# AMENDED MEMORANDUM OF ENVIRONMENTAL COMMITMENTS FOR THE ATLANTIC YARDS PROJECT

#### A. PURPOSE OF MEMORANDUM

This amended memorandum dated as of December 21, 2009 documents the commitments made by Forest City Ratner Companies and its affiliates including Atlantic Yards Development Company, LLC and Brooklyn Arena, LLC (collectively, "FCRC") to: (i) incorporate measures into the Atlantic Yards Project (the "Project") to avoid adverse environmental impacts, as described in the Final Environmental Impact Statement issued by the Empire State Development Corporation ("ESDC") on November 27, 2006 (the "FEIS") and in the Technical Memorandum prepared with respect to the Project in June 2009 (the "Technical Memorandum"); and (ii) implement measures to mitigate, to the maximum extent practicable, the significant adverse impacts identified in the FEIS. ESDC and FCRC anticipate that the measures set forth in this memorandum will be included in appropriate Project documentation, with measures associated with, or the responsibility of, individual buildings or building parcels included in the applicable ground leases, and measures associated with the Project site as a whole or not specific to any one building parcel included in other Project documentation (any such lease or other Project documentation, a "Project Document" and such documentation collectively, the "Project Documentation"). Modifications to the obligations herein described may be granted by ESDC (not to be unreasonably withheld) or as otherwise provided for in this memorandum, and in the event of any such modification, the Project Document imposing the affected obligation shall be deemed to be revised to incorporate such modification. The Project Documentation shall provide that the commitments set forth herein shall run with the land and be binding upon FCRC's successors and assigns for the period of time any such party holds a property interest in the relevant portion of the Project or the Project site or until such earlier time as the relevant obligation is satisfied or fully discharged, with respect to those obligations that do not exist in perpetuity.

## B. SOCIOECONOMICS

The Project (including Phase I and Phase II) shall generate at least 2,250 units of affordable housing on site for low-, moderate-, and middle-income persons and families. At least 30% of the units built on the arena block in Phase I (but no less than 300 units) shall be affordable to such households. The remainder of the affordable units shall be built in Phase II or on Site 5; however, not more than 50% of the Phase II units shall be built without completion of at least 50% of the Phase II affordable units. The affordable units are anticipated to be built as part of the Mayor's New Housing Marketplace Plan and are expected to be financed through tax-exempt bonds provided under existing and proposed City of New York ("City") and State of New York ("State") housing programs such as the City's 50-30-20 program. Based on currently available information, the parties anticipate that the affordable housing units will be made available to households

with incomes falling within the income bands set forth in the FEIS. However, the income bands may be adjusted to accommodate the requirements of any City, State or federal housing program utilized for the construction of the affordable housing, subject to City approval.

## C. COMMUNITY FACILITIES

- 1. FCRC shall provide parking spaces for police vehicles assigned to the 78<sup>th</sup> Precinct House in a number equal to the spaces lost as a result of the elimination of angled parking for police vehicles on 6<sup>th</sup> Avenue, but in any event not to exceed 24 parking spaces. Such parking shall be provided without charge prior to the elimination of such parking and shall be provided at a location that is proximate and convenient to the Precinct House. FCRC shall have the right to modify the location of such spaces from time to time in order to address construction logistics and operational matters, provided that the location remains proximate and convenient to the Precinct House.
- 2. As mitigation for the projected significant adverse impact to the supply of elementary and intermediate school seats within ½ mile of the Project, FCRC shall, if requested by the New York City Department of Education ("DOE") prior to the later of (i) January 1, 2013 or (ii) the date that is 18months prior to the anticipated commencement of construction of the first Phase II residential building constructed after completion or substantial completion of each of the Phase I residential buildings (or such other date agreed to in writing by FCRC, DOE and ESDC), convey or lease to DOE, space within a development parcel sufficient in size to allow for the development of an approximately 100,000 gross square foot elementary and intermediate public school of contiguous space, a portion of which shall be located on the ground floor of the building (the "School"). FCRC shall also provide to DOE, by lease, easement or other conveyance acceptable to DOE, access to suitable outdoor space for use as a playground for the School's students. It is likely that the School will be located in the lower floors of Building 5 or the first building constructed as part of Phase II. In the event that an alternative location is selected, the School site shall be one of the other residential parcels located east of 6<sup>th</sup> Avenue as determined by FCRC and DOE. If leased to DOE, such lease shall be on a triple net basis and with a rent of \$1.00, and if conveyed, shall be conveyed for consideration of \$1.00. DOE shall be responsible for all costs of constructing, fitting out, and operating the School (excluding the cost of land, infrastructure, site remediation and the platform over the rail yard), and FCRC shall undertake the construction of the School on DOE's behalf and at DOE's expense. The space provided for the School shall be in addition to the Atlantic Yards program described in Table S-1 of the FEIS and shall not replace or result in a reduction of any part thereof. Unless otherwise agreed between DOE and FCRC, the school shall be built at the beginning of Phase II. In the event that DOE

elects to locate the School on the Project site, DOE and FCRC shall enter into appropriate arrangements providing for the construction and operation of the School, which agreements shall among other things provide FCRC with the right to locate residential units and other compatible uses within the same building as the School, and to coordinate the construction of the School with FCRC's construction of the remainder of the building in which the School is to be located. The School shall be constructed to provide adequate noise attenuation so that noise in the vicinity of the School (including Project-related traffic, general construction and the School playground) will not result in interior noise levels within the School in excess of 45 dBa  $L_{10}$ .

