Chapter 17: Alternatives

A. INTRODUCTION

As described in Chapter 1, "Project Description," based on projections issued by the national Centers for Disease Control, Memorial Sloan Kettering Cancer Center (MSKCC) expects that new cancer cases in New York City will increase from the current rate of 40,000 annually to 60,000 annually by 2050. While this increase is a projection among all age groups, this rise is being driven by two populations: older patients, whose cases are more acute and require more complex treatment, and younger patients who are being diagnosed with prostate, colon, and breast cancer at alarming rates. To meet this increase in patient volume and the new interventions that are needed to treat the growing number of acute cases, MSKCC will need to supplement its existing capacity with a purpose-built structure with 28 operating rooms (with four dedicated to interventional radiology procedures) and patient beds including intensive care unit (ICU) and single rooms for immunocompromised patients, as well as medical support areas.

To fulfill this need, MSKCC is requesting a series of zoning actions to establish a building envelope to facilitate the development of a new 31-story (up to 598.3 feet including mechanical bulkhead), approximately 903,065 gross square foot (gsf) inpatient hospital building (the Proposed Project), also referred to as the "MSK Pavilion." It would be located on York Avenue between East 66th and East 67th Streets and would consist of 28 operating rooms, including recovery and intensive care facilities, up to 206 single-bedded patient rooms, clinical support, a two-story lobby, and 5 mechanical floors to house intensive technologies and air exchange systems. A double-height patient bridge across East 67th Street (Patient Bridge) connecting floors 5 and 6 of the Proposed Project with floors 8 and 9 of the Memorial Hospital building would serve as the primary connector for patients in either building to access medical services in the other building.

City Environmental Quality Review (CEQR) requires that alternatives be considered that would avoid or reduce the potential significant adverse impacts. This chapter considers such alternatives, including the No Action Alternative and a Reduced Height Alternative that would reduce the shadows reaching the windows of St John Nepomucene and the northern half of the historic landscape at Rockefeller University. Additional significant adverse impacts were identified for construction traffic and construction noise. However, those could be partially or fully mitigated by other means than an alternative.

PRINCIPAL CONCLUSIONS

NO ACTION ALTERNATIVE

The No Action Alternative is the "Future without the Proposed Actions," or "No Action condition," described in Chapter 1, "Project Description," and analyzed in Chapters 2 through 15.

Absent the Proposed Project, the Sloan and Scholars buildings would remain on the Development Site. There would be no patient bridge connection to Memorial. Without the Proposed Project

MSKCC would lack the 28 operating rooms to meet the anticipated surge in demand for complex surgeries for acutely ill patients that is expected to steadily increase through 2050.

All of the existing residents and administrative office workers would remain on the Development Site, while no new patients, visitors, or health care staff would replace them.

With the No Action Alternative, none of the impacts or changes resulting from the Proposed Project identified in the other chapters of this EIS would occur. There would be no changes in land use or zoning, no improvements to health care facilities. There would be no increase in the shadows falling on the windows of the Church of St. John Nepomucene. There would be no increase in traffic and consequently no impact in the weekday PM peak hour at the westbound approach of First Avenue and East 67th Street requiring mitigation. There would be no construction of the Proposed Project and hence no construction period traffic or construction noise impacts requiring mitigation.

REDUCED HEIGHT ALTERNATIVE

CEQR requires that alternatives be considered that would avoid or reduce the potential significant adverse impacts. As described in Chapter 5, "Shadows," the Proposed Project would cause significant adverse shadow impacts. In order to avoid the significant adverse shadows impact on the stained-glass windows in the Church of St. John Nepomucene, this alternative would be approximately 380 feet tall (approximately 210 feet shorter than the Proposed Project). However, at this reduced height this alternative would not fulfill the purpose and need of the Proposed Project which is to address the anticipated future cancer patient needs with 28 new state-of-the-art operating rooms and up to 206 new single-bedded patient rooms. It is unlikely that any such smaller building (likely eliminating between 12 and 14 floors in the Proposed Project) could be used as a hospital accessory facility for surgical inpatient purposes given the likely significant loss of interstitial floor-to-floor heights for critical surgical technology components and air handling equipment; the effect of fewer operating rooms on the anticipated volumes of surgical caseloads; the loss of necessary floorspace for the program adjacencies critical to the complexities of the Applicant's highly specialized operating rooms; and the loss of patient beds with adjacency to the operating rooms and post-surgical facilities. While the reduction in height would result in no significant adverse impacts on the church's stained-glass windows, the Reduced Height Alternative would fail to meet the needs of MSKCC and the anticipated demand of the community it serves.

