Appendix T1 CP/HP Distict Heating and Cooling Description, Revised August 20, 2009

To	Therese Brekke, Lennar Urban	Reference number	
cc	Jean Rogers, Arup	File reference	
From	Martin Howell, Arup	Date	August 20, 2009
Subject	HP/CP - District heating and cooling description – Revised August 20, 2009		

The following is a summary of information regarding the integration of central heating and cooling plants into Hunters Point and Candlestick Point. These systems are to be included in the EIR as options.

BAU Option – All heating and cooling is generated at the individual building level

District Energy Option – All heating and cooling energy is generated at the district level and distributed to individual buildings

General Site Description – District Heating and Cooling Option

District heating and cooling plants have been identified as an option for providing site wide heating and cooling energy. Two potential locations for these systems have been identified, one serving Hunters Point and a second serving Candlestick Point. The location identified for the district plant serving Hunter's Point is in the parking structure adjacent to the R&D facilities. The most probable location for the district plant serving Candlestick Point is in the parking structure adjacent to the regional retail center. Distribution infrastructure sill also be required. Each central plant facility will likely consist of two separate stories. The first story provides an enclosure for the boilers, chillers, pumps and other ancillary equipment. The upper story (or roof) provides a location for the heat rejection units and boiler flue exhaust both of which have to discharge externally. These emissions will have an impact on local environmental quality which is described below. Below is a figure that identifies the proposed central plant locations and pipe distribution network.

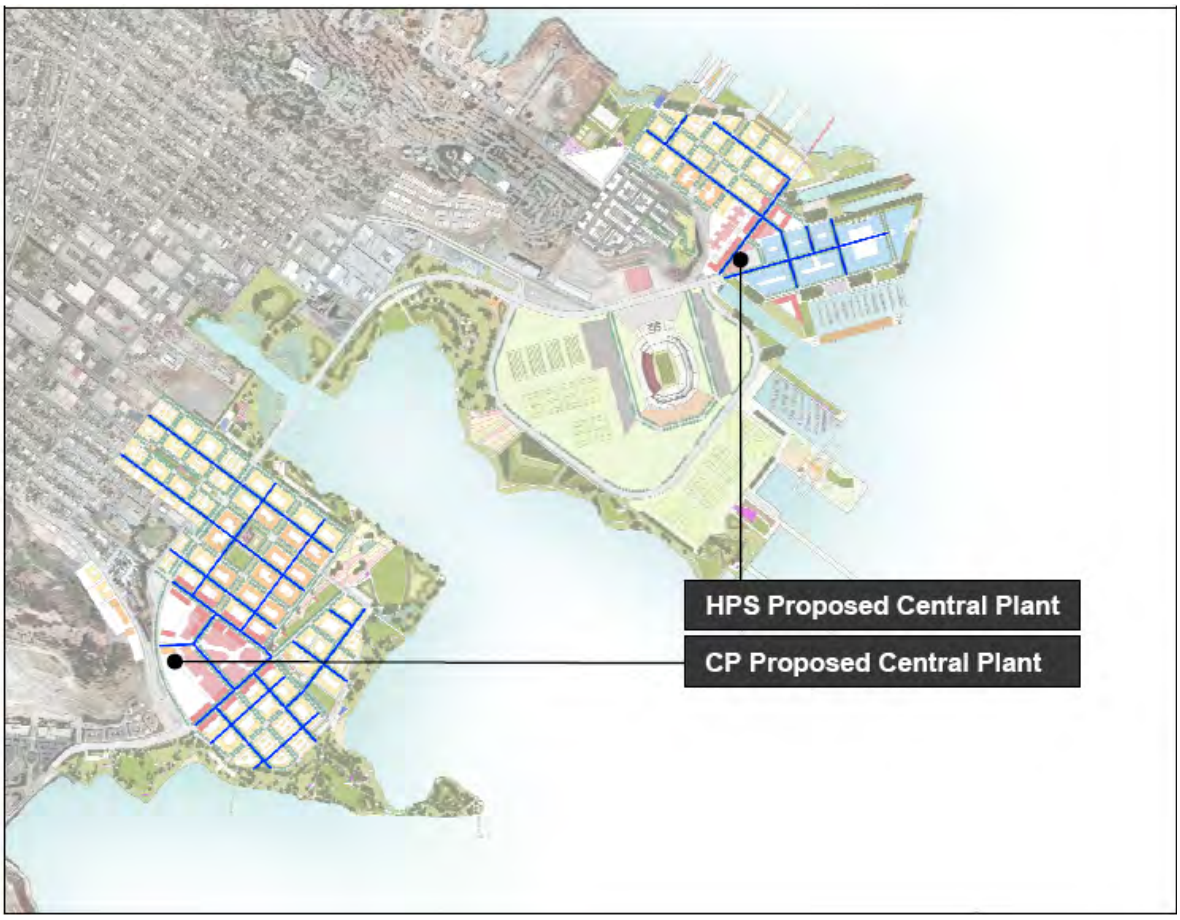


Figure – Proposed Central Plant Locations

Major Plant Equipment for the District Heating and Cooling Option

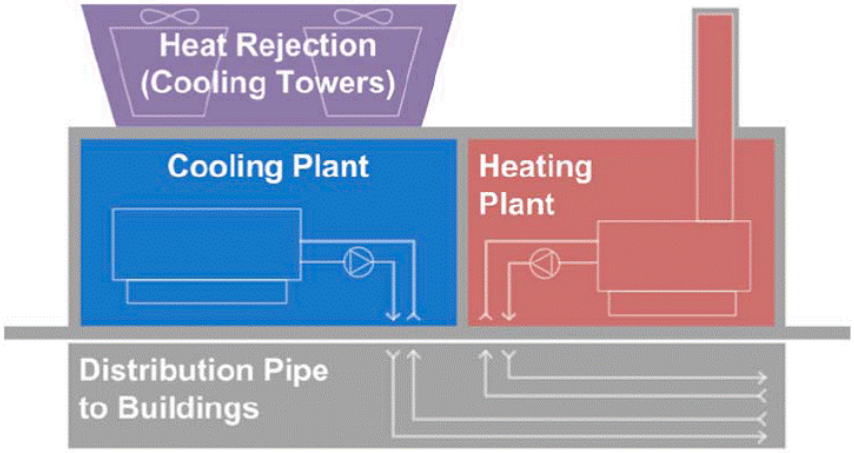
Heating would be provided by natural gas boilers providing either steam or hot water. In addition to natural gas as the primary fuel source, electricity will be required for base of plant operation and distribution. The heat will then be distributed through underground piping networks to each building or customer. Steam is distributed through the backpressure created by the steam. Hot water is distributed through electrically driven pumping systems. The most likely medium for distribution will be low temperature hot water (<250 degrees Fahrenheit). Other base of plant equipment including expansion devices, air elimination, and water treatment will also be required for the heating plant.