3. In order to avoid a significant adverse impact to day care services as a result of the Project, FCRC shall: (i) construct on the Project site and arrange for the long-term operation of a duly licensed day care center that shall accommodate at least 100 children with publicly funded vouchers available to income-eligible households (or with some alternate form of publicly funded day care for income-eligible households); and (ii) assess day care enrollment and capacity in the study area identified in the FEIS as construction of the Project progresses, and, as and to the extent necessary to avoid a significant adverse impact (following the methodology of the CEQR technical manual, as of the date of the Technical Memorandum), make arrangements with one or more duly licensed day care providers for the long-term operation of a duly licensed day care center (or centers) that shall accommodate approximately 250 additional children, either on or in the vicinity of the Project site. FCRC shall place into operation the day care center specified in clause (C)(3)(i) above by the date of occupancy of the first Phase II residential building not containing a school; provided, however, that the operation of the day care center may be delayed to a later point in the Project as determined by ESDC based on information provided by FCRC and the City of New York that there are adequate day care facilities in the area to accommodate children requiring subsidized day care services from the existing and immediately anticipated Project buildings.

#### D. OPEN SPACE AND RECREATIONAL FACILITIES

- 1. FCRC shall design and construct the Open Space as described in the FEIS and Technical Memorandum and in accordance with the Design Guidelines. Such Open Space shall be placed into operation pursuant to a phased schedule (which schedule shall call for the construction of a portion of such Open Space as each building in Phase II is constructed) as specified in the Design Guidelines.
- 2. The permanent Open Space shall be owned by a Conservancy or other notfor-profit entity established by FCRC, which shall be responsible for the maintenance, operation, and security of this public amenity. The

Conservancy or other not-for-profit entity shall be funded in the first instance by FCRC, and when the surrounding parcels are developed, by the owners of the surrounding buildings pursuant to restrictive declarations recorded against the surrounding Project properties. The Conservancy or other not-for-profit entity shall be governed by a board, which shall include representatives of FCRC, civic group(s) active in park matters, representatives of surrounding properties on the project site, and, on an *ex officio* basis, Brooklyn Community Boards 2, 6 and 8, and the New York City Department of Parks and Recreation (the "Parks Department"). The initial program and plans for the permanent Open Space and any material modifications shall be subject to the reasonable approval of the Parks Department. The permanent Open Space shall be, at a minimum, accessible to the public as specified in the Design Guidelines.

## E. CULTURAL RESOURCES

- 1. FCRC shall comply with the requirements of the Letter of Resolution ("LOR") dated November 9, 2006 among Atlantic Yards Development Company, LLC, ESDC and the Office of Parks, Recreation and Historic Preservation. The LOR is included in Appendix B to the FEIS and requires certain mitigation or other measures to be taken with respect to architectural and archeological resources.
- 2. If the LOR is duly amended, FCRC shall comply with the terms of such amended LOR.

#### F. SHADOWS

- 1. As set forth in the FEIS and LOR, prior to the time when the Project casts shadows on the stained glass windows of the Church of the Redeemer (the "Church"), FCRC shall develop and implement measures to offset the impacts of the shadows comprised of: (i) removing the existing protective coverings from all of the stained glass windows, including any patching and repair associated with the removal; (ii) cleaning both the interior and exterior of the windows; and (iii) installation of new transparent protective coverings of similar or greater durability, or other measures agreed to by FCRC and the Church pursuant to the letter between FCRC and the Bishop of Long Island dated October 31, 2006 included in Appendix I to the FEIS.
- 2. Prior to the time when the Project casts shadows on the Atlantic Terminal Houses open space, FCRC, in consultation with the New York City Housing Authority ("NYCHA"), shall develop and implement measures to ameliorate the significant adverse shadow impacts, comprised of one or more amenities from the following list: (i) new landscaping and shade resistant plantings within the Atlantic Avenue open space; (ii) additional play equipment within the Atlantic Avenue or Carlton Avenue open

spaces; (iii) upgrade of the Carlton Avenue children's play area, including possible spray shower; and (iv) replacement of benches and other fixtures in the Atlantic Avenue or Carlton Avenue open spaces, subject to and in accordance with a letter dated October 23, 2006 from FCRC to Douglas Apple of NYCHA, and accepted on November 3, 2006 by NYCHA included in Appendix I of the FEIS.

## G. HAZARDOUS MATERIALS

- 1. FCRC shall design and construct the Project so as to prevent volatile organic compounds ("VOCs") from infiltrating the interior of the Project buildings. To address this concern, residential and community facility uses shall be located either above ventilated underground parking or other facilities or above the platform over the ventilated rail yard. FCRC shall submit engineering plans demonstrating compliance with the requirements of this paragraph to ESDC with respect to each of the Project buildings prior to the commencement of construction thereof.
- 2. FCRC shall implement the investigation and remediation measures specified in the FEIS to protect workers and the general public from adverse impacts associated with environmental conditions at the Project site during the period of construction. In particular:
  - (a) FCRC shall develop and implement procedures for pre-demolition removal of asbestos in accordance with applicable federal, State and City regulations which shall be monitored by an independent contractor as required by such regulations.
  - (b) FCRC shall develop and implement procedures for pre-demolition removal of PCB-containing equipment in accordance with applicable federal, State and City laws and regulations.
  - (c) FCRC shall implement dust suppression techniques reflecting best construction practices during the demolition of Project buildings and any excavation, grading or earth-moving activities at the Project site in connection with the construction of the Project or any related excavation or remediation.
  - (d) FCRC shall conduct additional subsurface investigations as needed to refine and supplement data presented in the Phase 1 and Phase 2 reports heretofore prepared by Roux Associates, and shall provide the results of such investigations to ESDC; upon review of such Phase 2 reports, ESDC may require additional sampling as necessary to determine whether remediation is appropriate. Remediation Plans, which shall include protocols for any remedial activities (and associated additional sampling and investigation), and Health and Safety Plans, shall be prepared with respect to any