B. NO ACTION ALTERNATIVE

The No Action Alternative anticipates conditions in 2030 absent the Proposed Project. Under this scenario, the Sloan and Scholars buildings would remain on the Development Site and would continue to provide 355 contract housing units for professional staff and students for their terms of service or academic affiliation with MSKCC. The units would be fully occupied under the No Action condition. In addition, the buildings would continue to provide approximately 45,039 gsf of hospital administrative office space. The existing office space within the Sloan and Scholars buildings would continue to be occupied by departmental staff that support the administrative and operations.

As a Large Scale Community Facility Development (LSCFD), all future development modifying the 2001 LSCFD boundaries or zoning calculations within the Project Area boundaries is subject to regulation. Therefore, there are no as-of-right development opportunities within the Project

Area. If the Proposed Actions are not approved, the Proposed Project could not be built. The Applicant has determined that the Development Site is the only feasible site for the construction of the Proposed Project that can proceed without disruption or diminishment to existing hospital services.

LAND USE, ZONING, AND PUBLIC POLICY

Under the No Action Alternative continuation of existing residential and office uses on the Development Site would be compatible with existing land use in the surrounding area, as would the Proposed Project, and would not result in any significant adverse impacts to land use, zoning, or public policy. However, under the No Action Alternative, a new 31-story inpatient cancer care facility for MSK would not be built on the Development Site. Further, given the existing residential structures, the sizes of their floor plates, and the floor-to-floor heights, they would not be suitable for conversion to surgical suites or inpatient rooms. The Development Site would continue to be the only part of the 2001 LSCFD (other than St. Catherine of Siena church) that does not provide patient care and research facilities. The new zoning floor area explicitly created by the 2001 LSCFD zoning actions for a new hospital building within the LSCFD would remain unutilized floor area and available for further development within the LSCFD.

The No Action Alternative would not involve rezoning of the midblock area from R8 to R9 and would not modify the zoning regulations applicable to the 2001 LSCFD. However, continuing existing uses on the Development Site would not be consistent with, and supportive of, the public policies applicable to the Development Site and the study area. The No Action Alternative would not contribute to OneNYC's goals for growth, sustainability, resiliency, and equity; would not further the New York Works' goal of expanding new job opportunities in the life sciences and healthcare industry; and would not represent a new important step in the City's efforts to support the life sciences industry (LifeSci NYC). Further, the Applicant would continue to face capital maintenance of significantly underperforming and underutilized floor area, a critical issue to the healthcare institutions. The No Action Alternative would fall short of the Proposed Project in terms of supporting public policy goals for the study area.

COMMUNITY FACILITIES

In the No Action Alternative, the two existing buildings with contract housing and administrative offices on the lower floors would remain on the Development Site. The existing in-patient care facilities at MSKCC would not be significantly expanded, and any attempt to do so would require the elimination of existing treatment and inpatient facilities, thereby exacerbating the anticipated future shortfall of both. A new, 31-story state-of-the-art facility entirely devoted to in-patient care for acutely ill cancer patients that could be constructed without impinging on current levels of service would not be built. Twenty-eight new state-of-the-art operating rooms and the up to 206 new highly specialized single-bedded patient rooms and required support spaces would not be provided. A new pedestrian bridge would not link a new in-patient hospital to Memorial Hospital.

SHADOWS

As compared to the Proposed Project, the No Action Alternative would not increase shadows. It would not cast incremental shadows on six publicly accessible open spaces and five sunlight-sensitive historic resources, in one or more seasons. However, the shadows cast by the Proposed Project would be limited in extent and duration and would not substantially affect the use of the public open spaces, the health of their trees and plantings, or in the case of the historic resources,

the public's ability to appreciate the historic features. In particular, the No Action Alternative would not cause significant adverse shadow impacts to the stained-glass windows of St. John of Nepomucene Church.

