The background noise will be increased as a result of Columbia's construction activities; these include intensive ground (e.g. bedrock) and soil disturbance that will generate "noise" from vibrational pollution, construction vehicle traffic, automobile street traffic bottlenecks and diversion due to construction roadblocks, and mechanical equipments used for excavation and other construction activity.

Construction noise has been shown to negatively affect human health,<sup>379</sup> and this noise produced from construction work and vehicular traffic is very high on most sound level scales.<sup>380</sup> High noise levels can negatively affect sleep, school, and work performance – all of which have social, economic and health implications.<sup>381</sup> The noise decibels identified by the draft scope, 70 db, is wholly inappropriate for maintaining human. In fact, the World Health Organization has found that noise at 70 db can cause permanent hearing damage. A more fitting noise exposure guidelines would be the World Health Organization's [hereinafter *WHO*] noise exposure thresholds.<sup>382</sup> Accordingly, individuals not involved in direct construction work should only be exposed to 30 decibels [hereinafter *db*] indoors noise and 45 db outdoors, much lower levels than the 70 db identified in the draft scope which is more appropriate for commercial/public areas.<sup>383</sup> Moreover, the NYS DEC recommends that noise exposure for non-industrial, residential settings should not exceed 6 db above ambient noise for any receptor.<sup>384</sup> Therefore, the project's noise impacts should be considered significantly adverse if it increases noise exposure to 6 db above ambient noise.

There is ample evidence showing that exposure to excessive noise negatively impacts health. In children, even common urban noise (such as vehicle traffic) can increase resting systolic blood pressure<sup>385</sup> and elevate urinary stress hormones.<sup>386</sup> As a consequence, children who live in noisier environments, though within parameters common to urban areas, have stronger physiological reactions to discreet stressors (such as reading tests), report higher levels of perceived stress symptoms, and girls report

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<sup>379</sup> D. Ouis, *Annoyance from Road Traffic Noise: A Review*, J. Env't'l Psychol. 21:101-120 (2001), Gary W. Evans et al., *Community Noise Exposure and Stress in Children*, J. Acoust. Soc. Am. 109:1023-1027 (2001), Gary W. Evans, *The Built Environment and Mental Health*, J. Urb. Health: Bulletin of the New York Academy of Medicine, 80: 536-554 (2003), Attachment # 17).

<sup>380</sup> Ouis, *supra*, (2001).

<sup>381</sup> *Id.*

<sup>382</sup> *Factsheet No. 258*, WHO (2001), Attachment # 17.

<sup>383</sup> *Id.*

<sup>384</sup> *Id.*

<sup>385</sup> High blood pressure has been associated with ischemic heart disease. Evans et al., *supra* (2001).

<sup>386</sup> Evans et al., *supra* (2001).

diminished motivation – unable to persist in assigned tasks.<sup>387</sup> Similarly, adults also respond poorly to noise; the resulting pathologies can range from diminished concentration to anxiety and depression.<sup>388</sup>

Columbia is asking our community to endure at least 25 years of a massive build-up that will cause a severe diminution of our quality of life, intellectual development and economic productivity, yet it flatly refuses to detail a plan to study the project's noise impacts and the mitigation measures required therefore. This omission is especially egregious given the project's location in a densely populated community and its very close proximity to neighborhood schools, centers of worship, senior gathering places, and high-density residential buildings.

**Operation** – With the expansion campus, Columbia will introduce thousands of new users into West Harlem and Manhattanville. Consequently, the project will increase traffic from delivery vehicles, buses, and automobiles. Additionally, Columbia advocates opening a new Metro North Stop on the Amtrak line, a non-subway rail use, which will be located very closely to (potentially within 1,500 feet) “retail space” that could be used for community gatherings or other noise-sensitive uses.<sup>389</sup> All these uses trigger the need for a detailed analysis of the noise impacts of the project.<sup>390</sup> Despite specific guidance from the CEQR Technical Manual, Columbia has failed to detail the necessary analysis.

The study methodology identified in the draft scope is inadequate to assess the noise impacts of the project. First, because CEQR's primary purpose in demanding an analysis of a project's noise impacts is the protection of the health and safety of area residents and users, the determination of the location of receptors, their sensitivity, and the sensitivity of their particular use of the area is an important part of the noise impacts analysis. However, an accurate determination of noise receptor and their sensitive uses cannot be done without knowing the age and sensitivity of residents and the uses to which local facilities are put. As discussed above, many Manhattanville dwellings are occupied by non-traditional residents who may not be “visible” to ordinary forms of demographic data collection. Furthermore, in the Manhattanville community, as in many communities of color, the ostensible name of a facility may not reflect its actual use by community members. For example, a coffee shop may be the *de facto* community center, because it is a natural place for local residents to gather to discuss issues of social or business importance. This is so even if such facilities are not explicitly named on a Sanborn Fire Insurance Map. Therefore, data on the existence and location of sensitive receptors and sensitive uses cannot be collected without personal interviews of community members. Columbia must conduct the necessary in-field surveys and interviews with residents in order to determine the true noise impacts of its expansion project.

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<sup>387</sup> *Id.*

<sup>388</sup> Ouis, *supra* (2001).

<sup>389</sup> DSOW at 8.

<sup>390</sup> See e.g., CEQR regulations *supra*.

Second, Columbia fails to describe an appropriate method for determining the baseline ambient noise level. This is an important part of the analysis because it establishes the amount of noise that a project can incrementally increase as part of its operation. NYS DEC has issued guidance for this process in a report entitled *Assessing and Mitigating Noise Impacts*.<sup>391</sup> The NYS DEC guidance recommends that for non-industrial (e.g. residential) settings, new noise sources should not exceed ambient noise levels by more than 6 db at any receptor. Thus, if a project increases the Leq noise levels by 6 dB or more, it should be considered a significantly adverse impact that must be mitigated or the project proponent must identify a project alternative that would avoid the impact.