- remedial activities to be undertaken by FCRC, and shall be submitted to ESDC for review and approval prior to the commencement of such activities.
- (e) In the event that the New York City Department of Environmental Protection ("NYCDEP") exercises jurisdiction over any portion of the environmental remediation at the Project site, FCRC shall (in lieu of the remedial plan called for under Subparagraph G.2(d) above) submit to NYCDEP a remedial action plan with respect to such portion of the environmental remediation, for review and approval in accordance with NYCDEP requirements, prior to or in connection with excavation activities at the Project site. FCRC shall simultaneously submit such remedial action plan to ESDC for its review and consultation with NYCDEP.
- Prior to remediation and excavation at the site, FCRC shall (f) develop a Construction Health and Safety Plan ("CHASP") which shall be approved by ESDC (or, for any portion of the environmental remediation under the supervision of NYCDEP, approved by NYCDEP) and implemented by FCRC in connection with the remediation or excavation work at the Project site. The CHASP shall include a Community Air Monitoring Plan for PM<sub>10</sub> and VOCs conforming to guidance published by the New York State Department of Health to be implemented during the excavation of site soils (or other activities that involve moving existing site soils around or off the site) in connection with the construction of the Project or any related excavation or remediation. If the CHASP is modified, such modifications shall be submitted for approval to ESDC or, for any portion of the site subject to supervision of NYCDEP or the State Department of Environmental Conservation ("NYSDEC"), approval by such agency. FCRC shall implement the CHASP during all remediation or excavation work at the site.
- (g) FCRC shall remediate or cause the remediation of the spills to the extent required by NYSDEC and close the spill numbers at the gasoline station on Block 1127, Lot 1, and the U-Haul facility on Block 1119, Lots 1 and 64, both of which have active petroleum spill numbers on file with the NYSDEC. Remediation of these spills shall be completed under the direction of NYSDEC.

## H. INFRASTRUCTURE

1. FCRC shall construct new water mains in and around the Project site in accordance with a water main plan to be approved by NYCDEP, as same may be modified and/or approved by NYCDEP.

2. FCRC shall construct new sewer improvements in and around the Project site as specified in an amended drainage plan RH-103 prepared by Vollmuth and Brush Environmental Engineers dated October 26, 2006, as same may be modified and/or approved by NYCDEP.

### I. STORMWATER AND SEWAGE MINIMIZATION MEASURES

- 1. As part of the Project, FCRC shall implement the stormwater management measures set forth in the FEIS as designed by Judith Nitsch Engineering and the Olin Partnership, which formed one basis of a report prepared by HydroQual Environmental Engineers and Scientists, P.C. ("HydroQual") entitled "Impact of the Atlantic Yards Project on Local Sewer Infrastructure" dated November 8, 2006 (the "HydroQual Report") and included as Appendix H to the FEIS, as modified by the measures described in the Technical Memorandum, which modifications were analyzed in supplemental reports by HydroQual dated October 17, 2007 and June 25, 2008. (These three HydroQual reports are referred to collectively as the "HydroQual Reports"). Such measures shall include installation or implementation of the following facilities or alternative detention/retention facilities providing the same or greater combined retention and detention capacity:
  - (a) Two 100,000 gallon tanks in the Project site (one for the runoff from Buildings 5, 6 and 7 and one for the runoff from Buildings 8, 9, and 14);
  - (b) Two storage tanks in the area of the Long Island Rail Road yard, with an aggregate capacity of 124,000 gallons;
  - (c) Storage tanks within the Arena Block having an aggregate capacity of 388,568 gallons upon completion of the Arena and a total of 636,000 gallons upon the build out of the Arena and Buildings 2, 3 and 4 on the Arena Block; and
  - (d) Two 12,000 gallon storage tanks at Site 5.
- 2. The stormwater storage tanks set forth above (and any tanks installed in lieu of such tanks as allowed by subparagraph I.8) shall be designed and built to have two outlets, with a smaller outlet at the base and another larger outlet at a higher elevation in the tank wall.
- 3. FCRC shall landscape the Open Space at the Project in accordance with the landscaping plan developed by Olin Partnership (the "Landscaping Plan"), in a manner that accommodates the use of recycled stormwater for irrigation and the cultivation of native plants that have minimal irrigation needs.

- 4. The Project shall be designed to utilize recycled stormwater in the cooling towers of the Project buildings for make-up water, and also for cultivation of vegetation planted pursuant to the Landscaping Plan.
- 5. The Open Space shall include a surface water feature with a capacity of at least 279,000 gallons in the area identified in the Open Space Design Guidelines.
- 6. FCRC shall equip sinks, toilets and showers in the Project buildings with high-efficiency, low-flow fixtures. All leases and condominium documents shall require the continued maintenance and use of these fixtures.
- 7. FCRC shall equip the arena with waterless urinals.
- 8. FCRC (and FCRC's successors and assigns) shall have the right to modify any and all of the measures set forth in subparagraphs I.1 through I.7 above, provided that FCRC demonstrates to ESDC through appropriate analysis that such modification results in a level of stormwater management equivalent or superior to that described in the FEIS, the Technical Memorandum and the HydroQual Reports.
- 9. FCRC and its successors in interest shall maintain the equipment and fixtures described in this section of the memorandum in a proper and well functioning condition.

## J. SUSTAINABLE DESIGN AND MINIMIZATION OF AIR EMISSIONS

- 1. FCRC shall design and construct the Project so that each building meets, at a minimum, the requirements for Leadership in Energy and Environmental Design ("LEED") certification, as established by the non-profit U.S. Green Building Council, with the goal of attaining a silver rating where feasible and practicable. LEED certification provides independent, third-party verification that a project meets advanced performance standards relating to environmental stewardship, including the conservation of energy and water, the reduction of waste sent to landfills, and protection of the health of building occupants and neighbors.
- 2. All Project boilers shall operate exclusively on natural gas and shall be equipped with low nitrogen oxide burners, provided that FCRC may substitute an alternative fuel or technology upon a demonstration to ESDC through appropriate analysis that such alternative fuel and/or technology would achieve equivalent or superior emission levels. The previous sentence does not preclude the use of standby or emergency generators, as set forth in the FEIS.