OPEN SPACE

Similar to the Proposed Project, the No Action Alternative would not result in a significant adverse impact due to increased open space users, nor would it alter or eliminate any publicly accessible open space resources. It also would not add the approximately 2,800 sf of publicly accessible landscaped passive open space proposed north and south of entry lobby of the Proposed Project.

With the No Action Alternative all the existing open space users, both contract housing occupants and office workers, would remain; but no new hospital employees or visitors would come to the site and no new public open space would be provided on the Development Site. Existing green spaces around the two existing buildings on the Development Site would remain; however, they do not provide any public amenities, nor are they open to the public. The very minimal decrease in the passive open space ratio from 0.0683 acres per 1,000 non-residents to 0.0680 expected with the Proposed Project would not occur, but it is not considered a significant adverse impact anyway.

HISTORIC RESOURCES

Similar to the Proposed Project, the No Action Alternative would not result in any significant adverse impacts to historic or cultural resources. With the No Action Alternative, the two buildings on the Development Site, neither of which is considered an architectural resource, would remain in place.

Similar to the Proposed Project, the No Action Alternative would not result in any significant adverse visual or contextual impacts on architectural resources in the study area. While the Proposed Project would change the context of some nearby architectural resources, the No Action Alternative would not change the neighborhood context. Neither the Proposed Project nor the No Action Alternative would obstruct public views to historic architectural resources. As compared to the Proposed Project, the No Action Alternative would not cast any new shadows. Therefore, it would avoid the significant adverse shadow impact on the stained-glass windows of St. John Nepomucene. However, this is not considered an impact of the Proposed Project to historic resources because other features of the church which contribute to its historic importance would not be affected. Overall, similar to the Proposed Project, the No Action Alternative would not result in any direct or indirect adverse impacts to any of the known or potential architectural resources located in the study area.

URBAN DESIGN AND VISUAL RESOURCES

The No Action Alternative would not represent any change in urban design and visual resources. Similar to the Proposed Project, it would not result in significant adverse impacts to urban design or visual resources in the study area. By contrast to the Proposed Project, the No Action Alternative would not replace the Sloan and Scholars buildings (237 feet and 261 feet tall, respectively, with a combined 224,291 gsf) with a new 31-story (up to 598.3-foot-tall, including the mechanical bulkhead), approximately 903,065 gsf inpatient hospital building on the Development Site. A new building would not be added to the varied urban design character of the Project Area which includes older and newer buildings with masonry cladding, along with newer additions and the modern, 23-story (approximately 400-foot-tall) Zuckerman Research Center at 411 East 68th Street that has a primarily glass curtain wall with masonry panels at the base. There

would be no new recessed and landscaped pedestrian entrances on East 66th and East 67th Streets. There would be no new drive-through allowing patients and visitors to be dropped off under cover, although the current 263-space parking garage would remain in operation. There would be no glazed lobby to activate the Development Site, especially along York Avenue. A new two-story bridge connecting to MSKCC's Memorial Hospital on the block immediately to the north would not be provided. A new tall building would not take its place in the context of tall institutional buildings on the west side of York Avenue north of the Development Site. The strong streetwall that characterizes the west side of York Avenue north of and including the Development Site would not be reinforced.

Similar to the Proposed Project, the No Action Alternative would not adversely affect views to any study area visual resources. While the Rockefeller University campus is located across York Avenue from the Development Site, views to this visual resource would remain available from existing vantage points. While no significant adverse urban design impacts would result from the from the No Action Alternative, the existing Sloan and Scholars buildings would remain, and a new state-of-the-art inpatient hospital pavilion would not be added on the Development Site.

HAZARDOUS MATERIALS

With the No Action Alternative there would be no requirement that potential sources of contamination on, or near, the Development Site be investigated and remediated. The identified potential sources of contamination include: a closed-status petroleum spill which may have occurred on or near the Development Site; reported hazardous waste generation on the MSKCC campus (potentially including the Development Site) and in the surrounding area; and on-site chemical storage in the vicinity of floor drains. There would be no requirement for a Phase II Subsurface Investigation and subsequent Remedial Action Plan (RAP)/Construction Health and Safety Plan (CHASP) developed in consultation with the New York City Department of Environmental Protection (DEP). There would be no site remediation required and no Remedial Closure Report (RCR) prepared and submitted to DEP for review and approval.