Additionally, the determination of existing ambient noise levels in and around the project area must be done at peak noise generation times. The draft scope identifies four time periods – weekday AM, weekday midday, weekday PM, and weekday nighttime – for analysis.<sup>392</sup> However, it gives no specific information as to what the exact time any of these categories fall within; for example, the draft scope does not explain what the hour-time “weekday AM” is. Moreover, the document gives no justification for why the ambient noise will only be measured at these four specific time points. Consequently, the analysis may miss key peak noise generation times that may result from different uses that may occur at different hours during a “weekday AM.” For example, the early morning commute and delivery commute may both occur during a “weekday AM” but may be staggered in time – e.g. one occurs from 7:30-9:00 AM and the other from 10:00-11:00 AM – therefore, using only one morning time point may miss one or the other of these uses.

Third, the screening analysis described in subsection B proposes to use a doubling of passenger car equivalents [hereinafter *PCE*].<sup>393</sup> This method is inappropriate as the threshold for developing further analysis because a doubling of the PCE would generate unacceptable levels of noise for most receptors in Manhattanville. An increase, for example, in heavy-duty vehicle traffic (such as tractor trailer trucks, garbage trucks, or buses) may not translate to a doubling of PCE's, but will result in a considerable increase in ambient noise. Given the highly residential nature of the neighborhood and the presence of schools at the perimeter of the development area, a threshold 25% PCE increase is a far more defensible criterion.

Fourth, Columbia entirely ignores any discussion of the health impacts of the noise that its expansion project will generate. Because urban noise, even at low relatively routine level,<sup>394</sup> can have such a detrimental impact on the health of particularly children, an assessment of the public health impact of the project's noise generation should be required. This is especially imperative because Columbia will add thousands of users

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<sup>391</sup> NYS DEC, *Assessing and Mitigating Noise Impacts* (2000), available at <http://www.dec.state.ny.us/website/dcs/policy/noise2000.pdf>.

<sup>392</sup> *Id.*

<sup>393</sup> DSOW at 44.

<sup>394</sup> See e.g., Evans et al., *supra* (2001) and Ouis, *supra* (2001).

who will bring with them higher public and personal vehicle traffic, delivery traffic, and transit noise. In addition, the types of facilities Columbia has planned, including a performance arts theater and hotel/convention center, will extend the activity time of the neighborhood over a much greater part of the day, thus prolonging sensitive receptors' exposure to health damaging noise. The DCP must demand that Columbia complete this analysis and identify measures to mitigate damages to Manhattanville residents' health.

**Q. The Construction Phase of Columbia's Expansion Campus Will Degrade Manhattanville's Environment through Increased Air and Noise Pollution, Water Contamination, and Traffic and Pedestrian Obstruction**

**Pedestrian Safety** – The landscape design of a community as well as competing amounts of vehicular and pedestrian traffic determine pedestrian safety within the area. Although the draft scope neglects to consider pedestrian safety during the construction period, accidents and injuries is a health concern for many Harlem residents. Both adults and children living in Central Harlem, which in the survey conducted includes the Manhattanville project area, are currently hospitalized at a much greater rate than the overall hospital admission rate of the rest of New York City.<sup>395</sup> In 2001 alone, 1,729 local adult residents were admitted into the hospital for street and traffic accidents and injuries.<sup>396</sup> Central Harlem's adult death rate due to accidents and injuries was 65% higher than that for the rest of New York City.<sup>397</sup> But, with accidental and injuries hospitalization rates almost twice the citywide level,<sup>398</sup> the most vulnerable group is Central Harlem's children because they must traverse a virtual obstacle course created by heavy traffic and commercial use (and often construction scaffolding) as they walk to and from local schools, bus stops, and play areas.

During the early phases of construction, Columbia will add new users, increased automobile and construction vehicle traffic into Manhattanville. Increased vehicular traffic (in construction phase and thereafter) will lead to a rise in vehicle and pedestrian accidents; this increase will come primarily from construction vehicles, and vehicles delivering supplies.

More importantly, construction at the site will require major traffic and pedestrian diversions and sidewalk scaffolding and blockages in order to accommodate building renovation and construction excavation. Creating scaffolding and blocking off sidewalks will result in pedestrians having to walk in the streets, cross the street to use the sidewalk on the other side, or use alternate streets entirely. All of this means pedestrians will be forced to interact more frequently and closely with vehicle traffic, which in turn will

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<sup>395</sup> *Community Health Profiles: the Health of Central Harlem, Manhattan (Including Morningside Heights) (Health of Central Harlem)*, New York City Department of Health and Mental Hygiene, (2003), Attachment # 18.

<sup>396</sup> *Id.* at 5.

<sup>397</sup> *Id.* at 4.

<sup>398</sup> *Id.*

increase the chances for traffic accidents and injuries to occur. Further, diversions for pedestrians are typically poorly lit or are completely enclosed, which severely undermines the sense of safety everyone needs when they are walking to and from their homes, work, and shopping, etc., especially at night.

During the latter phases of construction leading to project completion, the project will increase vehicle traffic due to increasing numbers of Columbia employees commuting to and from the project work site, trucks making deliveries of campus supplies, waste management pickup for the campus, shuttle buses to move students between Columbia's different campuses, among other uses that will require vehicles. Again, the much heavier traffic will result in greater interaction between pedestrians and vehicles and thereby increase the chances for traffic injuries and fatalities.

Columbia's introduction of new uses and obstructions into the Manhattanville project area will exacerbate an already unsafe landscape design and further threaten the safety of Harlem residents. Therefore, the University must analyze the expansion project's impact on the safety of walking conditions and take appropriate measures in order to avoid further degradation of the health and safety of this community.

**Physical Activity** – According to a recent New York City Department of Health and Mental Hygiene survey of adults living in Central Harlem and throughout New York City, 25% of Central Harlem residents rated their own health as “poor” or “fair,” compared to 19% for NYC residents on the whole.<sup>399</sup> Maintaining a healthy lifestyle through physical activity is particularly difficult for Harlem residents who have inadequate access to clean and safe parks and other open spaces that are conducive to physical activity. More than 1 in 4 adults in Central Harlem gets no physical activity,<sup>400</sup> and the health consequences of this problem is magnified by the lack of healthy food choices in Central Harlem, where fast food restaurants abound but affordable high-quality food outlets are sparse. The result is that obesity and diabetes is highly prevalent in Central Harlem adults (1 in 4 Central Harlem individuals is obese and 9% has diabetes).<sup>401</sup> Being overweight/obese is directly related to the built environment and lack of open space.

