

ADDENDUM TO SUBSEQUENT ENVIRONMENTAL IMPACT REPORT

Date of Publication of Addendum: March 9, 2004

Date of Certification of Final Subsequent EIR: September 17, 1998

Lead Agency: San Francisco Redevelopment Agency
770 Golden Gate Avenue, San Francisco, CA 94102

Agency Contact: Amy Neches **Telephone:** (415) 749-2450

Project Title: Redevelopment Agency Case No. ER 919-97 Addendum 03/09/04.
Amendments to the Mission Bay South Redevelopment Project, Design for Development (increasing maximum permitted parking spaces for life sciences/biotechnology uses) and the Mission Bay North Owner Participation Agreement (decreasing allowable development and associated parking).

Project Sponsor/Contact: Amy Neches, SF Redevelopment Agency **Telephone:** (415) 749-2450
Andrea Jones, Catellus Land and Development **Telephone:** (415) 355-6629
Corporation

Project Address: Approximately 303 acres located generally south of Townsend Street, east of Seventh Street and I-280 freeway, north of Mariposa Street, and west of Terry A. Francois Boulevard and Third Street; Mission Bay North Redevelopment Project Area and Mission Bay South Redevelopment Project Area are north and south of China Basin Channel, respectively.

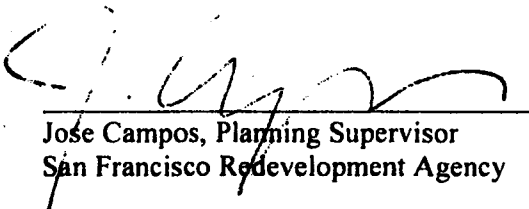
City and County: San Francisco

Determination:

The proposed revisions to the *Mission Bay South Redevelopment Project, Design for Development* and the *Mission Bay North Owner Participation Agreement* do not entail any substantial changes that would require major revisions to the existing *1998 Subsequent Environmental Impact Report*, nor would new significant environmental effects or a substantial increase in the severity of previously identified significant effects occur. Since certification, no changes have occurred in the circumstances under which the *Mission Bay North Redevelopment Plan* and the *Mission Bay South Redevelopment Plan* would be undertaken, and no new information has emerged that would materially change any of the analyses or conclusions of the existing *1998 Subsequent Environmental Impact Report*. Therefore, no additional environmental review is necessary beyond this Addendum.

(The basis for this determination is provided on the following pages)

I do hereby certify that the above determination has been made pursuant to State and Local requirements.


Jose Campos, Planning Supervisor
San Francisco Redevelopment Agency


Date of Determination

(Continued from Page 1)

Background

Prior Mission Bay Approvals and Environmental Review

On August 23, 1990, the San Francisco Board of Supervisors certified the *Mission Bay Final Environmental Impact Report* (the "1990 FEIR").¹ The 1990 FEIR assessed the development program that was ultimately adopted as the *Mission Bay Plan, an Area Plan of the San Francisco General Plan*, with implementing zoning. In 1996-97 the San Francisco Redevelopment Agency, with Catellus Development Corporation as the project sponsor, proposed a new project for the Mission Bay area, consisting of two separate redevelopment plans (*Mission Bay North Redevelopment Plan* and *Mission Bay South Redevelopment Plan*) ("North Plan" and "South Plan" or collectively, the "Plans") in two redevelopment project areas separated by China Basin Channel. The Plans include design guidelines and standards governing development, contained in companion documents, the *Mission Bay South Redevelopment Project, Design for Development* and the *Mission Bay North Redevelopment Project, Design for Development* ("South Design for Development" and "North Design for Development").²

On September 17, 1998, the San Francisco Planning Commission and the San Francisco Redevelopment Agency Commission certified the *Final Mission Bay Subsequent Environmental Impact Report* (the "1998 SEIR").³ The 1998 SEIR analyzed reasonably foreseeable development under the Plans. It incorporated by reference information from the original 1990 FEIR that continued to be accurate and relevant with respect to the new project. Thus, the 1990 FEIR and the 1998 SEIR together constitute the environmental documentation for the Plans.

The San Francisco Redevelopment Agency Commission adopted the Plans on September 17, 1998.⁴ It also approved the South Design for Development and the *Mission Bay South Owner Participation Agreement* and the *Mission Bay North Owner Participation Agreement* between the Redevelopment Agency and Catellus Development Corporation ("South OPA" and "North OPA").⁵ The Board of Supervisors adopted the North Plan October 26, 1998 and the South Plan on November 2, 1998.⁶

The San Francisco Redevelopment Agency and Catellus Land and Development Corporation (successor to Catellus Development Corporation) as project sponsor now seek to (1) revise the South Design for Development with respect to the permitted maximum number of parking spaces for up to 1,734,000 gross sq. ft. of life sciences, biotechnology, bioscience and similar research facility uses ("biotech facilities"), resulting in up to 1,734 net new parking spaces in the Mission Bay South Redevelopment Project Area ("South Project Area"), and (2) make certain changes to the North OPA to reflect a limit on the level of permitted development and reduction in associated parking by 1,734 spaces in the Mission Bay North Redevelopment Project Area ("North Project Area"), all as described below.

¹ Planning Department Case No. 86.505E.

² San Francisco Redevelopment Agency, *Design for Development for the Mission Bay North Project Area and Design for Development for the Mission Bay South Project Area*, September 1998.

