



NYC Parks

MEMORANDUM

TO: Alexander McClean, NYC DCP
Stephanie Shellooe, NYC DCP

FROM: David Cuff, AICP, Director of Environmental Review

RE: 960 Franklin Avenue Rezoning EIS (CEQR # 19DCP095K)

DATE: December 20, 2019

CC: Colleen Alderson, NYC Parks
Emily Humes, NYC Parks
Olga Abinader, NYC DCP

The Department of New York City Parks and Recreation (NYC Parks) has received the request to review the Natural Resources, Shadows and Open Space chapters of the 960 Franklin Avenue Rezoning EIS. Our comments for each chapter is presented in its respective section, below.

NATURAL RESOURCES

NYC Parks has reviewed the revised Natural Resources Chapter for the 960 Franklin Avenue Rezoning EIS ("09-NatRes-960FranklinAv_Rev20190924.PDF") as well as the Arborist Report¹ dated September 20, 2019 (Appendix 4 of the EIS). NYC Parks does not agree that the information in the Natural Resources Chapter or the Arborist Report provides a basis to conclude that project-generated shadows would not lead to significant adverse impacts to natural resources. In fact, assertions found in both the Natural Resources Chapter and the Arborist Report would indicate that the proposed project would potentially lead to a significant adverse impact to natural resources, specifically to natural resources found in the Brooklyn Botanic Garden (BBG), due to the project-generated shadows. When discussing the potential for impacts to BBG the Natural Resources Chapter states, "the study concluded that in general there would be a potential for long-term impacts such as reduction in flowering, turning of flowers towards light sources, and slowing of the rate of plant growth." Further, the Arborist Report states "The PAR readings suggest that there is reason to believe that the added shadows will have a definite effect on the high-light-demanding plants over time. As all experts agreed, there is not enough data for each species to tell ahead of time how it will react. That said, it is likely that some of the plants will be significantly affected by the reduction in available light."

NYC Parks is concerned that the assessment presented in the Natural Resources chapter used too narrow a focus to assess the potential for natural resources impacts to BBG and does not present a complete picture of the sunlight needs of natural resources present at BBG. As an example, the revised Natural Resources Chapter determines - using the Arborist Report as its

¹ *A Report on the Potential Effects of Shadows that would be Cast by Proposed Buildings at 960 Franklin Avenue on the Greenhouses of the Brooklyn Botanic Garden*, September 20, 2019.



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basis - that “Based on the expert interviews, the study concluded that a minimum of 4-6 hours of light is necessary for plant survival, and 6-8 hours is needed during the growing season for healthy growth.” It is important to note that the next two sentences of the Arborist Report are omitted that qualify this statement by stating, “There was disagreement on this point, with some experts saying 8-10 hours is necessary. It is especially important to maximize light during the short days of the northeastern winter, so shading at that time may cause the most serious issue.”

It is important to bear in mind that the *CEQR Technical Manual* presents guidelines for environmental review and the specific characteristics the project area should be taken into consideration when assessing the potential for significant adverse environmental impacts. The Brooklyn Botanic Garden, as stated in the Natural Resource Chapter, “contains over 18,500 kinds of plants, with globally rare species and native rare species.” And, in the words of the Arborist Report, is “among the nation’s most important urban botanical gardens. It focuses on presenting to a large urban public as full a living picture of the world’s plants and gardens as possible;” the Arborist Report further states, “it is very important that the extremely broad range of plants be displayed to best effect for the thousands of yearly visitors.”

Given the importance of BBG as a New York City institution and open space resource with a valuable array of unique natural resources present, a natural resources assessment should assess the potential for impacts based on thresholds that prioritize sunlight duration “healthy growth” and not an assessment based on the sunlight necessary for “plant survival.” The specific sunlight needs of the species found at BBG should be considered when disclosing the potential for impacts to Natural Resources. It is not sufficient to apply general CEQR guidelines to determine impacts and not recognize BBG’s role as a horticultural institution with a wide variety of plant species from representative world climates.

