

A. INTRODUCTION

As described in Chapter 1, “Project Description,” and Chapter 2, “Analysis Framework,” this Supplemental Environmental Impact Statement (SEIS) analyzes whether Phase II of the Project under the Extended Build-Out Scenario and changed background conditions would result in any significant adverse impacts not previously disclosed and whether any additional mitigation measures beyond those identified in the 2006 Final Environmental Impact Statement (FEIS) and the Amended Memorandum of Environmental Commitments (MEC) would be warranted. This chapter assesses the potential impacts of Phase II of the Project on community facilities and services under the Extended Build-Out Scenario.

The *City Environmental Quality Review (CEQR) Technical Manual* defines community facilities as public or publicly funded schools, health care facilities, child care centers, libraries, and fire and police protection services. CEQR methodology focuses on direct effects on community facilities, such as when a facility is physically displaced or altered, and on indirect effects, which could result from increased demand for community facilities and services generated by new users such as the new population that would result from Phase II of the Project.

PRINCIPAL CONCLUSIONS*PUBLIC SCHOOLS*

The 2006 FEIS found that there would be a shortfall of seats at elementary and intermediate schools in the 2016 future with the Project, and that these shortfalls would constitute a significant adverse impact on elementary and intermediate schools within the ½-mile study area. To partially mitigate the significant adverse impact on public schools, the Project sponsors committed to provide adequate space for the construction and operation of a 100,000-gross-square-foot (gsf) elementary and intermediate school in the base of one of the Phase II residential buildings. The 2006 FEIS stated that additional mitigation measures, such as shifting the boundaries of school catchment areas within the Community School Districts (CSDs), creating new satellite facilities in less crowded schools, or building new school facilities off-site would be required to fully mitigate the significant adverse impacts on public schools identified in the 2006 FEIS.

The 2009 Technical Memorandum included a revised analysis to determine whether the changed background conditions (including new enrollment data and updated enrollment projections) and updated methodologies (i.e., a change to the CEQR generation rates for public school students and child care eligible children) would result in any new or different impacts than those previously identified in the 2006 FEIS. The revised analysis concluded that the Project would result in a significant adverse impact on elementary schools within the ½-mile study area but that it would no longer result in a significant adverse impact on intermediate schools in the ½-mile study area. The Project sponsors’ obligation to provide space for an elementary and

intermediate public school on the project site was included in the MEC associated with the 2009 Modified General Project Plan (MGPP).

This SEIS considers whether the extended build-out of Phase II (which includes the proposed shift of approximately 208,000 gsf of floor area from the Arena Block in Phase I to Phase II parcels, as described in detail in Chapter 1, “Project Description”), changed methodologies, or changed background conditions compared with the 2006 FEIS and 2009 Technical Memorandum would result in any new or changed significant adverse impacts. The 2006 FEIS and 2009 Technical Memorandum analyzed the CSD that the project site is located within, and also assessed schools within a ½-mile radius of the site. Since those analyses, CEQR methodology has been revised to analyze capacity at a smaller, sub-district level, which provides a more localized level of analysis and considers far fewer schools compared with the CSD level or ½-mile study area used in the 2006 FEIS. The multipliers provided in the *CEQR Technical Manual* to estimate students generated by new housing units have also changed such that the Project would be assumed to introduce a greater number of students using the current *CEQR Technical Manual* guidance than the number of students assumed in the 2006 FEIS analysis, which was prepared in conformance with the 2001 version. With regard to background conditions, current existing utilization data and enrollment projection data forecast a deficit of seats in the Future Without Phase II, unlike both the 2006 FEIS and the 2009 Technical Memorandum (although the study areas considered differ, as noted above).

CEQR methodology also requires utilizing enrollment projections prepared by the New York City School Construction Authority (SCA) for the New York City Department of Education (DOE). The most recently prepared projections only estimate enrollment up to 2021, and therefore have been used in this analysis to represent student enrollment in 2035. The school seat capacity assumptions are based only on DOE’s *2015-2019 Proposed Five-Year Capital Plan, February 2014*. The analysis for the Proposed Capital Plan includes a multi-dimensional review and analysis of localized capacity and enrollment patterns within each CSD. This process results in a set of recommendations for each CSD that takes into account the needs within each area of the CSD. These recommendations are reviewed annually based on updated enrollment projections, capacity changes and housing information. Currently, DOE’s 2015-2019 Proposed Capital Plan is the most up to date document that has been reviewed to determine future capacity in CSD 13/Sub-District 1. In keeping with DOE’s mandate to respond to local needs and provide new capacity where warranted, it is likely that new capacity would be created by 2035 to meet additional student demand that exceeds the 2019-based capacity assumptions used in this analysis. Each year, Capital Plan amendments are prepared, which allow DOE to reassess priorities, to take into account shifts in enrollments, variations in housing growth, changes in building conditions, new educational initiatives, and adjustments in the construction marketplace, and incorporate any impact from financial changes implemented by the City or State. In addition, DOE and SCA annually undertake a comprehensive assessment of conditions in order to determine the need for realignment strategies, such as increasing the utilization of existing facilities, changing grade configurations of schools, and adjustments to local school zones. The analysis does not account for future actions that could be taken by SCA and DOE to address capacity needs in the sub-district, such as possible future shifts in CSD boundaries or sub-district boundaries, or the construction of additional school facilities serving the sub-district through any of the four five-year Capital Plans that will be issued between the present day and the 2035 build year.

Therefore, the analysis provided is conservative in that it likely overstates future enrollment deficits, since the analysis year of 2035 falls within what would be covered by DOE's plan for 2035-2039.

The Phase II project site is located in Sub-District 1 of CSD 13. Phase II of the Project would be expected to introduce approximately 2,712 students to the project site, comprising 1,430 elementary school students, 592 intermediate school students, and 690 high school students. As in the 2006 FEIS, Phase II of the Project would be expected to result in significant adverse impacts to elementary school and intermediate school capacities within Sub-District 1 of CSD 13. The Project would also create, at the election of DOE, a 100,000 gsf elementary and middle school public school on the project site that would be expected to accommodate a number of students equivalent to approximately one third of Phase II-generated demand, based on current projections.

Elementary Schools

Currently, CSD 13/Sub-District 1 contains two elementary schools with a combined capacity of 1,290 seats, which will increase by 326 seats to 1,616 seats in the Future Without Phase II. Thus, under current CEQR methodology, the SEIS analyzes a much smaller study area than the 2006 FEIS, which assessed a ½-mile study area with 4,263 seats, CSD 13 with 12,451 seats, and CSD 15 with 16,401 seats. Similarly, the 2009 Technical Memorandum assessed a ½-mile study area with 4,542 seats, CSD 13 with 10,909 seats, and CSD 15 with 17,405 seats.

Based on current CEQR methodology, Phase II would introduce 1,430 elementary school students by 2035, increasing the elementary school utilization rate in CSD 13/Sub-District 1 by 88 percentage points, and bringing total utilization to 220 percent (assuming no new school capacity would be created between 2019 and 2035). Therefore, Phase II would exceed the *CEQR Technical Manual* threshold for a significant adverse impact on elementary schools. Both the 2006 FEIS and the 2009 Technical Memorandum also disclosed significant adverse impacts on elementary schools upon completion of the Project. The magnitude of the significant adverse impact reflects conservative methodology that does not account for future increases in capacity, or possible future shifts in CSD boundaries or sub-district boundaries, or different enrollment projections in 2035 as compared with 2021.

Consistent with the 2006 FEIS, this analysis finds that Phase II of the Project would result in significant adverse impacts to elementary school capacity in the study area. While the finding of a significant adverse school impact is consistent, the utilization and deficit of elementary school seats (which form the basis of the findings) are higher than was identified in the 2006 FEIS and 2009 Technical Memorandum. These changes are due to changed *CEQR Technical Manual* methodology (e.g., the reduction in the size of the study area and changed multipliers for estimating school children), changed background conditions (which project a shortage of seats in the No-Action condition), and a shift of approximately 208,000 gsf of floor area from Phase I to Phase II of the Project. The delayed completion of Phase II of the Project would not itself create additional demand on elementary schools in the sub-district.

Intermediate Schools

Currently, CSD 13/Sub-District 1 contains three intermediate schools with a combined capacity of 850 seats, which is not assumed to change in the Future Without Phase II. Thus, under current CEQR methodology, the SEIS analyzes a much smaller study area than the 2006 FEIS, which assessed a ½-mile study area with 2,457 seats, CSD 13 with 6,435 seats, and CSD 15 with 6,369

Atlantic Yards Arena and Redevelopment Project FSEIS

seats. Similarly, the 2009 Technical Memorandum assessed a ½-mile study area with 3,222 seats, CSD 13 with 7,317 seats, and CSD 15 with 10,037 seats.