³ Planning Department Case No. 96.771E, Redevelopment Agency Case No. ER 919-97.

⁴ Resolution No. 191-98 and Resolution No. 186-98, respectively.

⁵ Resolution No. 188-98 and Resolution No. 193-98, respectively.

⁶ Ordinance No. 327098 and Ordinance No. 335-98, respectively.

Context for and Summary of Current Proposal

The impetus for the proposed amendments (described in more detail below under Project Description) is to create additional parking resources for biotech facilities. To determine the appropriate approach to this issue, the Agency first considered the actual nature and amount of development that has occurred to date in Mission Bay as compared to what was contemplated in the 1998 SEIR, the Redevelopment Plans and related documents. As discussed in more detail below, there are two primary areas where the assumptions in the 1998 SEIR vary from actual experience to date. First, the amount of development in the North Project Area and associated parking demand and supply are substantially less than was analyzed. As compared to potential development of up to 500,000 Leasable sq. ft. of commercial uses, 3,000 dwelling units and 5,076 associated parking spaces, the North Project Area will be developed with approximately 200,000 Leasable sq. ft. of commercial uses, 2,900 dwelling units and 3,342 parking spaces, resulting in 1,734 fewer parking spaces than anticipated. Second, subsequent analysis based on the actual experience of other Bay Area biotech facilities establishes that the 1998 SEIR parking demand numbers should be increased for biotech facilities in the South Project Area.

Biotech facilities were analyzed in the 1998 SEIR as a permitted use in the Commercial Industrial/Retail zones of the South Project Area. For traffic analysis purposes, the 1998 SEIR assumed that about 50% of these would be office and 50% research and development ("R&D"). R&D is a broad category, encompassing a variety of research-related uses. A subset of this category is biotechnology. The SEIR established parking overall demand for office/R&D in the South Project Area using a blended rate for these two use categories, but without distinguishing between standard R&D uses and the specialized field of biotechnology. Analysis of the actual patterns of biotechnology companies has since confirmed that parking demand for biotechnology uses tends to be higher than for other R&D uses, primarily because the nature of the research (study of live organisms and monitoring research in a laboratory setting) involves varied hours and substantial travel outside of peak periods, resulting in lower transit availability and use. (See more detailed discussion and analysis in Exhibit 1.)

Based on this information, the Agency has proposed amendments that would permit up to 1,734,000 gross sq. ft. of biotechnology uses in the South Project Area to receive an allocation of the 1,734 unused parking spaces from the North Project Area, thereby maintaining the total parking supply in Mission Bay at 20,426 spaces, as analyzed in the 1998 SEIR. This Addendum considers the potential environmental impacts of these amendments under the California Environmental Quality Act. The question of whether the amendments are desirable from a policy perspective is not a CEQA issue but rather is a question for the Agency in considering the proposal. Therefore, that issue is not addressed in this Addendum.

Project Description

Existing South Design for Development

The South Plan establishes the basic land use standards and objectives, the block and street grid map, the development program, and the location of uses for the South Project Area. It contemplates a broad range of uses within the South Project Area. Section 104, Planning Objectives and Policies, includes the following as Land Use Objective 1: "Create a vibrant urban community in Mission Bay South which incorporates a variety of uses including medical research, office, business services, retail, entertainment, hotel, light industrial, education, utility, housing, recreation and open space, and community facilities." Specifically, the presence of the major new UCSF research facility in the South Project Area is expected to provide opportunities for development of biotech facilities in the Commercial Industrial zones. (Sections 302.3 and 302.4 permit bio-technical research facilities in the Commercial Industrial and Commercial Industrial/Retail Zones in the South Project Area.)

The South Design for Development implements the South Plan, providing land use designations and specifying mandatory minimum design standards governing development. On page 44, the South Design for Development sets a minimum and maximum parking ratio for all Commercial Industrial uses (as defined in the South Plan) of one space per 1,000 sq. ft. of gross floor area. The South Design for Development, pages 105-108, also contains design guidelines for commercial parking structures. These guidelines encourage the buffering of parking structures at grade by street oriented uses, discourage vehicular access along Third and Fourth Streets, and include other objectives related to urban design and architectural character.

Proposed Revisions to South Design for Development

In the course of discussions with prospective biotech research facility users, the project sponsor, the City and the Agency have been advised that the South Design for Development's parking ratio of one space per 1,000 feet of gross floor area is well below industry standards and does not adequately support biotech research facility uses for the reasons discussed above, and as further detailed in Exhibit 1. Accordingly, revisions are proposed that would permit up to 1,734,000 gross sq. ft. of life sciences/biotechnology research facility uses to provide parking at a ratio of two spaces per 1,000 sq. ft. The minimum requirement of one space per 1,000 sq. ft. would remain unchanged. This allocation would be available only to biotech and similar research facility uses. Guidelines in the South Design for Development related to design of parking structures would remain unchanged, as would the parking standards for the balance of the permitted Commercial/Industrial uses in the South Project Area.