Cooling may be generated by several sources including natural gas fired, steam fired, or electrically driven chillers. The most likely and energy efficient option would be the use of electrically driven chillers for chilled water generation and water cooled cooling towers for heat rejection. Several electric centrifugal chillers will be required to generate chilled water. The heat extracted from the waters is then transferred to the cooling towers where the heat is rejected to the ambient air through the evaporation process. Electrically driven pumping systems are used for transferring heat form the chillers to the cooling towers and for distributing the chilled water to the development. Other base of plant equipment including expansion devices, air separation devices, and water treatment equipment will be required for the cooling plant.

The configuration of the heating and cooling plant is most likely to be a 2-story stacked system to reduce the overall building footprint. The cooling plant and heating plant will be enclosed structures. The heating plant will requires ambient air for fuel combustion which may enter from an exterior wall or through the roof. The

boiler will also have a flue where combustion exhaust is emitted to the ambient air. The best location for these flues are through the roof. A diagram of the stacked central plant system and major components has been included below. Cooling towers require significant volumes of ambient air for the heat rejection process. For this reason cooling towers are generally placed outdoors. Stacking the cooling towers on the roof will minimize the overall building footprint, but increase the structural requirements of the building due to the significant weight of the cooling towers.

Figure: Stacked Central Plant for Heating and Cooling Energy Generation



Based on preliminary heating and cooling load estimates for the entire site (and assuming minimum energy compliance scenario), the area for each plant will likely be 60,000 to 85,000 square feet each, depending on the specific equipment used. The heating and cooling plants will likely require a 15-20 feet story height to allow for equipment size and clearances. The cooling towers will have a similar height and will discharge vertically. The preliminary heating and cooling capacities used for these estimates have been identified in the table below.

Table: Preliminary Cooling and Heating Loads

Load Type	Hunters Point Shipyard	Candlestick Point	Totals*
Cooling Load (tons)	14,090	11,822	20,730
Heating Load (kBtu/hr)	91,511	184,213	220,579

*Diversity has been applied to the total development values.

Assuming a stacked configuration, the cooling towers would be located above the cooling plant reducing the building footprint to 40,000-65,000 square feet. This assumes the following breakdown for each of the major plant components:

- Cooling Towers: 15,000-25,000 square feet (8,000 to 12,000 tons cooling)
- Chiller Plant: 20,000-30,000 square feet (8,000 to 12,000 tons cooling)
- Boiler Plant: 20,000-35,000 square feet (75 Mbtu-150 Mbtu heating)

If dry cooling towers or combination wet/dry cooling towers are used (to eliminate or minimize visual plumes as described in the environmental impacts section below), an additional 30% of area is required for the cooling tower plant. Combination wet/dry cooling towers will also have an increase in height of about 30%

over typical. The total area required for the optional cooling towers will be 60,000-93,000 square feet, or a stacked building footprint of 40,000-78,000 square feet.

Distribution Infrastructure

Cooling and heating will be distributed through hydronic piping networks. These networks will be made up of supply and return, insulated piping located in utility trenches below grade. The location and depth of the pipe for this system is consistent with other low pressure water utility piping. Connections to buildings will include meters for accounting and billing purposes.

Heating energy will be distributed in the form of hot water via a pipe distribution network. The peak hot water flow capacity of the central plant will be about 10,000 and 5,000 gallons per minute for Hunter's Point and Candlestick point respectively. The main hot water pipe sizes will be approximately 18 and 12 inches in diameter.

Cooling energy will be distributed in the form of chilled water via a pipe distribution network. The peak chilled water flow capacity of the central plant will be about 30,000 and 25,000 gallons per minute for Hunter's Point and Candlestick point respectively. The main hot water pipe sizes will be approximately 36 and 30 inches in diameter.

Each building or customer would be provided with a point of connection to the distribution loop. This point of connection would include meters from which the energy consumption of each service (heating or cooling) will be determined. Metering devices and point of connection may happen just outside the building or just within the building. The point of connection would require access by the district energy system operators.

Environmental Impact

Air Quality

The major systems having potential impacts to air quality or the natural gas fired boilers used for generating hot water and the cooling towers used to reject heat to the atmosphere.

The emissions form the boiler systems include several criteria pollutants identified by the United States Environmental Protection Agency (US EPA). These criteria pollutants are regulated through National Ambient Air Quality Standards (NAAQS)[1], California Ambient Air Quality Standards (CAAQS)[2], and Bay Area Air Quality Management District (BAAQMD) Rules and Regulations[3]. The boilers and associated equipment will all be designed and operated in conformance with the most stringent requirements of each of these regulating bodies. The boilers used in the district energy system will be classified as large boilers (>2,000,000 BTU capacity). These boilers are regulated for both nitrogen oxides (NOx) and carbon monoxide (CO). In general, the emissions standards for large boilers are more stringent than those for small boilers.[4] By meeting and possibly exceeding these emissions standards through the use of more efficient boiler technologies and centralized control, the emissions from criteria pollutants will be less than the BAU Option. In addition, the boilers used in the District Energy Option would incorporate the best available control technology, which is currently estimated to be about 8 ppmv for nitrogen oxides.

Cooling tower emissions include water vapor, drift and blowdown. Of these three emission sources, drift has the most significant impact to air quality. Drift occurs when droplets of water are carried out of the cooling tower through the tower exhaust air. Evaporated water that provides for the heat dissipation process is a pure water source and not a regulated source emission, but drift contains the same concentration of impurities as the cooling tower water. These impurities include dissolved solids which are particulate matter <10 microns (PM10) a regulated emission. Drift eliminators are baffle-like devices that capture these water droplets and can reduce drift to below 0.1%. Drift eliminators and alternative cooling tower water treatment practices will be implemented so as to minimize drift and its potential impacts on air quality. In addition, the cooling towers will use the best modern practices in their operation.

In general, the overall energy demand of this centralized system will be approximately 2% lower than the BAU option of each building utilizing its own separate cooling and heating plant. This is primarily accomplished through efficient equipment and increased system diversity.

Water Quality

The cooling tower water blowdown may have potential water quality impacts. Blowdown is a process of dissolved solids control in which cooling tower water is discharged and replaced it with makeup water in order to dilute the dissolved solids. Increased concentrations of dissolved solids are produced as a result of the evaporation process. This is the most common method of dissolved solids control. The cooling tower installation will be designed, constructed, and operated based on local water quality regulations so as to minimize impact on water quality. The incorporation of alternative cooling tower water treatment practices will also aid in reducing the impact.