Based on current CEQR methodology, Phase II would introduce 592 intermediate school students by 2035, increasing the intermediate school utilization rate in CSD 13/Sub-District 1 by 69 percentage points, and bringing total utilization to 160 percent (assuming no new school capacity would be created between 2019 and 2035). Therefore, Phase II would exceed the *CEQR Technical Manual* threshold for a significant adverse impact on intermediate schools. The 2006 FEIS also disclosed a significant adverse impact on intermediate schools, but the 2009 Technical Memorandum did not find a significant adverse impact. Therefore, the combination of the Extended Build-Out Scenario and updated analysis methodology and baseline data would result in a significant adverse impact that was not disclosed in the 2009 Technical Memorandum but would not alter the previous finding of the 2006 FEIS that the completed Project would result in a significant adverse impact to intermediate schools. The magnitude of the significant adverse impact reflects conservative methodology that does not provide for long-term projections for increasing intermediate school capacity or possible future shifts in CSD boundaries or sub-district boundaries.

Consistent with the 2006 FEIS, this analysis finds that Phase II of the Project would result in significant adverse impacts to intermediate school capacity in the study area. While the finding of a significant adverse school impact is consistent, the utilization and deficit of intermediate school seats (which form the basis of the findings) are higher than was identified in the 2006 FEIS and 2009 Technical Memorandum (the Technical Memorandum did not find a significant adverse impact on intermediate school, as noted above). These changes are due to changed *CEQR Technical Manual* methodology (e.g., the reduction in the size of the study area and changed multipliers for estimating school children), changed background conditions (which project a shortage of seats in the No-Action condition), and a shift of approximately 208,000 gsf of floor area from Phase I to Phase II of the Project. The delayed completion of Phase II of the Project would not itself create additional demand on intermediate schools in the sub-district.

Elementary and Intermediate School Effects with the Proposed School

The Project would include the provision, at the election of DOE, of an approximately 100,000 gsf elementary and intermediate public school to partially mitigate the significant adverse impacts on elementary and intermediate school capacity in the study area. DOE's 2015-2019 Proposed Capital Plan allocates funds towards the development of a new public school on the Phase II project site. Although the grade-level mix has not yet been determined, the Proposed Capital Plan assumes that 757 seats will be created through the opening of this new school. Thus, the proposed school would be expected to accommodate a number of students equivalent to over one third of Phase II-generated demand for elementary and intermediate school seats, based on current projections and assumptions. The SEIS analysis is based on current enrollment projections and capacity, and represents a snapshot in time. Because the school program and capacity is not finalized, DOE and SCA can better determine grade allocation when the school is designed, based on demand in CSD 13/Sub-District 1 at that time. Accordingly, these new school seats have not been included in the quantitative assessment of future school utilization provided above.

Additional mitigation measures such as shifting the boundaries of school catchment areas within the CSDs, creating new satellite facilities in less crowded schools, or building new school facilities off-site could be employed to fully mitigate the significant adverse impacts on public schools identified. These other potential mitigation measures identified could be implemented at the discretion of DOE. Additional information is provided in Chapter 5, "Mitigation."

High Schools

In the Future With Phase II, Brooklyn high schools would operate with surplus capacity. As Phase II would not result in a collective utilization rate equal to or greater than 100 percent at the borough level, Phase II would not result in any significant adverse impacts on high schools. As both the 2006 FEIS and the 2009 Technical Memorandum did not find significant adverse high school impacts, the Extended Build-Out Scenario would not alter the previous findings.

CHILD CARE SERVICES

At the time of the 2006 FEIS, a 100-seat child care facility was planned as part of the Project. The 2006 FEIS did not identify any significant adverse child care impacts. However, the analysis of publicly funded child care facilities in the 2009 Technical Memorandum found that the updated background conditions and updated methodologies (i.e., new CEQR generation rates for child care eligible children) would result in additional demand for publicly funded child care facilities in the study area, which could result in a shortfall of child care slots in the 2019 future with the Project. Therefore, in addition to the 100-seat facility that was planned as part of the Project and included in the 2006 FEIS, the Project sponsors are obligated to assess child care enrollment and capacity in the study area as the Project progresses and, if necessary, work with the Administration for Children's Services (ACS) to provide up to approximately 250 additional child care slots either on-site or in the vicinity of the site to meet Project-generated demand. With these commitments, included in the MEC, the 2009 Technical Memorandum concluded that there would be no new significant adverse impacts on publicly funded child care facilities in the study area.

This SEIS considers whether changed background conditions or changed methodologies since the 2006 FEIS and 2009 Technical Memorandum would result in any new or changed significant adverse impacts resulting from construction of Phase II of the Project under the Extended Build-Out Scenario. The prolonged build-out of the Project to 2035 would not create additional demand on public child care services upon completion of the Project, compared with the construction duration assumed in the previous environmental analyses, as the delayed completion of Phase II would not increase the number of children eligible for public child care services introduced by the Project. Changed background conditions include new enrollment data and updated enrollment projections. With regard to methodology, the *CEQR Technical Manual* calls for an analysis for a 1.5 mile study area, whereas the 2006 FEIS and 2009 Technical Memorandum analyzed child care facilities within a 1-mile study area. The current multiplier for calculating demand for child care slots (0.178 eligible children per unit of affordable housing for households earning up to 80 percent area median income [AMI]) has also been changed¹. As a result of this change, the number of eligible children that would be introduced by Phase I and Phase II of the Project (198) is lower than the number projected in the 2006 FEIS (486) and the 2009 Technical Memorandum (537).

Under the revised methodology, it is projected that Phase II would introduce 160 children under the age of 6 who are eligible for public child care services, based on 900 affordable units that would be targeted to households earning up to 80 percent AMI. With the addition of the

¹ The corresponding ratios in the 2006 FEIS were 0.37 children per low-income unit and 0.34 children per low- to moderate-income unit. The corresponding ratio in the 2009 Technical Memorandum was 0.53 children per low-income and low- to moderate-income unit.

additional Phase II children (including demand from background development projects—taking into account Phase I of the Project—in the Future Without Phase II and also taking into account the provision of a 100-slot child care facility), child care facilities in the study area would operate at 126.58 percent utilization, with a deficit of 588 slots, 160 of which would be attributable to Phase II. Total enrollment in the study area would increase to 2,802 children, compared with a capacity of 2,214 slots, which represents an increase in the utilization rate of 1.58 percentage points over the No Action condition. *CEQR Technical Manual* guidelines indicate that a demand for slots greater than the remaining capacity of child care facilities and an increase in demand of 5 percent of the study area capacity could result in a significant adverse impact. Thus, the increase in the utilization rate attributable to Phase II of the Project would not exceed the *CEQR Technical Manual*'s 5 percent threshold for a significant adverse impact.

Several factors may reduce the number of children in need of publicly funded child care slots in ACS-contracted child care facilities. Families in the study area could make use of alternatives to publicly funded child care facilities. There are slots at homes licensed to provide family-based child care that families of eligible children could elect to use instead of public center child care. Such facilities provide additional slots in the study area but are not included in the quantitative analysis. Parents of eligible children are also not restricted to enrolling their children in child care facilities in a specific geographical area and could use public child care centers outside of the study area.

CEQR methodology requires estimating the number of new children eligible for publicly-funded child care services in the Future Without Phase II, based on anticipated development projects in the study area (including Phase I of the Project). CEQR methodology does not provide a basis for estimating new child care capacity in the Future Without Phase II. However, it is likely that new capacity would be created by 2035 to meet additional child care demand, although no new capacity is assumed in the SEIS analysis. Therefore, the analysis provided is conservative in that it likely overstates future enrollment deficits, since the analysis accounts for enrollment growth but no new capacity, in the Future Without Phase II.

The SEIS analysis is based on current child care capacity and represents a snapshot in time. If the capacity of study area child care centers changes in the future, the Project's need for child care slots could change. As noted above, the Project sponsor will monitor child care enrollment and capacity in the study area as the Project progresses, and to the extent necessary to avoid a significant adverse impact, make arrangements with one or more duly licensed day care providers for the long-term operation of a duly licensed child care center (or centers) that shall accommodate approximately 250 additional children, either on or in the vicinity of the project site. In light of the small, less than two percent increase in child care utilization attributable to Phase II identified in this SEIS, and the Project sponsor's commitment to monitor and, if necessary, provide approximately 250 additional child care slots, there would be no new significant adverse impacts on publicly funded day care facilities in the study area.

OTHER COMMUNITY FACILITIES

The 2006 FEIS found that the Project would not result in any significant adverse impacts with respect to police/fire protection services, health care facilities and libraries.

Although the construction of Phase II of the Project would be extended, and a shift of 208,000 gsf of residential space has been proposed from Phase I to Phase II, no changes to the Project have been proposed that would have the potential to affect police/fire protection services and health care facilities. Furthermore, background conditions have not changed such that they

would materially affect the 2006 FEIS conclusions with respect to police/fire protection services and health care facilities; the same police/fire protection and health care facilities are expected to continue to serve the project site. Therefore, Phase II under the Extended Build Out Scenario would not result in any significant adverse impacts to police and fire protection services and health care facilities.

With respect to libraries, while there may be changes in the locations of libraries in the study area by 2035, none have been proposed at this time, and any changes—including background population growth in the study area—would not be expected to adversely affect library resources in the study area. Therefore, Phase II under the Extended Build Out Scenario would not result in any significant adverse impacts to libraries.