The following revision (to amend the Parking chart and add the footnote) is proposed to the South Design for Development, page 44:

Commercial Industrial	Maximum of one space for each 1,000 square feet of floor area shall be provided (maximum and minimum); <u>except that two spaces for each 1,000 square feet of floor area shall be permitted for up to 1,734,000 feet of gross floor area of life sciences, biotechnology, biomedical or similar research facility uses.*</u>
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* For purposes of this parking provision only, "life sciences, biotechnology, biomedical or similar research facility uses" shall be any structure occupied by such use or uses; provided, however, that if any such structure is occupied primarily for administrative functions, it shall be subject to the one space per 1,000 square feet of floor area standard.

Existing North OPA

Attachment 3 (Redevelopment Land Use Map) to the North Plan establishes land uses for each block in the North Project Area. Certain lands are designated for open space or public facilities use, and do not have a parking requirement. Of the balance, Blocks N3, N3a, N4 and N4a are designated Mission Bay Residential. Development on the Mission Bay Residential blocks is predominately residential use, with the potential for accessory ground floor commercial. The primary opportunity sites for commercial use are Blocks N1, N2 and N5, which are designated Mission Bay North Retail. The development program for Blocks N1 and N2 has already been determined, and consists of 130,000 Leasable sq. ft. and 33,000 Leasable sq. ft., respectively, of commercial uses.

The North OPA sets forth in Exhibit B, Scope of Development, the maximum permitted Development Program Components for Owner's Development Program, as these terms are defined in the North OPA. Section B.2 of the Scope of Development permits up to approximately 500,000 Leasable sq. ft. of retail uses in the North Project Area, including 50,000 Leasable sq. ft. of Local-serving retail, 100,000 Leasable sq. ft. of City-serving retail, and 350,000 Leasable sq. ft. of entertainment retail, as these terms are defined in the North Plan, and 3,000 dwelling units. Section B.7 also allows associated parking, at the ratios provided in the North Design for Development.

Proposed Revisions to North OPA

The project sponsor has indicated that it will submit a Major Phase application for Block N5 as a residential development. It also intends to develop up to approximately 2,565 dwelling units, resulting, together with permitted Agency units, in a maximum of 2,900 dwelling units in the North Project Area, as opposed to the 3,000 permitted in the Scope of Development. Based on these development plans, there would be a substantial unused portion of permitted development under the North Plan. To insure that the total number of parking spaces in the North Project Area would not materially increase beyond what is analyzed below, the amendment to the North OPA would restrict Block N5 to residential use. Commercial development on Blocks N1 and N2 would be restricted to existing approved levels; provided, however, that future additional commercial density could be developed on Blocks N1 and N2 if it could be accommodated (i) within the minimum parking ratios of the North Design for Development for each block without providing any net new commercial parking (some additional commercial development might be possible without increasing parking because the North Design for Development allows lower minimum parking ratios than are currently provided), and/or (ii) by using available allocation, if any, from residential uses. The amendment would also permit up to 37,000 Leasable sq. ft. of other ground floor, Local-serving commercial use per block in the North Project Area, allocated by parcel, provided that any associated parking could not exceed a total of 10 spaces (to maintain the maximum North Project Area at a maximum of 442 commercial parking spaces when combined with the other commercial uses). Dwelling units would be restricted to 2,900, for a total North Project Area parking allocation of 3,342 spaces, as compared to the 5,076 spaces analyzed in the 1998 SEIR, for a remaining allocation of 1,734 spaces.

Analysis of Potential Environmental Effects

CEQA Guidelines Section 15164 provide for the use of an addendum to document the basis for a lead agency's decision not to require a Subsequent or Supplemental EIR for a project that is already adequately covered in an existing certified EIR. The lead agency's decision to use an addendum must be supported by substantial evidence that the conditions that would trigger the preparation of a Subsequent EIR, as provided in Section 15162, are not present.

Since certification, no changes have occurred in the circumstances under which the Plans would be undertaken, except for the non-significant changes analyzed below, and no new information has emerged that would materially change any of the analyses or conclusions of the existing 1998 SEIR. The proposed revisions to the South Design for Development and the North OPA would not cause any new significant environmental effects or a substantial increase in the severity of previously identified significant effects, as described below.

The changes that would result from the proposed revisions are those that relate to the Land Use, Visual Quality/Urban Design and Transportation analyses. Thus the proposed revisions would have the potential to result in project impacts related to Land Use, Visual Quality/Urban Design and Transportation that could differ from those already analyzed in the 1998 SEIR and the 1990 FEIR. These impacts under the proposed revisions are evaluated below.

Land Use and Visual Quality/Urban Design

The 1998 SEIR Land Use analysis assumes a permitted build-out of up to 556,000 gross sq. ft.⁷ of commercial uses, primarily on Blocks N1, N2 and N5, with some ground floor commercial on the Mission Bay Residential blocks. Actual commercial space is anticipated to be about 200,000 Leasable sq. ft., consisting of ground-floor Local-serving retail in residential developments, and a combination of Local- and City-serving commercial development on Blocks N1 and N2. The permitted number of units in the North Project Area is 3,000, and the actual number will be up to 2,900 units.

Accordingly, the mix of land uses in the North Project Area remains as analyzed in the 1998 SEIR, but with about a 300,000 Leasable sq. ft. reduction in commercial space and 100 fewer units than permitted under the North Plan. In addition, the Local-serving and City-serving retail components are at approximately the density contemplated in the 1998 SEIR—the primary distinction is the entertainment component, and the amendment does not materially impact the level of convenience services that would be available to Mission Bay residents.