The Natural Resource Chapter focuses on the most critical areas of BBG to determine the potential for significant adverse Natural Resources impacts, i.e., the greenhouses and other growing spaces that are due west of the project site. The greenhouses and ancillary areas have plant species with the greatest sunlight requirements at BBG as plant representatives of different parts of the world, for example, tropical and equatorial regions of the world. The species found in the greenhouses require conditions that mimic their natural environment, for both the energy and warmth received from sunlight in their natural habitat. Furthermore, these plants cannot be moved to other parts of the garden, thus, their health depends on their location in the greenhouses and ancillary areas. Below is the assessment of the greenhouse areas, as presented in the Natural Resources Chapter, followed by an evaluation by NYC Parks that draws from the Arborist Report, as well as our own due diligence review of the areas of concern in BBG and the plant species present.

- Greenhouses A-C are respectively, the Desert Plants Education Greenhouse, the Warm Temperate Plants Education Greenhouse, and the Tropical Plants Education Greenhouse. These non-public greenhouses would be shaded primarily during the winter and would typically have 5 hours or above of sunlight daily (minimum of 4 hours). These greenhouses would not be shaded during the growing season.
- According to the CEQR Technical Manual, the growing season is considered March to October. Table 6-5 of the EIS Shadows Chapter shows an incremental shadow on Greenhouse A-C during the March/September analysis period. Thus, the statement that



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“these greenhouses would not be shaded during the growing season” does not appear to be substantiated. In addition, the Greenhouses are used to propagate plants for desert, tropical and warm temperate climates that require full, year-round sun including sunlight during the important winter months. According to the “Durations and Seasons: BBG Greenhouses” Table in the Arborist Report, the Greenhouse area would experience incremental shadow durations of up to 2.25 hours during the shorter winter months when shading is a concern for the resources found in this location.

- Greenhouses D, E and F are the Warm Temperate, Tropical and Desert Pavilions. These greenhouses are very little shaded or not shaded at all during the deep winter months. However, even very limited winter shading could have some long-term cumulative effect according to some of the experts consulted. Although all three of these greenhouses receive considerably more morning shade during the height of the growing season – from April through August – each still receives at least 7-8 hours of sun during the day, and sometimes 9-10 hours of sun.
 - While the Natural Resource Chapter asserts Greenhouses D, E, and F receive little to no winter shading, according to the tables found in the Arborist Report, all would receive some winter shading - with the warm temperate pavilion losing up to 1.25 hours of important winter sunlight. During the March to October time period, all three pavilion building would experience a loss of sunlight, as shown in the shadow duration tables found in the Arborist Report. The Desert Pavilion, where plants are located specifically to maximize sunlight exposure and duration, would lose up to 3.25 hours of sun that would likely lead to declining health of the cacti and other specimens found in the pavilion. The Tropical Pavilion, which exhibits plants native to the tropical regions of Africa, South America and Asia, with plantings arranged similarly to the dense vegetation found in tropical areas (where full-day sun exposure is necessary to allow sunlight to filter through the tree canopy to lower growth layers), would lose up to 2.75 hours of sun. The Warm Temperate Pavilion plantings, which have high sunlight requirements typical of warm temperate climates (e.g., the Mediterranean, South Africa) around the world and are specifically tiered to maximize sunlight duration and light levels, would lose 2.75 hours of sun.
- Greenhouses G, H and I represent the Bonsai Museum, the Conservatory Entry House and the Orchid Collection, respectively. All receive at least 6 hours of sunlight during the important winter months. All receive 7-10 hours of sunlight through the height of the growing season. Again, some effects may occur when the sunlight hours are less than 8, but the effects are not likely to be dramatic. The Entry House has many tropical plants that prefer some shade, and the Bonsai house currently uses shade cloth to reduce incident sunlight. In the case of the Bonsai collection, some adjustments might simply be made by reducing the use of the shade cloth.
 - The “Durations and Seasons: BBG Greenhouses” Table in the Arborist Report shows a loss of over three hours for all three sites of this area during the March to October time



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period, with the Aquatic and Orchid House losing up to 3.75 hours of sunlight. The loss of light in this area during the critical winter months would be up to 1.75 hours. The tropical and sub-tropical species in the Aquatic and Orchid house and the Conservatory Entry House all require full, all-day sunlight and some of the orchids would likely no longer flower under the projected loss of sunlight to the orchid collection. The bonsai trees exhibited in the Bonsai House are exhibited on a rotating basis from BBG's collection of bonsai trees, the shade cloths affords BBG the opportunity to recreate a wide range of sunlight conditions, depending on the bonsai trees on display.