Noise

Having the plant in a central location will have large equipment that will have larger environmental noise. In the District Energy Option, this noise source will be generated in the parking structure adjacent to the urban center rather than at each building. Therefore, the District Energy plant will reduce widespread ambient environmental noise emissions over the BAU case and the central location will provide for greater ease in the acoustic treatment of these systems.

Noise from cooling towers is generally the most difficult to treat as this type of equipment must be located outdoors to allow for the intake and exhaust of ambient air. Noise from a cooling tower is generated by the impact of falling water, movement of air by fans, fan and motor vibrations caused within the structure and by motors, and fan accessories. This noise is typical for all cooling tower sizes. Since the size of the cooling towers is greater and the amount of air flowing through the towers is also larger, the local noise generated by these units will be higher in the District Energy Option. In the BAU case, cooling towers or similar heat rejection devices will be placed at each building. Although the noise generated by larger cooling towers is greater than that of a smaller tower, the ability to provide noise mitigation for multiple cooling tower locations is much more difficult for the building level BAU Option. In addition, the cooling tower location will be adjacent to the urban center rather than within, reducing overall ambient noise within the more densely occupied urban centers.

Noise generated from boilers, chillers and distribution equipment are more easily treated acoustically than cooling towers. The larger equipment will generate greater noise than smaller distributed equipment, but will be centrally located and acoustically treated. There will be no major acoustical impacts for this type of equipment in the District Energy Option as compared to the BAU Option.

Visual Impacts

Cooling towers are likely to have a visual plume. The plume, discharge air form the cooling tower, is made up of saturated air and warmer than ambient. When this warm saturated discharge air mixes with the ambient air, the air is cooled and water condenses forming a visual plume. These water droplets are pure water and free of pollutants or contaminants, contradictory to the perception of the general public that the plume is a hazardous pollutant being released into the atmosphere.

Ambient temperature conditions, discharge temperature conditions, volume of discharge air and velocity of discharge air are all factors that will determine the amount of condensation that occurs and the visibility of the plume. The plume can present a visual hazard if it interferes with roads or airports and may cause the formation of fog and even icing of roadways at low ambient temperatures.

Visual plumes will occur at this location some portion of the year without mitigation. Visual plume mitigation technologies, including combination wet/dry cooling towers, can be used if the visual plume is an issue. These towers may increase equipment cost by as much as 3 times and require slightly more energy use per

unit of cooling; however, use of the dry cooling tower portion will reduce overall water consumption. Combination wet/dry cooling towers are generally larger than typical water only cooling towers.

Additional environmental benefits of the centralized vs distributed system include:

- Increased potential for incorporation of renewable energy systems leading to reduced GHG emissions for the developments.
- Smaller overall equipment sizes due to the diversified end uses being served.
- Simpler noise control – the noisiest equipment is removed from each building and noise can be treated in a single location within the parking garage.

Additional Benefits

All of the above benefits will be available to both the vertical and horizontal aspects of the developments. In addition, the following benefits can be attributed directly to vertical developers;

- Increase in usable floor area in buildings – it is estimated that this could be in the region of 3% for larger buildings due to the elimination of cooling and heating equipment.
- A district system can offer a plug and play path to help meet any sustainable goals that a vertical developer or future building owners / tenants may have – for example net zero energy.
- Better control over the aesthetics of buildings – no need to find routes or locations for boiler flues and heat rejection equipment on the exterior of the buildings.
- A reduction in building level maintenance.
- Has the potential to make roof spaces cleaner leading to improved views from adjacent buildings and the opportunity to incorporate renewable technologies or green roofs at a building level.

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[1]National Ambient Air Quality Standards (NAAQS) are defined by the United States Environmental Protection Agency.

[2]California Ambient Air Quality Standards (CAAQS) are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of regulations.

[3]Bay Area Air Quality Management District (BAAQMD) provides rules and regulations for air quality in 16 specific air quality zones in the Bay Area Region of Northern California. These rules and regulations are more stringent than CAAQS and NAAQS for large boiler installations.

[4]BAAQMD Regulation 9 Rule 7 governs emissions for Large Boilers (>2,000,000 Btu input energy) which are considered for the District Energy Option. The boilers are likely to be load following, more than 5,000,000 BTU/hr and less than 75,000,000. Therefore the maximum allowable emissions limit for oxides of nitrogen is 15 parts per million by volume (ppmv) and the maximum allowable emissions limit for carbon monoxide is 400 parts per million by volume (ppmv). BAAQMD Regulation 9 Rule 6 governs emissions for Small Boilers (>75,000 and <2,000,000 BTU input energy) which are likely to be provided in the BAU Option. The boilers are likely to have input energy ratings between 400,000 BTU/hr and 2,000,000 BTU/hr. Therefore, the maximum allowable emissions limit for oxides of nitrogen under this rule are 20 ppm after January 1, 2013. Carbon monoxide is not regulated under this rule.

Appendix T2 ARUP MBR Decentralized Wastewater Treatment EIR Description, August 19, 2009

To	Therese Brekke	Reference number	13187/RRJ
cc	Jean Rogers, Stephen Proud	File reference	
From	Rowan Roderick-Jones Manish Dalia	Date	August 19, 2009
Subject	MBR Decentralized Wastewater Treatment – EIR description		

Lennar has recently requested that Arup undertake a brief analysis regarding the potential implementation of a decentralized wastewater treatment option for the CP/HPS project. Lennar has requested that this option be presented as the alternative option for the Project Description in the EIR. This report provides the basis for an EIR project description.

1 Decentralized Wastewater Treatment Option Description

The decentralized wastewater treatment option entails utilizing a distributed network of membrane bioreactors (MBRs) to treat wastewater on-site rather than transferring wastewater to the Southeast Water Pollution Control Plant. This would allow the project to generate 1.05 MGD (includes 5% loss from the total 1.1 MGD of anticipated sanitary flow) of reclaimed water in the "Business-as-usual" (BAU) water demand scenario, meeting 73% of the total 1.35 MGD potential reclaimed water demands. For the "Sustainable Case" water demand scenario, 0.91 MGD of reclaimed water would be produced, meeting 100% of the 0.89 MGD reclaimed water demands.