- 3. The Project boilers shall have emission rate specifications that do not exceed the emission rates specified in Table 14-3 and pages 14-16 and 14-17 of the FEIS.
- 4. The HVAC intake vents for the Project buildings shall not be located in areas that have a modeled aggregate impact from Project buildings that would exceed 0.3 micrograms per cubic meter (annual average) using the dispersion modeling assumptions (including boiler load) used for the FEIS. Based on the design of the buildings used to prepare the air dispersion modeling for the FEIS, such locations are identified in the memorandum from Henry M. Kearney, P.E. of AKRF dated November 30, 2006.
- 5. FCRC and its successors in interest shall maintain the equipment and fixtures described in this section of the memorandum (or installed in obtaining LEED certification) in a proper and well functioning condition.

## K. PHYSICAL ROADWAY AND TRANSIT IMPROVEMENTS

- FCRC shall fund the New York City Department of Transportation 1. ("NYCDOT") in completing the roadway modifications and installation of traffic signals set forth in the conceptual design set forth in Figure 19-1 of the FEIS and shall cooperate in implementing the operational changes (including street closures, changes in street direction, signal timing modifications, restriping, and parking regulation modifications) described in the FEIS; however, it is understood that actions such as signal timing modifications at existing traffic signals, changes to travel direction, and changing parking regulation signs will be implemented by NYCDOT staff. The roadway modifications, signal installations and operational changes and the timing thereof shall be subject to the approval of the NYCDOT. FCRC shall prepare and submit all drawings and designs (which shall meet AASHTO and NYCDOT specifications) required for implementation of such measures identified in the FEIS to NYCDOT for review and approval.
- 2. Among the roadway improvements FCRC shall fund and/or implement are the following:
  - (a) Reconfiguration of the Atlantic Avenue/Flatbush Avenue/4th Avenue intersection and complementary operational changes to the adjacent streets, including physical changes relating to the following:
    - (i) elimination of northbound traffic operations on 4th Avenue between Atlantic and Flatbush Avenues;
    - (ii) modifications to 4th Avenue lane designations between Dean Street and Atlantic Avenue;

- (iii) construction of expanded pedestrian spaces at Times Plaza along with crosswalk changes; and
- (iv) re-striping at various locations to accommodate new lane configurations as indicated in Table 19-1 of the FEIS, except as such re-striping is undertaken directly by NYCDOT.
- (b) widening of portions of Pacific Street adjacent to the project site and related re-striping, except as such re-striping is undertaken by NYCDOT;
- (c) installation of a new traffic signal and crosswalk (south approach) at the intersection of Pacific Street and Flatbush Avenue;
- (d) physical changes associated with the introduction of an eastbound left-turn lane on Atlantic Avenue at Fort Greene Place;
- (e) re-striping a westbound right-turn lane on Atlantic Avenue for 100 feet approaching 3rd Avenue and re-striping and physical modifications at various other locations in the street network adjacent to the Project site as shown in Figure 19-1 and Tables 19-1 and 19-2 of the FEIS, except as such re-striping is undertaken directly by NYCDOT;
- (f) physical improvements to enhance vehicle flow and pedestrian safety at the intersection of Atlantic and Vanderbilt Avenues, including:
  - (i) elimination of the eastbound Atlantic Avenue left-turn movement to Vanderbilt Avenue;
  - (ii) widening of the existing median on this approach to 15 feet to provide additional pedestrian refuge space;
  - (iii) re-striping the approach to accommodate an exclusive right-turn-only lane, except as such re-striping is undertaken directly by NYCDOT;
  - (iv) re-striping Vanderbilt Avenue between Atlantic Avenue and Pacific Street to provide for four northbound travel lanes and two southbound travel lanes, except as such restriping is undertaken directly by NYCDOT; and
  - (v) reconfiguration of the west sidewalk along Vanderbilt Avenue between Atlantic Avenue and Pacific Street from 20 feet to 12.5 feet in width to accommodate a new lay-by lane along the west curb.

- 3. It is expected that NYCDOT will implement areawide signal coordination, timing changes, curbside parking regulation changes, changes in travel direction and other operational changes, as described in the FEIS. FCRC shall cooperate with NYCDOT in the implementation of such changes including keeping NYCDOT apprised of the progress of the Project's construction.
- 4. FCRC shall construct a new entrance to the Atlantic Avenue/Pacific Street subway station complex on Block 1118 at the southeast corner of Atlantic and Flatbush Avenues consistent with the conceptual drawings included in the FEIS or Technical Memorandum, and pursuant to a final design approved by New York City Transit ("NYCT"). FCRC's construction contract schedules shall require substantial completion of the new subway entrance prior to or simultaneously with the opening of the arena. For purposes of the foregoing, substantial completion shall mean that construction of the new subway entrance is sufficiently complete to be operational.
- 5. FCRC shall undertake the traffic monitoring following completion of Phase I and Phase II of the project as described in the FEIS and the letter from NYCDOT to ESDC dated November 22, 2006 (the "DOT letter") and comply with all other requirements of the DOT letter, including those pertaining to the funding of mitigation measures.
- 6. FCRC shall enter into discussions with NYCDOT to determine the extent of FCRC's financial responsibility for the traffic enforcement agents ("TEAs") required to manage traffic flow for major arena events and shall comply with the terms of any such agreement with NYCDOT as required by the DOT letter. If necessary to ensure that the TEAs are deployed for major arena events as described in the FEIS, and only in the event that FCRC and NYCDOT do not reach a funding agreement, FCRC shall provide such funding for TEAs as ESDC shall reasonably direct, considering funding arrangements at other sports and entertainment venues in New York City.
- 7. FCRC shall reconstruct the Carlton Avenue Bridge so as to be functional as of the opening date of the arena.