- Greenhouses J, K, L, M, N, and O are workhouses and propagation houses and are artificially lit. These greenhouses were not available to arborist to observe directly. They may be shaded by existing tall evergreens, especially in the morning hours. These greenhouses often receive only in the 5-6 hour range during the winter. They receive 7-9 hours of sunlight during the growing season.
 - The workhouses are the growing area for the many collections of BBG, including the Desert, Tropical and Warm Temperate pavilions, as well as the orchid collection. All plants in the workhouse have high sunlight requirements as the associated plants represent a wide-range of warm-weather climates, including humid tropical, desert, as well as warm temperate areas of the Mediterranean and South Africa (as discussed above). The orchids grown for the BBG orchid collection use a tiered staging designed to maximize access to sunlight. The workhouse area of BBG would lose up to 3.75 hours of sunlight during the March to October time period and up to two hours of sunlight in the important winter months.
- Greenhouses P, Q, R, S, T, U and V are nursery yards, propagation tunnels and production houses that serve the rest of the garden. There will be little or no shade in these greenhouses during the winter months. There will be 7-10 hours of sunlight during the height of the growing season. These greenhouses were not available to arborist to observe directly.
 - The facilities in this area, used to propagate new plants to supply BBG's varied plant collection (as discussed above) require full sun, year-round and would experience a loss of up to 3.75 hours in the March to October time period.

NYC Parks does not agree with the conclusion of the Natural Resources Chapter that "Overall, while the duration of the impact is long-term/permanent, the magnitude is relatively small effects on the productivity of well-established plants. Therefore, the impact of additional shading is not considered a significant adverse impact under CEQR." As discussed above, this conclusion ignores greenhouse areas that are used for propagation and production of new plants and would not be considered "well-established." Moreover, it does not attempt to correlate the more specific, year-round sunlight needs of plants from various warm-weather climates of the world present in the greenhouses, including tropical and desert. Instead, the conclusions are based on general claims of sunlight availability asserted for each greenhouse area with an emphasis on sunlight availability during a "growing season" that has less relevance for plants representing different climates of the world and different year round sunlight needs.

Based on a review of the Natural Resources Chapter and the supplemental information presented in the Arborist Report, the Natural Resources chapter should conclude that project-generated shadows would lead to an impact to Natural Resources. The Shadows Chapter of the EIS should disclose the significant adverse shadow impacts from the proposed project. Finally, as the BBG is considered an open space resource, the Open Space Chapter should also disclose a significant adverse impact to open space as a result of the project-generated shadows.

SHADOWS

The New York City Department of Parks and Recreation (NYC Parks) has reviewed the responses PHA provided in its September 23, 2019 memo to address NYC Parks comments in the 960 Franklin Avenue Rezoning DEIS dated August 30, 2019. What follows below is Parks original comments on the Shadows Chapter from August 30th, PHA's response provided in its September 23rd memo and NYC Park's follow-up response.

- 1. DCP/DPR Comment (8/30/2019): Per our comment on the Open Space chapter, add the Schoolyards to the Playgrounds site south of Jackie Robinson Park. Also consider including the public plaza seating area at the entrance to the Brooklyn Museum as well as the open plaza area at entrance to CUNY Medgar Evers College (Page 6-5).**

PHA Response: As requested, the schoolyards to playgrounds site south of Jackie Robinson Playground (i.e., P.S. 375K Community Playground) and the public plaza seating area at the entrance to the Brooklyn Museum have been added as separate resources in the shadows analysis. However, as detailed in the revised shadows analysis, the Tier 3 Screening Assessment determined that no shadows reach the public plaza seating area at the entrance to the Brooklyn Museum; as such, a detailed discussion of this area is not warranted. The open plaza area at the entrance to CUNY Medgar Evers College is not a publicly accessible open space; therefore, pursuant to *CEQR Technical Manual* guidance, a shadows analysis is not warranted for this area.

DPR Comment (Dec, 2019): NYC Parks has no further comment.

- 2. DCP/DPR Comment (8/30/2019): Outline BBG area in Figure 6.1 (Page 6-5).**

PHA Response: An outline of the BBG has been added to Figure 6-1, as requested.

DPR Comment (Dec, 2019): NYC Parks has no further comment.