With the No Action Alternative, there would be no required survey for hazardous materials in existing buildings (such as asbestos-containing materials [ACM], lead-based paint [LBP], and polychlorinated biphenyl [PCB]-containing equipment and lighting fixtures) and no requirement for maintenance and (if necessary) disposal of such materials.

WATER AND SEWER INFRASTRUCTURE

With the No Action Alternative there would be no increased demand for water and treatment of sewage. However, even with the Proposed Project, there would not be a significant adverse impact on the City's water supply, wastewater treatment, or stormwater management and treatment infrastructure.

TRANSPORTATION

TRAFFIC

The No Action Alternative would not generate any new vehicle trips, Therefore, similar to the Proposed Project, it would not result in any significant adverse traffic impacts. Existing traffic patterns on York Avenue, East 67th and East 66th Streets would remain as is without the proposed new parking East 67th Street ramps to alleviate congestion.

TRANSIT

The No Action Alternative would not generate any new transit riders. Therefore, similar to the Proposed Project it would not result in any significant adverse impacts to transit.

CITYWIDE FERRY SERVICE

The No Action Alternative would not generate any new ferry riders. Therefore, similar to the Proposed Project, it would not result in any significant adverse ferry impacts.

PEDESTRIANS

The No Action Alternative would not result in any new pedestrians. Therefore, similar to the Proposed Project it would not result in any significant adverse pedestrian impacts. Existing pedestrian patterns on York Avenue, East 67th and East 66th Streets would remain as is.

PARKING

The No Action Alternative would not increase the number of drivers needing parking spaces. Similar to the Proposed Project, it would not result in a parking shortfall or significant adverse parking impacts. Existing parking on York Avenue, East 67th and East 66th Streets would remain as is, and the several site access and circulation improvements that would be part of the Proposed Project would not be provided, including: a new through block driveway for better patient/visitor traffic circulation; parking garage improvements including operational improvements; a rebuilt parking entrance on East 66th Street for existing garage users; and new parking entrance on East 67th Street for vehicles exiting the through block driveway; or a new parking exit for all vehicles on East 67th Street.

STREET USER SAFETY

The No Action Alternative would not add the Proposed Project's modest pedestrian and vehicular trips to routes already traversed by heavy volumes at high crash locations in the study area. Neither the Proposed Project nor the No Action Alternative is expected to result in the potential for significant adverse safety impacts.

AIR QUALITY

The No Action Alternative would not generate any new vehicles; therefore, similar to the Proposed Project, it would not result in significant adverse impacts related to mobile source air quality. Since the existing buildings' heating and hot water needs are currently served by Con Edison steam, no on-site emissions would occur with the No Action Alternative, similar to the Proposed Project.

The analysis of the existing major and large source of emissions and of existing laboratory exhausts determined there would be no significant adverse air quality impact on the Proposed Project. However, under the No Action Alternative, the protections provided by the proposed air quality (E) Designation restrictions on placement of operable windows and air intakes would not be in place.

GREENHOUSE GASES AND CLIMATE CHANGE

With the No Action Alternative, a new energy efficient, sustainable, state-of the art inpatient cancer treatment facility that would both meet the needs for projected increased annual cancer rates and achieve reductions in building energy consumption would not be built on the Development Site. Retaining the Scholars and Sloan buildings in the No Action Alternative would not achieve the same reductions in energy use even through refurbishing the existing buildings because of the age of their mechanical infrastructure, the low residential-type floor-to-floor heights that preclude interstitial mechanical spaces of sufficient height and depth between floors to accommodate modern technology and air handling equipment and a 1970s-era residential skin/cladding). The Proposed Project would achieve reductions through a building design that incorporates building insulation and window glazing that would exceed building code requirements, sufficient floor-to-floor heights to accommodate high-efficiency air-handling equipment, heating systems, and roofing systems to reduce heating/cooling loads. The No Action Alternative would not incorporate the energy efficiency measures and design elements being considered for the Proposed Project to achieve Platinum-level certification under the Leadership in Energy and Environmental Design (LEED) for Building Design and Construction rating system, version 4.1, for Healthcare.