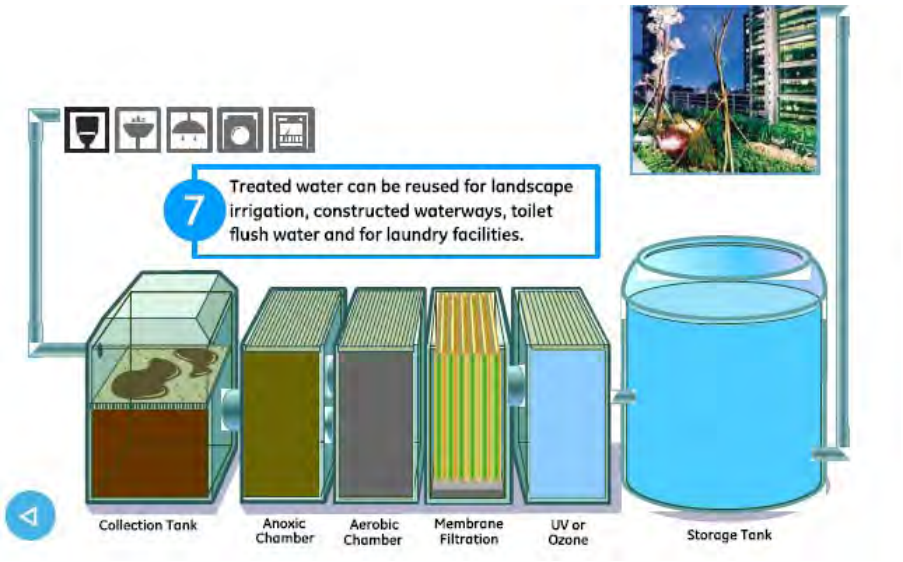
The description in this section includes:

- an overview of the MBR treatment technology
- a description of the project implementation strategy including:
    - capacity and number of facilities
    - above and below-ground area requirements
    - draft sewage collection and reclaimed water distribution areas
- an estimate of environmental implications including:
    - energy
    - solid and liquid waste
    - air quality
    - noise
    - odor
    - chemicals and hazardous materials
    - traffic
    - visual resources

1.1 MBR Treatment Technology

MBRs represent one of the newest technologies in wastewater treatment. The following generally describes the major wastewater treatment steps for an MBR facility and their function within the wastewater treatment stream. Figure 1 illustrates a generic MBR process, which is described in further detail below.

Figure 1 – Generic MBR Process Diagram (Courtesy of GE/Zenon)



Source: GE Water/Zenon

1.1.1 Wastewater Treatment System

1. Grit Screen - Wastewater will first flow through the Grit Screen to remove large debris and trash.
2. Collection Tank - A Collection Tank with aeration and circulation will allow wastewater to be stored prior to treatment and will aid in maintaining a constant flow of wastewater through the treatment system even during times of peak flow.
3. Screening - Screening will remove the smaller debris, and other non sludge materials that cannot be processed through the MBR.
4. Anoxic Chamber - The anoxic chamber will remove nitrate-nitrogen ($N\text{-}NO_3$) from the wastewater.
5. Aerobic Chamber – Oxygen will be introduced to the wastewater in order to remove solids, and decrease ammonia-nitrogen ($N\text{-}NH_3$). The sludge is removed from this system and pumped to a sludge holding tank. Backwash from this process is recirculated back to the Anoxic Chamber.
6. Membrane Filtration – Pressure is used to push wastewater through membranes to remove smaller particles and remaining pollutants. Backwash from the Membranes recirculates to the aerobic Chamber.

7. Disinfection – Disinfection is required to reuse wastewater for non-potable purposes. Disinfection can occur by either UV, mixed oxidant, ozonation, chlorination, or chloramination. This study assumes disinfection by UV.
8. Storage Tank – A storage tank with aeration and circulation will be used to store water before it can be pumped to a larger storage reservoir, or prior to reuse. During Peak Flow events this storage will be crucial to avoid overloading the pumps while not halting the MBR treatment process.
9. Pumping System – A pump will be used to pressurize the recycled water distribution lines Additional pumps may be required at other locations in the distribution system.

1.1.2 Sludge Handling System

A sludge holding tank will be used to store sludge from the MBR process prior to processing or removal from the site. Sludge from MBRs tends to have a water content of about 70% and a bulk density of 45 lbs per cubic foot. A typical 100,000 gpd MBR facility treating municipal wastewater effluent from a per capita equivalent population of about 2100 people would produces about 25 cubic feet or 1115 lbs wet weight of sludge per day. A sludge holding tank would typically have the capacity to store up to a week of sludge and would have a volume of 175 cubic feet or 6 cubic yards.

After the sludge holding tank there are a variety of options for the sludge generated on site.

1. Aerobic Sludge Digester – An aerobic sludge digester can be implemented on a site wide basis to detoxify sludge and break down solids into gases. The treated biosolids will be mixed with polymers to neutralize any remaining toxins. This sludge could then be spread on drying beds before being hauled away to a disposal facility.
2. Anaerobic Sludge Digester – An anaerobic sludge digester can be implemented on site to produce energy. These systems generally require a very large amount of sludge to be cost effective and produce enough energy. Therefore, this would have to be a site-wide system and may require collecting other organic waste streams within the project such as fats, oils, and grease (FOGs) and green landscaping waste, or even importing sludge from outside the project area.
3. Sludge Polymer Mixer – Technology can be implemented such that sludge can be mixed with polymers such that it is not toxic and can be stored and transported to a typical landfill facility.
4. Sludge Hauling – The sludge could be hauled to an off-site treatment and disposal area. Another option is to pump sludge using a trunk line to the Southeast Water Pollution Control Plant for treatment and disposal.
5. Sludge Recycling - Sludge/biosolids may be recycled on-site via mixing with soil amendments for use as fertilizer. Sacramento has a biosolids recycling facility in which they treat and prepare biosolids to be used as fertilizer for agricultural lands. The recycling of biosolids could be incorporated into the City's composting program in which waste from homes and green waste from landscaping are used to create soil amendments.

1.1.3 Operation and Maintenance

Long term operations and maintenance (O&M) of a typical package MBR plant consist of energy consumption, cleaning chemical consumption, membrane replacement and costs associated with sludge handling. Table 1 provides typical long term O&M requirements for a 100,000 gallons per day (gpd) (0.1 MGD) package plant from GE/Zenon. Quantitative estimates of maintenance

requirements associated with sludge handling have not been included and would depend largely on the method used.

Table 1: Long-term operations and maintenance requirements –100,000 gpd MBR plant

Energy Consumption	**kWh/year**
Permeate BP Pumps	1,847
Membrane Blowers	21,788
Recirculation Pumps	4,797
Compressors	3,819
Anoxic Mixers	15,650
Process Blowers	90,977
Pressurization Pumps*	67,525
Total	**206,404**
Cleaning Chemical Consumption	**Lbs/Year**
Hypochlorite	244
Citric Acid	789
Membrane Replacement	**Annualized Cost**
Annualized Cost of Membrane Replacement	$2,461

*Assumes 90 hp pump operating 3 hours per day

Source: GE/Zenon

Note that the annual energy cost of 206,404 kWh is equivalent to **5,654 kWh** per MGD of water treated and includes power requirements for distribution of reclaimed water.