B. SUMMARY OF FINDINGS FROM PREVIOUS ENVIRONMENTAL REVIEWS

PUBLIC SCHOOLS

As described in Chapter 1, “Project Description,” the Project was previously analyzed in the 2006 FEIS and the subsequent 2009 Technical Memorandum. The 2006 FEIS analysis of community facilities concluded that the Project would not result in any significant adverse impacts to police and fire services, public libraries, child care facilities, or hospitals and health care facilities. With respect to public schools, the 2006 FEIS found that there would be a shortfall of seats at elementary and intermediate schools in the 2016 future with the Project, and that these shortfalls would constitute a significant adverse impact on elementary and intermediate schools within the ½-mile study area. The shortfalls in the ½-mile study area were a deficit of 1,256 elementary school seats (129 percent utilization) and a deficit of 31 intermediate school seats (101 percent utilization). To partially mitigate the significant adverse impact on public schools, the Project sponsors committed to provide adequate space for the construction and operation of an elementary and intermediate school in the base of one of the Phase II residential buildings, at the election of DOE. The 2006 FEIS stated that additional mitigation measures, such as shifting the boundaries of school catchment areas within the CSDs, creating new satellite facilities in less crowded schools, or building new school facilities off-site would be required to fully mitigate the significant adverse impacts on public schools identified in the 2006 FEIS.

The 2009 Technical Memorandum included a revised analysis to determine whether the changed background conditions (including new enrollment data and updated enrollment projections) and updated methodologies (i.e., a change to the CEQR generation rates for public school students and child care eligible children) would result in any new or different impacts than those previously identified in the 2006 FEIS. The revised analysis concluded that the Project would result in a significant adverse impact on elementary schools within the ½-mile study area but that it would no longer result in a significant adverse impact on intermediate schools in the ½-mile study area. The Technical Memorandum found that there would be a shortfall of 2,782 elementary school seats (161.3 percent utilization) whereas intermediate schools in the ½-mile study area would operate with a surplus of 188 seats (94.2 percent utilization). The Project sponsors’ obligation to provide space for an elementary and intermediate public school on the project site was included in the MEC associated with the 2009 MGPP.

CHILD CARE SERVICES

The 2006 FEIS did not identify any significant adverse child care impacts. However, the analysis of publicly funded child care facilities in the 2009 Technical Memorandum found that the updated background conditions and updated methodologies (i.e., new CEQR generation rates for child care eligible children) would result in additional demand for publicly funded child care facilities in the study area, which could result in a shortfall of child care slots in the 2019 future with the Project. To meet the additional demand, the Project sponsors are obligated to construct on the project site and arrange for the long-term operations of a licensed day care center that can accommodate at least 100 children with publicly funded vouchers and to assess child care enrollment and capacity in the study area as the Project progresses and, if necessary, work with ACS to provide up to approximately 250 additional child care slots either on-site or in the vicinity of the site to meet Project-generated demand. With these commitments, included in the MEC, the 2009 Technical Memorandum concluded that there would be no new significant adverse impacts on publicly funded child care facilities in the study area.

C. SCOPE OF SEIS COMMUNITY FACILITIES ANALYSIS

As noted in Chapter 1, “Project Description,” the purpose of this SEIS is to assess the environmental impacts of a prolonged completion of Phase II of the Project. The Extended Build-Out Scenario would not create new demand for community facilities, compared with the program analyzed in the 2006 FEIS and 2009 Technical Memorandum. Although the final build-out would be delayed, and a shift of approximately 208,000 gsf of residential space is proposed from the Phase I sites to the Phase II sites¹, the proposed uses and program would remain materially the same as analyzed in the 2006 FEIS, 2009 Technical Memorandum, or as specified in the 2009 MGPP. Thus, there would be no additional demand for public schools, child care services, libraries, police and fire protection services, or health care facilities resulting from the Project under the Extended Build-Out Scenario.

With regard to police/fire protection services and health care facilities, the *CEQR Technical Manual* recommends an assessment when an action would result in the introduction of a sizeable new neighborhood where none existed before. The 2006 FEIS analyzed the potential for the Project to affect these services and facilities, and found that no significant adverse impacts would be created. Although the construction of Phase II of the Project would be extended, and a small shift has been proposed in residential uses between Phase I and Phase II sites, no changes to the Project have been proposed that would have the potential to affect police/fire protection services and health care facilities. Furthermore, background conditions are not expected to change such that they would materially affect the 2006 FEIS conclusions with respect to police/fire protection services and health care facilities; the same police/fire protection and health care facilities are expected to continue to serve the project site.

With regard to libraries, the *CEQR Technical Manual* recommends an assessment when an action could result in a five percent or greater increase in the ratio of residential units to library branches. The 2006 FEIS analyzed the potential for the Project to affect libraries in the study area, and found that there would be no significant adverse impacts. This finding took into account the relatively large number of libraries available in the study area, including the

¹ See Chapter 1, “Project Description” and Chapter 2, “Analysis Framework.”

Brooklyn Public Library's (BPL) flagship central branch, located south of the project site at 10 Grand Army Plaza. The residential component of the Project has not increased compared with the program considered in the 2006 FEIS. Changed background conditions due to population growth in the study area will increase the baseline population in the Future Without the Project, which would reduce the incremental population growth attributable to the Project. Therefore, under CEQR methodology, background population growth since the 2006 FEIS would be expected to reduce the potential for the Project to result in a significant adverse library impact. In addition, while there may be changes in the locations of libraries in the study area by 2035, none have been proposed at this time, and any changes would not be expected to adversely affect library resources in the study area.¹ As the 2006 FEIS determined that the Project would not result in a significant adverse library impact, there would be no significant adverse library impact from Phase II, under the Extended Build-Out Scenario.

The 2006 FEIS and the MEC identified mitigation commitments for impacts related to public schools and child care services as a result of the Phase II development, as noted above under "Summary of Findings from Previous Environmental Reviews." The Extended Build-Out Scenario could affect the timing of significant adverse impacts relating to public schools and the potential of Phase II to result in significant adverse impacts to child care facilities. Because the 2006 FEIS and the MEC identified mitigation commitments for impacts to these facilities as a result of the Phase II development, an updated analysis of public schools and publicly funded day care facilities is warranted.

The analysis of public schools and child care services accounts for changes in background conditions and CEQR analysis methodology. With regard to background conditions, this analysis utilizes the most recent data available for school and child care enrollment, and expected future conditions. With regard to CEQR analysis methodology, consistent with the *CEQR Technical Manual*, the schools analysis considers the sub-district of the CSD that the Phase II project Site is located within, rather than the entire CSD and a ½-mile study area, which were analyzed in the 2006 FEIS and 2009 Technical Memorandum. The analysis also does not account for school capacity that could be created between 2019 and 2035, or increased enrollment beyond 2021. As described below under "Methodology," the analysis utilizes DOE's *Utilization Profiles: Enrollment/Capacity/Utilization, 2012-2013* edition, DOE's 2015-2019 Proposed Capital Plan, and enrollment projections that extend to 2021.

D. ANALYSIS APPROACH

This analysis of community facilities has been conducted in accordance with *CEQR Technical Manual* guidelines and the latest data and guidance from agencies such as the ACS, DOE, SCA, and the New York City Department of City Planning (DCP).

¹ At this time, no plans have been approved or proposed to close or relocate libraries in the study area. BPL had announced plans to sell the Pacific Branch Library at Fourth Avenue and Pacific Street but cancelled those plans in June, 2013. Regardless of whether the Pacific Branch Library is closed, a new library is expected to be constructed at Flatbush Avenue and Ashland Place (as part of the Brooklyn Academy of Music [BAM] Cultural District development), which would increase the availability of library services in the study area. BPL has also contemplated selling the Brooklyn Heights branch to a private developer who would be required to include a replacement library in any residential tower that is constructed on that site.

The anticipated Phase II development on the project site forms the basis for this impact assessment. As discussed in Chapter 2, “Analysis Framework,” two development programs have been developed for analysis: the commercial mixed-use variation and the residential-mixed use variation.

With regard to Phase I, the commercial mixed-use variation would result in 1,498 residential units, whereas the residential mixed-use variation would result in up to 1,922 units. For analytical purposes in this SEIS, it is assumed that the Phase I units will be built irrespective of Phase II, and therefore form part of the background condition against which the potential impacts of Phase II are assessed (i.e., the Future Without Phase II). For the schools analysis, the only Phase I buildings in the same sub-district as the Phase II project site are buildings 2, 3, and 4, which would contain the same number of units under either variation. Two Phase I buildings—Building 1 and Site 5—are located in CSD 15. As these Phase I buildings are not within the study area for the schools analysis, the students that will be introduced by these buildings were not included in the Future Without Phase II condition. Regarding the child care analysis, Phase I would result in the same number of affordable units under either variation.