NOISE

As with the Proposed Project, there would be no significant adverse noise impacts with operation of the No Action Alternative, as changes in vehicular traffic in the future without the Proposed Project would not result in sufficient traffic to cause a significant increase in noise levels. Further, the existing buildings' mechanical systems (i.e., heating, venting, and air conditioning [HVAC] systems) are required to meet all applicable noise regulations as are the building mechanical systems for the Proposed Project building. Therefore, similar to the Proposed Project, the No Action Alternative would not result in any significant adverse noise impacts related to building mechanical equipment.

The Proposed Project, due to existing high levels of ambient noise in the area, would require a noise (E) Designation for building attenuation to ensure that interior noise levels meet CEQR criteria for all new construction. In the No Action Alternative, there would be no environmental review and, therefore, no requirement for a noise (E) Designation and no required levels of window/wall attenuation.

NEIGHBORHOOD CHARACTER

Similar to the Proposed Project, the No Action Alternative would not result in significant adverse impacts associated with neighborhood character. As with the Proposed Project, the No Action Alternative would be compatible with the defining character of the neighborhood and would be consistent with other similar uses found throughout the surrounding area, which includes a concentration of major research and health care facilities that have co-existed for many years in a mixed-use neighborhood with residential, retail, and other community facility uses. The No Action Alternative would not result in the Proposed Project's potential benefits to neighborhood character including the activation of the streetscape and the strengthening of an existing neighborhood community facility institution.

PUBLIC HEALTH

Similar to the Proposed Project, the No Action Alternative would not result in unmitigated significant adverse impacts in the areas of air quality, water quality, hazardous materials, or operational noise. Unlike the Proposed Project, the No Action Alternative would not result in unmitigated significant adverse construction-period noise impacts at receptors adjacent to the Proposed Project's construction work areas. However, construction of the Proposed Project would not result in chronic exposure to high levels of noise, prolonged exposure to noise levels above 85 dBA, or episodic and unpredictable exposure to short-term impacts of noise at high decibel levels, Consequently, neither the No Action Alternative nor construction of the Proposed Project would result in a significant adverse public health impact.

CONSTRUCTION

The No Action Alternative would not involve demolition, excavation, foundations, superstructure or finishing necessary for the Proposed Project. None of temporary disruptions associated with construction would occur. None of the Proposed Project's significant adverse, construction traffic and noise impacts would occur. Findings specific to each of the key technical areas are summarized below.

TRANSPORTATION

Traffic

The significant adverse construction traffic impacts that were identified at eight intersections would not occur and mitigation measures would not be required under the No Action Alternative.

Transit and Pedestrians

Similar to construction of the Proposed Project, the No Action Alternative would not result in any significant adverse construction transit impacts.

Parking

In the No Action Alternative, the anticipated shortfalls of approximately 18 and 466 spaces during the AM and midday peak periods, respectively, would not occur. However, per the *CEQR Technical Manual*, a parking shortfall in Manhattan would not constitute a significant adverse impact due to the magnitude of available alternative modes of transportation.

AIR QUALITY

With the No Action Alternative, there would be no requirement for measures to reduce pollutant emissions as no construction equipment would be used.

NOISE

With the No Action Alternative, potential disruptions to adjacent residences and other receptors from elevated noise levels generated by construction activities would not be due to the Proposed Project.

VIBRATION

With the No Action Alternative, there would not be the potential for structural or architectural damage due to vibration to the existing buildings and structures immediately adjacent to or across East 66th Street from the Development Site. There would also not be perceptible and annoying vibration levels. However, even with the Proposed Project the operation of this equipment would occur for limited periods of time at any given location, and therefore would not result in any significant adverse impacts. Consequently, there is no potential for significant adverse vibration impacts from construction of the Proposed Project.