- 3. DCP/DPR Comment (8/30/2019): Clarify if this building is part of BBG (Page 6-5).**

PHA Response: The Laboratory Administration Building is part of the BBG. However, it should be noted that according to a letter from the LPC dated 08/07/19 (see attached), the Laboratory Administration Building is not considered a sunlight-sensitive resource, and therefore, does not require a detailed shadows analysis. The shadows chapter has been updated accordingly.



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DPR Comment (Dec, 2019): No letter from LPC was provided as an attachment to the September 23, 2019 memo.

4. **DCP/DPR Comment (8/30/2019): Show associated graphics for this text to show that for three open space resources that include the Dr. Ronald McNair Park, Eastern Parkway Coalition Garden, Greenstreet and three historic resources that include the Brooklyn Museum would not receive project-generated shadows (Page 6-5).**

PHA Response: The Tier 3 Screening Assessment, including the graphics included in Figure 6-2a and Figure 6-2b, show the extent of the maximum shadows that are anticipated to be cast as a consequence of the Proposed Actions. The Tier 3 Screening was conducted pursuant to CEQR Technical Manual guidance. Each of the resources listed in the comment are labeled in the corresponding figures and, as shown in these figures, do not have the potential to experience project-generated shading at any time during the year.

DPR Comment (Dec, 2019): In the revised Shadows Chapter submitted, Figure 6-2b does not show the numbering for the 'Resources.'

5. **DCP/DPR Comment (8/30/2019): (1) Identify what the arrow directions represents. (2) Modify arrows to show direction of the sweep (Figure 6-2a).**

PHA Response: The Tier 3 Screening Assessment graphics provided in the shadows chapter are consistent with the *CEQR Technical Manual* guidance for tier 3 screening assessments.

DPR Comment (Dec, 2019): NYC Parks has no further comment.

6. **DCP/DPR Comment (8/30/2019): Show the incremental shadows in a different color and label in a legend (Figure 6-2a).**

PHA Response: Per CQR Technical Manual guidance, a Tier 3 screening assessment should be performed if any portion of a sunlight-sensitive resource is within the area that could be shaded by the proposed project. The Tier 3 screening assessment is used to determine whether shadows resulting from the proposed project can reach a sunlight-sensitive resource. Because the sun rises in the east and travels across the southern part of the sky to set in the west, a project's earliest shadows would be cast almost directly westward. Throughout the day, they would shift clockwise (moving northwest, then north, then northeast) until sunset, when they would fall east. Therefore, a project's earliest shadow on a sunlight-sensitive resource would occur in a similar pattern, depending on the location of the resource in relation to the project site. The screening assessment introduces the use of three-dimensional computer modeling soft-ware with the capacity to accurately calculate shadow patterns. Per CEQR, the model should include (i) three-dimensional representations of the elements of the base map de-scribed above; (ii) a "reasonable worst case" three-dimensional representation of the proposed project; and (iii) the three-dimensional representation of the topographic information within the area being analyzed. At this stage of the assessment, the surrounding buildings should not be included in the model so that it may be determined whether shadows from the proposed project would reach a sunlight-



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sensitive resource. The surrounding built context is included in the next tier of analysis. Therefore, the incremental shadows are not to be shown in the Tier 3 Screening Assessment, as is consistent with CEQR Technical Manual guidance.

DPR Comment (Dec, 2019): NYC Parks has no further comment.

7. ***DCP/DPR Comment (8/30/2019): (1) Show the whole BBG property map as these figures don't show gardens, water bodies, walking paths, etc. (2) Include intervening buildings as provided in the detailed analysis for the next steps (Figure 6-2a).***

PHA Response: The graphics have been updated to show the entire BBG property. Open space features, such as the BBG's gardens, water bodies, and walking paths, are included in the detailed shadows analysis figures. Additionally, as indicated in the response above, per CEQR Technical Manual guidance, the Tier 3 Screening Assessment does not show intervening buildings. Therefore, Figure 6-2a and Figure 6-2b do not show any intervening buildings.

DPR Comment (Dec, 2019): NYC Parks has no further comment.

8. ***DCP/DPR Comment (8/30/2019): Provide a map of all the facilities throughout the BBG (Page 6-6).***

PHA Response: As requested, a new map has been added which labels the individual BBG facilities, including conservatories, greenhouses, propagation houses, and nursery yards.

