


Memorandum

TO: Jack D. Homkow, Director, Office of Environmental Affairs

FROM: Sara E. Stein, AICP, Environmental Manager 

DATE: March 9, 2015

RE: *State Environmental Quality Review (SEQR) Determination* for the Columbia University 2015 Financing Project — Independent Colleges and Universities Program

The Dormitory Authority State of New York (“DASNY”) has received a funding request from Columbia University (“Columbia” or the “University”) pursuant to DASNY’s Independent Colleges and Universities Program for its 2015 Financing Project (the “Proposed Project”). Accordingly, the Proposed Project is subject to environmental review pursuant to the *State Environmental Quality Review Act (“SEQRA”)*. Based on a review of the attached *Credit Summary and Staff Report* dated January 30, 2015, and supporting documentation completed by a representative of the University, it has been determined that for purposes of *SEQRA*, the Proposed Action would consist of DASNY’s authorization of the issuance of up to \$300,000,000 in one or more series of fixed- or variable-rate, tax-exempt and/or taxable bonds to be sold through one or more negotiated offerings and/or private placements at one or more times on behalf of the University.

The proceeds of DASNY’s bond issuance would be used to finance various University-wide construction and renovation projects located at Columbia’s Medical Center, Morningside and Manhattanville campuses located in the borough of Manhattan, New York County, New York, and at its Lamont-Doherty Earth Observatory campus in the Palisades, Rockland County, New York. The bond issuance would also be used to fully and/or partially refinance the University’s commercial paper, which was used to refund DASNY’s Columbia University Insured Revenue Bonds, Series 2004B.

DASNY completed this environmental review in accordance with *SEQRA*, codified at Article 8 of the New York *Environmental Conservation Law (“ECL”)*, and its implementing regulations, promulgated at Part 617 of Title 6 of the *New York Codes, Rules and Regulations (“N.Y.C.R.R.”)*, which collectively contain the requirements for the *State Environmental Quality Review (“SEQR”)* process. Representatives of the University completed a series of Project Documents that detail each of the Proposed Project activities, along with a summary List of Eligible Projects That May Be Funded from DASNY 2015A Bond Proceeds (see attached).

The Proposed Project would include construction of the following buildings or facilities to be used for academic and research purposes on the Manhattanville Campus located within the area bounded by West 125th/129th Streets to West 131st Street from Broadway to 12th Avenue: the Jerome L. Greene Science Center, the Central Energy Plant for the Jerome L. Greene Science Center, the Central Below-Grade Facility (slurry walls and foundations), the Lenfest Center for the Arts, the University Forum (Bowtie Building), and open spaces. These project components have been evaluated

separately in DASNY's *Findings Statement* dated March 9, 2015, for the *Continuation of Phase 1 Components of the Manhattanville in West Harlem Rezoning and Academic Mixed-Use Development Project*, which is a Type 1 action under SEQRA (attached).¹

The Proposed Project would also include the following renovation projects in buildings or facilities used for academic and research purposes on the Columbia campuses:

- Renovation of the Lamont-Doherty Earth Observatory, including a new core lab at the 100 Level, located on the Lamont Campus at 61 Route 9W, Palisades, New York;
- Renovation of administrative facilities located on the Manhattanville Campus at 615 West 131st Street (the Studebaker Building), including Phase A and B and the 600 Level;
- Renovation of the Nash Building for the School of Arts, located at 3280 Broadway on the Morningside Heights Campus, including the design, construction and fit out of the 500 level for the Theatre Program to include classrooms, offices, student spaces, and support space;
- Renovation of the Institute for Comparative Medicine Animal Facilities on the 18th and 19th floors of the William Black Medical Research Building and College of Physicians and Surgeons ("P&S") Building, located on the Medical Center Campus at 630/650 West 168th Street;
- Renovation of Pupin Hall Levels 800 and 900 into the Physics Theory Center, located on the Morningside Heights Campus at 538 West 120th Street;
- Renovation of the 1100 Level of the Northwest Corner Lab, located on the Morningside Heights Campus at 550 West 120th Street;
- Renovation of the 600 and 800 Level Labs in Fairchild Hall, located on the Morningside Heights Campus at 1212 Amsterdam Avenue;
- Renovation of the 648, 648A and 648B Lab in Havemeyer Hall, located on the Morningside Heights Campus at 3000 Broadway Avenue;
- Renovation of the Shared Facility Clean Room in the Center for Engineering and Physical Space Research ("CEPSR") nanoscience building, located on the Morningside Heights Campus at 530 West 120th Street; and
- Upgrades to various existing Institutional Real Estate ("IRE") apartment properties on the Upper West Side of Manhattan at West 107th Street to West 108th Street from Columbus Ave to Central Park West, West 108th Street to West 110th Street from Amsterdam Ave to Riverside Drive, West 110th Street to West 122th Street from Morningside to Riverside Drives, and/or West 122nd Street to West 125th Street from Broadway to Riverside Drive for Institution related housing (a list of the IRE, which includes more than 130 properties, is attached).

¹ Certain projects included in this Columbia University 2015 Financing Project were previously reviewed under SEQRA as part of the Columbia University 2011 Financing Project and 2012 Financing Project (see DASNY's *Findings Statement* dated December 6, 2010, for the *Components of the Manhattanville in West Harlem Rezoning and Academic Mixed-Use Development Project*). In a letter dated February 11, 2015, a representative from Columbia University indicated that there were no significant changes or additions to the scope of work on these projects.

As described above and in the attached documents, the Proposed Project would involve maintenance or repair involving no substantial changes in an existing structure or facility; the replacement, rehabilitation, or reconstruction of a structure or facility, in kind, on the same site, including upgrading buildings to meet building or fire codes; and/or the purchase of furnishings and equipment, which are Type II actions as specifically designated by 6 *N.Y.C.R.R.* § 617.5(c)(1), 6 *N.Y.C.R.R.* § 617.5(c)(2), and 6 *N.Y.C.R.R.* § 617.5(c)(25), respectively. The Proposed Project would also involve the refinancing of taxable commercial paper issued by the University (Columbia University Insured Revenue Bonds, Series 2004B). Refinancing existing debt is a Type II action as specifically designated by 6 *N.Y.C.R.R.* § 617.5(c)(23). Type II “actions have been determined not to have significant impact on the environment or are otherwise precluded from environmental review under Environmental Conservation Law, article 8.”² Therefore, no further *SEQR* determination or procedure is required for any component of the Proposed Project identified as Type II.

The Proposed Project was reviewed in conformance with the *New York State Historic Preservation Act of 1980* (“*SHPA*”), especially the implementing regulations of section 14.09 of the *Parks, Recreation and Historic Preservation Law* (“*PRHPL*”), as well as with the requirements of the Memorandum of Understanding (“*MOU*”), dated March 18, 1998, between DASNY and the New York State Office of Parks, Recreation and Historic Preservation (“*OPRHP*”). In compliance with Article III, Section 3.0 of the *MOU*, *OPRHP* will be notified of the Proposed Project being funded with bond proceeds. The Studebaker Building, which is located on Columbia’s Manhattanville Campus, is eligible for listing on the State and National Registers of Historic Places. In a letter dated December 8, 2005, *OPRHP* opined that the proposed renovation of the building would have no adverse impact upon historic resources. It is the opinion of DASNY that the Proposed Project would have no impact on historical or cultural resources in or eligible for inclusion in the National and/or State Registers of Historic Places.

Attachments

cc: Donna A. Rosen, Esq.
David P. Ostrander
SEQR File
OPRHP File

² 6 *N.Y.C.R.R.* § 617.5(a).

Columbia University
List Of Eligible Projects That May Be Funded From DASNY 2015A Bond Proceeds

<u>CAMPUS</u>	<u>PROJECT</u>	<u>PROJECT DESCRIPTION</u>	<u>PROJECT COST (000's)</u>
Lamont	Lamont-Doherty Earth Observatory - New Core Lab 100 Level	Renovation of 100 level to provide additional labs and support facilities for senior investigators, technicians, postdoctoral scientists and students of the University.	\$ 4,500
Mahattanville	615 West 131st St - Phase A&B	Renovation of the 100 and 200 levels of the Studebaker Building that houses University administrators.	\$ 500
Mahattanville	615 West 131st St - 600 Level	Renovation of the 600 level of the Studebaker Building to convert space formerly leased by Alexander Doll Company into office space for University administrators.	\$ 7,000
Mahattanville	A&S - Nash for School of Arts	Design and construction of fit-out of the 500 level for the Theatre Program of the School of the Arts including classrooms, offices, student spaces, and support space such as a set shop and costume shop.	\$ 2,100
Mahattanville	Central Energy Plant (for Jerome L. Greene Science Center)	Construction of slurry walls and foundations and the procurement and installation of equipment for the central energy plant serving the Jerome L. Greene Science Center.	\$ 4,500
Mahattanville	Jerome L. Greene Science Center (including foundations)	Construction of Jerome L. Greene Science Center including all systems required to complete the building and remaining procurement, as well as completion of building foundations.	\$ 157,100
Mahattanville	Lenfest Center for the Arts	Procurement of trade contracts and construction of all systems required to complete new academic building that is part of the initial development of the Manhattanville campus. The building will house programs for School of the Arts and Wallach Gallery.	\$ 12,100
Mahattanville	University Forum	Design development and preparation of construction documents for a new academic building that is part of the initial development of the Manhattanville campus. The building will house an academic conference facility for the University including an auditorium, conference room, faculty offices and support spaces as well as program areas to support the conference center.	\$ 9,000
Mahattanville	Open Space in Manhattanville	Continued design development, construction documentation and cost estimation of small square adjacent to Jerome L. Greene Science Center and the Lenfest Center for the Arts, as well as design development for the large square between sites 6B and 7 and the open space on site 1 and phase II landscape.	\$ 2,600
Medical Center	Black/P&S Animal Care Facility	Repair and modernization of Institute for Comparative Medicine Animal Facilities on 18th & 19th floors of William Black/P&S buildings to address antiquated and deteriorating infrastructure.	\$ 18,100
Morningside	A&S - Pupin 8 & 9 Physics Theory Center	Conversion of the east side of 800 and 900 levels into new Physics Theory Center for use by faculty, postdoctoral researchers and graduate students of the University.	\$ 3,500
Morningside	A&S - Northwest Corner Lab 1100 Floor Fit-Out	Design and construction to fit-out entire 1100 level of Northwest Corner academic research building for use by neuroscience researchers and the Department of Physics.	\$ 5,100

<u>CAMPUS</u>	<u>PROJECT</u>	<u>PROJECT DESCRIPTION</u>	<u>PROJECT COST (000's)</u>
Morningside	A&S - Fairchild 600 Level	Reconfiguration and fit-out of existing laboratory on 600 level into new facilities to include faculty offices, semi-private offices for graduate students, interaction spaces and a large shared conference room.	\$ 1,100
Morningside	A&S - Fairchild 800 Level	Design and collateral project construction for renovation of existing laboratory areas and support spaces on 800 level for two new faculty members to include wet laboratories, administrative space and new equipment rooms.	\$ 2,500
Morningside	A&S - Shared Facility Clean Room in CEPSR Nanoscience	Renovation and expansion of existing Nanofabriation Facility for clean room supporting academic and research activities on 1000 level of Center for Engineering and Physical Space Research.	\$ 2,000
Morningside	A&S - Havemeyer 648, 648A & 648B Lab	Renovation of rooms 648, 648A, and 648B in Havemeyer Hall from former webt lab into new laser room, office, and wet lab area for new faculty member.	\$ 1,000
Morningside	Institutional Real Estate Renovation	Maintenance and upgrade of Residential Real Estate portfolio that provides housing for faculty and graduate students of the University.	\$ 31,800
TOTAL:			<u><u>\$ 260,000</u></u>

COLUMBIA UNIVERSITY
IN THE CITY OF NEW YORK

OFFICE OF THE TREASURER

February 11, 2015

Ms. Sara Stein
Office of Environmental Affairs
Dormitory Authority of the State of New York
One Penn Plaza, 52nd Floor
New York, NY 10119

Re: Environmental Approvals for Series 2015A Revenue Bonds

Dear Sara:

Per your discussion with Jackie Aronson, I am writing to confirm the inclusion of certain projects from Columbia's DASNY Series 2012A in our upcoming DASNY Series 2015A new money issuance. Those projects are as follows:

- 615 West 131st Street Phase A and B – Manhattanville
- Central Energy Plant – Manhattanville
- Jerome L. Greene Science Center (including foundations) – Manhattanville
- Black and Physicians & Surgeons Institute for Comparative Medicine – Medical Center

The descriptions of these projects that were prepared for our Board of Trustees' approval (known as Project Documents) are in your files from the Series 2012A bond issuance. There were no significant changes or additions to the scope of work on these projects, including those in Manhattanville that are covered by the related Environmental Impact Study (EIS) submitted in 2011.

If you have any questions, please feel free to contact me. Thank you for your help with our approvals.