#### L. DEMAND MANAGEMENT

1. As described in the FEIS, prior to the opening of the arena, FCRC shall implement incentives to reduce traffic demand associated with the operation of the Project to reduce the overall number of vehicles coming to the arena for a Nets game within one-half mile of the arena by 30% of the initially projected demand. In connection with this requirement FCRC shall:

- (a) provide remote parking facilities (e.g., facilities located at MetroTech, Long Island Hospital or other appropriate facilities at the western end of Atlantic Avenue near the Brooklyn-Queens Expressway) containing an aggregate of at least 500 spaces at a 50 percent discount from rates for FCRC-controlled parking at or near the arena;
- (b) arrange for free shuttle bus service between the remote parking facilities described above and the arena;
- (c) impose high-occupancy-vehicle ("HOV") parking requirements for at least 600 arena parking spaces at the Project site, requiring vehicles utilizing such HOV spaces to be occupied by three or more persons after 5 PM on Nets game days;
- (d) provide a free round-trip subway fare to Nets basketball game ticketholders who would otherwise drive. The final design of this fare-incentive program shall be developed with and subject to the review and approval of NYCT.
- (e) provide free round-trip charter bus service between two Staten Island park-and-ride facilities (Outerbridge Park & Ride and Father Capodanno Park & Ride) providing an aggregate capacity accommodating approximately 264 persons. The park-and-ride facilities selected for this service may be modified after implementation, upon the approval of NYCDOT, to maximize the effectiveness of this measure.
- (f) cross-market with area businesses to encourage ticketholders to patronize local restaurants and stores before and after games;
- (g) provide any ticketholder traveling to the arena by bicycle with free indoor bicycle storage in a secure, manned facility designed to accommodate at least 400 bicycles on the arena block; and
- (h) provide expected attendance data to, and otherwise cooperate with, NYCT as necessary to assist NYCT in determining the appropriate increase in subway service to the Atlantic Avenue/Pacific Street subway station on selected subway lines immediately following basketball games and other major arena events as necessary to alleviate potential platform crowding at that subway station.
- 2. FCRC shall collect data midway through the first basketball season from Nets patrons documenting the travel mode of such patrons to evaluate the effectiveness of the demand management program, and shall provide such data to NYCT and ESDC. Subject to ESDC approval, which approval shall not be unreasonably withheld, FCRC may adjust the elements of the program to achieve the goal of reducing the auto share by a minimum of

30% of the number of vehicle trips projected for the Build Condition in the FEIS (i.e., to approximately 800 arena inbound auto trips during the pre-game peak hour) within one-half mile of the arena, provided that all practicable and effective demand management measures are maintained.

3. For major arena events other than Nets games, FCRC shall make available to event promoters practicable demand management measures (such as the reduced rate remote parking and shuttle bus mitigation described above) and encourage such promoters to implement such measures.

### M. PEDESTRIAN IMPROVEMENTS

FCRC shall fund and cooperate with NYCDOT in the design and construction of the following crosswalk and sidewalk improvements to improve pedestrian circulation in the vicinity of the arena:

- 1. Widening of the north crosswalk on Carlton Avenue at Dean Street from 16 feet in width to 21 feet in width;
- 2. Widening of the north crosswalk on 6th Avenue at Dean Street from 16 feet in width to 18 feet in width;
- 3. Provision of a new sidewalk extension at the northeast corner of Atlantic Avenue at Fort Greene Place;
- 4. Provision of a new crosswalk on the south leg of the intersection of Flatbush Avenue and Pacific Street where the new traffic signal is to be installed;
- 5. Installation of fencing (consistent in design with NYCDOT-installed fencing throughout the City or as otherwise proposed by FCRC and approved by NYCDOT) on the northwest corner of the Flatbush Avenue/Pacific Street intersection to discourage pedestrians from crossing on the north side of the intersection where no crosswalk exists;
- 6. Installation of fencing (consistent in design with NYCDOT-installed fencing throughout the City or as otherwise proposed by FCRC and approved by NYCDOT) at the northwest and southwest corners of the Atlantic Avenue/Flatbush Avenue/4th Avenue intersection; and
- 7. Extension of the sidewalk at the northeast corner of Atlantic and Flatbush Avenues.

#### N. CONSTRUCTION

1. During the construction of the Project, FCRC shall undertake, fund and/or cooperate in the undertaking of the measures set forth below in order to minimize, avoid and/or mitigate, as applicable, the effects of Project

construction on traffic conditions, noise and air quality in the surrounding area. FCRC shall require its contractors to adhere to these construction measures (to the extent such measures are relevant to the contractor's activities) by including appropriate provisions in its contractor agreements and enforcing such provisions as necessary to assure compliance. FCRC shall provide ESDC documentation demonstrating same.

## 2. Traffic

- (a) FCRC shall coordinate with the NYCDOT Office of Construction and Mitigation Coordination ("OCMC") to develop, implement and fund the implementation of maintenance and protection of traffic ("MPT") plans developed by OCMC. Construction shall proceed in accordance with the requirements set forth in such MPT plans.
- (b) As set forth at pages 19-78 and 19-79 of the FEIS, certain of the roadway modifications, traffic installations and operational improvements shall be put into place at or about the time that significant construction activity begins at the Project site in order to minimize construction-related traffic impacts, or as otherwise directed by NYCDOT. FCRC shall fund and cooperate with NYCDOT to implement these measures; however, it is understood that changes in signal timing at existing traffic signals, installation of signage, implementation of parking regulations, and changes in traffic direction will be implemented by NYCDOT staff.
- (c) FCRC shall make arrangements for security guards and flaggers to be deployed to manage vehicle access to the construction site. To the extent feasible, curbside deliveries shall occur within delineated closed-off areas.
- (d) Truck deliveries shall be scheduled, and untimely deliveries shall, in general, be turned away or reassigned with different delivery times. Trucks shall be required to use NYCDOT-designated truck routes for traveling to and from the construction site, which include primarily Atlantic Avenue, Flatbush Avenue, 4th Avenue, and the Brooklyn-Queens Expressway except as required for movement between staging and construction areas.
- (e) On-site designated staging areas shall be maintained throughout the construction period to store materials and to accommodate construction vehicles that require early arrival and marshalling for immediate material delivery to high-demand construction areas.
- (f) FCRC shall provide on-site parking for construction workers at levels appropriate in light of the number of workers employed at