In the South Project area, the amendment would allow an additional 1,734 parking spaces, which would be accommodated in parking structures. In light of the shallow water table, parking structures in Mission Bay are likely to be constructed above-grade. Due to overall land and density limitations, the increase in land potentially used for parking structures could result in some reduction in the area devoted to Commercial Industrial and/or Commercial Industrial/Retail uses in the South Project Area, depending on the configuration and density of development on each block. These potential changes relate to decreases in permitted density, and do not alter the categories of land uses that are allowed in the Project Areas or create the potential for significant land use conflicts.

The design of parking structures continues to be governed by guidelines in the South Design for Development. For example, the guidelines encourage parking to be buffered at grade by street oriented uses such as retail, building entrance lobbies, common areas, business services, or landscaping in order to eliminate blank walls. The guidelines also discourage access to parking along Third Street to maintain continuity of ground-floor retail. In addition, they contain a series of more detailed guidelines related to pedestrian access, podium roofs, lighting, entries and architectural character, all designed to ensure that parking is preferably avoided adjacent to the sidewalk or, at a minimum, designed with attention to detail comparable to adjacent buildings. Therefore, the North OPA amendment would not be expected to result in any significant Land Use, Visual Quality or Urban Design impacts.

Transportation

1998 SEIR Methodology and Analysis

Transportation analysis methodology is discussed on SEIR pages V.E.57-V.E.60. The 1998 SEIR analysis assumes specific amounts and types of land uses in the Project Areas, based on the land use designations in the Plans. It generally assumes the more intense uses permitted in the Plans for each land use designation in order to provide a conservative analysis. For areas designated Commercial Industrial under the South Plan, the analysis considers that 50% will be developed as office space, and the other 50% research and development. The transportation effects of the project were determined by calculating

⁷ The 1998 SEIR, including the Transportation analysis, is based on gross sq. ft. numbers, using a standard conversion factor from the Leasable sq. ft. numbers (in this case, 500,000 Leasable sq. ft.) in the Plans. For consistency with the 1998 SEIR methodology, Exhibit 1 also uses gross sq. ft. numbers based on the same conversion factor.

the daily person trips generated by each type of land use in the Project Areas, and determining the portion of those daily trips that would occur during the peak hour of the p.m. commute period. The "mode split" analysis then assesses the portion of these trips anticipated by automobile, transit, and all other modes of transportation, based upon the origin/destination of the trips, the purpose of the trips, and the availability of various modes. Finally, automobile occupancy rates were determined, to yield the average number of individuals in a vehicle and, thus, provide the number of vehicles that would be traveling to and from the Project Areas. The specific trip generation rates, p.m. peak hour proportions, trip distribution, mode split and vehicle occupancy rates are presented in the "Methodology" section of Appendix D to the 1998 SEIR.

Based upon this methodology, the 1998 SEIR identifies potentially significant impacts of the project on local streets and intersections, and provides mitigation measures to address these impacts (see 1998 SEIR pages VI.6-VI.30a). The final list of mitigation measures is contained in Resolution No. 854-98, adopted by the Board of Supervisors on October 19, 1998. It includes both physical improvements and programs designed to encourage transit use.

Parking impacts are analyzed on Pages V.E.95-V.E.101 of the 1998 SEIR. Parking demand for the various land uses is based on estimated auto traffic (again based on trip generation rates by land use type), vehicle occupancy rates and parking turnover rates. The calculations for trip generation are based on land use before calculating parking demand. The 1998 SEIR identifies a parking deficit of about 4,816 spaces (3,720 in the South Project Area and 1,096 in the North Project Area). It indicates that on-street parking within Mission Bay would likely accommodate about 25% of this excess demand, and that some drivers might seek parking in nearby areas, including Potrero Hill and Lower Potrero areas (See 1998 SEIR pages V.E.99-V.E.101.) The creation of parking demand which cannot be met by existing or proposed parking facilities is generally not considered by the City or the Agency to be a significant effect absent an associated secondary physical impact. Accordingly, no parking mitigation measures are identified in the 1998 SEIR.

The project approved by the City and the Agency in 1998 was the main project analyzed in the 1998 SEIR, plus a combination of variants also analyzed in the 1998 SEIR. The project plus the combination of variants is discussed on 1998 SEIR pages VII.46-.66 and results in modest changes to the p.m. peak numbers as compared to the project without the variants, as reported in Table VII.G.3.

Analysis of Proposed South Design For Development and North OPA Revisions

The Transportation Analysis in the 1998 SEIR was prepared by the transportation consulting firm of Wilbur Smith Associates ("WSA"). In connection with preparation of the Addendum, WSA was asked to conduct an updated analysis evaluating the proposed revisions to parking requirements for biotech research facilities. That analysis is attached to this Addendum as Exhibit 1, and its conclusions are discussed below.