Sincerely,



Colin Redhead
Deputy Treasurer
Columbia University

Project Document

LAMONT-DOHERTY EARTH OBSERVATORY
NEW CORE LABORATORY BUILDING
LABORATORY RENOVATION
100 Level
Construction Phase

Statement of Purpose and Need

A 2010 National Science Foundation grant facilitated the design and construction of approximately 8,600 square feet of new shared laboratory space supporting the Lamont Center for Biogeochemistry located on the 200 level of the New Core Laboratory building. That work was completed in the spring of 2013.

The 100 level renovation will leverage the investment made in mechanical, electrical and plumbing infrastructure during the renovation of the 200 level and will provide additional complementary labs and support facilities. This is the culmination of a multiyear, strategic investment in the Core Repository and a new Center for Biogeochemistry, which has attracted three new senior researchers within the last year. The new researchers are expected to generate \$4 to \$5 million in additional research revenue per year. The renovated New Core Laboratory building will provide facilities shared by 40 senior investigators, technicians, postdoctoral scientists and students.

Project Scope

The previous request provided funding for design phase services that included feasibility, schematic design and the preparation of construction documents. This phase of the project will include the construction phase for the fit-out of 6,400 square feet of space on the 100 level of the New Core Laboratory building. The project is budget driven to provide a maximum of five new laboratories, new restrooms, a renovated corridor and entry, and a suite of office/support rooms. Priority will be given to the complete build-out of 3 to 4 new laboratories.

Project Budget

	Previous Request	Current Request	Total Request
Construction	\$76,000	\$2,702,000	\$2,778,000
A/E Fees and Expenses	472,000	17,000	489,000
Hazardous Materials	0	30,000	30,000
Furniture, Fixtures & Equipment	0	25,000	25,000
Commissioning	49,000	7,000	56,000
Contingency	63,000	315,000	378,000
Project Management	40,000	204,000	244,000
Total	\$700,000	\$3,300,000	\$4,000,000

Project Financing

The current request, which is based on schematic design cost estimates, is \$3,300,000. The total request of \$4,000,000 will be funded by debt to be serviced by the Lamont-Doherty Earth Observatory. Lamont-Doherty Earth Observatory has established a not to exceed project budget of \$4,000,000. The final allocation of sources of funding will be made prior to the issuance of University debt.

This is a declaration of official intent for purposes of United States Treasury Regulations Section 1.150-2. The maximum principal amount of bonds expected to be issued to permanently fund the project, based on current cost estimates is \$4,000,000 plus costs of issuance and any reserves established in connection with the bonds. To the extent that costs increase, it is expected that the principal amount of bonds will be increased to fund the project. Any costs temporarily financed on an interim basis with University funds are expected to be reimbursed with bond proceeds to the extent that such costs are not funded with external sources and to the extent the University does not elect to permanently finance such costs with University funds.

Operations and Maintenance

Any increase in maintenance and operations costs will be determined during this phase of the project. These costs, once determined, will be the responsibility of the Lamont-Doherty Earth Observatory.

Energy Considerations

Any increase in energy consumption costs will be determined during this phase of the project. These costs, once determined, will be the responsibility of the Lamont-Doherty Earth Observatory.

Sustainable Design

Sustainable elements of the project include the recycling of construction materials and debris, the use of recycled carpet, energy efficient lighting and low volatile organic compound (VOC) paint.

Safety and Security

The project will be integrated into the existing security infrastructure.

Consideration for the Disabled

Per the 2010 Americans with Disabilities Act (ADA) standards and the Columbia University commitment to accessibility, this project will include the appropriate building accessibility upgrades to further the goal of fully accessible buildings throughout the campus.

Mode of Accomplishment

The firm of Payette Associates was selected to provide design services for the project. Construction services will be provided by a general contractor to be selected during this phase of the project. Columbia University Facilities Department of Capital Project Management will provide project management services for the project. All vendors are selected in accordance with University procurement procedures.

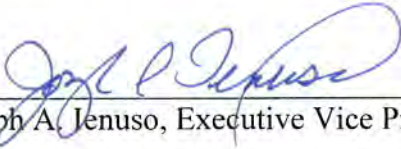
Certificate of Occupancy

This project will require modification to the existing Certificate of Occupancy for the New Core Laboratory building.

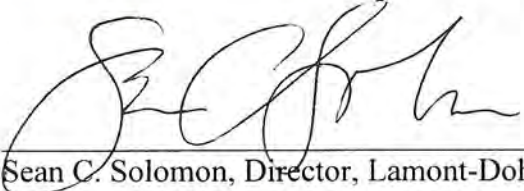
Project Schedule

This phase of the project is scheduled for completion in April of 2015.

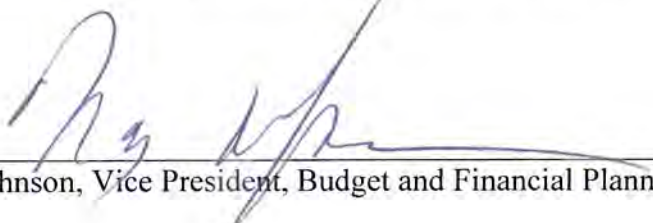
Approved by:



Joseph A. Jenuso, Executive Vice President, Columbia University Facilities and Operations 3/6/14
Date



Sean C. Solomon, Director, Lamont-Doherty Earth Observatory 3 Apr 2014
Date



Nancy K. Johnson, Vice President, Budget and Financial Planning 3.20.14
Date

Project Document

615 WEST 131 STREET-MANHATTANVILLE IN WEST HARLEM **100 and 200 Levels – Design and Construction Phase**

Statement of Purpose and Need

615 West 131 Street, a six story industrial building containing approximately 210,000 gross square feet, is being renovated to accommodate a significant portion of the University's long-term administrative office space requirements. Currently, the University owns the building.

The 300, 400 and 500 level construction has been completed and houses University administrators from the Departments of Finance, Human Resources and CUIT who formerly occupied leased spaces at 1700 Broadway, 330 Fifth Avenue and the Interchurch Center as well as departments that had been housed in various on-campus locations. A portion of the 100 level houses support spaces for the operation and maintenance of the building as well as storage for various Finance and Human Resource departments. The 600 level is currently occupied by a non University tenant, the Alexander Doll Company, Inc., who is expected to vacate the floor in January 2009. Programming of the 600 level has not been finalized as yet.

A previously un-programmed space on the 100 level will house administrative spaces for the Human Resources and Public Safety Departments. The 200 level, previously programmed as non-University tenant space (to be built-out by tenants), has now been proposed as a temporary swing space to be built-out by the University for a non-University tenant, the Pearlgreen Corporation, slated to be displaced by Phase I of the Manhattanville Development project. Once the Pearlgreen Corporation can be relocated (approximately in the Spring of 2010) out of the Manhattanville project area, the entire building will be available for University tenancy.

Project Scope

Previous project documents provided funding for the first phase of renovation including the upgrade of base building systems (H.V.A.C., plumbing, electrical and fire protection systems), the interior renovation of a portion of the 100 level, a portion of the 200 level, 300 level, 400 level, 500 level, window replacements on the 100 through 600 levels, and design, cost estimating and pre-construction services for the renovation of the 600 level.

The current request seeks funding for the design, cost estimating, pre-construction services and early construction buy-outs for the previously un-programmed space on the 100 level as well as the tenant swing space on the 200 level.

Project Budget

	<u>Previous Request</u>	<u>Current Request</u>	<u>Total Request to Date</u>
Construction	\$50,320,129	\$2,000,000	\$52,320,129
Asbestos Abatement	1,183,000	30,000	1,213,000
Furniture, Fixtures and Equipment	6,267,500	0	6,267,500
A/E Fees and Expenses	7,574,600	1,400,000	8,974,600
Contingency	5,430,293	686,000	6,116,293
Commissioning	605,550	103,000	708,550
Project Management	4,831,825	223,000	5,054,825
Collaterals and Sunk Costs	<u>3,596,000</u>	<u>0</u>	<u>3,596,000</u>
	\$79,808,897	\$4,442,000	\$84,250,897

Project Financing

The current request of \$4,442,000 will be funded with University debt to be serviced by the Central University. The total estimated cost of the entire project will be approximately \$106,373,000 and will include the fit-out of the 600 level. This estimate is based upon a combination of costs derived from actual bids, estimates by a construction manager, estimates by Capital Project Management and escalations of these bids and estimates. The total estimated cost of the project will be funded with University debt to be serviced by the Central University. The final allocation of sources of funding will be made prior to the issuance of University debt.

This is a declaration of official intent for purposes of United States Treasury Regulations Section 1.150-2. The maximum principal amount of bonds expected to be issued to permanently fund the project, based upon current cost estimates is \$106,373,000 plus costs of issuance and any reserves established in connection with the bonds. To the extent that costs increase, it is expected that the principal amount of bonds will be increased to fund the project. Any costs temporarily financed on an interim basis with University funds are expected to be reimbursed with bond proceeds to the extent that such costs are not funded with external sources and to the extent the University does not elect to permanently finance such costs with University funds.

Operations and Maintenance

The current estimated annual cost for building operations is \$1,868,000. The additional annual cost for building operations after this phase of work is completed is estimated to be \$385,000 commencing FY '10. Additionally, there will be a one time cost of \$42,500 to cover start up building operations in FY '07. All costs will be the responsibility of the Central University.

Energy Considerations

The current estimated annual cost for energy and utilities is \$1,370,000 based on current rates, commencing in FY '08. Additionally, there will be a one time cost of \$333,000 to cover energy

usage during start up operations in FY '07. All costs will be the responsibility of the Central University.

Sustainable Design

Sustainable elements of the project will include re-cycling of construction materials and debris. Costs associated with these sustainable components will be negligible.

Safety and Security

This project will be designed in accordance with all University and New York City safety and security regulations.

The current estimated annual cost for portal security and security maintenance for all University occupied space is anticipated to be \$248,000 commencing in FY '08. Additionally, there will be a one time cost of \$7,500 to cover security during start up in FY '07. All costs will be the responsibility of the Central University.

Asbestos will be abated in accordance with University abatement procedures. If asbestos containing materials are encountered during demolition, it will be removed under approved conditions.

Consideration for the Disabled

This project will be designed and constructed to be in compliance with the Americans with Disabilities Act requirements.

Mode of Accomplishment

The Switzer Group, Inc., an architectural firm selected in accordance with University procurement procedures, will provide design services. Construction management is being provided by Skanska Full Spectrum, a construction firm selected in accordance with University guidelines. The Department of Capital Project Management will provide project management.


Certificate of Occupancy

615 West 131 Street is covered by Certificate of Occupancy Number 103792317T003. The renovation of the 100 and 200 levels will not require an amendment to the Certificate of Occupancy.

Project Schedule


Construction of the 100 level is scheduled to be completed by the Spring of 2009. Construction of the 200 level is scheduled to be completed by the Spring of 2009.

Approved by:




Joseph A. Ienuso, Executive Vice President, Columbia University Facilities

3/28/08
Date



Deborah R. Rosen, Associate Vice President, University Budget and Financial Planning

8/1/09
Date



Anne R. Sullivan, Executive Vice President, Finance

6/12/09
Date



Robert Kasdin, Senior Executive Vice President

6/17/09
Date



Alan Brinkley, Provost

2/17/12
Date 

Project Document

STUDEBAKER BUILDING **FULL FLOOR RENOVATION** **600 Level** **Design and Construction Phase**

Statement of Purpose and Need

The Studebaker building, located at 615 West 131st Street, is a six-story building of approximately 210,000 square feet that houses a significant portion of the University's central administration office space.

The 300, 400 and 500 levels house University administrators from the Departments of Finance, Human Resources and Columbia University Information Technology (CUIT). The 200 level houses the offices of the University Facilities Manhattanville Development Group, Sponsored Projects Administration and Internal Audit. Most of the 100 level houses file storage for various Finance and Human Resources departments and support spaces for the operation and maintenance of the building.

The 600 level measures approximately 35,000 square feet and was previously occupied by a non-University tenant, the Alexander Doll Company, Inc., who has since vacated the floor as of December 2012. The space has been reprogrammed for University use.

Project Scope

The previous request funded pre-design services and site preparation work for the 600 level. The scope of work for that request included abatement, demolition and the installation of new windows. In addition, minor design and construction was completed to provide a base level of heating and fire protection to the shelled space at the completion of abatement and demolition.

The current request seeks funding for design and construction work for the build-out of the 600 level to house four to five administrative groups. The scope of work will include the build-out of new offices and workstations as well as shared facilities including conference rooms, bathrooms and an entry area. A new mechanical and electrical room will be built, leveraging the existing building infrastructure.

Project Budget

	Previous Request	Current Request	Total Request
Construction	\$1,820,000	\$5,437,000	\$7,257,000
A/E Fees and Expenses	100,000	683,000	783,000
Hazardous Materials	0	450,000	450,000
Furniture, Fixtures & Equipment	60,000	1,798,000	1,858,000
Commissioning	60,000	250,000	310,000
Legal Fees	25,000	0	25,000
Contingency	294,000	1,136,000	1,430,000
Project Management	153,000	634,000	787,000
Total	\$2,512,000	\$10,388,000	\$12,900,000

Project Financing

The current request of \$10,388,000 is based on the cost per square foot of recent projects completed in the building. The total request of \$12,900,000 will be funded with debt to be serviced by the Central University. The final allocation of sources of funding will be made prior to the issuance of University debt.