Phase II would add up to 4,932 residential units on the project site by 2035, including 1,800 affordable units, which is the basis of this analysis (although, as discussed below, 900 of the 1,800 affordable units are relevant for the purposes of the analysis of public child care utilization).

E. ANALYSIS OF INDIRECT EFFECTS ON PUBLIC ELEMENTARY, INTERMEDIATE, AND HIGH SCHOOLS

METHODOLOGY

This analysis assesses the potential effects of Phase II of the Project on public elementary, intermediate, and high schools serving the project Site. Following methodologies in the *CEQR Technical Manual*, the study area for the analysis of elementary and intermediate schools is the school district’s “sub-district” (also known as “region” or “school planning zone”) in which the project is located. The project site for Phase II is located in Sub-district 1 of CSD 13 (see **Figure 4B-1**). The project site for Phase I is partially located in CSD 13 and partially located in CSD 15. Specifically, Phase I buildings 2, 3, and 4 are located within CSD 13/Sub-District 1, and buildings 1 and 5 are located in CSD 15. High school students routinely travel outside their neighborhoods for school; therefore, the *CEQR Technical Manual* provides for environmental review on a borough-wide basis.

It should be noted that analysis at the sub-district level provides a more localized level of analysis and includes far fewer schools compared with schools analysis at the CSD level that was provided in the 2006 FEIS and 2009 Technical Memorandum.

As required by CEQR, this school analysis uses the most recent DOE data on school capacity, enrollment, and utilization rates for elementary and intermediate schools in the sub-district study area and DOE projections of future enrollment. Specifically, the existing conditions analysis uses data provided in the DOE’s *Utilization Profiles: Enrollment/Capacity/Utilization, 2012-2013* edition. Future conditions are then predicted based on DOE enrollment projections and data obtained from SCA’s Capital Planning Division on the number of new housing units and students expected at the sub-district and borough levels. The future utilization rate for school facilities is calculated by adding the estimated enrollment from proposed residential developments in the schools’ study area to DOE’s projected enrollment, and then comparing that

number with projected school capacity. DOE does not include charter school enrollment in its enrollment projections. DOE's enrollment projections for years 2011 through 2021, the most recent data currently available, were provided for the analysis. The latest available student enrollment projections that extend to 2021 have been used in this analysis to represent student enrollment in 2035, since there are no enrollment projections beyond 2021. As these enrollment projections are dynamic, it would not be reasonable to assume that a prior trend could be identified and extended past 2021. These enrollment projections are based on broad demographic trends and do not explicitly account for discrete new residential developments planned for the study area. Therefore, the estimated student population from the other new development projects expected to be completed within the study area have been obtained from SCA's Capital Planning Division and/or have been determined by researching known planned development in the area in coordination with DCP. These additional students are added to the projected 2021 enrollment numbers to ensure a more conservative prediction of future enrollment and utilization. In addition, any new school projects identified in the DOE Five-Year Capital Plan are included if construction has begun or if deemed appropriate to include in the analysis by the lead agency and SCA. It should be noted that the analysis likely overstates future utilization, since—as noted above—the analysis includes enrollment projections to 2021, but only includes planned capacity to 2019.

The effect of the new students introduced by Phase II on the capacity of schools within the study areas is then evaluated. According to the *CEQR Technical Manual*, a significant adverse impact may occur if a proposed action would result in both of the following conditions:

1. A utilization rate of the elementary and/or intermediate schools in the sub-district study area, or high schools in the borough study area, that is equal to or greater than 100 percent in the Future With Phase II; and
2. An increase of five percentage points or more in the collective utilization rate between the Future Without Phase II and the Future With Phase II.

EXISTING CONDITIONS

ELEMENTARY SCHOOLS

As shown in **Figure 4B-1**, two elementary schools are located in CSD 13/Sub-District 1. As shown in **Table 4B-1**, this sub-district has a total enrollment of 1,282 students, or 99 percent of capacity, with 8 available seats according to DOE's 2012-2013 school year enrollment figures, which are the most recent data currently available.¹

INTERMEDIATE SCHOOLS

As shown in **Figure 4B-1** and **Table 4B-1**, three intermediate schools serve CSD 13/Sub-District 1. Total enrollment at these intermediate schools is 585 students, or 69 percent of capacity, with a surplus of 265 seats.

¹ The new building for P.S. 133 is also located in CSD 13/Sub-District 1, and opened in September 2013. As described above, the existing conditions analysis utilizes 2012-2013 enrollment data, which does not reflect this change. Therefore, P.S. 133 is accounted for in the Future Without Phase II condition.

**Table 4B-1
Public Schools in CSD 13/Sub-District 1,
Enrollment and Capacity Data, 2012-2013 School Year**

Map No.	Name	Address	Enrollment	Capacity	Available Seats	Utilization
Elementary Schools						
Sub-district 1 of CSD 13						
1	P.S. 282 (P.S. component)	180 6th Avenue	615	574	-41	107%
2	P.S. 9	80 Underhill Avenue	667	716	49	93%
Sub-district 1 of CSD 13 Total			1,282	1,290	8	99%
Intermediate Schools						
Sub-district 1 of CSD 13						
1	P.S. 282 (I.S. component)	180 6th Avenue	310	289	-21	107%
2	I.S. 340	227 Sterling Place	245	322	77	76%
3	I.S. 571	80 Underhill Avenue	30	239	209	13%
Sub-district 1 of CSD 13 Total			585	850	265	69%
High Schools						
Borough of Brooklyn Total			89,614	103,556	13,942	87%
Notes:	See Figure 4B-1.					
Sources:	DOE Utilization Profiles: Enrollment/Capacity/Utilization, 2012-2013.					

HIGH SCHOOLS

High school students may attend any of the schools within any borough of the city, based on seating availability and admissions criteria.

Throughout Brooklyn, total high school enrollment for the 2012-2013 school year was approximately 89,614 students, with an overall utilization rate of 87 percent, and a surplus of 13,942 seats. There are no high schools located within CSD 13/Sub-District 1 (except for charter schools, which are not included in this analysis).

FUTURE WITHOUT PHASE II

This analysis assumes that the Phase I units form part of the background condition against which the potential impacts of Phase II are assessed. Buildings 1 and 5 of Phase I are located outside of the schools study area, in CSD 15. Buildings 2, 3, and 4 are located within Sub-District 1 of CSD 13. These three buildings would result in 1,498 residential units in the Future Without Phase II. This number of units would be expected to result in 434 elementary school students, 180 intermediate school students, and 210 high school students. These students have been incorporated into the Future Without Phase II analysis, as described below.

ENROLLMENT PROJECTIONS

As required by CEQR, the assessment of Future Without Phase II conditions uses DOE enrollment projections. DOE provides future enrollment projections by district for up to 10 years. The latest available enrollment projections that extend to 2021 have been used in this analysis to represent student enrollment in 2035. As these enrollment projections are dynamic, it would not be reasonable to assume that a prior trend could be identified and extended past 2021.

These enrollment projections focus on the natural growth of the city’s student population (through births and grade retention) and do not necessarily account for new residential developments planned for the sub-district study areas (Future Without Phase II projects). Therefore, the future utilization rate for school facilities is calculated by adding the estimated enrollment from proposed residential

developments in the school study areas (as provided by SCA’s Capital Planning Division and/or determined by researching known planned development in the area, in coordination with DCP) to DOE’s projected enrollment, and then comparing that number with projected school capacity. The number of students that would be generated by the Phase I buildings that are located within Sub-District 1 of CSD 13 have also been added. As noted above, Buildings 2, 3, and 4 would be expected to result in 434 elementary school students, 180 intermediate school students, and 210 high school students in the Future Without Phase II.

Table 4B-2 outlines the estimated number of new public elementary, intermediate, and high school students generated as a result of development in the Future Without Phase II. This analysis utilizes DOE’s data at the borough level, and known development projects that have been identified in coordination with DCP at the sub-district level, and is based on student generation rates listed in Table 6-1a of the *CEQR Technical Manual* (0.29 elementary students, 0.12 intermediate school students, and 0.14 high school students per residential unit in Brooklyn).

Table 4B-2
Projected Estimated Number of New Students
Introduced by Development in the Future Without Phase II

Study Area	Projected New Students		
	Elementary	Intermediate	High School
Sub-district 1 of CSD 13	498 ¹	206 ¹	N/A
Borough of Brooklyn	N/A	N/A	4,556 ²

Source: SCA Capital Planning Division.
Notes: ¹Approximately 217 residential units are expected to be constructed in Sub-District 1 of CSD 13, in addition to Buildings 2, 3, and 4 of Phase I of the Project.
²SCA projects 4,556 students would be added in Brooklyn in the Future Without Phase II.

PLANNED SCHOOL CAPACITY

Prior to the 2013-2014 school year, P.S. 133 was located within CSD 15 on a temporary basis, during the construction of its new facility at 375 Butler Street. The new facility, completed in September 2013, includes seats for students from CSD 15 and CSD 13. As noted above, this analysis utilizes the most recent schools data, which represent the 2012-2013 school year. Therefore, for the purpose of this analysis, the capacity from this school is not included in existing conditions, and is added in the Future Without Phase II condition. Thus, it is anticipated that the new school will increase the elementary school capacity of CSD 13/Sub-District 1 by 326 seats compared with existing conditions, as shown in **Table 4B-1**.¹ No other additional school capacity projects are currently planned for CSD 13/Sub-District 1.