● Transportation

The 1998 SEIR forecasted all trips to be generated by land use types and intensities, even if the vehicle trips could not be accommodated by the off-street parking supply. Accordingly, the addition in the South Project Area of unused parking allocation from the North Project Area solely to address an existing parking deficit would not be expected to result in any new vehicle trips beyond those estimated in the SEIR. The SEIR analysis assumed that the vehicle trips identified by land use would occur and that occupants would find parking on the street in and outside of the Project Areas. However, in Exhibit 1, WSA also establishes that parking demand for biotech uses in fact is higher than the number assumed in the 1998 SEIR (approximately 2.0 spaces vs. 1.36 spaces per 1,000 sq. ft.) This increased demand figure, when applied to approximately 1,734,000 gross sq. ft. of biotech use, would result in approximately 4,260

more daily vehicle trips than analyzed in the 1998 SEIR for the South Project Area. But the daily vehicle trips for the North Project Area and South Project Area combined would decrease by about 18,540 due to the substantially reduced development program in the North Project Area. WSA concludes that there would also be a decrease in overall peak hour trips from each of the North and South Project Areas, as compared to the 1998 SEIR analysis. In the South Project Area, peak hour trips would be reduced from 1,670 to 1,630 due to increased off-peak travel related to biotech uses. For these reasons, the amendment would not result in any significant new traffic impacts.

Mitigation measures related to Transportation would continue to apply, including the various transit-related measures, such as the Transportation Management Association (Measure E.46) and Transportation System Management Plan (Measure E.47) requirements.

- Parking Demand and Supply

WSA also assessed the parking demand assumptions in the 1998 SEIR based and compared those assumptions to the actual experience of other biotech research facilities. The 1998 SEIR assumed that parking demand for Commercial Industrial facilities would be best represented by an equal mix of parking demand for office and R&D uses. No separate demand figure was identified for biotech uses. Based on the employment estimates for Mission Bay as presented in Table V.C.5, page V.C.25 of the 1998 SEIR for office and R&D uses the 1998 SEIR assumed an average assumed density of 290 sq. ft. per employee for office and R&D uses. The 1998 SEIR estimated parking demand for office space at 1.9 spaces per 1,000 sq. ft. and for R&D uses at 0.8 spaces per 1,000 sq. ft. The 1998 SEIR assumed that the combined parking demand rate for these uses is 1.36 per 1,000 sq. ft.⁸

To determine typical employee density and parking demand for biotech research facilities, WSA contacted two major Bay Area corporations, Chiron and Genetech. Both companies reported their average employee densities were between 275 and 350 sq. ft. per employee, comparable to the employee density assumed in the 1998 SEIR for biotechnology facilities. Parking demand for these companies is in the range of 3.0 to 3.3 spaces per 1,000 feet of gross floor area of development, which is comparable to parking demand for conventional office space in these suburban areas. While these parking ratios are for a more suburban environment, they are substantially higher than the 1.0 per 1,000 sq. ft. supply/1.36 per 1,000 demand assumed in the Plan and the 1998 SEIR. As another point of reference, SEIR page V.E.97 assumes a ratio of 2.0 spaces per 1,000 feet of gross floor area for biotech facility uses for the UCSF campus. WSA reports that increasing the parking rate for up to 1,734,000 sq. ft. of biotech uses from one to two spaces per 1,000 sq. ft. of gross floor area would result in a demand rate more consistent with actual experience in the industry than the 1998 SEIR rate.

Applying the new demand rate to 1,734,000 square feet of Commercial/Industrial use, there would be an overall increase in parking demand of 1,111 spaces, from 19,070 spaces to 20,181 spaces, for the South Project Area, and a decrease of 1,750 spaces, from 6,172 spaces to 4,421 spaces, in the North Project Area. For the combined Project Areas, there would be a decrease in parking demand by 509 spaces from the parking demand assumed in the 1998 SEIR (See Exhibit 1, Table 1).

With respect to parking supply, there would be up to 1,734 more parking spaces in the South Project Area, and a decrease of 1,734 spaces in the North Project Area. When compared to the new parking demand estimates for the North and South Project Areas, the parking deficit of 3,720 spaces assumed in the South Project Area would decrease to 3,097 spaces, and the deficit for the combined North and South

⁸ This level of detail is not included in the text of the 1998 SEIR, but was confirmed by Wilbur Smith in the preparation of this Addendum, based on background notes from the 1998 SEIR.

Project Areas would decrease from 4,816 spaces to 4,177 spaces. (See Exhibit 1, Table 1). This revised supply deficit would reduce but not eliminate the existing non-significant parking deficit identified in the 1998 SEIR and would not result in any new significant parking impacts.

Other Environmental Topics

The proposed revisions would not result in any change to the type, location and intensity of land uses analyzed for the Project Areas in the 1998 SEIR, except as discussed under Land Use above. All development in the Project Areas would continue to conform with the Plan and the Design for Development, amended only to increase parking ratios for up to 1,734,000 square feet of floor area for biotech research facilities, and to provide for reductions in permitted uses and associated parking in the North Project area. Therefore, there would be no significant impacts to Visual Quality and Urban Design. No changes to the development block and the street grid map are proposed, and the parking design guidelines in the South Design for Development would continue to apply. Because overall daily and peak hour trip generation would not increase, there would be no changes transportation-related noise and air quality impacts.

All mitigation measures identified in the 1998 SEIR to lessen or avoid potentially significant impacts would continue to apply under the proposed revisions to the South Design for Development and the North OPA.

Therefore, implementation of the proposed revisions to the South Design for Development and the North OPA would result in the same environmental impacts as those already identified and analyzed in the 1998 SEIR with respect to the following environmental topics: Business Activity, Employment, Housing, and Population; Shadow on Public Open Spaces; Wind; Air Quality; Noise and Vibration; Seismicity, Health and Safety; Contaminated Soils and Groundwater, Hydrology and Water Quality; China Basin Channel Vegetation and Wildlife; Community Services and Utilities; and Growth Inducement. No further discussion of these topics is warranted.