Modern MBR systems are automated allowing minimal on-hand operator presence. Operations and maintenance updates are sent to the plant manager's wireless device and to a technical support station run by the MBR manufacturer.

1.1.4 Area Requirements

MBRs require both above- and below-ground footprints.

A typical 100,000 gpd MBR system would require approximately 6,250 square feet of above-ground footprint to house the treatment plant components, distribution line pressurization pumps and chemical storage area.

Pre-treatment wastewater and product water equalization tanks and sludge storage tanks can be located below ground to reduce the overall dedicated footprint of the facility. Tanks can be sited beneath parking spaces or driveways rather than structures. The estimated below ground footprint requirement for the same 100,000 gpd facility is approximately 30,000 square feet. This includes a small area, approximately 150 square feet, for a sludge storage tank with a 1 week holding capacity of 6 cubic yards.

1.2 Project Implementation Strategy

The following section describes a conceptual plan for implementing distributed MBRs at the CPHPS site. The primary purpose of this plan is to produce reclaimed water meeting Title 22 standards for both indoor and outdoor reuse.

The distributed wastewater treatment option of CPHPS consists of eleven 100,000 gpd (0.1 MGD) plants distributed across the site. These plants will treat a total of 1.1 MGD of wastewater and produce conservatively about 1.05 MGD of reclaimed water. Water in sludge and other losses account for the balance.

Each distributed plant would be installed using two standard 50,000 gpd MBR units. This will allow for expansion to full capacity at locations serving development areas with different phasing schedules. The sanitary collection areas for each 100,000 gpd facility are estimated based on predicted sanitary flow by phasing as well as topography. Lift stations associated with the collection of sanitary flows have not been located nor sized. A more detailed analysis of sanitary flows by parcel as well as sewer pipe invert elevations would be required to finalize the collection area delineation, location, and size of lift station.

Table 2 summarizes the number of 100,000 gpd MBR sites required by phase for the project. Note that Phase 1 has 0.07 MGD excess capacity, making up for the deficiency in individual capacities in the subsequent phases. Figure 2 below provides generalized locations for each of the eleven MBR plants.

Table 2 - MBR's Required by Phase for the Sustainable Case Flows

	Approx. Flows[1] (MGD)	100,000 GPD MBR Sites Required*	Space Required Above Ground (sqft)	Space Required Below Ground (sqft)	Total Required Space (sqft)	Total Required Space (acres)
Phase 1	0.33	4*	25,000	120,000	145,000	3.3
Phase 2	0.44	4	25,000	120,000	145,000	3.3
Phase 3	0.21	2	12,500	60,000	72,500	1.7
Phase 4	0.12	1	6,250	30,000	36,250	0.8
Total	1.1	11	68,750	330,000	398,7500	9.1

1 . Source: Arup, 2009. CPHPS Water Demand Memorandum. Prepared for Lennar, July 20, 2009.

1.2.1 Product water distribution

Product water (reclaimed water) from the MBR facilities would be distributed through a site wide system of pressurized mains. Unlike the sanitary collection system, the distribution system would be connected between MBRs locations in order to maximize flexibility between point of production and point of use. Targeted end uses for reclaimed water and their approximate average daily consumption rates include irrigation of public open spaces (0.35 MGD), residential and non-residential irrigation, water features and other exterior uses (0.50 MGD,) residential and non-residential toilet and urinal flushing (0.25 MGD), mechanical cooling and process water (0.25 MGD). The total combined BAU demand for reclaimed water is estimated to be 1.35 MGD. Additional potential uses include supply water for wetland habitat restoration sites. Based on the estimated supply and demands, it is not anticipated that any water would be available to distribute outside of the project area.

Figure 2 – Concept Sewage Collection Areas and Generalized MBR Locations.
Based on phasing diagram (Lennar June 2009). MBR locations not to scale.

1.3 Environmental Implications

1.3.1 Energy

As previously discussed, the estimated energy demand for typical MBR system is about 5,650 kWh per 1 MGD treated. Therefore, the total energy demand for treating and distributing 1.1 MGD of wastewater at CPHPS would be about 6,215 kWh/day.

1.3.2 Solid and Liquid Wastes

The MBR facilities create two products, sludge and reclaimed water. There will be no wastewater discharges from the MBR facilities. All product water will be distributed via reclaimed water pipelines to end uses throughout the development.

The distributed MBR facilities will producetotal of approximately 3,675 pounds dry weight and 12,245 pounds wet weight of sludge per day. The total volume of sludge produced is estimated to be 10 cubic yards per day. As previously discussed there are a number of options for sludge processing and disposal. Because drying and spreading on-site is not considered practical for odor and spatial reasons, it is recommended that sludge be hauled to an off-site processing facility.

1.3.3 Air Quality

Quantitative data on air emissions from MBR facilities was not available. Emissions from sludge hauling as discussed above would also need to be accounted for.

1.3.4 Noise and vibrations

No quantitative data for noise and vibration intensity was available for MBR facilities. However, a case study from Carneros Inn in Napa County provides qualitative evidence that noise and vibration from MBR facilities can be minimized through proper housing of equipment.

1.3.5 Odor

Odors from MBR facilities can be easily mitigated by using odor control devices such as scrubbers and ensuring that the tanks, treatment works and buildings are well sealed.Treated air can be routed to a location where sensitive receptors are less likely to be present.

1.3.6 Chemicals and hazardous materials

As previously mentioned, hypochlorite and citric acid are required during normal operation and maintenance of the MBR. It is estimated that a total of 268 lbs of hypochlorite and 868 lbs of citric acid will be required on an annual basis at the 11 proposed facilities at CPHPS. These chemicals can be delivered on an annual or semiannual basis.

1.3.7 Traffic

A single sludge hauling truck with about 20 cubic yards capacity would make one trip roughly every 2 days to remove sludge from the combined facilities.

1.3.8 Visual

The above-ground machinery of the treatment plant would be housed within 1 storey structures for protection from the weather and to facilitate maintenance. This structure can be aesthetically treated to disguise the building's use. A good example of aesthetic housing is the Carneros Inn MBR in Napa Valley, located within a barn-like structure as shown below. Vehicle and heavy machinery access is also an important consideration because the facility will require maintenance and components will need to be replaced over time. Access to the sludge storage facility will also be required to allow for periodic removal, whether the facility is above or below ground.