the site during different stages of construction, to a maximum of 800 spaces. FCRC shall monitor the work force levels throughout the construction period and shall report to ESDC on a quarterly basis as to the number of on-site spaces and the utilization of such spaces. The parking facilities shall have perimeter fencing and shall be accessible only during work hours. Parking fees at rates comparable to commercial off-street facilities in the surrounding area shall be imposed for these spaces. FCRC shall consult with and obtain the approval of ESDC, such approval not to be unreasonably withheld, prior to reducing the number of construction worker parking spaces at the Project site as the number of workers changes and permanent parking locations within the Project site become available for construction worker parking. Any lighting on any interim construction staging and parking area shall be equipped with directional lighting angled to limit light intrusion beyond the site, and shall employ controls to reduce lighting during periods when the facility is not in active use, consistent with site security. The screening measures required herein shall be properly maintained so long as such facility remains in operation. No more than 1100 vehicles, in the aggregate, shall be parked in any surface parking lot(s) on Block 1129 at any one time.

- (g) NYCT shall be given at least four weeks notice prior to the date on which a bus stop is to be relocated. Any change in a temporary location from that identified in the MPT plans shall be subject to the reasonable approval of NYCT.
- (h) FCRC shall fund physical improvements associated with and cooperate with NYCDOT in the early implementation of certain of the roadway modifications and mitigation measures specified in Sections K.1 and K.2 above, and in the further implementation of temporary construction measures pursuant to the MPT. Unless otherwise directed by NYCDOT, after consultation with ESDC, such additional construction period traffic measures shall include the following:
  - converting 6th Avenue to two-way operation during the period that Carlton Avenue bridge is closed for reconstruction;
  - (ii) prohibiting left turns along Atlantic Avenue at locations where roadways are expected to be narrowed during the Carlton Avenue bridge reconstruction work, the LIRR West Portal reconfiguration, and utility relocation;

- (iii) providing temporary left-turn bays or channelized lanes for traffic detours and added capacity;
- (iv) reconfiguring the Flatbush/Atlantic/4th Avenue intersection complex, entailing terminating northbound 4th Avenue traffic at Atlantic Avenue, converting Pacific Street between Flatbush Avenue and 4th Avenue to one-way eastbound, and creating a new eastbound left-turn bay at Fort Greene Place, to optimize traffic movements;
- (v) prohibiting parking during peak periods or at all times, where needed, to provide added lane capacity; and,
- (vi) changing signal phasing and/or timing.

#### 3. Noise and Vibration

- (a) Prior to commencement of construction, FCRC shall develop a construction noise mitigation plan in accordance with the New York City Noise Control Code (Chapter 2 of Title 24 of the New York City Administrative Code) (the "Noise Code") which shall be subject to NYCDEP review and approval procedures. The construction noise mitigation plan shall include the noise reduction measures described in the FEIS and assumed in the construction noise modeling set forth in the FEIS. During construction, FCRC shall implement the construction noise mitigation plan.
- (b) FCRC shall employ the following measures in the construction of the Project:
  - (i) Using equipment that meets the sound level standards specified in the Noise Code;
  - (ii) Using construction equipment that meets the noise emission levels specified in Table 17c-3 of the FEIS,
    "Construction Equipment Noise Emission Levels," where such levels are more stringent than those imposed by the Noise Code;
  - (iii) Scheduling work that would generate high noise levels during weekday daytime hours to extent feasible, rather than during weekday nighttime or weekend hours, unless required as a result of safety or other agency requirements;
  - (iv) To the extent feasible, scheduling equipment and material deliveries during weekday daytime hours, rather than during weekday nighttime or weekend hours;

- (v) As early as practicable in the construction period and wherever feasible, using electrical-powered equipment, such as electric scissor lifts and electric articulating boom lifts, rather than diesel-powered equipment for construction activities;
- (vi) Situating noisier equipment, such as generators, cranes, tractor trailers, concrete pumps, concrete trucks and dump trucks at locations that are removed from sensitive receptor locations and are shielded from sensitive receptor locations wherever feasible. For example, during the early construction phases of the Project, delivery trucks and dump trucks are to be located approximately 20 feet below grade to take advantage of the shielding benefits of grade differences. Once building foundations are completed, delivery trucks are to be located adjacent to noisy streets (i.e., Atlantic Avenue, Flatbush Avenue and 6<sup>th</sup> Avenue) rather than at quieter streets, such as Dean Street and Pacific Street, where there are residences:
- (vii) A minimum 8 foot high perimeter barrier (constructed of 3/4" thick plywood), with a 16 foot high barrier (of 3/4" thick plywood) adjacent to sensitive locations, including locations along Pacific Street, Dean Street, and Flatbush Avenue opposite residences and the Brooklyn Bear's Pacific Street Community Garden, and, where practicable, truck deliveries shall take place behind these barriers. Noisy delivery trucks, such as concrete trucks, are to be operated behind the barriers;
- (viii) Where practicable, use of quiet construction procedures;
- (ix) Requiring all contractors and subcontractors to properly maintain their equipment and have quality mufflers installed; and
- (x) Where practicable, noise curtains and equipment enclosures shall be utilized to provide shielding from significant noise-generating equipment to sensitive receptor locations.
- (c) FCRC shall make available double-glazed or storm windows and alternative ventilation (e.g., air conditioning) for those residential locations where the FEIS identified significant noise impacts and such windows and air conditioning are not currently installed, subject to the consent of the owners and tenants of such residences, and subject to applicable laws, rules and regulations. All such

- windows and alternative ventilation shall be provided without charge and with free installation.
- (d) As described in the FEIS, and subject to the consent of the respective property owners, FCRC shall make available and install, free of charge (i) interior-fitted storm windows (or suitable alternative windows) for the Pacific Street side of the Pacific Branch of the Brooklyn Public Library and (ii) storm windows for the second floor of the Temple of Restoration windows facing Dean Street (if such windows do not already have storm windows).
- (e) FCRC shall work with the Parks Department to supplement its planned improvements to the Dean Playground with a comfort station open to the general public.
- (f) Noise mitigation measures shall be implemented where such measures have been accepted by building owners and their tenants in a timely manner so as to avoid the significant adverse noise impacts identified in the FEIS where practicable.
- (g) FCRC shall implement a monitoring program to ensure that vibration levels at the Swedish Baptist Church and the town houses along Dean Street immediately adjacent to the Project's Building 15 site are kept below 0.50 inches/second.