Conclusion

The proposed revisions to the South Design for Development and the North OPA do not entail any substantial changes that would require major revisions to the 1998 SEIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. Additionally, since certification, no changes have occurred in the circumstances under which the Plans would be undertaken, and no new information has emerged that would materially change any of the analyses or conclusions of the 1998 SEIR. Therefore, no additional environmental review is necessary.



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March 9, 2004

Mr. José Campos
Planning Supervisor
San Francisco Redevelopment Agency
770 Golden Gate Avenue
San Francisco, CA 94102

Re: Mission Bay Project – Evaluation of Parking Requirements for Life Science/Biotechnology Uses

Dear José:

In response to your request and based on our recent discussions we have prepared this letter which presents an evaluation of potential changes to the current parking requirements for Life Science/Biotechnology uses in the Mission Bay plan. The reason for this evaluation is the existing real estate market for life science/biotechnology uses suggests that the maximum parking allowance of 1.0 space per 1,000 square feet of floor area which was defined in the Mission Bay plan is low compared to the typical parking utilization rates reported by other life science/biotechnology uses in the Bay Area. This appears to be the case even with consideration of the high level of transit use which will be characteristic of Mission Bay.

This review and evaluation consisted of the following tasks:

- Identify the methodologies used to establish parking demand for life science/biotechnology uses as part of the original Mission Bay SEIR transportation analyses;
- Establish the magnitude of development program and associated parking planned but not built to date in Mission Bay and obtain typical employee densities and parking requirements for life science/biotechnology uses in and around San Francisco.
- Identify and evaluate the effects of a maximum parking allowance of two spaces per 1,000 sq. ft. for up to 1,734,000 of square feet of life science/biotechnology use, out of the approximately 6.6 million square feet of commercial/industrial use planned for the Mission Bay South area.

The original Mission Bay plan considered both office and research and development (R&D) uses in Mission Bay South. Due to the anticipated influence of the University of California San Francisco's medical research campus it was assumed that much of this office and R&D space might actually be developed as life science/biotechnology space. For purposes of the transportation analysis in the

Mission Bay SEIR it was assumed that a 50/50 percent mix of office and R&D space would best represent the types of commercial uses that were likely to occur. R&D space is typically defined as space devoted to laboratories and light fabrication with a small amount of area devoted to offices. We have had recent experience with life science/biotechnology corporations with traffic and parking management work we have performed for Chiron Corporation in Emeryville and Genentech in South San Francisco. Life science/biotechnology uses differ from conventional R&D uses in several ways:

- They involve an almost equal mix of administrative office space and laboratory space. The density of the employees in the laboratory space is higher than that in R&D lab space.
- Biotechnology research requires round-the-clock monitoring. Lab technicians often work shifts similar to hospital workers and their commute times are outside of normal peak commute hours. Researchers also work long and unusual work schedules.

Our research of the traffic and parking characteristics of life science/biotechnology uses indicates that these uses:

1. Have a higher demand for parking than R&D uses because their employees travel to and from work outside the peak commute times and they don't find the use of public transit or carpools as necessary or convenient.
2. Have a lower percentage of employees driving in the critical peak commute periods than R&D uses.

While the life science/biotechnology uses generate more parking demand and as a result more daily vehicle trips than R&D uses, they generate less traffic in the peak commute hours than R&D uses.

Parking Demand Methodology

The methodology used to estimate parking demand in the Mission Bay SEIR was based on an approach that directly related parking demand to the transportation characteristics of each land use type. This is consistent with the travel demand management philosophy that the availability of parking influences in the long term the amount of automobile travel generated by a given land use. The City's *Guidelines for Environmental Review, Transportation Impacts* does not provide a trip generation rate for life science/biotechnology uses. As a result it was agreed at the time that biotechnology uses would be modeled by assuming that half the proposed biotechnology uses would have a trip generation similar to office space and that the other half would have a trip generation rate similar to R&D uses.

The original parking analysis for the Mission Bay plan was done in 1997. The Mission Bay SEIR assumed that these uses would be best represented by a mix of 50% office and 50% R&D. Based on the employment estimates for Mission Bay as presented in Table V.C.5, page V.C.25 of Volume I of the Mission Bay SEIR and the proposed building square footages in the development plan, the assumed density of employment for office uses was one employee per 250 sq. ft. of net usable floor area, and the assumed density of R&D development was one employee per 340 sq. ft. of net usable floor area. These calculations assumed a five percent average vacancy rate and a 15 percent reduction factor from gross square footage to net usable square footage. Combining these two rates yields an average assumed density of 290 sq. ft. per employee for the life science/biotechnology uses. This density is consistent with more current information that we have recently obtained from two major Bay Area biotechnology

corporations, Chiron and Genentech, which reported their average employee densities were between 275 and 350 square feet per employee. Both of these corporations reported that their parking supply needs are in the range of 3.0 to 3.3 spaces per 1,000 sq. ft. While these parking ratios are for a more suburban environment than Mission Bay, they are substantially higher than the 1.0 space per 1,000 sq. ft. allowable supply assumed for the Mission Bay office and R&D uses. Their experience is that the nature of the biotechnology industry requires employees to work long hours, with highly variable work schedules. While a high percentage of the employees drive to work, the percentage arriving and leaving during the peak travel periods is lower than that for office and industrial uses.