During the initial phase of construction, Columbia's construction project may temporarily obstruct vital/popular blocks and avenues where residents walk, bike lanes, and park entrances. Construction-induced traffic congestion may deter people from walking or playing outdoors in fear of breathing in fugitive dust from construction-related activities and pedestrian accidents. Further, construction excavation activities may altogether destroy popular playgrounds and open spaces.

During later phases of construction leading up to project completion, new uses and facilities will be introduced into Manhattanville. These will include typical

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<sup>399</sup> *Health of Central Harlem, supra*, at 3.

<sup>400</sup> *Id.*

<sup>401</sup> *Id.* at 8.

university research and office facilities as well as new retail food service stores and restaurants. The crucial question will be whether the new campus' design includes elements that will encourage physical/outdoors exercise and promote the availability of high quality, healthy food options that are affordable to the local residents – or whether the existence of the campus will deny access to open space (such as the new waterfront park) and force residents to incur more inconvenience in reaching food outlets.

Columbia claims that it aims is to “generate street vibrancy” which will encourage outdoor activity and improve street safety.<sup>402</sup> In reaching this goal, the University proposes to operate the new campus without traditional walls and gates that could alienate the community.<sup>403</sup> However, the draft scope makes a single reference to this proposal and discloses no further plan details that would ensure that Columbia would not erect walls and gates at some point in the future. Furthermore, the plans as revealed does not include any provision for campus security, which is a mainstay at Columbia's other campuses – specifically Morningside and Washington Heights. At a minimum, the University will likely post security guards at key campus entrances. Regardless of the stated intent of Columbia planners, the actual impact of such security stations will be to discourage local residents from using or walking through the campus. Considering the design of the “College Walk” campus at West 116<sup>th</sup> Street, not to mention the lack of doors on the West 125<sup>th</sup> Street side of Prentiss Hall, Columbia will probably replicate its community-unfriendly campus design, whether this unwelcome environment is intended or not. In a worst-case scenario, this will make Columbia's development worse than no development at all. The upshot of this is that the campus will act as a major barrier to community residents who live to the north and west of the development area who will have to walk through campus-enclosed streets and the campus itself in order to reach the Harlem Waterfront Park at the end of West 125<sup>th</sup> Street. This waterfront park is community resource that will provide badly needed recreational space and physical activity opportunities.

The draft scope must either make provisions to ensure the campus will remain open and available to public use or include, in its “reasonable worst case scenario,” the possibility that local residents will not feel welcome to use the open space and recreational facilities in and around the new development. In case of the latter occurrence, appropriate alternatives and mitigation measures must be analyzed in order to avoid or minimize the impact of the loss of open space.

In order to mitigate some of these negative effects, Columbia must incorporate landscape designs that will encourage physical activity into their campus plans and identify or build alternative open space and recreational areas to offset the loss during construction. Moreover, the University must stake steps to ensure that these facilities will be open and available for public use.

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<sup>402</sup> DSOW at 12.

<sup>403</sup> *Id.* at 11.

**Cardiovascular Disease** – Heart disease is the leading cause of death in Central Harlem.<sup>404</sup> Although Central Harlem's annual rate<sup>405</sup> is 5% lower than New York City's rate<sup>406</sup>, Central Harlem residents are 20% more likely to be hospitalized for complications from heart disease than people who live elsewhere in the City.<sup>407</sup> Central Harlem residents are vulnerable a number of risk factors related to cardiovascular disease; these include high blood pressure, high cholesterol, and overweight/obesity. These risk factors' negative effect on cardiovascular health are in turn exacerbated by greater air pollution<sup>408</sup>, higher stress, lack of physical activity and exercise, and lack of access to fresh and nutritious foods in the community are also associated with heart disease.

During the initial construction phase, the pollution loading of increased air and noise pollutants will worsen Harlem residents' already poor cardiovascular health. Columbia plans extensive excavation in the project area. This will result in an increase in fugitive and fine particles emission, thus intensifying the already large amount of particulate matter pollution found in the air. Particulate matter is associated with increased mortality from cardiovascular incidents.

The introduction of new users into the project area will increase local vehicle traffic (from both automobile and supply/construction trucks and machinery), and the increased activity will result in increased background noise. Both particulate matter and noise have been connected to increased stress-related cardiovascular problems in adults.

During the later phases of construction leading to project completion, Columbia's expansion campus will decrease local residents access to recreational spaces, specifically the Harlem Waterfront Park, thus diminishing their opportunity to exercise or conduct physical activity. Further, local residents will be unable to obtain affordable, high-quality foods, because the expansion campus will similarly block access to Fairway, the closest supplier of fresh, nutritious, and affordable foods in the Manhattanville area. These consequences may be unavoidable if community members are not consulted in the planning of the project, because residents are the people who know the routes most used to reach these public facilities. In order to ensure that local users are not shut out of the very facilities they helped to establish in the area, local community residents must play a role in the project's scoping process.

**Noise** – The draft scope does not include a proposal for assessing and mitigating construction-related noise. This is an egregious omission considering the magnitude, intensity, and duration of proposed construction activities, not to mention the development's very close proximity to schools and high-density residential buildings.

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<sup>404</sup> *Health of Central Harlem, supra*, at 4.

<sup>405</sup> 303 deaths per 100,000 people. *Id.*

<sup>406</sup> 304 per 100,000. *Id.*

<sup>407</sup> *Id.* at 5.

<sup>408</sup> Poor air quality is directly associated with death from cardiovascular diseases and with reduced life expectancy.