Figure 3: MBR Facility Structure at the Carneros Inn, Napa Valley

2 References

C.L. Wallis-Lage, S.D. Levesque, Cost Effective & Energy Efficient MBR Systems, Black & Veatch, available at http://bvwater.files.wordpress.com/2009/05/abstract_siw09_wallis-lage.pdf

Appendix T3 ARUP CP-HPII EIR Write-Up Automated Waste Collection System, September 3, 2009

To	Lennar Therese Brekke	Reference number	
cc	Jean Rogers	File reference	
From	Orion Fulton	Date	September 3, 2009
Subject	CP-HPII Revised EIR Write Up - Automated Waste Collection System		

The following summarizes the basic function, construction and environmental impact of the automated waste collection system (AWCS) proposed for CP-HPII. The conceptual system contemplated here is based the estimated waste numbers from the July 2009 Draft Sustainability Plan and would handle three separate waste streams per City of San Francisco Regulations: recyclables, compostables, and trash. Waste data tables can be found at the end of this memo.

System Description

Operation Process

The AWCS system for CP-HPII would be designed to allow for the source separation loading of recyclables, compostables, and trash into various types of loading points located throughout the development at ground level and in buildings. Material will be temporarily stored at the loading point/inlet until being automatically removed from these points and delivered to a central waste handling facility on a 60 mile per hour air stream within a set of transport pipes. At the final collection point, each type of material will be captured and diverted into one of three containers for compaction before being hauled off site.

Please see the figure attached to this memo for a plan view illustration of a conceptual system for CP-HPII.

Loading points/Inlets
Material will be entered into the system through various types of loading stations. In high rise and mid level buildings, each waste stream will be loaded into a dedicated, centrally located chute via a loading door on each floor. Material will collect at the base of the chute. When a discharge sequence is initiated, a gate will be opened at the base of the chute to allow the material to drop into the moving air stream. In single family dwellings material will be loaded into ground loading stations. Stations will be located in a centralized location to allow utilization by multiple dwellings. These stations allow material to collect inside the loading station. The system will generate a discharge sequence utilizing an underground gate to drop material into the moving air stream. Ground loading stations can also be installed in public areas where traditional trash cans would typically be located. For all types of loading points, discharge sequences will be initiated on a set schedule. If material reaches a high level sensor in the loading points a sequence will be initiated outside of the set schedule.

Piping network
Underground piping will be heavy wall steel with an erosion and corrosion protection system. When piping goes above ground lighter gauge stainless or galvanized steel may be utilized. Stainless pipe is installed in area exposed to outside (salty) air. Galvanized steel may be utilized in interior spaces.

Air intake

Air inlets provide a means for air to be drawn into the pneumatic tubing allowing the airflow necessary for material transport. An air inlet may or may not include an inlet damper. This is dependent on location and orientation.

In-line dampers

In-line dampers are used to close off unused branches of material transport piping during the operation of an alternate individual branch. This allows airflow to be restricted only to the piping in use.

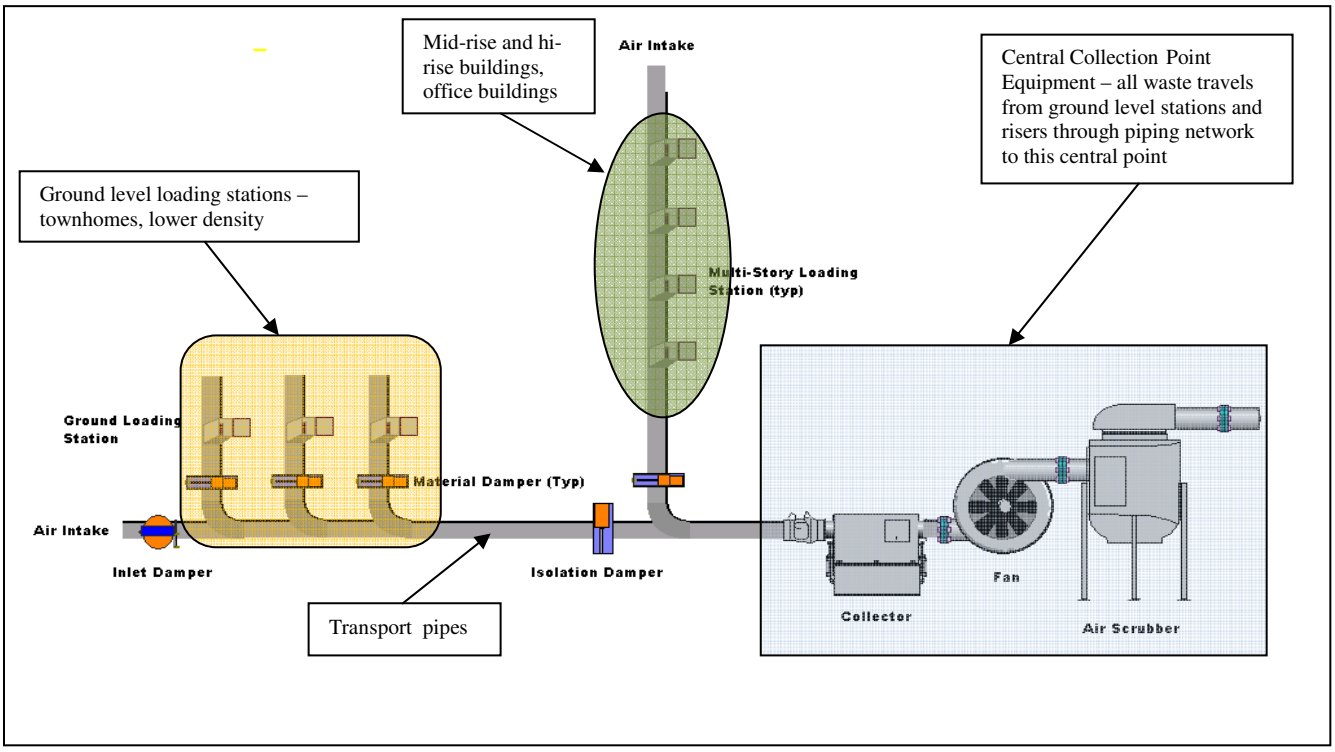
Final collection point

Material will be delivered to a central waste handling facility. This building will house fan units, air scrubbers, cyclone waste separators, compactors and containers. Each type of material will be delivered to its own cyclone separator. After delivery, material will fall into a compactor feed hopper and then will be pushed (and compacted) into a 40 cubic yard container. When containers are full they will be disconnected from the compactor and moved to a staging location. An empty container will be quickly moved into place and connected to the compactor. The containers will be moved using an automated rail-based or other automated positioning system. The staged (full) containers will be located so they can be loaded onto haul off trucks when available. The central waste handling facility will be approximately 15,000 to 20,000 square feet and no more than 35 feet in height. The facility can be located completely or partially underground, below a building or parking deck or in any other location that suits the development's objectives. Sound insulation can be provided around the fan and/or collection area to minimize ambient noise from the facility. Solar power can be utilized to operate compactors and/or any portion of the control system.

Air scrubbers

Discharge air will be scrubbed to remove particulate matter and odor. The scrubbers force the exhaust air to pass through a screen of water that will knock out particles and provide odor neutralization. The scrubber water will be filtered and recycled.