This is a declaration of official intent for purposes of United States Treasury Regulations Section 1.150-2. The maximum principal amount of bonds expected to be issued to permanently fund this phase of the project, based upon current cost estimates is \$12,900,000 plus costs of issuance and any reserves established in connection with the bonds. To the extent that costs increase, it is expected that the principal amount of bonds will be increased to fund the project. Any costs temporarily financed on an interim basis with University funds are expected to be reimbursed with bond proceeds to the extent that such costs are not funded with external sources and to the extent the University does not elect to permanently finance such costs with University funds.

Maintenance and Operations

Any increase in maintenance and operations costs will be determined during this phase of the project. These costs, once determined, will be the responsibility of the Central University.

Energy Considerations

Any increase in energy consumption costs will be determined during this phase of the project. These costs, once determined, will be the responsibility of the Central University.

Sustainable Design

Sustainable elements of the project may include the recycling of construction materials and debris, the use of recycled carpet, energy efficient lighting and low volatile organic compound (VOC) paint. Costs associated with these sustainable components will be negligible.

Safety and Security

This project will be designed and constructed in accordance with all University and New York City safety and security regulations.

Consideration for the Disabled

This project will be designed to comply with the 2010 Americans with Disabilities Act (ADA) requirements and Columbia University's commitment to accessibility. This project will include the appropriate building accessibility upgrades to further the goal of fully accessible buildings throughout the campus.

Mode of Accomplishment

An architectural firm to be chosen during this phase of the project will provide design services. Construction services will be provided by a general contractor to be selected during this phase of the project. Columbia University Facilities Department of Capital Project Management will provide project management services for the project. All vendors will be selected in accordance with University procurement procedures.

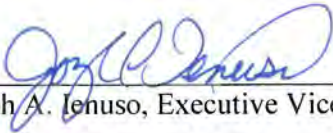
Certificate of Occupancy

The Certificate of Occupancy for the Studebaker building will be amended to reflect the change in occupancy for the 6th floor.

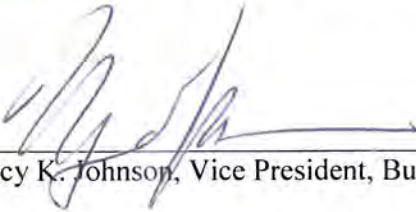
Project Schedule

This phase of the project is scheduled to be completed in the fall of 2015.

Approved by:



Joseph A. Ienuso, Executive Vice President, Columbia University Facilities and Operations 2/11/14
Date



Nancy K. Johnson, Vice President, Budget and Financial Planning 3-19-14
Date

Project Document

NASH BUILDING
SCHOOL OF THE ARTS
THEATRE PROGRAM FIT-OUT
500 Level
Design and Construction Phase

AOA Trustees
tele conf.
08/13

OMB 02155
CP00 2126

Statement of Purpose and Need

The Theatre Program of the School of the Arts (SoA) operates and programs two performance venues in the Morningside campus vicinity for classroom instruction, non-thesis productions and performances.

One venue is located in Columbia's Schapiro Hall at 605 W. 115th Street and consists of two performance and rehearsal spaces, and one small seminar room, used for acting classroom instruction. Auxiliary spaces include dressing rooms, offices, student lockers and a gathering area. The Schapiro venue is 6,800 gross square feet (GSF).

The second venue is located in space leased from Teachers College (TC) in the basement of the Horace Mann building, and consists of a black box theatre, a seating area for productions and performances, dressing rooms, set shop, costume shop, and tool and paint storage in approximately 5,000 GSF.

The lease for the Horace Mann space expires in June 2014 and the School has been notified that TC requires the space for its own use so a lease extension is not possible. In anticipation of the lease termination, the SoA is proposing to relocate the non-thesis productions and performance functions currently taking place at TC to the Columbia Schapiro venue, and to construct approximately 11,200 GSF of space on the 5th floor of the Nash building in Manhattanville for the acting classrooms, offices, and student spaces currently taking place in Schapiro. In addition to the acting and student spaces, the Nash build-out will accommodate the set shop, tool and storage spaces, costume shop and storage from spaces in Horace Mann and Riverside Church.

This proposal is in alignment with the overall objectives identified in the 2009 Planning Study for the SoA, and the addition of the Nash space will consolidate and align functions on the Morningside and Manhattanville campuses. In addition, the set shop, costume and prop storage spaces in Nash will support future programming in the new Lenfest Center for the Arts.

Project Scope

The work that will be undertaken during this phase of the project will be to design and construct the fit out of approximately 11,200 GSF of space on the 500 level of Nash. New partitions, ceiling, flooring, mechanical and electrical equipment as well as new fire protection systems will be added to the existing un-built space.

Project Budget

	<u>Current Request</u>
Construction	\$1,880,000
A/E Fees and Expenses	220,000
Furniture, Fixtures and Equipment	250,000
Contingency	400,000
Project Management	180,000
Commissioning	70,000
Total	<u>\$3,000,000</u>

Project Financing

The current request of \$3,000,000, which is anticipated to be the total project cost, is based upon similar projects completed in the building. Funding will be provided by University debt to be serviced by Arts and Sciences. The final allocation of sources of funding will be made prior to the issuance of University debt.

This is a declaration of official intent for purposes of United States Treasury Regulations Section 1.150-2. The maximum principal amount of bonds expected to be issued to permanently fund the project, based on current cost estimates is \$3,000,000 plus costs of issuance and any reserves established in connection with the bonds. To the extent that costs increase, it is expected that the principal amount of bonds will be increased to fund the project. Any costs temporarily financed on an interim basis with University funds are expected to be reimbursed with bond proceeds to the extent that such costs are not funded with external sources and to the extent the University does not elect to permanently finance such costs with University funds.

Operations and Maintenance

Maintenance and operations costs that will be incurred by the construction of this facility will be determined during this phase. These costs will be the responsibility of the School of Arts.

Energy Considerations

Energy costs that will be incurred by the construction of this facility will be determined during this phase. These costs will be the responsibility of the School of Arts.

Sustainable Design

Sustainable elements of the project include energy efficient lighting, heating, ventilation and air conditioning and interior finishes which promote improved air quality.

Safety and Security

This project will be designed in accordance with all University and New York City safety and security regulations. If there are any incremental annual safety and security costs associated with this project, it will be determined during this phase and will be the responsibility of the School of Arts.

Consideration for the Disabled

This project will be designed to comply with the 2010 Americans with Disabilities Act (ADA) requirements and Columbia University's commitment to accessibility. This project will include the appropriate building accessibility upgrades to further the goal of fully accessible buildings throughout the campus.

Mode of Accomplishment

An architectural firm and construction management firm will be selected in accordance with University guidelines and Columbia University Facilities Capital Project Management will provide project management services for the project.

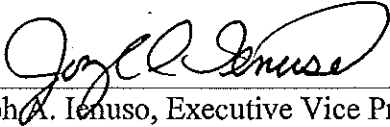
Certificate of Occupancy

Any modifications to the Certificate of Occupancy for the Nash building will be determined during this phase of the project.

Project Schedule

The project is scheduled for completion by the fall of 2014.

Approved by:



Joseph A. Ienuso, Executive Vice President, Columbia University Facilities

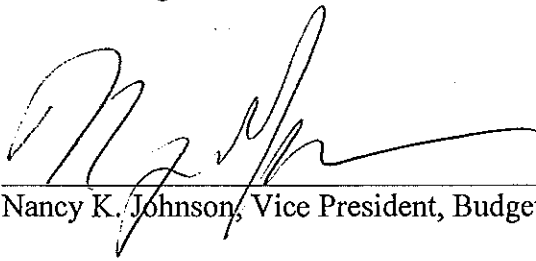
1/17/14
Date

Carol Becker, Dean, School of the Arts

Date

David Madigan, Executive Vice President, Arts and Sciences

Date



Nancy K. Johnson, Vice President, Budget and Financial Planning

2.10.14
Date

Project Document

THE ENERGY CENTER - PHASE 1A – MANHATTANVILLE IN WEST HARLEM

Phase 1A Central Energy Plant Equipment Procurement and Construction

Statement of Purpose and Need

The proposed Manhattanville campus is planned to include a Central Energy Plant to provide heating and cooling for much of the new campus. Centralized equipment, when compared with individual building equipment, provides economic benefits in operations and maintenance costs, offers service reliability, is more energy efficient, employs better emission control technologies and is naturally suited for densely packed buildings typical of an urban campus.

The Central Energy Plant will serve the heating and cooling needs of the Jerome L. Greene Center for Mind, Brain and Behavior Initiatives, the Lantern Building, the School of International and Public Affairs, the Columbia Business School and Site 6. The plant will increase in scale, as needed, with the addition of modular equipment to serve future campus expansion needs within the area bounded by 125th Street, 132nd Street, Broadway and 12th Avenue. Projected emissions and the resulting required flue heights are the controlling factors preventing expansion beyond these boundaries. A second energy plant or individual building equipment or a combination thereof will be required for the buildings north of 132nd Street, south of 125th Street and east of Broadway.

The Central Energy Plant design will feature chillers, boilers and potentially a turbine generator (cogeneration) to serve a portion of the campus' electrical needs. Electrical energy will also have to be secured from Consolidated Edison. Flexibility as to a fuel source will be incorporated into the Central Energy Plant's design.

Project Scope

Previous approvals have provided for the design phase work associated with the Central Energy Plant for Phase 1A sites. The work that will be undertaken in this phase of the project will include procurement for and construction of the Central Energy Plant for the initial phase including all related systems required to support the Jerome L. Greene Center for Mind, Brain and Behavior Initiatives and the Lantern Building.

It is anticipated that the majority of HVAC and electrical systems to be included in the Central Energy Plant for the initial phase will be purchased during the Fall of 2011. The remaining equipment, systems and supporting construction will be procured during the Spring and Summer of 2012.

Project Budget

	Previous <u>Request</u>	Current <u>Request</u>	Request <u>to Date</u>
Construction	\$3,850,000	\$102,750,000	\$106,600,000
A/E Fees and Expenses	5,500,000	4,852,000	10,352,000
Furniture and Equipment	0	755,000	755,000
Commissioning	30,000	2,870,000	2,900,000
Contingency	1,000,000	10,800,000	11,800,000
Project Management	<u>1,050,000</u>	<u>7,043,000</u>	<u>8,093,000</u>
Total	\$11,430,000	\$129,070,000	\$140,500,000

Project Financing

The budget for the Central Energy Plant construction to support the initial phase projects is estimated to be \$140,500,000. This budget is based upon construction documents completed by Renzo Piano Building Workshop and Davis Brody Bond Aedas Architects in November 2010 and upon construction estimates from Lend Lease in January 2011.

The current request of \$129,070,000 will be funded with Central Reserves to the extent possible, with the remainder to be funded by University debt to be serviced by the schools that will ultimately draw benefit from the work and by the Central University budget. The final allocation of sources of funding will be made prior to the issuance of University debt.

This is a declaration of official intent for purposes of United States Treasury Regulations Section 1.150-2. The maximum principal amount of bonds expected to be issued to permanently fund the project, based upon current cost estimates is \$140,500,000 plus costs of issuance and any reserves established in connection with the bonds. To the extent that costs increase, it is expected that the principal amount of bonds will be increased to fund the project. Any costs temporarily financed on an interim basis with University funds are expected to be reimbursed with bond proceeds to the extent that such costs are not funded with external sources and to the extent the University does not elect to permanently finance such costs with University funds.

Maintenance and Operations

Operations and Maintenance costs associated with this facility will continue to be developed during this phase of the project. These costs, once identified, will be the responsibility of the schools that will ultimately receive service from the Central Energy Plant and by the Central University.

Energy Considerations

Energy costs that will be incurred due to the operation of this facility will be determined during this phase of the project. These costs, once identified, will be the responsibility of the schools that will ultimately receive service from the Central Energy Plant and by the Central University.

Sustainable Design

This project will contribute to the University's overall sustainability goals which include application for certification to the U.S. Green Building Council.

Safety and Security

This project will be designed in accordance with all University and New York City safety and security regulations.

Yearly safety and security costs associated with this facility will be determined at a subsequent date. These costs, once identified, will be the responsibility of the Central University.

Consideration for the Disabled

This project will be designed to be in compliance with the Americans with Disabilities Act requirements.

Mode of Accomplishment

The engineering firm, Jaros, Baum & Bolles, selected in accordance with University procurement procedures, will provide design services and they will provide construction administration services during the construction phase. A second engineering firm, RG Vanderweil Engineering, LLP, selected in accordance with University procurement procedures, has provided peer review services during the design phase and will provide commissioning services as the construction work is completed. Construction Management will be provided by Lend Lease (US) Construction, Inc., a construction firm selected in accordance with University guidelines. The Manhattanville Development Group will provide project management.

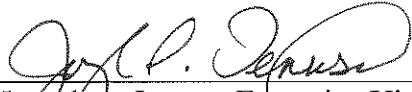
Certificate of Occupancy

This phase of the project will not affect the Certificate of Occupancy.