The screening analysis described in subsection B of the Noise analysis does not provide good justification for using a doubling of passenger car equivalents as the threshold for developing further analysis.<sup>409</sup> A small increase, for example, in heavy-duty vehicle traffic<sup>410</sup> may not translate to a doubling of PCE's, but does result in a considerable increase in ambient noise. Given the highly residential neighborhood at the perimeter of the development area, and the presence of nearby schools, a threshold of significance should be set at 25% increase over present noise levels. This criterion for determining construction noise impacts is appropriate, particularly when such noise has been shown to have such negative effects on human health.<sup>411</sup>

**R. Columbia's Expansion Will Threaten the Public Health of Manhattanville Residents and Workers through Increased Exposure to Dirty Air, Hazardous Materials, Noise at A Range of Decibel Levels, Stress from Increased Travel Time, Depression Due to Housing Displacement, and Pollution of the Water Resources**

Columbia plans to build very extensive facilities in a construction project that will span at least 25 years. The construction period alone will generate noise and stress that will disrupt the health and well-being of Manhattanville residents. On top of this burden, the community will have to live with the threat of chemical and biological disease agent contamination into their environment. Columbia must conduct the proper analysis of the impacts of its expansion campus on the public health of West Harlem residents.

**1. Columbia's Expansion Will Diminish the Mental Health of Harlem Residents Because of the Stress Generated from Fears of Displacement**

Central Harlem residents are eighty percent (80%) more likely to be hospitalized for mental health problems than other New York City residents.<sup>412</sup> Since the 9/11 attacks mental health problems such as depression and anxiety have plagued many New Yorkers; however, the burden of such problems is higher in Central Harlem. In a recent telephone survey conducted within Central Harlem, 5% of adult residents (approximately 5,500 people) reported experiencing serious emotional distress. Among the many environmental stressors that these individuals identified as factors that contributed to their perceived stress level were: noise, the anxiety that is created when an individual feels a loss of control over his/her community, and an overall loss of a sense of community.

Columbia's expansion project will add to this stress burden. During the initial construction phase, the excavation work and increased vehicular traffic will generate

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<sup>409</sup> DSOW at 44.

<sup>410</sup> Such as tractor trailer trucks, garbage trucks, or buses.

<sup>411</sup> See discussion on Construction Impacts, *supra*.

<sup>412</sup> *Health of Central Harlem, supra*, at 5.

noise that will be very high on most sound level scales.<sup>413</sup> Such common urban community noise has been known to raise the resting systolic blood pressure, an accurate predictor of stress, of children.<sup>414</sup> Noise may also cause depression and/or anxiety in adults and negatively impact their concentration ability.<sup>415</sup>

Columbia's expansion will also increase community fears of displacement and gentrification. The expansion project will outright demolish some of the existing affordable housing stock in Manhattanville, causing primary displacement of residents currently living there.<sup>416</sup> An even more insidious effect of the expansion project is that it will spur a rash of land speculation and cause rent and housing prices in the area to skyrocket. This will result in a second and much more widespread wave of secondary displacement as current residents will be pushed more to the margins of the City because they can no longer afford their present home. Residents in the area already fear losing their homes because some landlords have begun readying themselves for the high-income population that Columbia will bring into the area. These landlords have either already raised rent or opted out of rent subsidy programs in order to raise their rents. The fear of residential displacement can create stress that are in turn manifest in mental and physical disease.<sup>417</sup> Furthermore, displacement will break up extended family units and cause further trauma to individuals and families.<sup>418</sup>

During later construction phases leading up to project completion, anxiety will likely increase as the presence of security guards and strange/new people are introduced into the area. Although Columbia claims that it intends to create an inviting and inclusive Manhattanville campus, the University's secretive tactics and refusal to disclose details of its plans have only increased the community's fears.

As the CEQR Technical guidelines notes, "the field of public health is constantly evolving as new research becomes available." Recent developments in the field include an improved understanding of the relationship between environmental hazards, environmental stress, and mental health. Therefore, the draft scope should include an assessment of the mental health consequences of the impacts to socioeconomic conditions.

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<sup>413</sup> Ouis, *supra* (2001).

<sup>414</sup> Evans et al., *supra* (2001).

<sup>415</sup> Ouis, *supra* (2001).

<sup>416</sup> DSOW at 27.

<sup>417</sup> Gilbert C. Gee and Devon C. Payne-Sturges, *Environmental Health Disparities: A Framework Integrating Psychosocial and Environmental Concepts*, *Env't'l Health Persp.* 112: 1645-1653 (2004), Attachment # 19.

<sup>418</sup> Mindy Fullilove, *supra* (2004).

**2. Columbia's Expansion Will Decrease the Physical Health of Harlem Residents Because It Will Deprive the Community of Much Needed Open Space Exercise Facilities**

The relationship between health-promoting facilities<sup>419</sup> and health outcomes<sup>420</sup> is an area in which public health research has recognized an increasing connection. Therefore, any development that discourages local residents' use of the waterfront park and the Fairway grocery store poses an unreasonable risk to public health. Given the unfriendly nature of Columbia's planned expansion campus, this risk is likely to become a reality for Harlem residents. Campus gates, security guards, walls, and raised pedestrian bridges all act as an effective barrier between the Columbia campus and the local community. Indeed, the current plans call for the maximum open space in the development proposal to be located in the interior of the overall project, rather than along the perimeter where it would invite use by local residents. If this is any indicator of how welcoming the overall design and operation of the facility will be, it is quite possible that the development will in fact effectively act as an even worse barrier to the utilization of the local park and grocery store. This possibility, and the consequent impacts on public health (specifically physical activity patterns, and mental health) must be assessed in this section of the EIS.