DOE identifies the need for new school capacity based on a multi-dimensional review and analysis of localized capacity and enrollment patterns within each CSD. This process results in a set of recommendations for each CSD that takes into account the needs within each area of the CSD. These recommendations are reviewed annually based on updated enrollment projections, capacity changes and housing information. Currently, DOE’s *2015-2019 Proposed Capital Plan, February 2014* is the most up to date document that has been reviewed to determine future

¹ In total, P.S. 133 has a capacity of 935 seats, 326 of which are for students from CSD 13, and the remainder are for students from CSD 15.

Atlantic Yards Arena and Redevelopment Project FSEIS

capacity in CSD 13/Sub-District 1. As this document only projects capacity to 2019, the schools analyses in this chapter conservatively assume that no additional capacity will be created in the sub-district between 2019 and 2035 in the quantitative analysis.

ANALYSIS

Elementary Schools

As shown in **Table 4B-3**, elementary schools in CSD 13/Sub-District 1 will operate at 132 percent utilization in the 2035 Future Without Phase II. Enrollment will increase to 2,134 seats, and the sub-district will operate with a deficit of 516 seats. As noted above, this analysis conservatively assumes that no additional capacity will be created in the sub-district between 2019 and 2035 and that there will not be any shifts in sub-district boundaries. As summarized above under “Existing Conditions,” Sub-districts 2 and 3 of CSD 13 have lower rates of utilization than Sub-District 1, under existing conditions.

Table 4B-3

Estimated Public Elementary and Intermediate School Enrollment, Capacity, and Utilization: Future Without Phase II

Study Area	Projected Enrollment in 2035 ¹	Students Introduced by Residential Development in Future Without Phase II	Total Future Without Phase II Enrollment	Capacity	Available Seats	Utilization
Elementary Schools						
Sub-district 1 of CSD 13	1,635	498	2,133	1,616	-516	132%
Intermediate Schools						
Sub-district 1 of CSD 13	564	206	770	850	80	91%
High Schools						
Borough of Brooklyn	89,488	4,556	94,044	103,556	9,512	91%
Notes:						
¹ Elementary and intermediate school enrollment in each sub-district study area in 2035 was calculated by applying SCA supplied percentages for each sub-district to the relevant district enrollment projections.						
Sources:						
DOE <i>Enrollment Projections (Actual 2011, Projected 2012-2021)</i> by the Grier Partnership; DOE, <i>Utilization Profiles: Enrollment/Capacity/Utilization, 2012-2013</i> , DOE 2015-2019 <i>Proposed Capital Plan, February 2014</i> ; School Construction Authority; Future Without Phase II Students based on SCA’s Housing Pipeline for 2015-2019 Proposed Capital Plan and other known background development projects, in coordination with DCP and SCA.						

Intermediate Schools

As shown in **Table 4B-3**, intermediate schools in CSD 13/Sub-District 1 will operate with a surplus of 80 seats in the 2035 No Action condition. The sub-district will operate at approximately 91 percent utilization. As noted above, this analysis conservatively assumes that no additional capacity will be created in the sub-district between 2014 and 2035 and that there will not be any shifts in sub-district boundaries. As summarized above under “Existing Conditions,” Sub-districts 2 and 3 of CSD 13 have lower rates of utilization than Sub-District 1, under existing conditions.

High Schools

As shown in **Table 4B-3**, high schools in Brooklyn will operate with a surplus of seats in the 2035 No Action condition. High schools in the borough will operate at 91 percent utilization, with a surplus of 9,512 seats.

PROBABLE IMPACTS OF PHASE II

Phase II of the Project is anticipated to result in the incremental development of up to 4,932 residential units on the project site. Based on the CEQR student generation rates, Phase II would introduce approximately 1,430 elementary school students, 592 intermediate school students, and 690 high school students onto the project site by 2035 (see **Table 4B-4**).

**Table 4B-4
Estimated Number of Students Introduced in the Study Areas:
Future With Phase II**

Study Area	Housing Units	Elementary Students	Intermediate Students	High School Students
Sub-district 1 of CSD 13 / Borough of Brooklyn	4,932	1,430	592	690
Sources: CEQR Technical Manual, Table 6-1a.				

As described above and in Chapter 1, “Project Description,” Phase II would include the provision of a 100,000 gsf public elementary and intermediate school, subject to approvals and requirements of DOE. Based on DOE’s 2015-2019 Proposed Capital Plan, it is anticipated that this school would accommodate 757 students. However, as the school program and capacity would be more fully developed at a later date, these additional seats have not been included in the quantitative analysis of CSD 13/Sub-District 1 school utilization in the Future With Phase II.

ELEMENTARY SCHOOLS

The total enrollment of CSD 13/Sub-District 1 would increase by 1,430 students to 3,563, and capacity would remain at 1,616 seats (220 percent utilization), assuming no new school capacity would be created between 2019 and 2035. There would be a 1,946 seat deficit in the sub-district, and Phase II would be expected to increase utilization by 88 percent, compared with the Future Without Phase II (see **Table 4B-5**).

**Table 4B-5
Estimated Public Elementary and Intermediate School Enrollment, Capacity, and Utilization:
Future With Phase II**

Study Area	Future Without Phase II Enrollment	Students Introduced by Phase II	Total Future With Phase II Enrollment	Capacity	Available Seats	Utilization	Change in Utilization Compared with Future Without Phase II
Elementary Schools							
Sub-district 1 of CSD 13	2,133	1,430	3,563	1,616	-1,946	220%	88%
Intermediate Schools							
Sub-district 1 of CSD 13	770	592	1,362	850	-511	160%	69%
High Schools							
Borough of Brooklyn	94,044	690	94,735	103,556	8,821	91%	0.19%
Notes:	Elementary school and intermediate school capacity in the Future With Phase II does not include the 100,000 gsf school proposed by the Applicant.						
Sources:	DOE Enrollment Projections (Actual 2011, Projected 2012-2021) by the Grier Partnership; DOE, Utilization Profiles: Enrollment/Capacity/Utilization, 2012-2013, DOE 2010-2014 Proposed Five-Year Capital Plan, February 2013; School Construction Authority.						

As noted above, a significant adverse impact may occur if a proposed action would result in both of the following conditions: (1) a utilization rate of the elementary schools in the sub-district study area that is equal to or greater than 100 percent in the future without the proposed action;

Atlantic Yards Arena and Redevelopment Project FSEIS

and (2) an increase of five percentage points or more in the collective utilization rate between the future without the proposed action and future with the proposed action conditions.

Phase II would increase the elementary school utilization rate in CSD 13/Sub-District 1 by 88 percentage points, and utilization would be 220 percent. Therefore, Phase II would result in a significant adverse impact on elementary schools. However, the analysis conservatively assumes that no new elementary school capacity will be created in the sub-district between 2019 and 2035. As noted above, CEQR methodology requires utilizing DOE enrollment projections, which estimate enrollment in 2021, and have been used in this analysis to represent student enrollment to 2035. However, the capacity assumptions are based on DOE's latest 5-year Proposed Capital Plan, which extends to 2019. The SCA analysis for the Proposed Capital Plan includes a multi-dimensional review and analysis of localized capacity and enrollment patterns within each CSD. This process results in a set of recommendations for each CSD that takes into account the needs within each area of the CSD. These recommendations are reviewed annually based on updated enrollment projections, capacity changes and housing information. Currently, DOE's *2015-2019 Proposed Five-Year Capital Plan, February 2014* is the most up to date document that has been reviewed to determine future capacity in CSD 13/Sub-District 1. In keeping with DOE's mandate to respond to local needs and provide new capacity where warranted, it is likely that new elementary school capacity would be created by 2035 to meet additional student demand that exceeds 2019-based capacity assumptions used in this analysis. Each year, Capital Plan amendments are prepared, which allows DOE to reassess priorities, to take into account shifts in enrollments, variations in housing growth, changes in building conditions, new educational initiatives, and adjustments in the construction marketplace, and incorporate any impact from financial changes implemented by the City or State. In addition, DOE and SCA annually undertake a comprehensive assessment of conditions in order to determine the need for realignment strategies, such as increasing the utilization of existing facilities, changing grade configurations of schools, and adjustments to local school zones. The analysis does not account for future actions that could be taken by SCA and DOE to address capacity needs in the sub-district, such as possible future shifts in CSD boundaries or sub-district boundaries, or the construction of additional school facilities serving the sub-district through any of the four five-year Capital Plans that will be issued between the present day and the 2035 build year.

Therefore, the analysis provided is conservative in that it likely overstates future enrollment deficits, since the analysis year of 2035 falls within what would be covered by DOE's plan for 2035-2039.