Project Schedule

The installation of equipment and systems associated with this initial phase of the Central Energy Plant is scheduled to be completed in January 2016.


Approved by:



Joseph A. Ienuso, Executive Vice President, Columbia University Facilities

10/31/11

Date



Nancy K. Johnson, Vice President, Budget and Financial Planning

2/27/12

Date

Project Document

JEROME L. GREENE
SCIENCE CENTER FOR THE MIND, BRAIN AND BEHAVIOR INITIATIVE
MANHATTANVILLE IN WEST HARLEM
Construction Phase

Statement of Purpose and Need

The Jerome L. Greene Science Center for the Mind, Brain, Behavior Initiative, will be built as part of the initial phase of development of the University's campus expansion plans into Manhattanville in West Harlem. The new research building will bring together significant research activities from the Medical School and the Morningside Heights campus to expand upon the University's pre-eminence in this area of study. This building will allow the University to provide additional capacity to develop new related interdisciplinary thematic programs to foster scientific discoveries.

Project Scope

Previous approvals have provided for the programming, schematic design and design development phases associated with the Jerome L. Greene Science Center as well as the procurement of major trades for curtainwall systems and structural steel. The work that will be undertaken in this phase of the project will include the remaining procurement and construction of all systems required to complete the Jerome L. Greene Science Center.

It is anticipated that the majority of HVAC and electrical systems to be included in the Jerome L. Greene Science Center will be purchased during the Fall of 2011 and remaining equipment, systems and supporting construction will be procured during the Spring and Summer of 2012.

Project Budget

	<u>Previous Request</u>	<u>Current Request</u>	<u>Total Request</u>
Construction	\$73,000,000	\$362,191,842	\$435,191,842
A/E Fees and Expenses	45,000,000	17,565,218	62,565,218
Furniture, Fixtures and Equipment	0	51,126,441	51,126,441
Contingency	11,600,000	53,200,000	64,800,000
Commissioning	950,000	700,045	1,650,045
Project Management	3,930,000	26,236,454	30,166,454
Infrastructure*	<u>0</u>	<u>0</u>	<u>0</u>
Total	\$134,480,000	\$511,020,000	\$645,500,000

*Infrastructure costs include the Below Grade, the central energy plant, and other site utility costs. A portion of these costs will be allocated to this project in the future.

Project Financing

The overall project budget of \$645,500,000 is based upon detailed cost estimates for construction trade costs prepared by Lend Lease (US) Construction LMB Inc. at 50% completion of the design development phase. This estimate is based upon design development documents prepared by Renzo Piano Building Workshop and Davis Brody Bond Architects and on an estimated building area of 445,000 gross square feet.

The total project cost of \$645,500,000 will be funded as follows: \$250,000,000 with gifts in-hand or pledged and central reserves to the extent possible with the remainder to be funded by University debt to be serviced by the schools that will ultimately draw benefit from the work and by the Central University budget. The final allocation of sources of funding will be made prior to the issuance of University debt.

This is a declaration of official intent for purposes of United States Treasury Regulations Section 1.150-2. The maximum principal amount of bonds expected to be issued to permanently fund the project, based upon current cost estimates is \$395,500,000 plus costs of issuance and any reserves established in connection with the bonds. To the extent that costs increase, it is expected that the principal amount of bonds will be increased to fund the project. Any costs temporarily financed on an interim basis with University funds are expected to be reimbursed with bond proceeds to the extent that such costs are not funded with external sources and to the extent the University does not elect to permanently finance such costs with University funds.

Maintenance and Operations

Maintenance and Operations costs that will be incurred by the construction of this facility will be determined at the end of the design phase. These costs will be the responsibility of the end-users that will ultimately occupy the building and by the Central University.

Energy Considerations

Energy costs that will be incurred by the construction of this facility will be determined at the end of the design phase. These costs will be the responsibility of the end-users that will ultimately occupy the building and by the Central University.

Sustainable Design

Sustainable elements of the project include conformance with Laboratories for the 21st Century (Labs21). The project has also been registered with the U.S. Green Building Council LEED v2.2.

Safety and Security

This project will be designed in accordance with all University and New York City safety and security regulations.

Yearly safety and security costs associated with this facility will be determined at a subsequent date. These costs, once identified, will be the responsibility of the Central University.

Consideration for the Disabled

This project will be designed to be in compliance with the Americans with Disabilities Act requirements.

Mode of Accomplishment

The firms of Renzo Piano Building Workshop, the design architect, and Davis Brody Bond LLP, the architect of record, will provide construction documentation services. Lend Lease (US) Construction LMB Inc. has provided pre-construction services to date and they will provide construction management services through the completion of construction. All vendors are selected in accordance with University procurement procedures. The Columbia University Facilities Manhattanville Development Group will provide project management.

Certificate of Occupancy

This new facility will require a Certificate of Occupancy at project completion.

Project Schedule

The anticipated start of construction of the building is scheduled to be the Fall of 2012 and the project is estimated to be completed in 2016.

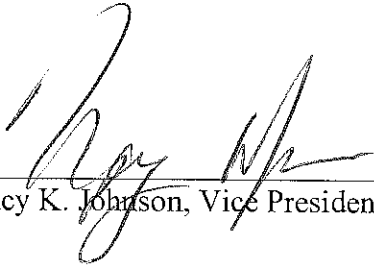
Approved by:



Joseph A. Iannuso, Executive Vice President, Columbia University Facilities

2/17/12

Date



Nancy K. Johnson, Vice President, Budget and Financial Planning

4/3/12

Date

Project Document

SLURRY WALL AND FOUNDATIONS CONSTRUCTION **MANHATTANVILLE IN WEST HARLEM**

Phase I - MBB-CEP Foundations and Phase II Slurry Wall - Construction Work

Statement of Purpose and Need

The proposed Manhattanville campus is planned to be constructed above a multilevel, interconnected underground space referred to as the Central Below Grade Facility. The Below Grade Facility is planned to interconnect 130th, 131st and 132nd Streets, between Broadway on the east and 12th Avenue on the west, and house parking, loading, freight distribution, a Central Energy Plant, utility and telecommunication pathways, and support functions serving the various above-ground occupancies. Given the shallow ground water elevation in the area, the Below Grade Facility will be enclosed by a slurry wall and foundation slab that will serve as a water barrier or "bathtub".

As more above-grade buildings are developed in future phases, their construction will include extensions of the Central Below Grade Facility, in stages, to the blocks north of 131st Street. These areas will provide additional science, academic mechanical support spaces as well as parking, central materials distribution.

Project Scope

Previous approvals have provided for the design and construction documentation of the slurry walls, foundations and other structural systems associated with the Central Below Grade Facility bounded by Broadway on the east, 129th Street and 125th Streets on the south, Twelfth Avenue on the west, and 131st Street on the north. They have also provided for soil studies and analysis required to support the design of these structural systems.

Work undertaken in this phase will include the construction of slurry walls necessary for construction of the Jerome L. Greene Science Center, the Lantern Building, and the Central Energy Plant. In addition, the balance of the slurry wall on 125th Street on the south, Twelfth Avenue on the west, Broadway on the east, and 131st Street on the north will be installed. Work of this phase will also include the construction of load bearing elements (LBEs), structural steel and floor slabs supporting the Jerome L. Greene Science Center and the Central Energy Plant.

This work supports the parallel development of the Energy Center, Academic and Science Support Areas, however the costs identified above do not include costs for the equipment or construction associated with the those areas.

Project Budget

	Previous Request	Current Request	Total Project Cost
Construction	\$10,500,000	\$ 232,200,000	\$ 242,700,000
A/E Fees and Expenses	48,000,000	(10,300,000)	37,700,000
Contingency	6,100,000	38,700,000	44,800,000
Commissioning	1,500,000	(1,500,000)	-
Project Management	5,800,000	12,500,000	18,300,000
Pre-Development Costs*	1,100,000	(1,100,000)	-
Total	\$73,000,000	\$ 270,500,000	\$ 343,500,000

Pre-development costs comprise FY '05 and FY '06 expenses

Project Financing

The overall project budget of \$343,500,000 for the construction of the MBB-CEP Foundations and the Phase II Slurry Wall is based upon bids from slurry wall and foundation contractors received by Bovis and the University in September 2010 and detailed estimates for construction trade costs prepared by Bovis Lend Lease at 100% completion of the construction documentation Phase.

These estimates and bids are based upon construction documents prepared by Renzo Piano Building Workshop and Davis Brody Bond Architects.

The current request of \$270,500,000 and the total project cost of \$343,500,000 will be funded with Central Reserves to the extent possible with the remainder to be funded by University debt to be serviced by the schools that will ultimately draw benefit from the work and by the Central University budget. The final allocation of sources of funding will be made prior to the issuance of University debt.

This is a declaration of official intent for purposes of United States Treasury Regulations Section 1.150-2. The maximum principal amount of bonds expected to be issued to permanently fund the project, based upon current cost estimates is \$343,500,000 plus costs of issuance and any reserves established in connection with the bonds. To the extent that costs increase, it is expected that the principal amount of bonds will be increased to fund the project. Any costs temporarily financed on an interim basis with University funds are expected to be reimbursed with bond proceeds to the extent that such costs are not funded with external sources and to the extent the University does not elect to permanently finance such costs with University funds.

Maintenance and Operations

Maintenance and operations costs that will be incurred due to the construction of this facility will be minimal. These costs, if any, will be the responsibility of the schools that will ultimately occupy the facility and by the Central University.

Energy Considerations

There should be no energy costs associated with the MBB-CEP Foundations once completed.

Sustainable Design

Sustainable elements of the project include conformance to Leadership in Energy and Environmental Design standards.

Safety and Security

This project will be designed in accordance with all University and New York City safety and security regulations.

There will be no yearly safety or security costs associated with these building foundations.

Consideration for the Disabled

Once constructed, these foundations will not be accessible to University or other personnel.

Mode of Accomplishment

The firms of Renzo Piano Building Workshop, the design architect and Davis Brody Bond, the architect of record, who have been selected in accordance with University procurement procedures, have provided design services. Langan Engineering, an environmental engineering firm, selected in accordance with University guidelines, will provide environmental services associated with remediation and abatement of Phase I and II hazardous materials. Construction management will be provided by Bovis Lend Lease, a construction firm, selected in accordance with University guidelines. The Manhattanville Development Group will provide project management.

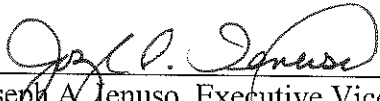
Certificate of Occupancy

This phase of the project will not affect the Certificate of Occupancy.

Project Schedule

This phase of the project is scheduled to be completed by August 2013.

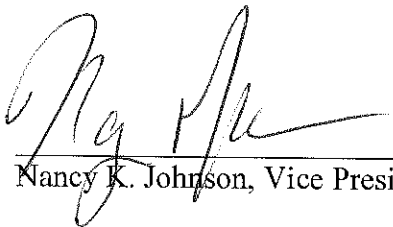
Approved by:



Joseph A. Jenuso, Executive Vice President, Columbia University Facilities

10/25/10

Date



Nancy K. Johnson, Vice President, Budget and Financial Planning

11/4/10

Date

Project Document

LENFEST CENTER FOR THE ARTS
MANHATTANVILLE IN WEST HARLEM

Design and Construction Phase

App B155
05/15/13
Trustees
06/14/13
OMB #1804
CPOD 1531

Statement of Purpose and Need

Consistent with the University's campus expansion plans in Manhattanville in West Harlem, a new academic building is planned to be constructed as part of the initial phase of development. The new academic building, referred to as the Lenfest Center for the Arts, will be located between the Jerome Greene Science Center and the proposed new School of International and Public Affairs (SIPA) buildings on the block bounded by West 125th and West 129th Streets on the south, 130th Street on the north, 12th Avenue on the west and Broadway on the east.

The building will house programs for the School of the Arts and the Wallach Gallery. Lenfest Center for the Arts is projected to be 54,000 gross square feet. Since this building will be constructed above the Phase I below grade space that will also serve the new Jerome L. Greene Science Center building and the Central Energy Plant, the completion of the design of this building must advance in order to coordinate with the construction of the below grade structure and foundations and the completion of the Central Energy Plant.

Project Scope

Previous approvals have provided for the programming, schematic design, design development and construction documentation phase work associated with the Lenfest Center for the Arts. The work that will be undertaken in this phase of the project will include the procurement of trade contracts and the construction of all systems required to complete the Lenfest Center for the Arts.

The work of this phase will continue to be guided by the cost control strategies for architectural and engineering work established by the University following the completion of the schematic and design development phases of the project.

Project Budget

	Previous Request	Current Request	Total Request
Construction	\$1,000,000	\$67,430,000	\$68,430,000
A/E Fees and Expenses	9,000,000	3,750,000	12,750,000
Furniture, Fixtures & Equipment	0	5,875,000	5,875,000
Contingency	1,000,000	10,481,950	11,481,950
Commissioning	50,000	760,000	810,000
Project Management	716,250	4,936,800	5,653,050
Total	\$11,766,250	\$93,233,750	\$105,000,000

Project Financing

The overall anticipated cost for the construction of the Lenfest Center for the Arts is currently estimated to be \$105,000,000. This is based upon schematic design documents prepared by Renzo Piano Building Workshop and Davis Brody Bond Architects in 2012 and upon construction estimates prepared by Lend Lease (US) Construction, Inc. in the spring of 2013.