DPR Comment (Dec, 2019): NYC Parks has no further comment.

9. ***DCP/DPR Comment (8/30/2019): Provide specific amounts of direct sunlight that are required for each plant (Page 6-11).***

PHA Response: Chapter 9, "Natural Resources" provides a more detailed discussion of the sunlight requirements for the various growing areas that would be shaded and the anticipated ability of the BBG's plants to survive under incremental shading. Please refer to Chapter 9.

DPR Comment (Dec, 2019): As discussed at the beginning of this memo, NYC Parks does not agree with the conclusion of the revised Natural Resource Chapter that the project-generated shadows would not result in significant adverse impacts to natural resources present in BBG. Based on a review of the revised Natural Resources Chapter and the Arborist Report, NYC Parks contends that the project-generated shadows would lead to an impact on Natural Resources. Therefore, the Shadows chapter should be revised to summarize the project-generated shadow impacts to natural resources and disclose that the proposed action would lead to a significant adverse shadow impact.



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- 10. DCP/DPR Comment (8/30/2019): Note that Prospect Park is a scenic landmark and is also on the Natural Historic Register (Page 6-13).**

PHA Response: The chapter has been updated in response to this comment.

DPR Comment (Dec, 2019): NYC Parks has no further comment.

- 11. DCP/DPR Comment (8/30/2019): Provide the square footage of incremental shadow coverage (Page 6-14).**

PHA Response: The square footage is provided, as requested. Square footage of incremental shadow coverage is based on the worst-case time period during each representative analysis day.

DPR Comment (Dec, 2019): NYC Parks has no further comment.

- 12. DCP/DPR Comment (8/30/2019): Include the direct sunlight needs for BBG resources (Page 6-15).**

PHA Response: This is not a requirement in the *CEQR Technical Manual*. Please refer to Chapter 9, "Natural Resources" for a discussion of the sensitivity of BBG resources to the anticipated shading.

DPR Comment (Dec, 2019): Please see response to Comment 9, above. Please note, the CEQR Technical Manual provides guidelines for technical assessments, not requirements.

- 13. DCP/DPR Comment (8/30/2019): It is hard to follow the figures with associated text. Please move directly next to the associated text so the reader can follow along the analysis (Page 6-17).**

PHA Response: As there are a total of 48 detailed analysis figures that support the shadows chapter, the detailed analysis figures are purposefully placed at the end of the chapter for more comprehensive and fluid reading.

DPR Comment (Dec, 2019): NYC Parks has no further comment.

- 14. DCP/DPR Comment (8/30/2019): Provide the areas affected in terms of square feet and percentage of BBG total (Page 6-23).**

PHA Response: See response to Comment #11.

DPR Comment (Dec, 2019): NYC Parks has no further comment.

- 15. DCP/DPR Comment (8/30/2019): The Garden opens at 8am. Additionally, the public's use and enjoyment of the public garden are adversely affected if the shadows**



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diminish plant stability and propagation, and long-term ability of BBG to sustain its mission.

Thus, an analysis of the sunlight needs to be provided with amounts or sunlight provided with the proposed project (Page 6-23).

PHA Response: While BBG opens at 8 AM, the conservatory buildings are not publicly accessible until 10 AM. Please refer to Chapter 9, "Natural Resources" for a discussion of the sensitivity of BBG resources to the anticipated shading.

DPR Comment (Dec, 2019): See response to Comment 9, above.

- 16. DCP/DPR Comment (8/30/2019): Include graphics that zoom into the Prospect Zoo area affected by the incremental shadow. The graphics should support the description in this paragraph (Page 6-24).***

PHA Response: Updated graphics have been provided in the revised chapter, as requested.

DPR Comment (Dec, 2019): NYC Parks has no further comment.

- 17. DCP/DPR Comment (8/30/2019): A description of the shadow coverage over suggesting that it "would be limited to landscaped areas containing trees and shrubs just north of the zoo's main entrance" conflicts with Figure 6-3a showing the incremental shadows hit part of the building structure (Page 6-24).***

PHA Response: The Prospect Park Zoo facility that experiences incremental shadow coverage as depicted in the former Figure 6-3a (now Figure 6-5a) is a zoo administrative building that does not contain any sunlight-sensitive features. As such, the text on page 6-24 is correct.