Figure 1: Summary of AWCS Components



Construction Process

Through coordinated installation sequence, a network of buried 20" diameter steel pipe would be installed in the assigned right-of-way during Phase 1 of the project. Branch piping would be installed to planned end locations and, wherever possible, branch piping stub-outs will be installed for future connection. Based on material volume projections, loading stations would be located as needed within multi-story buildings and outdoor areas. Buried maintenance access vaults would be installed at branch locations to allow permanent access to underground piping when needed. Equipment room and the collection area may initially be installed at agreed upon temporary locations and later relocated to a permanent facility.

Environmental Impact

Air

Air (wet) scrubbers would be designed and operated to remove any airborne particulate matter and odor that might be conveyed to the outside air. The air scrubbers work by creating a contained mist of water that the air exhaust passes through trapping dust and particulate matter which, in turn, is drained to a collection reservoir and ultimately discharged to the sanitary sewer system.

No equipment used would have associated air emissions. All exhausted air from within the system will be scrubbed to meet applicable BAAQMD requirements, if any.

Water

The only water use for the system is on the wet scrubber as described above. After filtering, the wastewater is released via a pipe connected to the sanitary sewer. The wastewater does not contain hazardous materials; the contaminants would be no different than ordinarily discharged to the sewer system from normal household use. Wastewater does not enter the groundwater.

The AWCS operates under negative pressure and if there were a breach in the line ground water could enter the system. In the unlikely event of a pipe breach, the AWCS control system would identify the loss of air pressure, including loss due to a break in the pipe, and immediately isolate the affected area from the rest of the system by closing dampers at each end of the affected area, allowing the remainder of the system to continue operating while the broken pipe is repaired.

It is unlikely there would be material at rest in the line at the time of a breach – materials are pulled through the line at roughly 60 miles per hour. Even if material were traveling through the section of pipe that experienced a break, the material would most likely not fall out of the pipe due to the negative pressure, and instead continue through the system to the Collection Facility where the water and waste materials would be handled using standard operating procedures.

Noise

The only noteworthy noise created from the system would be due to the suction fans located in the central Collection Facility. At maximum operating speeds (RPMs), fans typically produce between 100 and 125 dB depending on octave range (measured 10 ft from unit). Fan noise and impact would be minimized by location and acoustical considerations on walls and ceilings. Silencers and other methods would be incorporated into the exhaust pipe to reduce noise levels to 85 dB or less. These fans will not be located in inside buildings, but would be located only at the final collection point(s). The final collection point would be housed in a building that is designed to mitigate noise.

There would be no appreciable noise associated with ground level loading stations, which would generally be located outside.

At the bottom of risers in buildings, there would be some noise from air intake. These intakes typically would be located in garages in as discrete an area as possible. The noise associated with an air intake is less than that of an air conditioning compressor, is limited to times when the risers are being emptied into the horizontal piping network and will likely generate intermittent and brief noise in the 55-70 dB level.

Because of the substantial reduction in truck traffic with the AWCS, residents and visitors will experience a corresponding large reduction in noise levels associated with less truck movement and usage.

Energy

System energy consumption is mostly due to fan motor power draw and air compressor horsepower. The fans are controlled by variable frequency drives and operated at high power only on demand. Moving parts on the system are electro/pneumatic; each uses only about ½ watt and a fraction of a cfm of air flow per actuation. Total system energy consumption is estimated to average approximately 2-4 kWh per month per permanent resident depending on the ultimate design of the system.

The AWCS system should have a net positive impact on energy usage due to the substantial reduction of truck usage at CP-HPII.

Traffic

Trash truck traffic is reduced significantly in the commercial and residential areas since they only need to travel to a centralized collection facility. Preliminary estimates predict at least a 70% reduction in truck traffic compared to the traditional waste collection approach. Using traditional collection methods, it is estimated that 10-13 trash trucks will be needed at CP-HPII each day for an estimated 7-8 hours per day.[1] This estimate is based on the total estimated tonnage of 22,454 tons produced annually[2] and could easily increase once the final design is established and reviewed by the City's waste hauler. In addition, it is very likely that up to additional 2 trucks will be necessary under the traditional collection method at the stadium after a game on game days. The average total number of hours of trash truck traffic at Hunter's Point per day using traditional collection methods will fall within the 100+ hours per day range. The AWCS should reduce the number of hours of circulation by at least 70%, assuming 7-9 ton load per hauling load from the Collection Facility. The reduction in truck traffic should substantially and meaningfully reduce emissions, congestion, danger and noise at Hunter's Point.

Greenhouse Gas Emissions and Other Particulate Matter

Due to the substantial reduction in truck traffic, CP-HPII will benefit from a corresponding reduction in greenhouse gases. Specifically, diesel and biodiesel trucks emit large amounts of CO2. Diesel trucks emit roughly 22.2 lbs of CO2 per gallon of fuel consumed; biodiesel trucks emit roughly 20% less or roughly 17.8 lbs per gallon of fuel consumed.[3] The AWCS system would decrease truck traffic by at least 70%, as stated above, which would result in a comparative reduction in CO2 emissions.

In addition to greenhouse gases, trash trucks emit large amounts of NOX and other PM. It is assumed that trash trucks emit 0.020 grams of NOX per hour of brake horsepower 0.014 grams of Hydrocarbon non methane per hour of brake horsepower and 0.011 grams of PM per hour of brake horsepower.[4]

A trash truck has 230 brake horsepower.

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[1] Estimates based on waste data provided in the July 2009 Draft Sustainability Plan, included at the end of this memo.
[2] CPHPS Sustainability Plan, July 2009, Arup, page 106, see table below
[3] Calculations reported by Recology, City of San Francisco's current waste hauler.
[4] Ibid.

Energy consumed by the system fan motors will be hydropower delivered by the SFPUC, so there would be no significant indirect greenhouse gas emission impacts from this energy usage.

Greenhouse gases will be substantially reduced with the use of an AWCS.

Public Health

In addition to the climate and clean air benefits listed above, there would be substantial public health benefits derived from the use of the AWCS. Specifically, the public would have limited exposure to trash on the streets in general and the attendant rodent problem associated with exposed trash. Moreover, the AWCS is completely sealed so the collection point would also be relatively free of rodents.