The actual experience of the biotechnology corporations suggests that the parking demand for this type of use is not much lower than conventional office space, which typically requires 3.0 - 3.5 spaces per 1,000 sq. ft in a suburban environment. The parking demand for office space that was estimated in the Mission Bay SEIR was 1.9 spaces per 1,000 sq. ft. This rate reflects the more urban character of Mission Bay as compared with suburban office development. The rate assumed for the R&D uses in the Mission Bay SEIR was 0.8 spaces per 1,000 sq. ft., so that the combined rate for these two uses, which was intended to represent biotechnology uses, was 1.36 spaces per 1,000 sq. ft¹. Based on the more recent experience of the biotechnology corporations, and adjusting for the more urban character of Mission Bay, the actual parking demand of the life science/biotechnology uses is estimated to be 2.0 spaces for 1,000 sq. ft.

Parking Supply and Demand Comparisons

The above discussion focused on the demand for parking for life science/biotechnology uses. Parking demand is defined as the actual amount of parking that employees and visitors would desire to use without consideration of how much parking might actually be available. Parking supply is defined as the actual amount of parking that will be provided. The supply might equal demand, or it might be higher than the demand yielding a surplus of parking; or it might be less than the demand yielding a deficit.

Table 1 below shows the comparison of the parking supply and demand estimates for the original project as compared with the actual current development program for Mission Bay North and South. It is important to note that the original approved Mission Bay project was actually a revision of the "project" evaluated in the SEIR. This revision was termed the "Project with Combination of Variants." An

¹ These rates were calculated from the SEIR by taking the total land use quantities from Table V.E.8 "PM Peak Hour Vehicle Trip Generation on page V.E.62 and dividing them into the "Peak Parking Demand Estimates in Table V.E.17 on page V.E. 97.

² These rates were calculated from the SEIR by taking the total land use quantities from Table V.E.8 "PM Peak Hour Vehicle Trip Generation on page V.E.62 and dividing them into the "Peak Parking Demand Estimates in Table V.E.17 on page V.E. 97.

updated parking supply/demand chart was not included in the Project with Combination of Variants discussion in the SEIR, as the variants actually reduced parking supply and demand as compared to the project. The parking analysis shown for the "Original Project" in Table 1 represents the revised project that was ultimately approved, and the numbers were developed using the land uses shown in Table VII.G.2 of the SEIR (page VII.51) and the demand estimation methodology from the SEIR as described above.

Table 1
Parking Demand Versus Supply
Original Mission Bay Plan in Comparison with Estimate Current Development Program

Mission Bay North	Land Use		Parking Demand (Spaces)			Parking Supply (Spaces)			Supply Versus Demand Surplus or (Deficiency)	
	Original Plan	Estimated Current Development Program*	Original Plan	Estimated Current Development Program*	Net Change	Original Plan	Estimated Current Development Program*	Net Change	Original Plan	Estimated Current Development Program*
Residential	3000 units	2900 units	3,900	3,770	(130)	3,000	2,900	(100)	(900)	(870)
Retail/Commercial	412,000 sq. ft.	220,000 sq. ft.	1,534	651	(882)	1,401	442	(959)	(133)	(209)
Movie Theater	25 screens	-	738	-	(738)	675	-	(675)	(63)	-
Total			6,172	4,421	(1,750)	5,076	3,342	(1,734)	(1,096)	(1,079)
Mission Bay South										
Residential	3090 units	3090 units	4,017	4,017	-	3,090	3,090	-	(927)	(927)
Retail/Commercial	257,000 sq. ft.	257,000 sq. ft.	1,047	1,047	-	473	473	-	(575)	(575)
Large Retail	128,000 sq. ft.	128,000 sq. ft.	576	576	-	452	452	-	(124)	(124)
Hotel	500 rooms	500 rooms	208	208	-	78	78	-	(130)	(130)
UCSF	2,650,000 sq. ft.	2,650,000 sq. ft.	4,223	4,223	-	5,300	5,300	-	1,077	1,077
Office	3,310,500 sq. ft.	2,443,500 sq. ft.	6,280	4,635	(1,645)	2,979	2,112	(867)	(3,301)	(2,523)
R&D	3,310,500 sq. ft.	2,443,500 sq. ft.	2,719	2,007	(712)	2,978	2,111	(867)	260	105
Biotechnology	0 sq. ft.	1,734,000 sq. ft.	-	3,468	3,468	-	3,468	3,468	-	-
Total			19,070	20,181	1,111	15,350	17,084	1,734	(3,720)	(3,097)
Total North & South			25,242	24,603	(639)	20,426	20,426	-	(4,816)	(4,177)

* Based on gross square feet of land uses/densities of approved major development.

Based on this analysis the original Mission Bay Plan would generate a total peak parking demand of 25,242 spaces. The plan called for a supply of 20,426 spaces, which would result in a parking deficiency or shortfall of 4,816 spaces. In Mission Bay North there has been a substantial reduction in the development program as compared with the original plan. The planned amount of commercial retail has declined from 412,000 sq. ft. to 220,000 sq. ft. and the multiplex moving theater project has been deleted. The number of planned housing units has also been reduced from 3,000 to 2,900. These changes reduce the total estimated demand for parking from 6,172 spaces to 4,421 spaces, a reduction of 1,750 spaces in peak demand. A reduction in parking supply would also occur, as a total of 3,342 spaces are now planned for Mission Bay North as compared to 5,076 spaces in the original plan. This is a reduction in supply of 1,734 spaces.