DPR Comment (Dec, 2019): NYC Parks has no further comment.

- 18. DCP/DPR Comment (8/30/2019): Identify the zoo's exhibits on the March 21/September 21 analysis day (Page 6-24).***

PHA Response: The zoo's permanent exhibits are identified in the new Figure 6-4a.

DPR Comment (Dec, 2019): NYC Parks has no further comment.



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- 19. DCP/DPR Comment (8/30/2019): Provide more details on the landscape and plantings in Prospect Park that will be affected by the incremental shadows. It is understood that there are many raised beds in the affected area, and these requires about 6-8 hours of direct sunlight in the summer (Page6-24).**

PHA Response: The reference to 6-8 hours of direct sunlight is not a CEQR reference and no additional information has been provided by DCP or DPR to explain why 6-8 hours of direct sunlight would be required at this specific location. Per *CEQR Technical Manual* guidance, "Generally, four to six hours a day of sunlight, particularly in the growing season, is a minimum requirement." As the landscape and plantings in Prospect Park include plants that can tolerate conditions in New York City, CEQR guidance was followed in terms of direct sunlight requirements.

DPR Comment (Dec, 2019): NYC Parks has no further comment.

- 20. DCP/DPR Comment (8/30/2019): Note how many hours of sunlight the zoo area still receives. Prospect Park Zoo contains areas planted with an extensive array of plants requiring 6-8 hours of sunlight (Page 6-24).**

PHA Response: As noted above in response to Comment #19, the reference to 6-8 hours of direct sunlight is not a CEQR reference and no additional information has been provided by DCP or DPR to explain why 6-8 hours of direct sunlight would be required at this specific location. Per *CEQR Technical Manual* guidance, "Generally, four to six hours a day of sunlight, particularly in the growing season, is a minimum requirement." As the landscape and plantings in Prospect Park include plants that can tolerate conditions in New York City, CEQR guidance was followed in terms of direct sunlight requirements.

DPR Comment (Dec, 2019): NYC Parks has no further comment.

- 21. DCP/DPR Comment (8/30/2019): Provide a site map for the Jackie Robinson Playground with a shadows graphic (Page 6-26).**

PHA Response: As requested, an updated graphic has been provided to include more details about the Jackie Robinson Playground.

DPR Comment (Dec, 2019): Based on a review of the site map graphic and the shadows assessment put forth in the EIS, project-generated shadows would appear to lead to a significant adverse impact on Jackie Robinson Playground. During three of the four analysis periods the incremental shadow would cast a substantial area of shadow across the playground in the afternoon, particularly on the "Checker Tables and Bench Seating Area" used for passive recreation in the northwest corner of the resource. The incremental shadows, combined with the background no-action shadows, would eliminate much of the sun afforded to this park in the afternoon during three seasons, potentially affecting the park's appeal and usability by the local population.



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- 22. DCP/DPR Comment (8/30/2019): More detail about this building is required. The complete elimination of sunlight on a sunlight sensitive resource is a red flag (Page 6-29).**

PHA Response: As noted above in response to Comment #3, the Laboratory Administration Building does not contain any sunlight-sensitive features, and as such, does not require a detailed shadows analysis.

DPR Comment (Dec, 2019): See response to Comment 3, above.

- 23. DCP/DPR Comment (8/30/2019): Some of the labels are hard to read in the smaller font (Figure 6-3a).**

PHA Response: The shadows graphics were updated to provide labels that are easier to read. However, after increasing the size of the BBG exhibit labels, the figures became too cluttered with text, thus blocking much of the visual information provided in the figures. As such, the small-font labels were increased in size only marginally.

DPR Comment (Dec, 2019): NYC Parks has no further comment.

- 24. DCP/DPR Comment (8/30/2019): Adjust font sized so there is appropriate hierarchy for the park, entities within the park, and buildings within an entity. For example, Steinhardt Conservancy should be in smaller font than Prospect Park (Figure 6-3a).**

PHA Response: The shadows graphics have been updated to reflect an appropriate font hierarchy.

DPR Comment (Dec, 2019): NYC Parks has no further comment.

- 25. DCP/DPR Comment (8/30/2019): Please use a different color for the greenhouse facility since blue creates the appearance of water bodies (Figure 6-3a).**

PHA Response: As the shade of blue used to depict water features is darker than the shade of blue used to depict greenhouses (which was intentionally chosen as it simulates the appearance of glass), "Water Features" were added as an additional legend item to avoid any confusion.