**3. Columbia's Proposed Bioresearch Laboratory Facilities Threaten the Public Health of Harlem Residents with Potential Contamination from Biohazardous Material and Airborne Disease Agents**

Columbia plans to construct bioresearch laboratory facilities in a very densely populated urban area. The federal government has guidelines define permitting criteria based on the type of research that may be conducted any given bioresearch facility.<sup>421</sup> The operational parameters<sup>422</sup> of a given bioresearch laboratory is defined by the biosafety level assigned to the facility that houses it. Compliance with the guidelines is monitored by periodic reports to and inspection by the NIH and the CDC. A facility's biosafety level is also a good measure of the type of research agents used and how they can affect the surrounding human population. For example, Biosafety Level-1 laboratories pose the least human health danger and Biosafety Level-4 laboratories pose the greatest danger to human health.<sup>423</sup>

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<sup>419</sup> Such as open space, recreational facilities, access to healthy foods.

<sup>420</sup> Such as cardiovascular disease, obesity, and diabetes.

<sup>421</sup> *Biosafety in Microbiological and Biomedical Laboratories*, Report from the U.S. Department of Health and Human Services, Centers for Disease Control and Prevention [hereinafter *CDC*] and THE National Institutes of Health [hereinafter *NIH*] (1999) Attachment # 18.

<sup>422</sup> Such as research practice, safety equipment, and lab design.

<sup>423</sup> *NIAID Biodefense Research Factsheet and Overview (Biodefense Research Factsheet)*, National Institute of Allergy and Infectious Diseases [hereinafter *NIAID*],

Assuming the type of research that will be done at the expansion campus will be similar to that done at Columbia's Washington Heights Medical School campus,<sup>424</sup> the Manhattanville campus will likely be a Biosafety Level-3 facility. Therefore, the research that will be done in Manhattanville will likely make use of a variety of disease agents including viral, bacterial, and fungal agents. Some of the better-known bacterial agents include typhoid fever, pulmonary and non-pulmonary tuberculosis, and plague (bubonic, pneumonic, etc.). Viral agents could include HIV, Hepatitis B and C, and West Nile. Fungal agents often found in these labs are *Coccidioides immitis*<sup>425</sup> and North American *Blastomycosis*.<sup>426</sup>

Biosafety Level-3 laboratories often work with potentially lethal disease agents that are airborne.<sup>427</sup> Bioresearch laboratories are often controversial because the operational secrecy of such labs prevents neighboring communities from knowing or understanding the risks the lab poses. Researchers who work in these laboratories are required by the National Institute's guidelines to wear protective gear including clothing, gloves, goggles, and respiratory devices.<sup>428</sup> By contrast, community members, who are vulnerable to infection should an accidental release occur, will not be outfitted with the necessary equipment. Moreover, while laboratory workers will have advance notice of releases and can rely on emergency procedures to safeguard them from infection, residents will not even be aware of any release under Columbia's current operational protocol. The presence of a Biosafety Level-3 laboratory in densely populated, urban areas such as Manhattanville is dangerous because even a single emission of disease agent into the community may affect thousands of people who live, work, and play nearby.

Considering the public health threats that Columbia expansion project poses to the Manhattanville community, it is unacceptable that the University merely states that it will "[follow] the guidelines presented in the CEQR Technical Manual" in order to identify the development's public health impacts, particularly when the CTM's guidance is a short three-page discussion of issues that should be addressed. Columbia must conduct a

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available at <http://www3.niaid.nih.gov/biodefense/public/factsheets.htm>, Attachment # 20.

<sup>424</sup> See e.g., *Research at the Proposed Manhattanville Campus*, Columbia U., CB 9 Pub. Mtg. (Oct. 11, 2005).

<sup>425</sup> *Coccidioides immitis* causes pulmonary disease.

<sup>426</sup> *Blastomycosis* is a fungal disease that is known to cause skin lesions, respiratory problems and bone/joint pain. Rebecca E. Cummins et al., *Disseminated North American Blastomycosis in an Adolescent Male: A Delay in Diagnosis*, *Pediatrics* 102: 977-978 (1998), available at <http://pediatrics.aappublications.org/cgi/content/extract/102/4/977>, *Medicyclopedia*, General Electric Company (1997-2005), available at <http://www.amershamhealth.com/medicyclopaedia/medical/Volume%20III%201/NORTH%20AMERICAN%20BLASTOMYCOSIS.asp>, Attachment # 20.

<sup>427</sup> *Biodefense Research Factsheet*, *supra*.

<sup>428</sup> *Id.*

thorough investigation of its significantly adverse impacts on public health and implement effective mitigation measures that will eliminate these impacts or identify the appropriate development alternatives in order to avoid them.

**S. Columbia Must Identify and Study Mitigation Measures That Would Eliminate the Expansion's Adverse Impacts and This Analysis Must Be Compared Side-by-Side with the Analysis of the Appropriate Technical Area**

“CEQR requires that any significant adverse impacts identified in the EIS be minimized or avoided to the fullest extent practicable, given costs and other factors.”<sup>429</sup> Therefore, where a significantly adverse impact exists, the project proponent must identify potential mitigation measures, present them for public discussion, assess their potential effectiveness, and make recommendations for implementation.<sup>430</sup> The National Environmental Policy Act [hereinafter *NEPA*], after which SEQRA and CEQR were modeled, requires “Federal agencies to take into account all environmental consequences of their projects ... as well as all possible and feasible mitigation measures[]” before they decide to undertake such a project.<sup>431</sup> If no mitigation is available, the EIS must disclose these as significantly adverse impacts that cannot be mitigated so that decision makers can evaluate the advisability of the project accordingly.<sup>432</sup> SEQRA (and thus CEQR), therefore, “requires a decision maker to balance the benefits of a proposed project against its unavoidable environmental risks in determining whether to approve the project.”<sup>433</sup>

The CEQR Technical Manual provides specific guidance on the identification and analysis of project mitigation.<sup>434</sup> For each technical area, the CTM provides specific strategies for avoiding, eliminating, minimizing, and in the case of natural resources restoring, environmental resources that would be negatively impacted by the project's construction/operation. For example, the CTM recommends that project applicants should mitigate direct displacement impacts by, *inter alia*, “relocating the displaced residents within the neighborhood,” provide relocation assistance (including lump sum payments, payment of moving expenses, payment of brokers' fees, and payment of redecorating expenses), or “to replace affordable units elsewhere in the study area to offset the effects of the action.”<sup>435</sup>

The CTM's mitigation discussion is placed squarely within the guidance for analysis of individual technical areas,<sup>436</sup> and not in a separate, stand-alone section. This approach clearly demonstrates CEQR's intention that mitigation measures must be

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<sup>429</sup> CTM § 1B.241.5 at 1-10.