The total request of \$105,000,000 will be funded with \$60,000,000 of gifts in-hand or pledged, \$15,000,000 in gifts to be raised, and the remaining \$30,000,000 in University debt to be serviced by the Central University. The final allocation of sources of funding will be made prior to the issuance of University debt.

This is a declaration of official intent for purposes of United States Treasury Regulations Section 1.150-2. The maximum principal amount of bonds expected to be issued to permanently fund the project, based upon current cost estimates is \$30,000,000 plus costs of issuance and any reserves established in connection with the bonds. To the extent that costs increase, it is expected that the principal amount of bonds will be increased to fund the project. Any costs temporarily financed on an interim basis with University funds are expected to be reimbursed with bond proceeds to the extent that such costs are not funded with external sources and to the extent the University does not elect to permanently finance such costs with University funds.

Maintenance and Operations

Maintenance and operations costs associated with this building will continue to be developed during this phase of the project. These costs, once identified, will be the responsibility of the School of the Arts and the Wallach Gallery.

Energy Considerations

Energy costs that will be incurred due to the operation of this building will be determined during this phase of the project. These costs, once identified, will be the responsibility of the School of the Arts and the Wallach Gallery.

Sustainable Design

Sustainable elements of the project include conformance with LEED Silver. Costs associated with these sustainable components will be estimated as a result of this phase.

Safety and Security

This project will be designed in accordance with all University and New York City safety and security regulations.

Yearly safety and security costs associated with this facility will be determined during this phase of the project. These costs, once identified, will be the responsibility of the School of the Arts and the Wallach Gallery.

Consideration for the Disabled

This project will be designed to be in compliance with the Americans with Disabilities Act requirements.

Mode of Accomplishment

The firms of Renzo Piano Building Workshop, the design architect and Davis Brody Bond, the architect of record have and will continue to provide design services. Construction management and cost estimating will be provided by Lend Lease (US) Construction, Inc., a construction firm. The Manhattanville Development Group of Columbia University Facilities will provide project management services. All vendors are selected in accordance with University procurement procedures.

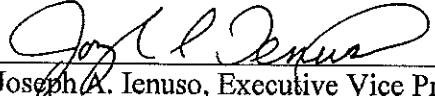
Certificate of Occupancy

This new facility will require a Certificate of Occupancy at project completion.

Project Schedule

It is anticipated that the majority of the core and shell construction trades will be purchased during the summer and fall of 2013 and the remaining equipment, systems and supporting construction will be procured prior to the end of 2014. This project is anticipated to be completed by the fall of 2016.

Approved by:



Joseph A. Ienuso, Executive Vice President, Columbia University Facilities

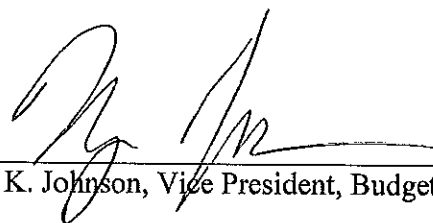
6/26/13
Date

David Madigan, Interim Executive Vice President, Arts and Sciences

Date

Carol Becker, Dean, School of the Arts

Date



Nancy K. Johnson, Vice President, Budget and Financial Planning

7.31.13
Date

Project Document

UNIVERSITY FORUM (BOWTIE BUILDING) **MANHATTANVILLE IN WEST HARLEM** **Design Phase**

Statement of Purpose and Need

Consistent with the University's campus expansion plans in Manhattanville in West Harlem, a new academic building is planned to be constructed as part of the initial phase of development. The new academic building, commonly referred to as the University Forum (Bowtie building or Site 1), will be located on the triangular shaped block bounded by West 125th Street, West 129th Street and Broadway. The building will house an academic conference facility for the University including a 450 seat auditorium, conference rooms, faculty offices and support spaces as well as program areas to support the conference center.

Project Scope

Previous approvals have provided for the programming and schematic design phase work associated with the University Forum. The work that will be undertaken in this phase of the project will include continued design development and the preparation of construction documents. Current estimates project University Forum to be 65,000 gross square feet.

This request will provide funding for design services through the completion of the project. The scope of work for the design development phase will include the continued development of architectural and engineering systems associated with the project. This will include the detailed development of the exterior curtain wall, structural systems, vertical transportation systems, architectural interiors, common areas and the full complement of mechanical, electrical and plumbing systems to support the project. During this phase, the University will also conduct soil borings and site investigations as well as the removal of underground storage tanks, as required. The work of this phase will also include the procurement of a construction manager for pre-construction services and estimating. The work of this phase will be guided by the cost control strategies for architectural and engineering work established by Columbia University following the completion of the schematic design phase of the project. The execution of the construction documentation phase work will follow the approval of design development documents and construction estimates prepared by the estimating team.

Project Budget

	Previous Request	Current Request	Total Request
Construction	\$500,000	\$1,000,000	\$1,500,000
A/E Fees and Expenses	2,500,000	10,750,000	13,250,000
Contingency	300,000	1,175,000	1,475,000
Commissioning	50,000	450,000	500,000
Project Management	250,000	763,750	1,013,750
Total	<u>\$3,600,000</u>	<u>\$14,138,750</u>	<u>\$17,738,750</u>

Project Financing

The overall project budget will be established at the completion of the schematic design phase and will be based upon reconciled cost estimates for construction trade costs prepared by a construction manager retained by Columbia University and a cost estimator retained by the architect.

The current request of \$14,138,750 will be funded to the extent possible with gifts to be raised, and with the remainder in University debt to be serviced by the Central University. The final allocation of sources of funding will be made prior to the issuance of University debt.

This is a declaration of official intent for purposes of United States Treasury Regulations Section 1.150-2. The maximum principal amount of bonds expected to be issued to permanently fund the project, based upon current cost estimates is \$17,738,750 plus costs of issuance and any reserves established in connection with the bonds. To the extent that costs increase, it is expected that the principal amount of bonds will be increased to fund the project. Any costs temporarily financed on an interim basis with University funds are expected to be reimbursed with bond proceeds to the extent that such costs are not funded with external sources and to the extent the University does not elect to permanently finance such costs with University funds.

Maintenance and Operations

Maintenance and operations costs associated with this building will continue to be developed during this phase of the project. These costs, once identified, will be the responsibility of the Central University.

Energy Considerations

Energy costs that will be incurred due to the operation of this building will be determined during this phase of the project. These costs, once identified, will be the responsibility of the Central University.

Sustainable Design

Sustainable elements of the project include conformance with LEED Silver. Costs associated with these sustainable components will be estimated as a result of this phase.

Safety and Security

This project will be designed to be in accordance with all University and New York City safety and security regulations.

Yearly safety and security costs associated with this facility will be determined at a subsequent date. These costs, once identified, will be the responsibility of the Central University.

Consideration for the Disabled

This project will be designed to be in compliance with Americans with Disabilities Act requirements.

Mode of Accomplishment

The firms of Renzo Piano Building Workshop, the design architect, and Dattner Architects, the architect of record, have and will continue to provide design phase services. A construction management firm to be selected during this phase of the project will provide pre-construction services. The Manhattanville Development Group of Columbia University Facilities will provide project management services. All vendors are selected in accordance with University procurement procedures.

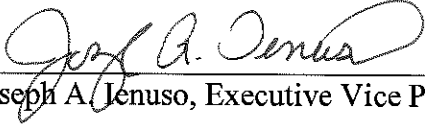
Certificate of Occupancy

This new facility will require a Certificate of Occupancy at project completion.

Project Schedule

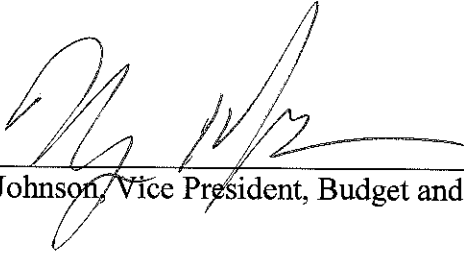
This phase of the project is scheduled to be completed by the fall of 2016.

Approved by:



Joseph A. Jenuso, Executive Vice President, Columbia University Facilities

6/26/13
Date



Nancy K. Johnson, Vice President, Budget and Financial Planning

7-31-13
Date

Project Document

MANHATTANVILLE IN WEST HARLEM **PHASE I OPEN SPACE** **Design and Early Construction Phase**

Statement of Purpose and Need

A carefully composed series of plazas, streetscapes and green spaces are planned to be constructed as part of the initial phase of the University's campus expansion in Manhattanville in West Harlem. The unique character of plazas and open spaces provides a rich backdrop to Columbia's Morningside campus and the design and development of the landscapes and open spaces within the Manhattanville campus will provide critical linkages between buildings within the campus and the surrounding community.

Columbia and the City of New York have established a landscape agreement which requires that no fences, gates or walls be used in the open space plan thus enhancing the public perception of linkages between the campus and the community. To ensure an integrated overall master plan and design, these open spaces need to be designed in tandem with the buildings that will compose the first phase of the Manhattanville development.

Project Scope

Previous approvals have provided for the schematic design of the small square, adjacent to the Jerome L. Greene Science Center and the Lenfest School of the Arts, and the large square between sites 6B and 7 and the open space on site 1.

The current request will fund the continued design development, construction documentation and cost estimation of the small square and design development only for the large square, phase II landscape and streetscape work and the open space on site 1.

This request will also fund the procurement of the construction trades to complete the installation of the concrete slab and waterproofing for the portion of the small square that lies above the Central Energy Plant. The construction of these elements of the small square will be coordinated with the installation of the concrete structures associated with the Central Energy Plant and the Jerome L. Greene Science Center.

Project Budget

	Previous Request	Current Request	Total Request
Construction	\$0	\$2,500,000	\$2,500,000
A/E Fees and Expenses	2,750,000	2,000,000	4,750,000
Contingency	250,000	250,000	500,000
Commissioning	0	200,000	200,000
Project Management	175,000	342,000	517,000
Total	<u>\$3,175,000</u>	<u>\$5,292,000</u>	<u>\$8,467,000</u>

Project Financing

The conceptual budget for design and construction of the small square and design development only for the large square, phase II landscape and streetscape work and the open space is estimated to be \$17,000,000. This estimate is based upon master plan drawings developed by Renzo Piano Building Workshop and Field Operations in 2008. The project budget will be further refined during this phase of the project.

The current request of \$5,292,000 will be funded, to the extent possible, with central reserves, and with the remainder to be funded by University debt to be serviced by the Central University. The final allocation of sources of funding will be made prior to the issuance of University debt.

This is a declaration of official intent for purposes of United States Treasury Regulations Section 1.150-2. The maximum principal amount of bonds expected to be issued to permanently fund the project, based upon current cost estimates is \$8,467,000 plus costs of issuance and any reserves established in connection with the bonds. To the extent that costs increase, it is expected that the principal amount of bonds will be increased to fund the project. Any costs temporarily financed on an interim basis with University funds are expected to be reimbursed with bond proceeds to the extent that such costs are not funded with external sources and to the extent the University does not elect to permanently finance such costs with University funds.

Operations and Maintenance

Any increase in maintenance and operations costs will be determined during this phase of the project. These costs, once identified, will be the responsibility of the Central University.

Energy Considerations

Any increase in energy consumption costs will be determined during this phase of the project. These costs, once identified, will be the responsibility of the Central University.

Sustainable Design

This project will conform to the U.S. Green Building Council's Leadership in Energy and Environmental Design rating system for the Neighborhood Development Pilot program (LEED-ND). Costs associated with these sustainable components will be estimated as a result of this phase and added to the budget.

Safety and Security

This project will be designed and constructed to be in accordance with all University and New York City safety and security regulations. Yearly safety and security costs associated with this project will be determined during this phase of the project.

Consideration for the Disabled

This project will be designed to be in compliance with the Americans with Disabilities Act requirements.

Mode of Accomplishment

The firm of Field Operations, a landscape architectural firm, will provide design and construction documentation services. Construction Management for the construction of the small square will be provided by Lend Lease Americas. Construction management for the large square will be provided by a construction firm to be determined at a future phase of the project. The Columbia University Facilities Manhattanville Development Group will provide project management services. All vendors are selected in accordance with University procurement procedures.

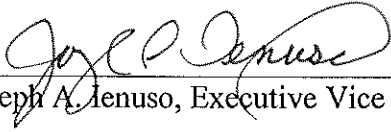
Certificate of Occupancy

This project will not require a Certificate of Occupancy at project completion.

Project Schedule

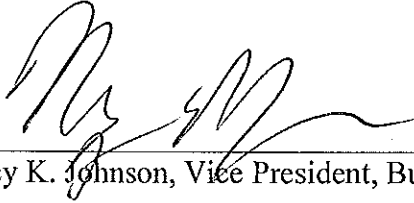
The construction of the small square will be completed in coordination with the Jerome L. Greene Science Center and the Lenfest School of the Arts. The design phase for the small square and the Phase II streetscapes portion of the project is scheduled to be completed during the spring of 2013.