Catellus proposes to use this reduction in supply in Mission Bay North as a basis for increasing the amount of parking for life science/biotechnology uses in Mission Bay South, without increasing the overall amount of parking in Mission Bay from that envisioned in the SEIR. The implications of this change are shown in Table 1. As noted earlier the actual estimated demand for life science/biotechnology uses is 2.0 spaces per 1,000 square feet. Catellus proposed to increase the parking supply for 1,734,000 sq. ft. of office and R&D offices to equal this demand, increasing that parking supply from 1.0 space per 1,000 sq. ft. to 2.0 spaces per 1,000 sq. ft. which results in an increase in the overall parking supply of 1,734 spaces. This increase equals the reduction in parking supply that has occurred in Mission Bay North, resulting in no net change in the total parking supply for Mission Bay.

In terms of parking demand, the SEIR analysis originally assumed a demand of 1.36 spaces per 1,000 sq. ft. of life science/biotechnology (as represented by a 50/50 percent mix of office and R&D). Increasing this demand factor to 2.0 spaces per 1,000 sq. ft. would result in a net increase in parking demand of 1,111 spaces in Mission Bay South. This would be more than offset by the 1,750 decline in demand projected for Mission Bay North. For the total project the overall 4,816 space deficiency in parking projected for the original plan would be reduced to 4,177 spaces. This 639 space reduction in demand represents 2.0 percent of the total demand, so the net impact of these changes is relatively small in terms of the overall Mission Bay plan.

Traffic Impacts of an Adjusted Rate for Biotech Uses

The 1998 SEIR accounted for all trips anticipated to be generated by land use, even if they could not be accommodated by the parking supply. Arguably, the 1,111 spaces that relate to the increased parking demand assumption represent potential increased trip generation, as they assume more biotechnology workers arriving by automobile. However, this would be offset by the following factors that we have identified in our research to date of the traffic and parking characteristics of biotechnology uses:

1. Their work schedules allow/require them to travel outside the normal peak commute times (7 to 9 a.m. or 4 to 6 p.m.), reducing their reliance on public transit and increasing the use of the private automobile and the demand for parking.

2. Since they typically travel outside the peak commute periods the number of trips that occur during the critical peak hour when the roadways may be near or at capacity is less than for other types of employments.

In both 1998 and 1999 WSA conducted a full week of traffic counts at the Emeryville campus of Chiron, a local biotechnology firm which would better represent the types of uses that would occur at Mission Bay South. The peak hour percentage for Chiron was 9.4% in 1998 and 9.3% in 1999. Thus Chiron exhibits 30% less PM peak hour vehicle trip generation than that recorded for typical office or R&D use.

The assumptions for PM peak hour trip generation used in the Mission Bay SEIR were as follows; for office development the peak hour person trip generation was 11.1 % of the daily person trip generation, and for R&D space the peak hour was 16.0% of the daily trip rate. Assuming a 50/50 % mix of these two uses, the resulting peak hour factor would be 12.6 %. R&D uses generate a lot less daily person trips per 1,000 sq. ft. than office uses which is why peak hour factor for the combined uses ends up being closer to the office trip rate. This rate is 26.2% higher than the peak hour factor observed at Chiron.

The increase in parking demand for life science/biotechnology uses from 1.36 to 2.0 spaces per 1,000 sq. ft. represents an increase of 32%. If this increase is assumed to directly represent an increase in daily vehicle traffic, the number of person trips in vehicles would increase from 13,300 to 17,560 daily person trips for the 1,734,000 sq. ft. of space designated for life science/biotechnology uses. The original estimate of peak hour person trips in vehicles for these uses was 1,670 trips based on the 12.6 % peak hour factor. If the observed peak hour factor from Chiron of 9.3% is applied to the increased amount of daily person trips in vehicles of 17,560; an estimate of 1,630 peak hour person trips results. This shows that the increase in parking supply will not result in an increase in the impact of the project on peak hour traffic conditions.

Also to be considered is that the reduction in land use in Mission Bay North represents a 2,300 reduction in the PM peak hour person trips in vehicles for that portion of the project area. In terms of daily person trips by auto, the project increase of 4,260 daily person trips for Mission Bay South would be more than offset by the reduction of 22,800 daily person trips due to the change in land uses in Mission Bay North. As a result the overall effect in the changes in parking supply and demand will be a net reduction of the both the daily and the peak hour traffic impacts of the Mission Bay project.

Based on this analysis it is clear that any potential increases in traffic generation that might be related to the increase in parking supply were adequately addressed in the traffic analysis that was conducted for the Mission Bay SEIR and no new significant impacts would occur.

We hope you find this information helpful. Please feel free to contact me or José Farrán regarding this analysis.

Very truly yours,

WILBUR SMITH ASSOCIATES

A handwritten signature in black ink, appearing to read "William E. Hurrell". The signature is written in a cursive, flowing style with some overlapping letters.

William E. Hurrell, P.E.
Vice President

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