<sup>430</sup> *Id.*

<sup>431</sup> *Town of Henrietta, supra*, references therein at 446.

<sup>432</sup> *Id.*

<sup>433</sup> *Town of Henrietta, supra*, at 446-447.

<sup>434</sup> See generally CTM Chapter 3 *et seq.*

<sup>435</sup> CTM § 3B.510 at 3B-15.

<sup>436</sup> See generally the CTM.

studied and implemented specific to and as an integral part of the analysis of individual technical area. Considering the policy behind CEQR's environmental impacts analysis requirement (See comments on the DSOW's "Project Description" in Section II of these comments, *supra*), this juxtaposition likely reflects the drafters' intent to provide decision makers and the public with a side-by-side comparison of the available options for the development in order to facilitate the required "reasoned deliberation" over the advisability of a project in view of its environmental impacts. In any case, CEQR certainly did not intend that an omnibus attempt at mitigation would be sufficient.

In order to comply with the relevant statutes, the DCP must "take into account all environmental consequences" and consider "all possible feasible mitigation measures" before it takes any action on the Columbia expansion rezoning application. As part of this evaluation, the DCP must consider the Columbia's significantly adverse impacts on Manhattanville's environment and determine whether the mitigation measures that the University will identify will be sufficient to avoid, eliminate, or minimize these effects. However, the DCP cannot fulfill this function if Columbia's analysis itself is deficient, which it is. Against the CTM's advice, Columbia has chosen in its draft scope to divorce mitigation from the analysis of individual technical areas; instead, the University employs a single mitigation analysis for the entire project.<sup>437</sup> This scheme undermines CEQR's purpose in tailoring the mitigation studies to the specific type of damage (e.g. in specific technical areas) the project would cause because it ignores the detail necessary to identify effective mitigation. The DCP must require Columbia to revise its scope of work to study project mitigation alongside its analysis of impacts in individual technical areas.

**T. Columbia Must Consider Alternatives to Its Development Plan in Order to Avoid the Significantly Adverse Impact the University Will Have on the Manhattanville Neighborhood and Residents**

CEQR specific demands a rigorous analysis of alternatives that will accomplish a proposed project's stated goals but will avoid the negative impacts that will result from the project as proposed.<sup>438</sup>

Columbia claims that one of its primary objectives in choosing West Harlem as its expansion site is its desire to facilitate an economic renaissance and allow the neighborhood to participate in the prosperity that has spread over New York City.<sup>439</sup> If this is true, then Columbia has no excuse in not considering the EDC's Master Plan (a 197-a plan submitted to the City Council under the New York City Charter Rule 197) as a viable and actually preferred alternative because it will not entail the substantial environmental degradation that Columbia will cause in Manhattanville. Although Columbia claims that its plan is consistent with that of the EDC's, the two could not be anymore different.

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<sup>437</sup> DSOW at 46.

<sup>438</sup> CTM § 2B.200 at 2-4.

<sup>439</sup> DSOW at 1.

A side-by-side comparison of the two plans reveals the Master Plan's superiority over Columbia's in both its ability to accomplish the stated project objective as well as its negligible impact on the environment. Whereas Manhattanville's development under Master Plan would support a true mix of diverse economic and social uses in which the public may participate, Columbia's plan is really just a plan to develop Columbia uses. Under the Master Plan, the housing stock, and importantly the rental assistance programs for low-income residents, would remain intact. In fact, the plan is flexible enough to allow additional residential units to be developed if the demand arises and the community approves.<sup>440</sup> Columbia's plan, on the other hand, calls for the eviction of tenants in buildings it already owns and the use of eminent domain to take properties that it does not yet own and do the same there.<sup>441</sup> While Columbia plans to erect residential facilities as part of its development plan, these units will only be available to Columbia affiliates, and not the residents who will be displaced.<sup>442</sup>

The Master Plan envisions that Manhattanville will develop new ventures while retaining its current businesses in order to create a diversified economic and tax base. Columbia's development will result in exactly the opposite. First, Columbia will be the only landowner in the project site. As such, Columbia, through its leasing power, will control the business opportunities that will be available in the area. Second, because Columbia is an educational institution and has tax-exempt status, it will not contribute to the property tax base of Manhattanville. In essence, Manhattanville's economic fortunes will depend on Columbia.

The Master Plan builds explicit mechanisms for meaningful community participation in the development that will occur in Manhattanville. The plan is for development to occur in phases with smaller projects and time for community members to reflect on the changes that have taken place in their neighborhood and together decide on the direction they want those changes to go.<sup>443</sup> By contrast, Columbia has imperiously forced on the community a very comprehensive plan that calls for a radical dismantling and rebuilding of Manhattanville without any input from residents, workers, or businesses. Furthermore, despite the fact that Columbia's plan will dominate West Harlem's land use policy for at least the 25 years of its construction and many more after it is complete, the University has made no provision for public assessment of the development's impacts nor for public participation in revising the plan in order to mitigate environmental harms.

Columbia must include an alternatives analysis that at the very least considers the advantages of the Master Plan, particularly because this plan precedes Columbia's and has won the support of community members and city officials alike. Because the Master Plan meets the stated objective of facilitating West Harlem's economic revitalization, the

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<sup>440</sup> Master Plan at 34.

<sup>441</sup> DSOW at 2, 5.

<sup>442</sup> *Id.* at 2.

<sup>443</sup> Master Plan at 34.

City should, pursuant to CEQR's guidance<sup>444</sup> consider this "reasonable" alternative rather than Columbia's expansion as the actual proposed action.