As the 2006 FEIS and the 2009 Technical Memorandum both disclosed significant adverse impacts on elementary schools, the Extended Build-Out Scenario would not alter the previous findings that there would be significant adverse impacts on elementary schools. While the finding of a significant adverse school impact is consistent, the utilization and deficit of elementary school seats (which form the basis of the findings) are higher than was analyzed in the 2006 FEIS and 2009 Technical Memorandum. These changes are due to changed *CEQR Technical Manual* methodology (e.g., the reduction in the size of the study area and changed multipliers for estimating school children), changed background conditions (which project a shortage of seats in the No-Action condition), and a shift of approximately 208,000 gsf of floor area from Phase I to Phase II of the Project. The delayed completion of Phase II of the Project would not itself create additional demand on elementary schools in the sub-district. The magnitude of the significant adverse impact reflects conservative methodology that does not provide for long-term projections for increasing elementary school capacity or possible future shifts in CSD boundaries or sub-district boundaries or construction of additional school facilities. Mitigation

measures in addition to the Project sponsors' commitment to provide adequate space for a 100,000 gsf school, such as shifting the boundaries of school catchment areas within the CSD, creating new satellite facilities in less crowded schools, or building new school facilities off-site, could partially or fully mitigate this impact. These potential mitigation measures are discussed in Chapter 5, "Mitigation."

INTERMEDIATE SCHOOLS

In the Future With Phase II, the total enrollment of CSD 13/Sub-District 1 would increase by 592 to 1,362 students, and capacity would remain at 850 seats (160 percent utilization), assuming no new school capacity would be created between 2019 and 2035. There would be a 511-seat deficit in the sub-district, and Phase II would be expected to increase utilization by 69 percent, compared with the Future Without Phase II (see **Table 4B-5**).

As noted above, a significant adverse impact may occur if a proposed action would result in both of the following conditions: (1) a utilization rate of the elementary schools in the sub-district study area that is equal to or greater than 100 percent in the future without the proposed action; and (2) an increase of five percentage points or more in the collective utilization rate between the future without the proposed action and future with the proposed action conditions.

Phase II would increase the intermediate school utilization rate in CSD 13/Sub-District 1 by 69 percentage points, and utilization would be 160 percent. Therefore, Phase II would result in a significant adverse impact on intermediate schools. However, the analysis conservatively assumes that no new elementary school capacity will be created in the sub-district between 2019 and 2035. As noted above, CEQR methodology requires utilizing DOE enrollment projections, which estimate enrollment in 2021, and have been used in this analysis to represent student enrollment in 2035. However, the capacity assumptions are based on DOE's latest 5-year Proposed Capital Plan, which extends to 2019. The analysis for the Proposed Capital Plan includes a multi-dimensional review and analysis of localized capacity and enrollment patterns within each CSD. This process results in a set of recommendations for each CSD that takes into account the needs within each area of the CSD. These recommendations are reviewed annually based on updated enrollment projections, capacity changes and housing information. Currently, DOE's *2015-2019 Proposed Five-Year Capital Plan, February 2014* is the most up to date document that has been reviewed to determine future capacity in CSD 13/Sub-District 1. In keeping with DOE's mandate to respond to local needs and provide new capacity where warranted, it is likely that new intermediate school capacity would be created by 2035 to meet additional student demand that exceeds 2019-based capacity assumptions used in this analysis. Each year, Capital Plan amendments are prepared, which allows DOE to reassess priorities, to take into account shifts in enrollments, variations in housing growth, changes in building conditions, new educational initiatives, and adjustments in the construction marketplace, and incorporate any impact from financial changes implemented by the City or State. In addition, DOE and SCA annually undertake a comprehensive assessment of conditions in order to determine the need for realignment strategies, such as increasing the utilization of existing facilities, changing grade configurations of schools, and adjustments to local school zones. The analysis does not account for future actions that could be taken by SCA and DOE to address capacity needs in the sub-district, such as possible construction of new capacity and future shifts in CSD boundaries or sub-district boundaries. Therefore, the analysis provided is conservative in that it likely overstates future enrollment deficits.

The 2006 FEIS disclosed a significant adverse impact on intermediate schools, but the 2009 Technical Memorandum did not find a significant adverse impact. Therefore, construction of Phase II under the Extended Build-Out Scenario would not alter the previous finding of the 2006 FEIS, and would result in a significant adverse impact that was not disclosed in the 2009 Technical Memorandum. While the finding of a significant adverse school impact is consistent, the utilization and deficit of intermediate school seats (which form the basis of the findings) are higher than was analyzed in the 2006 FEIS and 2009 Technical Memorandum (the Technical Memorandum did not find a significant adverse impact on intermediate school, as noted above). These changes are due to changed *CEQR Technical Manual* methodology (e.g., the reduction in the size of the study area and changed multipliers for estimating school children), changed background conditions (which project a shortage of seats in the No-Action condition), and a shift of approximately 208,000 gsf of floor area from Phase I to Phase II of the Project. The delayed completion of Phase II of the Project would not itself create additional demand on intermediate schools in the sub-district. The magnitude of the significant adverse impact reflects conservative methodology that does not provide for long-term projections for increasing intermediate school capacity or possible future shifts in CSD boundaries or sub-district boundaries. Mitigation measures in addition to the Project sponsors' commitment to provide adequate space for a 100,000 gsf school, such as shifting the boundaries of school catchment areas within the CSD, creating new satellite facilities in less crowded schools, or building new school facilities off-site, could partially or fully mitigate this impact. These potential mitigation measures are discussed in Chapter 5, "Mitigation."

ELEMENTARY AND INTERMEDIATE SCHOOL EFFECTS WITH THE PROPOSED SCHOOL

As noted above, the Project would include, at the election of DOE, the provision of an approximately 100,000 gsf elementary and intermediate public school to partially mitigate the significant adverse impacts on elementary and intermediate school capacity in the study area. DOE's 2015-2019 Proposed Capital Plan allocates funds towards the development of a new public school on the Phase II project site. Although the grade-level mix has not yet been determined, the Proposed Capital Plan assumes that 757 seats will be created through the opening of this new school. Thus, the proposed school would be expected to accommodate a number of students that would be equivalent to over one third of Phase II-generated demand for elementary and intermediate school seats, based on current projections and assumptions. The SEIS analysis is based on current enrollment projections and capacity, and represents a snapshot in time. Because the school program and capacity is not finalized, DOE can better determine grade allocation when the school is designed, based on demand in CSD 13/Sub-District 1 at that time. Accordingly, these new school seats have not been included in the quantitative assessment of future school utilization, provided above. Additional mitigation measures—such as shifting the boundaries of school catchment areas within the CSDs, creating new satellite facilities in less crowded schools, or building new school facilities off-site—could be implemented at the discretion of DOE.

HIGH SCHOOLS

In the Future With Phase II, the total enrollment of high school students in Brooklyn would increase by 690 students to 94,735 (91 percent utilization), resulting in a surplus of 8,821 seats. The new high school students introduced by Phase II of the Project would increase utilization in the borough by 0.19 percent over the No Action condition (see **Table 4B-5**). As noted above, CEQR methodology requires utilizing DOE enrollment projections, which estimate enrollment in 2021, and have been used in this analysis to represent student enrollment in 2035. However, the

capacity assumptions are based on DOE's latest 5-year Capital Plan, which extends to 2019. It is likely that new capacity would be created by 2035 to meet additional student demand that exceeds 2019-based capacity assumptions used in this analysis. Therefore, the analysis provided is conservative in that it likely overstates future utilization, since the analysis includes enrollment projections to 2021, but only includes planned capacity to 2019.

In the Future With Phase II, Brooklyn high schools would operate with surplus capacity. As Phase II would not result in a collective utilization rate equal to or greater than 100 percent at the borough level, Phase II would not result in any significant adverse impacts on high schools. As both the 2006 FEIS and the 2009 Technical Memorandum did not find significant adverse high school impacts, the Extended Build-Out Scenario would not alter the previous findings.

COMPARISON OF SEIS FINDINGS AND PREVIOUS FINDINGS

Consistent with the 2006 FEIS, this analysis finds that Phase II of the Project would result in significant adverse impacts to elementary school and intermediate school capacity in the study area, but would not result in any significant adverse impact on high school capacity.

While the finding of a significant adverse school impact is consistent, the utilization and deficit of elementary and intermediate school seats (which form the basis of the findings) are higher than was analyzed in the 2006 FEIS and 2009 Technical Memorandum. As described below, these changes are due to changed *CEQR Technical Manual* methodology, changed background conditions, and a shift of approximately 208,000 gsf of floor area from Phase I to Phase II of the Project. The delayed completion of Phase II of the Project would not itself create additional demand on intermediate schools in the sub-district.