Approved by:



Joseph A. Jenuso, Executive Vice President, Columbia University Facilities

10/18/12
Date



Nancy K. Johnson, Vice President, Budget and Financial Planning

12/12/12
Date

Project Document

COLUMBIA UNIVERSITY MEDICAL CENTER
WILLIAM BLACK AND PHYSICIANS AND SURGEONS
18TH AND 19TH FLOORS AND
HAMMER HEALTH SCIENCES 17TH FLOOR RENOVATIONS
INSTITUTE FOR COMPARATIVE MEDICINE
Design and Construction

Statement of Purpose and Need

The existing Institute for Comparative Medicine Animal Facilities in the William Black, Physicians and Surgeons and Hammer Health Sciences buildings are in need of repair and modernization to be in compliance with regulatory agencies as well as to address antiquated and deteriorating infrastructure. The forty year old infrastructure, vivarium systems, animal caging and security systems are at the end of their life cycle and in severe need of replacement. The layout and functionality is in need of improvement to accommodate more efficiency in managing animal populations, enhancing procedural activities and research functions. There is a lack of current/integrated vivarium systems, including animal watering, security, variable air volume (VAV), animal lighting control and optimization systems, which have resulted in a poor and underperforming facility that risks major failure.

Project Scope

A previous project document requested funds for an evaluation and feasibility study to identify various deficiencies and prioritize proposed improvements for the animal care facility. This request is for the design and construction of the project. The scope of work will include updating and replacing the aged infrastructure, developing flexible planning efficiencies, remodeling the cage wash areas at each location, and conducting phased renovations of animal research and support spaces in the Black and Physicians and Surgeons buildings 18th and 19th floor project as well as in the Hammer Health Sciences building 17th floor project.

Project Budget

	<u>Previous Request</u>	<u>Current Request</u>	<u>Total Request</u>
Construction	\$0	\$22,254,398	\$22,254,398
Asbestos Abatement	0	106,250	106,250
Furniture, Fixtures and Equipment	0	40,000	40,000
A/E Fees and Expenses	\$300,000	\$2,305,329	\$2,605,329
Tel/Data	0	265,000	265,000
Other Project Costs	0	328,500	328,500
Commissioning	0	129,511	129,511
Contingency	30,000	2,542,899	2,572,899
Project Management	19,800	1,678,313	1,698,113
Total	<u>\$349,800</u>	<u>\$29,650,200</u>	<u>\$30,000,000</u>

Project Financing

The previously approved project document 2011.112 for \$349,800 was funded with reserves residing in account #0-13772 and was approved in September 2010. The current request of \$29,650,200 is for the design and construction of the project and will be funded with University debt to be serviced by the College of Physicians and Surgeons. Columbia University Medical Center has set a maximum target budget of \$30,000,000. The final allocation of sources of funding will be made prior to the issuance of University debt.

This is a declaration of official intent for purposes of United States Treasury Regulations Section 1.150-2. The maximum principal amount of bonds expected to be issued to permanently fund the project, based on current cost estimates is \$30,000,000 plus costs of issuance and any reserves established in connection with the bonds. To the extent that costs increase, it is expected that the principal amount of bonds will be increased to fund the project. Any costs temporarily financed on an interim basis with University funds are expected to be reimbursed with bond proceeds to the extent that such costs are not funded with external sources and to the extent the University does not elect to permanently finance such costs with University funds.

Maintenance and Operations

Any impact on maintenance and operations costs that will result from this project will be assessed upon the completion of the construction documents. These costs, once identified, will be the responsibility of the Columbia University Medical Center.

Energy Considerations

Any impact on energy consumption costs that will result from this project will be assessed upon the completion of the construction documents. These costs, once identified, will be the responsibility of the Columbia University Medical Center.

Sustainable Design

Sustainable design components will be developed during this phase of the project.

Consideration for the Disabled

This project will conform to all applicable regulations that govern handicapped access. Specifically, this project will conform to recent Americans with Disabilities Act requirements and New York City Local Law #58.

Safety and Security

This project will be designed to be in accordance with all University and New York City safety and security regulations.

Mode of Accomplishment

A request for proposal for architectural services has been issued and the selection process for architectural and engineering firms is underway. Construction management will be provided by a construction firm. All vendors are selected in accordance with University procurement procedures. Project management will be provided by the Columbia University Medical Center's Facilities Project Management Department.


Certificate of Occupancy

This phase of the project will not affect the Certificate of Occupancy of the William Black, Physicians and Surgeons or the Hammer Health Sciences buildings.


Project Schedule

This project is scheduled to be completed in the spring of 2016.

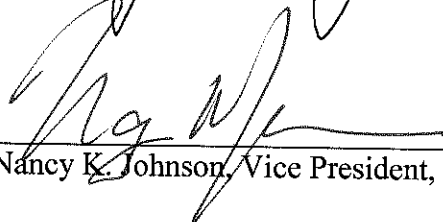
Approved by:



Amador Centeno, Vice President, Columbia Medical Center Facilities
2/6/12
Date



Joanne M. J. Quan, Chief Financial Officer, Columbia Medical Center
2/10/12
Date



Nancy K. Johnson, Vice President, Budget and Financial Planning
3/5/12
Date

Project Document

PUPIN HALL
DEPARTMENT OF PHYSICS
PHYSICS THEORY CENTER
800 and 900 Levels
Construction Phase

Statement of Purpose and Need

As part of the Arts and Sciences Science Master Plan, the Department of Physics will establish a new Physics Theory Center to provide modern, contiguous and secure office, meeting and scientific interaction space for research in theoretical physics. Faculty, postdoctoral researchers and graduate students will be located in this space, which is designed to facilitate the type of interactions between its occupants that lead to new scientific advances. The Theory Center will make it possible to compete effectively with the department's peers in attracting the best theoretical talent to Columbia University. This new Center will occupy the former Physics Library on the 800 and 900 levels of Pupin, part of which was vacated with the construction of the new consolidated Science Library in the Northwest Corner building.

Project Scope

The previous phase provided for design services for the project. This phase of the project will include construction through project close-out. The scope of work for the overall project will include the renovation of the former library on the east side of the 800 level and office space on the east side of the 900 level, a space of approximately 7,500 square feet. The office space on the east side of the 900 level will need to be vacated before the project can proceed and these relocation costs are not included in the scope of this project. All costs associated with the required relocations will be funded by the Physics Department.

The new center will provide office space for approximately 39 occupants. The space will include scientific interaction space, a pantry, a copy area, storage rooms and the required ancillary mechanical spaces to support the area. The offices will be designed with the flexibility to be converted based on programmatic needs. All areas will be provided with new finishes, furniture, lighting, electrical and mechanical systems and data connectivity. In addition, a dedicated mechanical room will be constructed on the 800 or 900 level to support the center.

Project Budget

	<u>Previous Request</u>	<u>Current Request</u>	<u>Total Request</u>
Construction	\$41,500	\$3,201,500	\$3,243,000
A/E Fees and Expenses	399,756	7,244	407,000
Furniture, Fixtures and Equipment	0	325,000	325,000
Contingency	61,470	365,530	427,000
Commissioning	11,000	108,000	119,000
Project Management	32,774	260,226	293,000
Total	<u>\$546,500</u>	<u>\$4,267,500</u>	<u>\$4,814,000</u>

Project Financing

The current request of \$4,267,500 is based upon comparable costs of similar campus projects. The total cost of the project of \$4,814,000 will be funded by a gift of \$250,000 received by the Physics Department and the remaining \$4,564,000 will be funded with debt to be serviced by Arts and Sciences. The final allocation of sources of funding will be made prior to the issuance of University debt.

This is a declaration of official intent for purposes of United States Treasury Regulations Section 1.150-2. The maximum principal amount of bonds expected to be issued to permanently fund the project, based on current cost estimates is \$4,814,000 plus costs of issuance and any reserves established in connection with the bonds. To the extent that costs increase, it is expected that the principal amount of bonds will be increased to fund the project. Any costs temporarily financed on an interim basis with University funds are expected to be reimbursed with bond proceeds to the extent that such costs are not funded with external sources and to the extent the University does not elect to permanently finance such costs with University funds.

Operations and Maintenance

Any increase in maintenance and operations costs will be determined during this phase of the project. These costs, once determined, will be the responsibility of Arts and Sciences.

Energy Considerations

Any increase in energy consumption costs will be determined during this phase of the project. These costs, once determined, will be the responsibility of Arts and Sciences.

Sustainable Design

Sustainable elements of the project will include the recycling of construction materials and debris, the use of recycled carpet, energy efficient lighting and low volatile organic compound (VOC) paint. Costs associated with these sustainable components will be negligible.

Safety and Security

This project will be designed and constructed to be in accordance with all University and New York City safety and security regulations.

Consideration for the Disabled

This project will be designed to comply with the 2010 Americans with Disabilities Act (ADA) requirements and Columbia University's commitment to accessibility. This project will include the appropriate building accessibility upgrades to further the goal of fully accessible buildings throughout the campus.

Mode of Accomplishment

The firm of Perkins Eastman Architects, P.C. was selected to provide architectural design services for the project. Construction services will be provided by a general contractor to be selected during this phase of the project. Columbia University Facilities Department of Capital Project Management will provide project management services for the project. All vendors are selected in accordance with University procurement procedures.

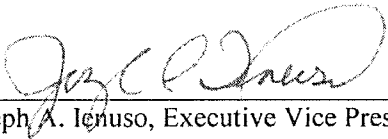
Certificate of Occupancy

Any modifications to the Certificate of Occupancy for Pupin Hall will be determined during this phase of the project.

Project Schedule


This phase of the project is scheduled for completion in December of 2014.

Approved by:



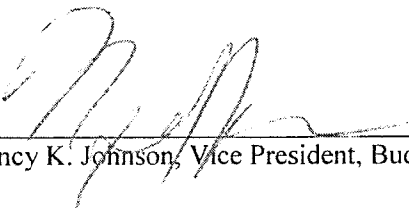
Joseph A. Ienuso, Executive Vice President, Columbia University Facilities

12/26/13
Date



David B. Madigan, Executive Vice President for Arts and Sciences

2/25/14
Date



Nancy K. Johnson, Vice President, Budget and Financial Planning

2-9-14
Date

Project Document

NORTHWEST CORNER BUILDING

FIT-OUT

1100 Level

Design and Construction Phase

Statement of Purpose and Need

The Northwest Corner building, completed in December 2010, advances the University's mission of being one of the world's most important centers for academic research and a distinctive and distinguished learning environment for students in many scholarly and professional fields. The building added 188,000 gross square feet to the University's Morningside campus and provides academic research, teaching and study space for a community of faculty members and students. The laboratories provide research space for the nanotechnology, physics, chemistry, biophysics, biochemistry and synthetic chemistry fields. The 1000, 1100 and 1400 levels were not programmed and left as shelled floors.

The 1100 level of the Northwest Corner building is assigned to the Department of Physics who will use it to support their planned Condensed Matter Physics Initiative.

Recently, Arts and Sciences and Zuckerman Mind Brain Behavior Institute (Z-MBBI) in the Jerome L. Greene Science Center have agreed to fit out the entire 1100 level as temporary lab space for neuroscience researchers from Z-MBBI in the south and central laboratory locations, and to fit out the north laboratory location for the Department of Physics. The space to be occupied by the Z-MBBI researchers on a temporary basis will then revert to the Department of Physics.

With an accelerated design and construction schedule, the temporary Z-MBBI laboratories and permanently assigned Condensed Matter Physics laboratory will be available for occupancy by fall 2014. The temporary Z-MBBI laboratories will be vacated by Z-MBBI by December 31, 2016 for conversion and occupancy by Condensed Matter faculty. Any further customizations for future A&S physics recruits will not be funded through this request.

Project Scope

The work that will be undertaken during this phase of the project will be to design and construct the fit-out the entire 1100 level which is approximately 12,000 net usable square feet.

The space will be designed to meet the needs of the temporary neuroscience researchers from Z-MBBI in the south and central laboratory locations, and to fit out the permanent north laboratory location for the Department of Physics. All research space will be designed and built with flexibility to allow for future conversions for the benefit of the Department of Physics.

Project Budget

	Current Request
Construction	\$8,600,000
A/E Fees and Expenses	880,000
Furniture, Fixtures and Equipment	500,000
Contingency	987,000
Commissioning	300,000
Project Management	733,000
Total	\$12,000,000

Project Financing

The current request of \$12,000,000 is based upon similar projects completed in the building. Funding will be provided as follows: \$6,500,000 in University debt to be serviced by Arts & Sciences and \$5,500,000 in Zuckerman Mind Brain Behavior Institute operating reserves. The final allocation of sources of funding will be made prior to the issuance of University debt.

This is a declaration of official intent for purposes of United States Treasury Regulations Section 1.150-2. The maximum principal amount of bonds expected to be issued to permanently fund the project, based on current cost estimates is \$12,000,000 plus costs of issuance and any reserves established in connection with the bonds. To the extent that costs increase, it is expected that the principal amount of bonds will be increased to fund the project. Any costs temporarily financed on an interim basis with University funds are expected to be reimbursed with bond proceeds to the extent that such costs are not funded with external sources and to the extent the University does not elect to permanently finance such costs with University funds.