## 4. Air Quality

- (a) FCRC shall require its contractors to implement dust suppression measures, including the following:
  - (i) Limiting on-site speed to five miles per hour. Signage of the 5-mile per hour limit shall be posted at all site entrances and along routes within the sites.
  - (ii) Using sleeves and wetting during demolition activities, and wetting equipment. All demolition activities, including but not limited to building, roadway, and pavement demolition, shall utilize dust suppression. All drop transfer operations shall be via closed sleeves and into sealed bins. Sleeves shall have no openings other than the loading chute. During all breaking up of material such as concrete, an employee shall be assigned to wet the surface while the activity is taking place.
  - (iii) Watering unpaved surfaces, including haul roads and excavation faces. All unpaved haul roads and excavation surfaces shall be continuously watered by watering trucks or constant misting, so that surfaces remain damp at all

- times when in use during construction. Gravel cover shall be applied to unpaved surfaces which are regularly traveled.
- (iv) Covering or water-misting of stockpiled materials. All stockpiled dry materials (e.g., sand, aggregate) shall be water-misted; sprayed with non-hazardous, biodegradable suppressing agent; covered; or otherwise enclosed.
- (v) Loading of any dry material which may release dust from trucks shall be accompanied by manual water spraying of the material.
- (vi) Covering all trucks carrying loose material such as debris, excavate or fill, and verifying that covers on all such trucks have been properly sealed. Outgoing trucks shall be inspected at the gate, and not allowed to exit if covers are not properly sealed.
- (vii) Washing the wheels of all trucks as they exit from the site. A washing station shall be constructed at each truck exit, whereby truck wheels shall be washed, and the water shall be contained and recycled to avoid tracking mud out of the site.
- (b) FCRC shall implement a diesel emissions reduction program, which shall include minimizing the use of diesel engines and maximizing the use of electric engines in lieu of diesel. In particular, FCRC shall:
  - (i) ensure sufficient grid power is available to each site as early as practicable and commission permanent grid power service for Buildings 2 and 3 prior to the peak period of construction (currently scheduled for the third quarter of 2007);
  - (ii) ensure the distribution of power throughout the Project at all locations where electric engines are to be used, in order to avoid the use of portable or stationary generators where practicable;
  - (iii) use only electric engines where practicable (e.g., welders, compressors, electric saws, forklifts, etc.);
  - (iv) ensure that all contractors plug into the grid where available and do not use portable generators (diesel or gasoline, small or large); and

- (v) ensure that generators will not be used for tasks where grid power is available, and that diesel engines will not be used for tasks that can be performed with electric engines.
- (c) FCRC shall require its contractors to limit all unnecessary idling of vehicles and non-road engines, ensure that engines are shut off when not in use, and enforce idling limits on queueing trucks.
- (d) FCRC shall require the use of ultra-low sulfur diesel ("ULSD") fuel (i.e., fuel having less than 15 parts per million (15 ppm) sulfur content) for all equipment having diesel engines.
- (e) FCRC shall employ best available tailpipe emissions reduction technologies, including utilization of diesel particulate filters ("DPF") (or, subject to ESDC approval, improved technologies verified by EPA or the California Air Resources Board to reduce particle emissions by at least 85%) on all nonroad engines of 50 hp or greater and on all concrete trucks and concrete pump trucks. All nonroad engines used for the construction work shall be inspected and labeled where practicable to confirm that DPF is installed and functioning and that the engine is to be fueled only with ULSD. FCRC shall bar any non-complying equipment from the work site or expeditiously bring into compliance any equipment found to not be in compliance. Notwithstanding the foregoing, if with respect to a specific nonroad engine of 50 hp or greater, FCRC determines that it would not be practicable to equip the engine with a DPF and that use of the engine is required for the construction to proceed, FCRC shall use a substitute particulate control technology such as a diesel oxidation catalyst instead of a DPF upon the concurrence of ESDC that the DPF is impracticable for the type of equipment needed for the construction work.
- (f) To the extent practicable, FCRC shall require that all stationary engines be located at least 50 feet from locations such as sidewalks, residential or school windows, and building air intakes.
- 5. FCRC shall submit to ESDC for review and approval, not to be unreasonably withheld, a written plan to adequately and reasonably demonstrate compliance with the foregoing construction air quality measures (the "CAQM Compliance Plan") during construction. The CAQM Plan shall be submitted before intensive construction work at the project site begins and, if not approved by ESDC as submitted, there shall be a consultation between FCRC and ESDC with respect to the submission and, after such consultation, the CAQM Plan shall be revised as required to conform to reasonable ESDC revisions. Elements of the CAQM Compliance Plan shall include: (i) incorporation into construction contracts appropriate terms requiring the contractors to implement the air

quality measures contemplated by the FEIS; (ii) periodic meetings between FCRC's construction manager and the relevant contractors to discuss implementation of the air quality measures; (iii) practicable documentation requirements; (iv) recordkeeping with respect to the equipment and vehicles used during construction; and (v) compliance monitoring by a field engineer (to be employed by FCRC's construction manager) whose principal responsibility would be to monitor compliance. If deemed appropriate as construction proceeds, the CAQM Compliance Plan may be revised from time-to-time with the written approval of FCRC and ESDC.