With regard to changes in methodology, the *CEQR Technical Manual* calls for analysis at the sub-district level, whereas the 2006 FEIS and 2009 Technical Memorandum analyzed the CSDs that the project site is located within, as well as assessing schools within a ½-mile radius of the site. Analysis at the sub-district level provides a more localized level of analysis and considers far fewer schools, compared with the CSD level. Currently, CSD 13/Sub-District 1 contains two elementary schools with a combined capacity of 1,290 seats, which will increase by 326 seats to 1,616 seats in the Future Without Phase II. Thus, under current CEQR methodology, the SEIS analyzes a much smaller study area than the 2006 FEIS, which assessed a ½-mile study area with 4,263 seats, CSD 13 with 12,451 seats, and CSD 15 with 16,401 seats. Similarly, the 2009 Technical Memorandum assessed a ½-mile study area with 4,542 seats, CSD 13 with 10,909 seats, and CSD 15 with 17,405 seats. With regard to intermediate schools, CSD 13/Sub-District 1 contains three intermediate schools with a combined capacity of 850 seats, which is not anticipated to change in the Future Without Phase II. Thus, as with elementary schools, the SEIS analyzes a much smaller study area than the 2006 FEIS, which assessed a ½-mile study area with 2,457 seats, CSD 13 with 6,435 seats, and CSD 15 with 6,369 seats. Similarly, the 2009 Technical Memorandum assessed a ½-mile study area with 3,222 seats, CSD 13 with 7,317 seats, and CSD 15 with 10,037 seats. In addition, the multipliers provided in the *CEQR Technical Manual* to estimate students generated by new housing units has also changed such that the Project would be assumed to introduce a greater number of students using the current *CEQR Technical Manual* guidance than the number of students assumed in the 2006 FEIS analysis, which was prepared in conformance with the 2001 version. With regard to background conditions, current existing utilization data and enrollment projection data forecast a deficit of seats in the Future Without Phase II, unlike both the 2006 FEIS and the 2009 Technical Memorandum (although the study areas considered differ, as noted above).

Based on this data, elementary school utilization in the ½-mile study area in the 2006 FEIS was projected to be 129 percent in 2016 in the Future With the Project, and 161.3 percent in 2019 in the Future With the Project in the 2009 Technical Memorandum. Intermediate school utilization in the 1/2-mile study area in the 2006 FEIS was projected to be 101 percent in 2016 in the Future With the Project, and 94.2 percent in 2019 in the 2009 Technical Memorandum. As discussed above, this SEIS finds that within Sub-District 1 of CSD 13, the elementary school utilization would be 220 percent, and the intermediate school utilization would be 160 percent.

Overall, with changes in methodology and background conditions accounted for, the findings of this SEIS with regard to schools are consistent with the 2006 FEIS, except that the magnitude of impacts is greater (largely due to the changed methodology). The magnitude of the significant adverse impact reflects conservative methodology that does not provide for long-term projections for increasing study area school capacity or possible future shifts in CSD boundaries or sub-district boundaries.

F. ANALYSIS OF INDIRECT EFFECTS ON CHILD CARE SERVICES

METHODOLOGY

ACS provides subsidized child care in center-based group child care, family based child care, informal child care, and Head Start. Publicly financed child care services are available for income-eligible children up to the age of 12. In order for a family to receive subsidized child care services, the family must meet specific financial and social eligibility criteria that are determined by federal, state, and local regulations. In general, children in families that have incomes at or below 200 percent of the Federal Poverty Level (FPL), depending on family size, are financially eligible, although in some cases eligibility can go up to 275 percent of the FPL. The family must also have an approved “reason for care,” such as involvement in a child welfare case or participation in a “welfare-to-work” program. Head Start is a federally funded child care program that provides children with half-day or full-day early childhood education; program eligibility is limited to families with incomes 130 percent or less of FPL.

As noted in the *CEQR Technical Manual*, the City’s affordable housing market is pegged to the AMI rather than the FPL. Lower-income units must be affordable to households at or below 80 percent AMI. Since family incomes at or below 200 percent FPL fall under 80 percent AMI, for the purposes of CEQR analysis, the number of housing units expected to be subsidized and targeted for incomes of 80 percent AMI or below should be used as a proxy for eligibility.

Most children are served through contract with private and nonprofit organizations that operate child care programs throughout the City. Registered or licensed providers can offer family based child care in their homes. Informal child care can be provided by a relative or neighbor for no more than two children. Children aged two months through 12 years old can be cared for either in group child care centers licensed by the Department of Health or in homes of registered child care providers. ACS also issues vouchers to eligible families, which may be used by parents to pay for child care from any legal child care provider in the City.

Publicly financed child care centers, under the auspices of the New York City Division for Child Care and Head Start (CCHS) within ACS, provide care for the children of income-eligible households. Space for one child in such child care centers is termed a “slot.” These slots may be in group child care or Head Start centers, or they may be in the form of family based child care in which 7 to 12 children are placed under the care of a licensed provider and an assistant in a home setting.

Since there are no locational requirements for enrollment in child care centers, and some parents or guardians choose a child care center close to their employment rather than their residence, the service areas of these facilities can be quite large and not subject to strict delineation in order to identify a study area. However, according to the current methodology for child care analyses in the *CEQR Technical Manual*, the locations of publicly funded group child care centers within 1½ miles of the project site should be shown, reflecting the fact that the centers closest to the project site are more likely to be subject to increased demand. Current enrollment data for the child care centers closest to the project site was gathered from ACS.

The child care enrollment in the No Action condition was estimated by multiplying the number of new low-income and low/moderate-income housing units expected in the 1½-mile study area by the *CEQR Technical Manual* multipliers for estimating the number of children under age six eligible for publicly funded child care services (Table 6-1b). For Brooklyn, the multiplier estimates 0.178 public child care-eligible children under age six per low- and low/moderate-income household. The estimate of new public child care-eligible children was added to the existing child care enrollment to estimate enrollment in the No Action condition.

The child care-eligible population introduced by Phase II of the Project was also estimated using the *CEQR Technical Manual* child care multipliers. The population of public child care eligible children under age six was then added to the child care enrollment calculated in the Future With Phase II condition. According to the *CEQR Technical Manual*, if a proposed action would result in a demand for slots greater than remaining capacity of child care centers, and if that demand constitutes an increase of 5 percent or more of the collective capacity of the child care centers serving the area of the proposed action, a significant adverse impact may result.

EXISTING CONDITIONS

There are 27 publicly funded group child care facilities within the study area (see **Figure 4B-2**). These child care facilities have a total capacity of 2,114 slots and have 0 available slots (100 percent utilization). **Table 4B-6** shows the current capacity and enrollment for these facilities. Family based child care facilities and informal care arrangements provide additional slots in the study area, but these slots are not included in the quantitative analysis.

FUTURE WITHOUT PHASE II

In the No Action condition, it is conservatively assumed that approximately 2,969 new affordable housing units will be developed in the 1½-mile study area by 2035.¹ This includes the 214 low-income affordable units that would be developed as part of Phase I of the Project. Based on the CEQR generation rates for the projection of children eligible for publicly funded day care the 2,969 Future Without Phase II affordable units would introduce approximately 528 new eligible children, 38 of which would be attributable to Phase I of the Project. It is conservatively assumed for this analysis that no new child care capacity will be created in the Future Without Phase II.

¹ Based on the conservative assumption that 20 percent of units in developments of 20 or more units would be occupied by low- or low/moderate-income households meeting the financial and social criteria for publicly funded child care.

Table 4B-6
Publicly Funded Child Care Facilities Serving the Study Area

Map ID ¹	Name	Address	Enrollment	Capacity	Available Slots	Utilization Rate
1	Marcy Children's Center	494 Marcy Avenue	49	49	0	100%
2	Our Children the Leaders of Tomorrow 1	756 Myrtle Avenue	85	85	0	100%
3	Yeled v' Yalda 712	712 Bedford Avenue	37	37	0	100%
4	United Academy Inc. 1	722 Wythe Avenue	144	144	0	100%
5	Yeshivath Kehilath Yakov 6	644 Bedford Avenue	60	60	0	100%
6	BCS Duffield Childrens Center	101 Fleet Place	40	40	0	100%
7	Warren Street Center	343 Warren Street	69	69	0	100%
8	Helen Owen Carey CDC	71 Lincoln Place	74	74	0	100%
9	Strong Place for Hope Day Care, Atlantic Avenue	460 Atlantic Avenue	100	100	0	100%
10	B'Above 32	799 Kent Avenue	90	90	0	100%
11	Bedford Styvesant ECDC 260	260 Jefferson Avenue	37	37	0	100%
12	Bedford Styvesant ECDC 262	262 Lexington Avenue	57	57	0	100%
13	Friends of Crown Heights 10	1491 Bedford Avenue	77	77	0	100%
14	Friends of Crown Heights 2	671 Prospect Place	142	142	0	100%
15	Friends of Crown Heights 9	813 Sterling Place	165	165	0	100%
16	The Salvation Army, Bedford	110 Kosciusko Street	38	38	0	100%
17	Bedford Styvesant ECDC 510	510 Quincy Street	105	105	0	100%
18	B'Above 50	87 Putman Avenue	30	30	0	100%
19	ACE Early Childhood Center	199 14th Street	55	55	0	100%
20	Shirley Chisholm Day Care Center Site 2	333 14th Street	92	92	0	100%
21	Strong Place for Hope Day Care, 2nd Street	333 2nd Street	70	70	0	100%
22	Park Place Day Care Center	963 Park Place	80	80	0	100%
23	Yeled v'Yalda 667	667 Eastern Parkway	77	77	0	100%
24	All My Children Daycare 11	317 Rogers Avenue	88	88	0	100%
25	Friends of Crown Heights 11	995 Carroll Avenue	77	77	0	100%
26	Strong Place for Hope Day Care, Clinton Street	595 Clinton Street	100	100	0	100%
27	Bedford Styvesant ECDC 5Q	5 Quincy Street	76	76	0	100%
Total:			2,114	2,114	0	100%
Note:	¹ See Figure 4B-2 for child care facility locations					
Source:	ACS, June, 2013.					