C. REDUCED HEIGHT ALTERNATIVE

CEQR requires that alternatives be considered that would avoid or reduce the potential significant adverse impacts. As described in detail in Chapter 5, "Shadows," the Proposed Project would cause significant adverse shadow impacts. In order to avoid the significant adverse shadow impact on the stained-glass windows of St. John of Nepomucene Church, the Proposed Project would have to be reduced by approximately 215 feet. This reduction would mean the loss of 14 floors of patient rooms or the loss of 12 floors of operating rooms or the loss of a combination of patient room floors or operating room floors. The Applicant does not consider that a building reduced by this amount could satisfy the purpose and need of the Proposed Project which is to create a state-of-the-art inpatient hospital facility that will allow for the highest level of care and treatment for the anticipated increase in cancer patients in the future. It is unlikely that any such smaller building (likely eliminating between 12 and 14 floors in the Proposed Project) could be used as a hospital pavilion for surgical inpatient purposes given the likely significant loss of interstitial floor-to-floor heights for critical surgical technology components and air handling equipment; the effect of fewer operating rooms on the anticipated volumes of surgical caseloads; the loss of necessary floorspace for the program adjacencies critical to the complexities of the Applicant's highly specialized operating rooms; and the reduced number of patient beds with adjacency to the operating rooms and post-surgical facilities. While the reduction in height would result in no significant adverse impacts on the St. John of Nepomucene Church's stained-glass windows, the Reduced Height Alternative would fail to meet the needs of MSKCC and the anticipated demand of the community it serves.

REDUCED HEIGHT ALTERNATIVE SHADOWS

As described in detail in Chapter 5, "Shadows," the Proposed Project would not cast any incremental shadow on the church windows on the winter analysis day (December 21), and on the March 21/September 21 analysis days the incremental shadow would not be significant. Therefore, the analysis of the Reduced Height Alternative presented below focuses on the May 6/August 6 and June 21 analysis days when the incremental shadows would be significant.

MAY 6/AUGUST 6

On May 6/August 6, incremental shadow from the Proposed Project would begin to fall on the church's north façade at 9:15 AM EDT and would eliminate all the direct sun on the upper and lower-level stained glass windows for about 50 minutes from 9:30 AM to 10:20 AM EDT. At the same time the incremental shadow would also eliminate direct sun on the three upper-level rear windows above the altar for a total of about an hour and 15 minutes, 9:30 AM to 10:45 AM EDT.

With the Reduced Height Alternative, incremental shadow would fall on a portion of the north façade during the morning from 9:15 AM to 9:40 AM EDT but many of the stained-glass windows on the north façade would remain in direct sun throughout this 25-minute period. Further, incremental shadow from this Alternative would not be long enough to reach the upper-level rear windows above the altar after about 9:40 AM EDT, after falling on one of them beginning 9:30 AM EDT (while the other two would be in existing shadow), for only a 10-minunte total duration of incremental shadow. In comparison, incremental shadow from the Proposed Project would similarly fall on one of the three windows beginning at 9:30 AM (with the other two in existing shadow) but would then eliminate direct sun to all three windows for another 45 minutes until 10:45 AM EDT (and remain on at least one until 11:05 AM EDT). With the Reduced Height Alternative, as in the No Action condition, one of the rear windows would be in sun beginning 9:45 AM EDT and all three would be in sun beginning 10:00 AM EDT.

In summary, on the May 6/August 6 analysis date, the Reduced Height Alternative would allow direct sunlight would continue to reach some of the north façade windows during the morning hours when church services would typically be held and would only result in 10 minutes of incremental shadow on the rear façade windows above the altar, from 9:30 AM to 9:40 AM EDT.

JUNE 21

On the June 21 analysis day, the Proposed Project's adverse shadow impact on the church's stained-glass windows would be less severe, but still significant because direct sunlight on the three rear windows above the altar would be eliminated for nearly an hour during the mid to late morning (9:45 AM to 10:35 AM EDT) when services typically occur.

With the Reduced Height Alternative, incremental shadow would fall on one of the three rear windows above the altar for 5 minutes but at least one of the three would be in sun, and after 9:15 AM EDT all three would be in sun for the remainder of the morning.

As described above, the height reduction needed to avoid significant adverse shadow impacts to the St. John of Nepomucene Church would mean the loss 14 floors of patient rooms or the loss of 12 floors of operating rooms or the loss of a combination of patient room floors or operating room floors. A building reduced by this amount would not satisfy the purpose and need of the Proposed Project. Therefore, there is no viable Reduced Height Alternative that would avoid the shadow impact on St John Nepomucene. ✶