Operations and Maintenance

Any increase to maintenance and operations costs as a result of this project will be determined during this phase. These costs, once identified, will be the responsibility of Z-MBBI while their researchers occupy the space and Arts and Sciences.

Energy Considerations

Any increase to energy costs as a result of this project will be determined during this phase. These costs, once identified, will be the responsibility of Z-MBBI while their researchers occupy the space and Arts and Sciences.

Sustainable Design

The Northwest Corner Building achieved the status of LEED Gold in its core and shell construction in 2011. The framework for energy efficient building and lab systems was put in place at that time. The fit-out work will be completed in a manner consistent with the original LEED intent.

Safety and Security

This project will be designed in accordance with all University and New York City safety and security regulations. These costs, once identified, will be the responsibility of Z-MBBI while their researchers occupy the space and Arts and Sciences.

Consideration for the Disabled

This project will be designed to comply with the 2010 Americans with Disabilities Act (ADA) requirements and Columbia University's commitment to accessibility. This project will include the appropriate building accessibility upgrades to further the goal of fully accessible buildings throughout the campus.

Mode of Accomplishment

An architectural firm and construction management firm will be selected during this phase of the project. All vendors will be selected in accordance with University procurement procedures. Columbia University Facilities' Capital Project Management department will provide project management services for the project.


Certificate of Occupancy

This project will not affect the Certificate of Occupancy for the Northwest Corner building.

Project Schedule


This project is scheduled for completion by the fall of 2014.

Approved by:



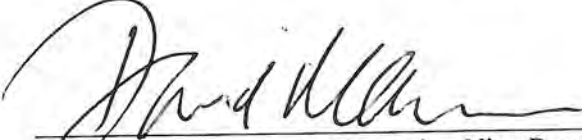
Joseph A. Ionuso, Executive Vice President, Columbia University Facilities

10/4/13
Date



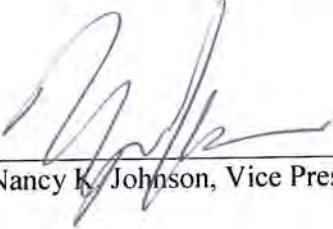
Thomas M. Jessell, Claire Tow Professor of Motor Neuron Disorders in Neuroscience
and Professor of Biochemistry & Molecular Biophysics

11/21/13
Date



David Madigan, Interim Executive Vice President, Arts and Sciences

11/7/13
Date



Nancy K. Johnson, Vice President, Budget and Financial Planning

10.23.13
Date



Mary C. Boyce, Dean, Fu Foundation School of Engineering and Applied Science

8-9-13
Date

Project Document

FAIRCHILD HALL **DEPARTMENT OF BIOLOGICAL SCIENCES** **NEW COMPUTATIONAL LABORATORY AND RECONFIGURATION** **600 Level** **Design and Construction Phase**

Statement of Purpose and Need

As part of its Science Master Plan, Arts and Sciences has requested the renovation and reconfiguration of approximately 3,000 square feet of laboratory space on the 600 level of Fairchild Hall for three faculty members, two of whom are newly appointed - Molly Przeworski, Visiting Professor of Biological Sciences, and Guy Sella, Associate Professor of Biological Sciences. Associate Professor of Biological Sciences Dana Pe'er will be relocated into a reconfigured space that is expected to better serve the physical requirements of her research.

The requested renovation includes rooms 602, 608, and a portion of 614 to create two new dry computational laboratories for Dr. Przeworski, Dr. Sella, and their graduate student laboratory groups. The proposed renovation will also relocate Professor Pe'er's research, which endeavors to understand the organization, function and evolution of molecular networks. The reconfiguration will optimize the use of an existing tissue culture room and the relocated prep lab, making workflow less disruptive for the researchers.

Project Scope

The newly constructed laboratories for Professors Przeworski and Sella will include faculty offices, semi-private offices for graduate students, interaction spaces with seating and tables, and a large shared conference room. Multiple writing surfaces such as white boards or glass walls are required throughout the labs. All newly constructed areas will be provided with new finishes, furniture, lighting, electrical systems and high-speed data connectivity.

The previous request provided funding for design phase services that included feasibility, schematic design, the preparation of construction documents, and the collateral move of the Proteomics Lab for Dr. Brown from room 608 into room 801/803. This phase of the project will include the construction work for the laboratory renovation and the fit-out of temporary space for the two new professors while their permanent laboratory space is under construction. Furniture will be provided in the temporary space and telephone/data connectivity will be added to support research requirements.

This request will also provide for the design and construction for the reconfiguration of Professor Pe'er's laboratory. The program of the new space includes the reconfiguration of bench tops and work surfaces as well as the addition of new safety showers in room 614. The reconfiguration will also include a new door opening, new lighting, and the rebalancing of the mechanical system to support the new layout.

Project Budget

	Previous Request	Current Request	Total Request
Construction	\$6,500	\$1,041,500	\$1,048,000
A/E Fees and Expenses	138,550	152,350	290,900
Furniture, Fixtures and Equipment	0	215,000	215,000
Commissioning	4,350	38,000	42,350
Contingency	22,100	194,650	216,750
Project Management	11,150	106,850	118,000
Total	<u>\$182,650</u>	<u>\$1,748,350</u>	<u>\$1,931,000</u>

Project Financing

The current request of \$1,748,350 is based upon the proposed scope of work and comparable costs of similar campus projects. The total request of \$1,931,000 will be funded with debt to be serviced by Arts and Sciences. The final allocation of sources of funding will be made prior to the issuance of University debt.

This is a declaration of official intent for purposes of United States Treasury Regulations Section 1.150-2. The maximum principal amount of bonds expected to be issued to permanently fund the project, based on current cost estimates is \$1,931,000 plus costs of issuance and any reserves established in connection with the bonds. To the extent that costs increase, it is expected that the principal amount of bonds will be increased to fund the project. Any costs temporarily financed on an interim basis with University funds are expected to be reimbursed with bond proceeds to the extent that such costs are not funded with external sources and to the extent the University does not elect to permanently finance such costs with University funds.

Operations and Maintenance

Any increase in maintenance and operations costs will be determined during this phase of the project. These costs, once determined, will be the responsibility of Arts and Sciences.

Energy Considerations

Any increase in energy consumption costs will be determined during this phase of the project. These costs, once determined, will be the responsibility of Arts and Sciences.

Sustainable Design

Sustainable elements of the project will include the recycling of construction materials and debris, the use of recycled carpet, energy efficient lighting and low volatile organic compound (VOC) paint. Costs associated with these sustainable components will be negligible.

Safety and Security

This project will be designed and constructed to be in accordance with all University and New York City safety and security regulations.

Consideration for the Disabled

This project will be designed to comply with the 2010 Americans with Disabilities Act (ADA) requirements and Columbia University's commitment to accessibility. This project will include the appropriate building accessibility upgrades to further the goal of fully accessible buildings throughout the campus.

Mode of Accomplishment

The firm of Mitchell | Giurgola was selected to provide architectural design services and Loring Consulting Engineers was selected to provide engineering services. Construction services will be provided by a general contractor to be selected during this phase of the project. Columbia University Facilities Department of Capital Project Management will provide project management services for the project. All vendors are selected in accordance with University procurement procedures.

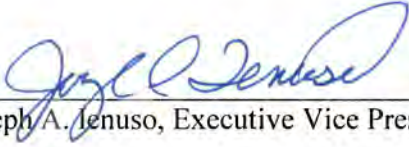
Certificate of Occupancy

This project will not affect the Certificate of Occupancy for Fairchild Hall.

Project Schedule

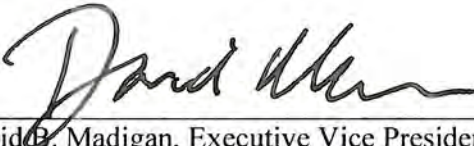
This phase of the project is scheduled for completion in June of 2014.

Approved by:



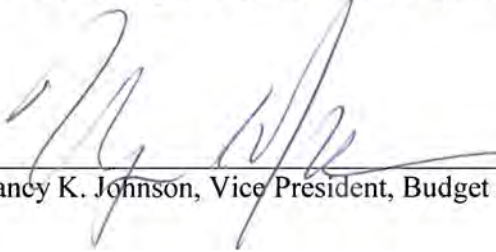
Joseph A. Jenuso, Executive Vice President, Columbia University Facilities

12/26/13
Date



David B. Madigan, Executive Vice President, Dean of the Faculty, Arts and Sciences

2/25/14
Date



Nancy K. Johnson, Vice President, Budget and Financial Planning

1/30/14
Date

Project Document

FAIRCHILD HALL
DEPARTMENT OF BIOLOGICAL SCIENCES
LABORATORY RENOVATION
800 Level
Design and Collateral Project Construction Phase

Statement of Purpose and Need

The Department of Biological Sciences has recruited two new faculty members that conduct research of molecular mechanisms and cellular development.

The recruitment of Professor Hobert and Professor Greenwald requires the renovation of existing laboratory areas and support spaces in Fairchild Hall to accommodate their research. A space of approximately 6,000 square feet on the 800 level of Fairchild Hall has been identified to house the wet laboratories, administrative space and new equipment rooms for the two researchers.

The program will also include the collateral relocations of three existing laboratories that currently occupy the designated space on the 800 level. Two faculty members in the Department of Biological Sciences will be relocated to a newly renovated laboratory space of approximately 1,700 square feet in Fairchild 1002, 100A, B, C, D, F and G. Additionally, the Proteomics Lab currently located on the 800 level of Fairchild will be relocated to a newly renovated laboratory space of approximately 900 square feet in Mudd 738, 740 and 740A.

Project Scope

The previous request was for a feasibility study to define the program, establish a range of costs as well as relocation options. This phase of the project will include the design phase for the entire scope of work including the collateral relocations and the construction work for only the collateral relocations. Both the existing and collateral spaces will undergo a gut renovation that will require new HVAC, electrical, plumbing, sprinklers, finishes and data upgrades to meet the research needs of the wet biological lab spaces.

Project Budget

	Previous Request	Current Request	Total Request
Construction	\$21,000	\$1,879,000	\$1,900,000
A/E Fees and Expenses	57,000	617,000	674,000
Furniture, Fixtures and Equipment	0	215,000	215,000
Contingency	11,800	368,200	380,000
Commissioning	1,200	81,800	83,000
Project Management	9,000	196,000	205,000
Total	\$100,000	\$3,357,000	\$3,457,000

Project Financing

The current request of \$3,357,000 is based upon the proposed scope of work and the cost per square foot for similar past projects. The total request of \$3,457,000 will be funded with debt to be serviced by Arts and Sciences. The total cost of the project will be determined after this phase of the project. The final allocation of sources of funding will be made prior to the issuance of University debt.

This is a declaration of official intent for purposes of United States Treasury Regulations Section 1.150-2. The maximum principal amount of bonds expected to be issued to permanently fund the project, based on current cost estimates is \$3,457,000 plus costs of issuance and any reserves established in connection with the bonds. To the extent that costs increase, it is expected that the principal amount of bonds will be increased to fund the project. Any costs temporarily financed on an interim basis with University funds are expected to be reimbursed with bond proceeds to the extent that such costs are not funded with external sources and to the extent the University does not elect to permanently finance such costs with University funds.

Operations and Maintenance

Any increase in operations and maintenance will be determined during this phase of the project. These costs, once determined, will be the responsibility of Arts and Sciences.

Energy Considerations

Any increase in energy consumption costs will be determined during this phase of the project. These costs, once determined, will be the responsibility of Arts and Sciences.

Sustainable Design

Sustainable elements of the project will include the recycling of construction materials and debris, the use of recycled carpet, energy efficient lighting and low volatile organic compound paint. Costs associated with these sustainable components will be negligible.

Safety and Security

This project will be designed and constructed to be in accordance with all University and New York City safety and security regulations.

Consideration for the Disabled

This project will be designed to comply with the 2010 Americans with Disabilities Act (ADA) requirements and Columbia University's commitment to accessibility. This project will include the appropriate building accessibility upgrades to further the goal of fully accessible buildings throughout the campus.

Mode of Accomplishment

The firm of Mitchell | Giurgola Architects has been selected to provide design services. Construction services will be provided by a general contractor to be selected during this phase of the project. The Columbia University Facilities and Operations Department of Capital Project Management will provide project management services for the project. All vendors will be selected in accordance with University procurement procedures.

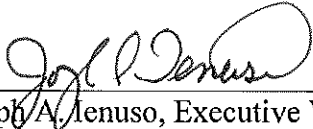
Certificate of Occupancy

Any modifications to the certificate of occupancy for Fairchild Hall will be determined during this phase of the project.

Project Schedule

This phase of the project is scheduled for completion in April of 2015.