Based on these assumptions, the number of enrolled children will exceed available slots in the Future Without Phase II, as utilization will increase to 125 percent. As described above, there is currently no surplus of slots in public child care programs in the study area. When the estimated 528 children under age six introduced by planned development projects are added to this total, there will be a deficit of 528 seats in publicly funded child care programs in the study area.

FUTURE WITH PHASE II

Phase II would introduce 160 eligible children to the child care study area, based on 900 affordable units that would be targeted to households earning up to 80 percent AMI. Although Phase II would introduce 1,800 affordable units, 1,080 of these units would be in Income Bands 1, 2, and 3, which would be targeted to households with incomes ranging from 30 to 100 percent of AMI (see Chapter 4A, “Operational Socioeconomic Conditions”). Of the 360 Phase II units in Income Band 3, approximately 180 would be expected to accommodate households earning less than 80 percent AMI. Therefore, this analysis is based on 900 units. This approach is consistent with the 2009 Technical Memorandum, while the 2006 FEIS analysis did not exclude units for households earning 80 to 100 percent of AMI from the child care analysis. Although ten percent of the Project’s affordable units would be set aside for senior citizens—which are unlikely to generate demand for child care slots—this assessment does not adjust projected child care demand to account for senior citizen-occupied units.

To provide a conservative analysis, it is assumed that all of the 900 Phase II units targeted to households earning up to 80 percent AMI would meet the financial and social eligibility criteria for publicly funded child care. Based on CEQR child care multipliers, this development would generate approximately 160 children under the age of six who would be eligible for publicly funded child care programs.

As noted above, the Project sponsors are obligated to construct on the project site and arrange for the long-term operations of a licensed child care center that can accommodate at least 100 children with publicly funded vouchers and to assess child care enrollment and capacity in the study area as the Project progresses and, if necessary, work with ACS to provide up to approximately 250 additional child care slots either on-site or in the vicinity of the site to meet Project-generated demand.

With the addition of the additional Phase II children and 100 child care slots, child care facilities in the study area would operate at 126.58 percent utilization, with a deficit of 588 slots—160 of which would be attributable to Phase II (see **Table 4B-7**). Total enrollment in the study area would increase to 2,802 children, compared with a capacity of 2,214 slots, which represents an increase in the utilization rate of 1.58 percentage points over the No Action condition. As noted above, the *CEQR Technical Manual* guidelines indicate that a demand for slots greater than the remaining capacity of child care facilities and an increase in demand of 5 percent of the study area capacity could result in a significant adverse impact. With 100 new Project-generated slots, the increase in the utilization rate attributable to Phase II is 1.58 percent, which would not exceed the *CEQR Technical Manual*'s 5 percent threshold for a significant adverse impact.

Table 4B-7
Estimated Public Child Care Facility Enrollment, Capacity, and Utilization:
Future With Phase II

	Enrollment	Capacity	Available Slots	Utilization Rate	Percent Change from No-Action to With-Action
Future Without Phase II	2,642	2,114	-528	125.00%	N/A
Future With Phase II (100 new Slots)	2,802	2,214	-588	126.58%	1.58%

Source: ACS (June 2013)

As noted above, the Project sponsors are obligated to work with ACS to provide 250 additional child care slots, if necessary to meet Project-generated demand. Overall, using the most recent CEQR multiplier, Phase I and Phase II of the Project would generate demand for 198 slots, comprising 38 slots from Phase I development, and 160 slots from Phase II development. As noted above, CEQR methodology requires estimating the number of new children eligible for publicly-funded child care services in the Future Without Phase II, based on anticipated development projects in the study area (including Phase I of the Project). CEQR methodology does not provide a basis for estimating new child care capacity in the Future Without Phase II. However, it is likely that new capacity would be created by 2035 to meet additional child care demand, although no new capacity is assumed in the SEIS analysis. Therefore, the analysis provided is conservative in that it likely overstates future enrollment deficits, since the analysis accounts for enrollment growth but no new capacity, in the Future Without Phase II.

Several factors may reduce the number of children in need of publicly funded child care slots in ACS-contracted child care facilities. Families in the study area could make use of alternatives to publicly funded child care facilities. There are slots at homes licensed to provide family based

child care that families of eligible children could elect to use instead of public center child care. As noted above, these facilities provide additional slots in the study area but are not included in the quantitative analysis. Parents of eligible children are also not restricted to enrolling their children in child care facilities in a specific geographical area and could use public child care centers outside of the study area.

This analysis is based on current child care capacity and represents a snapshot in time. If the capacity of child care centers in the study area changes in the future, the Project's need for child care slots could change. As noted above, the Project sponsor will monitor child care enrollment and capacity in the study area as the Project progresses, and to the extent necessary to avoid a significant adverse impact, make arrangements with one or more duly licensed day care providers for the long-term operation of a duly licensed child care center (or centers) that would accommodate approximately 250 additional children, either on or in the vicinity of the project site. In light of the small increase in child care utilization of less than two percent that is attributable to Phase II identified in this SEIS, and the Project sponsor's commitment to monitor and, if necessary, provide approximately 250 additional child care slots, there would be no new significant adverse impacts on publicly funded day care facilities in the study area.

COMPARISON OF SEIS FINDINGS AND PREVIOUS FINDINGS

Consistent with the 2006 FEIS, this analysis finds that, with the mitigation measures previously committed to by the Project sponsor, Phase II of the Project under the Extended Build-Out Scenario would not result in significant adverse impacts to publicly-funded child care capacity in the study area.

The 2006 FEIS did not identify any significant adverse child care impacts. However, the analysis of publicly funded child care facilities in the 2009 Technical Memorandum found that the updated background conditions and updated methodologies (i.e., new CEQR generation rates for child care eligible children) would result in additional demand for publicly funded child care facilities in the study area, which could result in a shortfall of child care slots in the 2019 future with the Project. At the time of the 2006 FEIS, a 100-seat child care facility was planned as part of the Project. As per the MEC, the Project sponsors are obligated to construct on the project site and arrange for the long-term operations of a licensed day care center that can accommodate at least 100 children with publicly funded vouchers and to assess child care enrollment and capacity in the study area as the Project progresses and, if necessary, work with ACS to provide up to approximately 250 additional child care slots either on-site or in the vicinity of the site to meet Project-generated demand.

This SEIS considers whether changed background conditions or changed methodologies since the 2006 FEIS and 2009 Technical Memorandum would result in any new or changed significant adverse impacts. Changed background conditions include new enrollment data and updated enrollment projections. With regard to methodology, the *CEQR Technical Manual* calls for an analysis for a 1.5 mile study area, whereas the 2006 FEIS and 2009 Technical Memorandum analyzed child care facilities within a 1-mile study area. The current multiplier for calculating demand for child care slots (0.178 eligible children¹ per unit of affordable housing for

¹ The *CEQR Technical Manual* multiplier is based on 2005-2007 American Community Survey data for children under age 6, at 200 percent Federal Poverty Level or below, and has been adjusted to exclude eligible children who would be expected to utilize family-based or informal child care services.

households earning up to 80 percent AMI) has also changed¹. As a result of this change, the number of eligible children that would be introduced by Phase I and Phase II of the Project (198) is much lower than the number projected in the 2006 FEIS (486) and the 2009 Technical Memorandum (537). As per the MEC, the Project sponsors are obligated to construct on the project site and arrange for the long-term operations of a licensed day care center that can accommodate at least 100 children with publicly funded vouchers and to assess child care enrollment and capacity in the study area as the Project progresses and, if necessary, work with ACS to provide up to approximately 250 additional child care slots either on-site or in the vicinity of the site to meet Project-generated demand.

The SEIS analysis finds that, accounting for changed CEQR methodology and background conditions, Phase II of the Project (including demand from Phase I of the Project in the Future Without Phase II and including the provision of a 100-slot child care facility) would result in a less than two percent increase in study area child care facility utilization. Therefore, construction of Phase II under the Extended Build-Out Scenario does not approach the *CEQR Technical Manual* significant adverse impact threshold of a five percent increase in utilization. *

¹ The corresponding ratios in the 2006 FEIS were 0.37 children per low-income unit and 0.34 children per low- to moderate-income unit. The corresponding ratio in the 2009 Technical Memorandum was 0.53 children per low-income and low- to moderate-income unit.