- 6. FCRC shall implement a rodent control program approved by the New York City Department of Buildings.
- 7. Prior to and during the course of remediation or excavation, FCRC shall implement a CHASP and, during excavation, shall implement a Community Air Monitoring Plan.
- 8. FCRC shall maintain an on-site construction coordinator to function as a liaison between FCRC and the community with respect to construction-related issues. The coordinator shall be available to consider specific concerns raised by the community with respect to the construction issues and seek to resolve such concerns.
- 9. In the event FCRC does not expect to commence construction of a particular portion of the Project site or to use such portion of the Project site for interim parking facilities or construction-related activities, including staging, in each case for a period of time to be set forth in the Project Documentation, then such portion of the project site shall be used as publicly accessible temporary open space, subject to safety and security requirements. FCRC shall improve and develop areas to be used as publicly accessible interim open space in accordance with a design and program subject to the approval of ESDC (which is not to be unreasonably withheld), and such open space on the Arena Block shall include amenities such as kiosks, seating areas and landscaping. FCRC shall thereafter operate and maintain such interim public open space in good and clean condition until the property is needed for construction of the Project.
- 10. In the event that construction of Building 1 is delayed so that the Urban Room will not be completed by the date the arena commences operation, FCRC shall construct an urban plaza at the southeast corner of Flatbush and Atlantic Avenues, in substantially the same location as the location where the Urban Room is to be constructed. The design and program for the urban plaza shall follow the basic use and design principles of the Urban Room as set forth in the Design Guidelines, creating a significant public amenity. The urban plaza shall be a minimum of 10,000 square feet and shall include the following elements: landscaping, retail, seating,

the subway entrance and space to allow for formal and informal public uses, such as outdoor performances, temporary markets, art installations and seating. In addition, the plaza may include public art or a prominent sculptural element (such as a canopy or other architectural feature that could be part of the arena and/or the subway entrance). The urban plaza shall be completed and available for public use upon the date of the opening of the arena. Thereafter, FCRC shall operate and maintain the urban plaza in good and clean condition, until such time as the area occupied by the urban plaza is required for construction of Building 1 or the Urban Room.

- 11. In the event development of Building 1 is delayed so that it will be constructed after the arena commences operation, FCRC shall, for the period of construction of Building 1: (i) relocate the main arena entrances to the north and east side of the arena; (ii) provide directional signage at various point on the arena block, indicating routes to the arena's entrances and amenities; and (iii) erect pedestrian construction sheds protecting, among other areas, the subway entrance and pedestrian walkways and sidewalks on the arena block.
- 12. FCRC shall screen the construction staging area and interim parking areas on Blocks 1120 and 1129 with fencing and landscaping installed in accordance with a plan subject to the approval of ESDC, which is not to be unreasonably withheld. If an interim construction staging or parking facility is equipped with lighting, it shall be directional lighting angled to limit light intrusion beyond the site and shall employ controls to reduce lighting during periods when the facility is not in active use, consistent with site security. The screening measures required herein shall be properly maintained so long as such facilities remains in operation.
- 13. Should there be periods in which there are temporary cessations of site construction, there shall be no major equipment stored on the site; however, the project sites would be maintained and secured.
- 14. Temporary parking and construction staging areas, if paved or otherwise required by law, shall have on-site detention systems equipped with standard NYCDEP Type 2 catch basins with oil water separators, as required by NYCDEP.

#### O. ENFORCEMENT

- 1. The Project Documentation shall provide that ESDC shall have the right to enforce FCRC's compliance with the commitments set forth above.
- 2. ESDC shall have the right to enter the Project site at all reasonable times, subject to safety and operational constraints, to monitor FCRC's and FCRC's contractors' compliance with the terms of such commitments.

- 3. FCRC and FCRC's general contractor shall meet with ESDC, at ESDC's request, to discuss the compliance and implementation of the obligations and measures set forth in this memorandum.
- 4. During the period in which the Project buildings, or any one of them, are being constructed, FCRC shall provide funding for the reasonable costs of an environmental monitor (which shall be a qualified consulting firm with subconsultants, as appropriate) to be selected by and retained by ESDC to: (i) monitor FCRC's compliance with certain provisions of this memorandum; (ii) review any submittals made by FCRC pursuant to such provisions and advise ESDC with respect thereto; and (iii) provide ESDC with periodic written reports concerning FCRC's implementation of such provisions. The certain provisions referred to in the preceding sentence are paragraphs: C.3 (pertaining to Day Care); E (with respect to protection of cultural resources near the project site from being impacted by construction on the project site); G.2 (pertaining to Hazardous Materials); I.9 (pertaining to reviewing the effectiveness of any modified design for stormwater management facilities); J.2 (pertaining to reviewing alternative fuels or boiler technologies); J.4 (pertaining to reviewing the location of HVAC intakes in the event that the design of the relevant Project buildings changes from the design subject to air dispersion modeling in the FEIS); K.6 (pertaining to decisionmaking with respect to the funding of TEAs in the event that FCRC and NYCDOT do not reach agreement on this issue); L.2 (pertaining to the adjustment of demand management measures); and N.1, N.2.d, N.2.e, N.2.f, N.3.b, N.3.c, N.3.d, N.3.f, N.3.g, N.4, N.5, N.6, N.7, N.9, N.10, N.11, N.12, N.13 and N.14 (pertaining to construction). The obligation set forth in this paragraph shall cease upon completion of the Phase II buildings. This memorandum shall not make FCRC responsible for the cost or time expended by any ESDC personnel or consultant otherwise hired by or in the employment of ESDC. This memorandum is without prejudice to other funding discussions that may occur between ESDC and FCRC.
- 5. Where ESDC review and approval is required under this memorandum, ESDC shall review, comment and make its determination on an expedited basis where practicable but in any event within twenty (20) days of the date a request for ESDC approval is made. In the event ESDC has not acted on any request within such twenty (20) day period, such request shall be deemed approved by ESDC.