Even if Columbia's true objective is not to increase Harlem's economic participation, the University still subject to CEQR and SEQRA's mandate that development projects must minimize their negative impacts to the environment and public health. Therefore, at the very least, Columbia must identify and analyze alternatives that would minimize or avoid its environmental and health impacts. For example, Columbia must consider alternative locations within the study site for siting facilities such as the bioresearch laboratories or parking garages so that their exhaust systems do not empty into sensitive uses and users such as a senior gathering place or the Robert Clemente School, which will be one of its neighbors. The project alternatives analysis is yet another area that highlights the importance of community consultation and participation in the expansion project's planning process. Vital to this process is a complete and detailed disclosure of the University's building plans and purposes therefore so that community members can identify and evaluate needed mitigation and alternatives.

**U. The DCP Must Not Allow Columbia to Commit 35 Acres of the City's Limited and Prized Manhattan Real Estate Resources for Generations to Come without Requiring That the University Conduct the Proper Environmental Impacts Analysis and Provide Public Benefits to the West Harlem Community in Exchange for the Privilege to Build There**

With the current speculation and high demand for land in Manhattan, real estate has emerged as New York City's most sought-after commodity. As part of this trend, affordable housing has decreased and the cost of living, even for acquisition of the most basic necessities such food and transportation, has dramatically increased. In order to fulfill its space needs, Columbia wants to co-opt to its private use 35 acres of waterfront Manhattan real estate,<sup>445</sup> the air we breathe, the water in which we recreate and from which some of us feed our families, and the peace and quiet we need in order to be productive and enjoy our lives. Columbia is asking the City to rezone a full 35-acre area, even though the draft scope only describes plans to develop 17 acres of this parcel. Yet, if this rezoning application is approved, any future development in the new district will be "as of right," requiring no further environmental review. Essentially, Columbia is asking the City, and the people of New York, to relinquish their right to have input into how a massive part of West Harlem will be used and to limit that use's impact on the environment and the public's health. Despite the scope, magnitude, and duration of this project, it appears that Columbia is only willing to provide its building plan for and to study its impacts on less than half of the area it wants rezoned.

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<sup>444</sup> CTM § 2.B.200 at 2-4.

<sup>445</sup> DSOW at 1.

Columbia's disregard for the public's rights and the City's laws is more insidious than failing to foresee development of a larger land parcel than that on which it plans to build. Not only has the University flouted the City's procedure by submitting a wholly inadequate scoping document, it has chosen to provide a purposefully confusing building plan and to conduct its impacts analysis piecemeal (under the guise of a "phased" build plan) in order to escape disclosure of its true and potentially devastating environmental impacts. The City must not commit such valuable public resources as land (on which we can build affordable housing), fresh air, and clean water to a developer who clearly neither considers the public interest nor has any regard for the rule of law in our society. Therefore, DCP must refuse Columbia's rezoning application until the University produces a draft scope document that addresses at a minimum the legally required elements of an environmental impacts analysis and the appropriate mitigation and alternatives analyses.

## V. ENVIRONMENTAL JUSTICE

The basic tenet of environmental justice [hereinafter *EJ*] is that "minority and low-income individuals, communities, and populations should not be disproportionately exposed to environmental hazards."<sup>446</sup> Importantly, communities of color should participate fully and meaningfully in any government action that affects our environment.<sup>447</sup>

Recent reports confirm what residents of Harlem and other communities of color have always known, this goal is far from realized. People of color live in the worst environmental conditions and are 79% more likely than whites to be exposed to "industrial pollution [] suspected of posing the greatest health dangers."<sup>448</sup> The environmental justice movement has emerged to combat this gross inequality.

In 1994, President Clinton issued Executive Order 12,898 Federal Actions to Address Environmental Justice in Minority and Low Income Populations commanding each federal agency to make EJ part of its mission by, *inter alia*, developing strategies to reduce the disproportionate impact of environmental hazards on minority and low income populations.<sup>449</sup> Accordingly federal agencies including the EPA have affirmed this principle in their own internal policies.<sup>450</sup>

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<sup>446</sup> Michael B. Gerrard, *Environmental Justice and Local Land Use Decisionmaking*, TRENDS IN LAND USE FROM A TO Z 126-155 (Patricia Salkin, ed. 2001).

<sup>447</sup> *Id.*

<sup>448</sup> David Pace, *Minorities Suffer from Industrial Pollution: AP Analysis of EPA Database Shows Poor, Uneducated Breathe Worst Air*, The Associated Press, Dec. 14, 2005, available at <http://www.msnbc.msn.com/id/10452037/>; Attachment # 21.

<sup>449</sup> Michael B. Gerrard, *Environmental Justice: Legal Update*, Albany Law School EJ Symposium (Dec. 8, 2005).

<sup>450</sup> *Id.*

At the state level, governors of a number of states have issued similar executive orders directing state agencies to include EJ considerations into their official actions. Although Governor Pataki of New York has yet to issue his own executive order to this effect, the NYS DEC has on its own initiative followed the lead of states like New Jersey and New Mexico. In response to pressure from community leaders and environmental justice organizations, the NYS DEC in 2003 issued a policy requiring staff members to include environmental justice considerations in the agency's environmental permitting decisions.<sup>451</sup> The NYS DEC policy states, in relevant part, that the agency is committed "to promote environmental justice and incorporate measures for achieving environmental justice into its programs, policies, regulations, legislative proposals and activities. This policy is specifically intended to ensure that DEC's environmental permit process promotes environmental justice. This policy supports the DEC's continued funding and implementation of environmental programs that promote environmental justice, such as urban forestry, environmental education, the 'I Fish NY' program and watershed enhancement projects. This policy also encourages DEC efforts to implement other programs, policies, regulations, legislative proposals and activities related to environmental justice."<sup>452</sup> The NYS DEC Commissioner has demonstrated the agency's commitment to its goal of achieving environmental justice by convening an EJ Advisory Group [hereinafter *Advisory Group*]. The Advisory Group is charged with helping the agency to identify issues of community concern and develop the analytical framework methodology that would facilitate the agency's study and resolution of the issues – WEACT's Executive Director Ms. Peggy Shepard is a member of the Advisory Group.