Approved by:



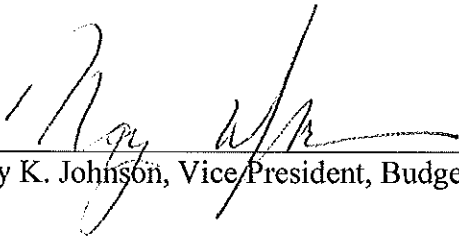
Joseph A. Ienuso, Executive Vice President, Columbia University Facilities and Operations

1/14/15

Date

David B. Madigan, Executive Vice President, Arts and Sciences

Date



Nancy K. Johnson, Vice President, Budget and Financial Planning

2/16/15

Date

Project Document

SCHAPIRO CENTER FOR ENGINEERING AND PHYSICAL SCIENCE RESEARCH
ARTS AND SCIENCES AND
FU FOUNDATION SCHOOL OF ENGINEERING AND APPLIED SCIENCE
NANOSCIENCE SHARED FACILITIES
CLEAN ROOM UPGRADE AND EXPANSION
1000 Level
Construction Phase

Statement of Purpose and Need

The Columbia Nanofabrication Facility (CNF) is located on the 1000 level of the Schapiro Center for Engineering and Physical Science Research (CEPSR) building on Columbia's Morningside campus. The current facility does not support the growing list of microfabrication tools being acquired by the research programs. In addition, the facility requires modernization to handle the burgeoning needs of nanobiology and nanomedicine research which now represents more than half of the activity at CNF. The upgrade and expansion will allow for a much broader collaboration between the Morningside campus and the Columbia University Medical Center and, in addition, position Columbia as a regional center for nanofabrication that would strengthen links with nearby institutions such as New York University, City University of New York, Mount Sinai Hospital, Rutgers University, New Jersey Institute of Technology, Stevens Institute in New Jersey, as well as private industries, notably IBM Research and GE Life Sciences.

This project proposes to renovate and expand the existing 3,000 square foot Columbia Nanofabrication Facility to 4,600 square feet to support current and emerging efforts in nanobiology and nanomedicine, directly impacting the educational and research activities of over 200 researchers at Columbia (faculty, staff and students) who use these clean room facilities. This includes faculty in the Fu Foundation School of Engineering and Applied Science, Arts and Sciences and the School of Physicians and Surgeons. The classification of the CNF will be class 10,000 which is a level of cleanliness equivalent to 10,000 particles per cubic foot.

This project will also include the relocation of the Shared Material Characterization Lab (SMCL). SMCL is currently located in the expansion area of the 1000 level of CEPSR and therefore must be relocated to accommodate the clean room facilities expansion.

Project Scope

Previous requests included funding for schematic design, design services and construction documents for the upgrade and expansion of the current clean room on the western portion of the 1000 level of CEPSR (rooms 1027A, 1027B, 1027C, 1027D and 1027E) as well as part of the eastern portion of the same floor (rooms 1027F and 1027G).

In addition, previous requests funded the design and construction for the relocation of the SMCL to room 224 of Havemeyer Hall. Room 224, a space of approximately 750 square feet, currently houses shared instrumentation used by the Department of Chemistry that will be renovated to support the additional equipment from the existing SMCL. There will also be minor modifications to the existing lab benches as well as the electrical and mechanical systems.

The current request is for the construction phase of the clean room upgrade and expansion at the 1000 level of CEPSR. The 1,600 square foot addition to the current clean room will include a new gowning area and lithography bay. The ACID/Base Etch Bay and Furnace Bay in the current clean room space will be replaced and the space will be reorganized for better efficiency of use. The cost for new equipment for the clean room will not be included as part of this project budget.

Project Budget

	Previous Request	Current Request	Total Request
Construction	\$292,000	\$3,293,000	\$3,585,000
A/E Fees and Expenses	745,000	0	745,000
Furniture & Equipment	0	192,000	192,000
Contingency	124,000	576,000	700,000
Commissioning	31,000	105,000	136,000
Collateral Moves	0	202,000	202,000
Project Management	78,000	262,000	340,000
Total	\$1,270,000	\$4,630,000	\$5,900,000

Project Financing

The current request of \$4,630,000 is based upon the proposed scope of work and comparable costs of similar campus projects. The total request of \$5,900,000 will be funded with \$2,950,000 in debt to be serviced by Arts and Sciences and \$2,950,000 in Fu Foundation School of Engineering and Applied Science operating reserves. The final allocation of sources of funding will be made prior to the issuance of University debt.

This is a declaration of official intent for purposes of United States Treasury Regulations Section 1.150-2. The maximum principal amount of bonds expected to be issued to permanently fund the project, based on current cost estimates is \$5,900,000 plus costs of issuance and any reserves established in connection with the bonds. To the extent that costs increase, it is expected that the principal amount of bonds will be increased to fund the project. Any costs temporarily financed on an interim basis with University funds are expected to be reimbursed with bond proceeds to the extent that such costs are not funded with external sources and to the extent the University does not elect to permanently finance such costs with University funds.

Operations and Maintenance

The need for one additional staff member to be funded by Arts and Sciences and the Fu Foundation School of Engineering and Applied Science has been identified as a result of this project. Any other additional operating expenses, if identified, will be funded 50% by Arts and Sciences and 50% by the Fu Foundation School of Engineering and Applied Science.

Energy Considerations

This project is anticipated to increase utilities costs by \$21,600 per year. These costs will be funded 50% by Arts and Sciences and 50% by the Fu Foundation School of Engineering and Applied Science.

Sustainable Design

Sustainable elements of the project will include the recycling of construction materials and debris, the use of recycled carpet, energy efficient lighting and low volatile organic compound paint. Costs associated with these sustainable components will be negligible.

Safety and Security

This project will be designed and constructed to be in accordance with all University and New York City safety and security regulations.

Consideration for the Disabled

This project will be designed to comply with the 2010 Americans with Disabilities Act (ADA) requirements and Columbia University's commitment to accessibility. This project will include the appropriate building accessibility upgrades to further the goal of fully accessible buildings throughout the campus.

Mode of Accomplishment

The architectural firm Stantec Architecture Inc. has been selected to provide design services. A construction manager will be selected during this phase of the project. Columbia University Facilities and Operations Department of Capital Project Management will provide project management services for the project. All vendors are selected in accordance with University procurement procedures.

Certificate of Occupancy

This phase of the project will not affect the Certificate of Occupancy for the Schapiro CEPSR building.

Project Schedule

This phase of the project is scheduled for completion in the fall of 2015.

Approved by:



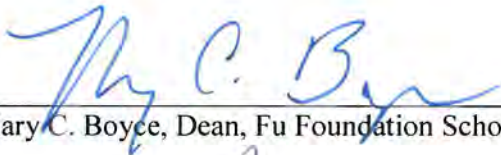
Joseph A. Jenuso, Executive Vice President, Columbia University Facilities and Operations

6/24/14
Date



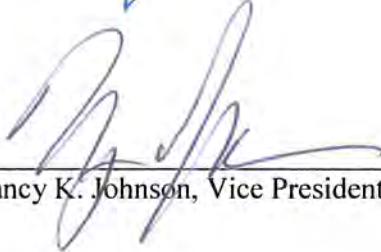
David B. Madigan, Executive Vice President, Dean of the Faculty, Arts and Sciences

8/26/14
Date



Mary C. Boyce, Dean, Fu Foundation School of Engineering and Applied Science

9/9/14
Date



Nancy K. Johnson, Vice President, Budget and Financial Planning

7/31/14
Date

Project Document

HAVEMEYER HALL DEPARTMENT OF CHEMISTRY LABORATORY RENOVATION 600 Level Construction Phase

Statement of Purpose and Need

Professor Laura Kaufman in the Department of Chemistry, recently retained and tenured, conducts research in the dynamics of tissues in cancer and in crowded chemical systems. The expansion of her research group has created the need for a new laser room, office, and wet laboratory area. Rooms on the 600 level of Havemeyer Hall spanning approximately 1,600 square feet have been selected for this program.

Project Scope

The previous request was for design services from feasibility through construction documents. This phase of the project will include construction of the lab as well as construction management services. The scope of work for the project includes the renovation of rooms 648, 648A, and 648B in Havemeyer Hall. The former wet lab will be converted into a lab for 13 occupants.

The new lab will include a laser room with temperature and humidity control tolerances. Therefore, a new dedicated mechanical room will be required to support the required tolerances. All newly constructed areas will be provided with new finishes, furniture, lighting, electrical systems and data connectivity.

Project Budget

	Previous Request	Current Request	Total Request
Construction	\$21,500	\$906,000	\$927,500
A/E Fees and Expenses	222,650	0	222,650
Furniture & Equipment	0	100,000	100,000
Contingency	25,150	97,950	123,100
Commissioning	7,360	30,140	37,500
Project Management	18,040	71,210	89,250
Total	\$294,700	\$1,205,300	\$1,500,000

Project Financing

The current request of \$1,205,300 is based upon the proposed scope of work and costs from similar past projects. The total request of \$1,500,000 will be funded with \$1,200,000 in debt to be serviced by Arts and Sciences and \$300,000 in operating funds in hand or included in the

fiscal year 2015 budget. The final allocation of sources of funding will be made prior to the issuance of University debt.

This is a declaration of official intent for purposes of United States Treasury Regulations Section 1.150-2. The maximum principal amount of bonds expected to be issued to permanently fund the project, based on current cost estimates is \$1,500,000 plus costs of issuance and any reserves established in connection with the bonds. To the extent that costs increase, it is expected that the principal amount of bonds will be increased to fund the project. Any costs temporarily financed on an interim basis with University funds are expected to be reimbursed with bond proceeds to the extent that such costs are not funded with external sources and to the extent the University does not elect to permanently finance such costs with University funds.

Operations and Maintenance

Any increase in maintenance and operations costs will be determined during this phase of the project. These costs, once determined, will be the responsibility of Arts and Sciences.

Energy Considerations

Any increase in energy consumption costs will be determined during this phase of the project. These costs, once determined, will be the responsibility of Arts and Sciences.

Sustainable Design

Sustainable elements of the project will include the recycling of construction materials and debris, the use of recycled carpet, energy efficient lighting and low volatile organic compound paint. Costs associated with these sustainable components will be negligible.

Safety and Security

This project will be designed and constructed to be in accordance with all University and New York City safety and security regulations.

Consideration for the Disabled

This project will be designed to comply with the 2010 Americans with Disabilities Act (ADA) requirements and Columbia University's commitment to accessibility. This project will include the appropriate building accessibility upgrades to further the goal of fully accessible buildings throughout the campus.

Mode of Accomplishment

The firm of Mitchell | Giurgola Architects has been selected to provide design services. Columbia University Facilities Department of Capital Project Management will provide project

management services for the project. All vendors are selected in accordance with University procurement procedures.

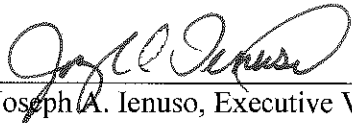
Certificate of Occupancy

Any modifications to the certificate of occupancy will be determined during this phase of the project.

Project Schedule


This phase of the project is scheduled for completion in March of 2015.

Approved by:



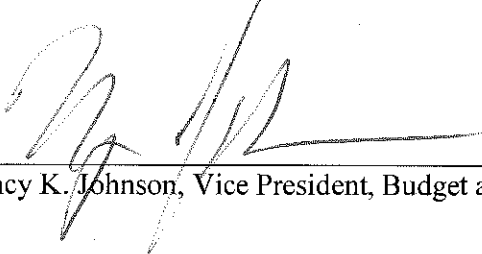
Joseph A. Ienuso, Executive Vice President, Columbia University Facilities and Operations

6/24/14
Date



David B. Madigan, Executive Vice President, Dean of the Faculty, Arts and Sciences

8/26/14
Date



Nancy K. Johnson, Vice President, Budget and Financial Planning

7/31/14
Date

AUTHORIZATION OF TAX-EXEMPT FINANCING FOR
RESIDENTIAL FACILITIES FOR FISCAL YEAR 2015

June 13, 2014

BACKGROUND: As indicated in the University's current five year Capital Plan, Residential Facilities has prepared a Fiscal Year 2015 capital budget totaling \$34.2 million for existing apartment renovations, building system upgrades and other repairs. Of this amount, up to \$31.8 million may be funded from external debt. This resolution of official intent to finance expenditures with tax-exempt debt is necessary to maximize the Residential Facilities capital expenditures eligible for such debt.

PROPOSAL: The Executive Vice President for Finance recommends that a declaration of official intent to finance be issued for up to \$31.8 million in Residential Facilities capital expenditures for Fiscal Year 2015.

RESOLUTION: On motion, the Committee voted to adopt the following resolution:

RESOLVED, this is a declaration of official intent for purposes of United States Treasury Regulations Section 1.150-2. The maximum principal amount of bonds expected to be issued to fund the project permanently, based on current cost estimates, is \$31.8 million plus costs of issuance and any reserves established in connection with the bonds. To the extent that costs increase, it is expected that the principal amount of bonds will be increased to fund the project. Any costs temporarily financed on an interim basis with University funds are expected to be reimbursed with the bond proceeds to the extent that such costs are not funded with external sources and to the extent the University does not elect to finance such costs permanently with University funds. The final allocation of sources of funding will be made prior to the issuance of University debt.