DPR Comment (Dec, 2019): NYC Parks has no further comment.

- 26. DCP/DPR Comment (8/30/2019): Add building labels directly to the map (Figure 6-3e).**

PHA Response: Adding building labels to the figures presenting incremental shadows on the Steinhardt Conservatory and Hardy Plant Nursery Yard creates too much clutter and makes the figures difficult to interpret. The current labels are keyed to Tables 6-3 and 6-5.

DPR Comment (Dec, 2019): NYC Parks has no further comment.



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27. DCP/DPR Comment (8/30/2019): An analysis of sunlight needs should be included to identify what facilities need specific amounts and what they will receive with the proposed development (Figure 6-3e).

PHA Response: Please refer to Chapter 9, "Natural Resources" for a discussion of the sensitivity of BBG resources to the anticipated shading.

DPR Comment (Dec, 2019): See response to Comment 9, above.

28. DCP/DPR Comment (8/30/2019): Are existing shadows are in grey? Please clarify by adding to the legend (Figure 6-3e).

PHA Response: Existing shadows and incremental shadows that do not fall on a sunlight-sensitive resource are both depicted in a shade of grey. Therefore, to include an "existing shadows" item in the legend would result in misleading and inaccurate information in many of the figures. Furthermore, PHA has received comments on other past projects from both DCP and DPR that have asked to remove the "existing shadow" legend item from the detailed figures for this very reason.

DPR Comment (Dec, 2019): NYC Parks has no further comment.

OPEN SPACE

NYC Parks has reviewed the revised Open Space Chapter sent on September 12, 2019 ("05_OS_960FranklinAv_REV2019-09-12.PDF") that responds to NYC Parks' comments embedded in PDF file of the previously submitted Open Space Chapter ("05_OpenSpace-960FranklinAv_5-17-19 jm.PDF"). We have the following comments on the revised Open Space Chapter:

1. **Figure 5-2** - In the previously submitted Open Space Chapter, NYC Parks made a comment about CUNY Medgar Evers College. Please provide a response to Parks confirming this comment was considered and how it was addressed.
2. **Table 5-2** - In the previously submitted Open Space Chapter, NYC Parks had a comment to add "spray shower" that does not appear to have been added to the table.
3. **Page 5-10** - In the previously submitted Open Space Chapter, NYC Parks commented to note in discussion that resources are "open to the public during non-school hours." This comment does not appear to have been addressed. (Comment was shown on Page 5-7 of previously submitted Open Space Chapter.)
4. **Page 5-12** – The discussion here should explain why the acreage of BBG is included in the assessment. Moreover, in order to contrast BBG, which has free admission for children under 12 years old and a generous policy of free entry times throughout the year, the discussion in this section regarding the Prospect Park Zoo should include a statement that the zoo charges an entrance fee for children over 2 years old and there are no times with free admission. This information will serve to clarify why the acreage of the BBG was included in the open space assessment and not the acreage of the Prospect Park Zoo.



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5. **Page 5-14** – With regard to this statement in the Open Space Chapter: “Additionally, as detailed in Chapter 6, “Shadows,” project-generated incremental shadows on Prospect Park, the Brooklyn Botanic Garden, and Jackie Robinson Playground would not threaten the viability of vegetation or significantly alter the use of these open space resources;” as discussed at the beginning of this memo, NYC Parks does not agree with the assessment presented in the Natural Resource Chapter that concludes there would be no significant adverse impacts to natural resources present in BBG from project-generated shadows. NYC Parks asserts that there would be a significant adverse impact to natural resources as a result of the proposed project; thus, the project would lead to a significant adverse open space impact, as BBG is considered an open space resource. In addition, as discussed above, project-generated shadows on Jackie Robinson Playground would have a significant adverse impact on this resource. The Open Space Chapter should be revised to disclose the impact to open space resources in the study area.
6. **Page 5-16** – Please provide more information regarding on-site open space including 17,959 square-foot plaza and private rooftop areas with open space. If these areas are private, what mechanism ensures remain open space? Will the plaza area be made public, or, will there be some type of easement? If the 7,340 square-foot area described in this section is just landscaping it should not be discussed in the Open Space Chapter.