In few other development projects is an EJ analysis as relevant as it is in Columbia's Manhattanville expansion. With a population that is overwhelmingly African American and Latino,<sup>453</sup> low family incomes,<sup>454</sup> high health risks<sup>455</sup> and health outcomes<sup>456</sup> and a disproportionate burden of environmental and health hazards,<sup>457</sup> West

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<sup>451</sup> *New York State Department of Environmental Conservation Environmental Justice Policy (NYS DEC EJ Policy)*, available at <http://www.dec.state.ny.us/website/ej/index.html>.

<sup>452</sup> *NYS DEC EJ Policy*.

<sup>453</sup> Manhattanville's population is comprised of 53% African American and 21.8% Hispanic, many of whom speak English only as a second language. Data from 1990/2000 Census surveys, ThomsonWest Popdemo database, available at <http://www.westlaw.com>.

<sup>454</sup> The median annual family income in Manhattanville is about \$17,000, and 71.8% of the residents without a college degree. However, with the recent gentrification activities in the area, the median family income is anticipated to rise to approximately \$41,000 per year. Data from 1990/2000 Census surveys, ThomsonWest Popdemo database, available at <http://www.westlaw.com>.

<sup>455</sup> The US EPA has declared this area "hotspot" for air pollution asthma triggers. *Manhattan Community Based Particulate Study, supra*.

<sup>456</sup> Harlem's residents die from environmental-related health problems at a much higher rate than residents of New York City residents on the whole: 90% for strokes, 85% for diabetes, 200% for both kidney disease, 200% for chronic lung disease, and 35% more for cancer. They are also 60% more likely to be sent to the hospital for asthma. But

Harlem is the quintessential EJ community.<sup>458</sup> As detailed above, Columbia's proposed Manhattanville development will have significantly adverse impacts on the West Harlem community in every measurable aspect of the environment,<sup>459</sup> but the University has entirely ignored any analysis of its disparate impacts on this EJ community. Columbia's approach is more than insensitive; it violates express NYS DEC and US EPA permitting policy. As a project applicant, the University is required to follow this policy.

Although Columbia has segmented the project in an apparent effort to avoid a thorough discussion of the compulsory NYS DEC permitting process, major components of the development will need air and water permits from the agency. First, Columbia plans to build seven acres of its development under the Hudson River;<sup>460</sup> this will require water permits from the DEC as the state administrator of the US ACE's National Pollutant Discharge Elimination System [hereinafter *NPDES*] permit.<sup>461</sup> Second, Columbia's proposed steam and chilled water facility with its associated cogeneration power plant<sup>462</sup> will constitute major industrial sources that will have to undergo a New Source Review [hereinafter *NSR*] under a permitting program administered by DEC and subject to approval by US EPA and any state whose air quality will be affected by its emissions.<sup>463</sup> Third, Columbia's large buildings, particularly its bioresearch and underground service and parking facilities, which will cause exhaust emissions of both chemical and biohazardous and disease agents, will also probably constitute new major industrial sources that will similarly have to undergo the NSR process.<sup>464</sup>

Because its development will exacerbate Manhattanville's already heavy pollution and economic burden, Columbia must revise its DSOW to include an analysis of its environmental justice impacts in order to comply with state and federal environmental permitting policy.

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Harlem's children are the most vulnerable to environmental pollution; they are hospitalized for asthma at more than twice and for lead poisoning at 1.2 times the rate of the City as a whole. Moreover, Harlem's infants are 25% more likely to have low birth weights and twice as likely to die than the rates for the City as a whole. Central Harlem Health, *supra*, at 4-7.

<sup>457</sup> Harlem hosts six of New York City's 19 bus depots, including the biggest facility – the Manhattanville Bus Depot, the North River Sewage Treatment Plant, and the ever-looming possibility that the Harlem Marine Transfer Station will reopen.

<sup>458</sup> See generally COUNCIL ON ENVIRONMENTAL QUALITY, ENVIRONMENTAL JUSTICE GUIDANCE UNDER THE NATIONAL ENVIRONMENTAL QUALITY ACT (Dec. 10, 1997), available at <http://www.whitehouse.gov/CEQ/>.

<sup>459</sup> As quantified under the CEQR technical area analysis.

<sup>460</sup> DSOW at 4.

<sup>461</sup> Clean Water Act § 401 (33 U.S.C.S. § 1341); 6 NYCRR Part 608, § 608.9.

<sup>462</sup> DSOW at 46.

<sup>463</sup> 40 CFR Part 60, Subds (D) & (Da); 6 NYCRR Part 201, § 201.6.

<sup>464</sup> *Id.*

## VI. CONCLUSION

Columbia University wishes to develop the largest planned development in Northern Manhattan since the railway came to the area. Despite the incomparable magnitude and duration of its expansion project, the University has released a project description and environmental impacts analysis (in its draft scope of work) that is incomplete and insufficient; thus, preventing the public and decisionmakers from intelligently evaluating the project's true environmental costs. To be sure, the DSOW is so badly drafted and confusing that it baffles even experienced expert city planners.<sup>465</sup> The University's approach defies its legal obligation under the City Environmental Quality Review Law to draft a scoping document that describes the project in enough detail for the public and decisionmakers to decide upon the advisability of the project given its environmental consequences.<sup>466</sup> Therefore, WE ACT urges the DCP, as the project's lead agency charged with protecting the environment for Manhattanville residents, to demand that Columbia revise its DSOW to include a complete project description and thorough analysis of the type and magnitude of adverse impacts the project will have on Manhattanville's residents, community, and environment. Furthermore, Columbia must be made to identify and implement alternative development plans and/or mitigation measures that will reduce, avoid, or eliminate these effects. Without these changes, Columbia should not be allowed to move forward with its plans.

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<sup>465</sup> Interview with Dr. Jason Corburn, Professor of Urban Planning and Design, Columbia University, in New York City (Dec. 12, 2005).

<sup>466</sup> CTM § 1.230 at 1-7.