CP-HPII Waste Summary by Land Use

Zone	Total Annual Waste Generation (tons)
Residential	10,832
Commercial	7,212
Hotel	296
Stadium	4,114
Total	22,454

Appendix U CBRE Candlestick Point–Hunters Point Shipyard Phase II Development Plan Secondary Land Use Effects, October 2009

CANDLESTICK POINT – HUNTERS POINT SHIPYARD PHASE II DEVELOPMENT PLAN: SECONDARY LAND USE EFFECTS

SAN FRANCISCO, CALIFORNIA

Prepared for:

LENNAR URBAN

OCTOBER 2009

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October 14, 2009

Ms. Therese A. Brekke
CEQA Manager
Lennar Urban
49 Stevenson Street Suite 600
San Francisco, California 94105

Re: Candlestick Point – Hunters Point Shipyard Phase II Development Plan Retail Impacts Analysis

Dear Ms. Brekke:

CBRE Consulting is pleased to submit this report regarding the potential secondary land use impacts of the planned retail at the Candlestick Point – Hunters Point Shipyard Phase II Development Plan in San Francisco, California. The report discusses the anticipated sales of the Project's proposed retail, the likely impact of these sales on existing retailers, the cumulative impacts of other selected planned developments within and near the market areas, and the extent to which the new development may or may not contribute to urban decay.

It has been a pleasure working with your team. Please let us know if you have any questions or additional needs.

Sincerely,

Amy L. Herman, AICP
Senior Managing Director

Gregory G. Keller
Managing Director

Pipi Ray Diamond
Director

Kate M. Barry
Consultant

TABLE OF CONTENTS

LIST OF EXHIBITS
(LOCATED IN APPENDIX A)

I. EXECUTIVE SUMMARY

INTRODUCTION

This analysis evaluates the economic impact of the retail portion of the Candlestick Point – Hunters Point Shipyard Phase II Development Plan (referred to as the "Project") in the City and County of San Francisco, California ("San Francisco"). This mixed use development is planned for an approximately 764-acre area in the Candlestick Point and Hunters Point Shipyard neighborhoods of San Francisco. The many land uses planned for the Project include residential, retail, office, research & development, hotel, artist's studios/artist education center, institutional, parks & open space, the 49ers Stadium, ferry terminal, marina, performance venue, and parking. Two major areas of retail are planned: a 635,000-square-foot regional center at Candlestick Point with an adjacent 125,000-square-foot neighborhood retail and business services area; and a second 125,000-square-foot neighborhood retail area at Hunters Point Shipyard. The neighborhood retail at Hunters Point Shipyard is located in and adjacent to a planned Village Center. The retail space is anticipated to be completed by 2030. No specific retail tenants have been identified at this time.

This study estimates the potential impacts of the Project's retail tenants on existing retailers in the Project's estimated market areas and other potentially affected areas. In addition, the study estimates the extent to which the opening of the Project may or may not contribute to secondary land use effects in the form of urban decay.

SUMMARY OF FINDINGS

Project Sales

CBRE Consulting estimates that sales at the Candlestick Point regional center ("Candlestick Point") will total $190.6 million in 2009 dollars annually with another $26.7 million at the adjacent neighborhood retail area. Sales at the Hunters Point Shipyard Phase II neighborhood retail component ("HPS Phase II") will total $43.5 million. Sales at the Candlestick Point regional center will be concentrated in the other retail stores category, which covers electronics/appliances, sporting goods, books, a cinema, and other specialty retailers, as well as the general merchandise and apparel categories. The neighborhood retail planned adjacent to the regional center will comprise restaurants, other retail stores, a drug store, and some non-retail personal services and businesses. Sales at the HPS Phase II neighborhood retail component will be concentrated in a grocery store, the other retail stores category, restaurants, and the general merchandise category.

Potential Impacts on Existing Market Area Retailers

Market Areas Determination. Retail shopping center market area geographies are dictated in large part by each center's format and market orientation, such that the Candlestick Point regional center and neighborhood retail area and HPS Phase II neighborhood retail component are estimated by CBRE Consulting to have distinct trade areas. Because of the close proximity of the Candlestick Point neighborhood retail to the regional center, it is included in the larger regional center's market area. Although neighborhood retail does not typically have a wide draw, when it is part of or near to a regional center, it can benefit by the broader draw of the larger center. CBRE Consulting believes that shoppers attracted to the regional center will also visit the stores in the adjacent neighborhood retail component because it is convenient. The Candlestick Point retail market area is roughly an area that is within a 15-minute drive of the planned center. The market

area defined for the HPS Phase II is for the most part a three-mile radius. This boundary roughly corresponds with a 10-minute drive time. CBRE Consulting conducted analysis to determine the extent to which the Project's retail sales would impact existing retailers within each of the Project market areas.

Potential Impacts of HPS Phase II. The analysis indicates that absent consideration of cumulative projects, the HPS Phase II neighborhood retail is not estimated to divert sales from existing retailers in any of the retail categories analyzed. The demand associated with new household growth is expected to absorb a large component of sales at the planned HPS Phase II neighborhood retail area in 2030. New demand associated with household growth is estimated to account for $13.8 million of the HPS Phase II's $41.3 million in market area sales. The remaining $103.0 million in demand from new households will be distributed among other market area stores, such that any potential impacts to existing stores will be fully offset. While these recaptured sales are likely to occur at the detriment of other retailers outside the market area, there is still other remaining demand available to offset both these impacts and the ones in the market area. Therefore, no substantial impacts are estimated to occur to the detriment of existing retailers due to HPS Phase II.

Potential Impacts of Candlestick Point. The demand associated with new household growth is expected to absorb a large component of sales at the planned Candlestick Point retail areas in 2030. New demand associated with household growth is estimated to account for $11.0 million of the Candlestick Point's $173.2 million in market area sales. The remaining $246.3 million in demand from new households will be distributed among other market area stores, such that potential impacts to existing stores will be at least partially offset. Remaining impacts are estimated in the apparel stores and other retail stores categories. However, as a share of the market area sales, these impacts are only 2.3 percent in apparel and less than 1.0 percent in the other retail stores category. There is also still a large amount of remaining demand in the general merchandise, food stores, restaurants, and building materials categories. If any apparel retailers or other retail stores were to close due to impacts from Candlestick Point, there appears to be sufficient demand for a store in a different retail category to retenant the space. Therefore, no substantial impacts to the detriment of existing retailers are estimated to lead to prolonged vacancies due to the planned Candlestick Point.

Impacts on Stores Outside of the Market Areas

CBRE Consulting analyzed the potential sales impacts to existing stores that are located outside but near the two respective market areas following potential changes in shopping patterns that may occur after the opening of the Project's retail components. Overall, the analysis finds that the introduction of new retail stores at HPS Phase II and Candlestick Point are likely to attract some shoppers away from existing neighborhood-serving shopping districts and regional centers that are outside the Project's market areas. However, demand growth due to the introduction of new households in San Francisco and nearby San Mateo County cities is also projected to be strong enough to counter most, if not all, potential sales impacts on competitive stores. Specifically, for the neighborhood-serving trade areas in the analysis, potential diversions of the competitive sales base ranged from 0.0 percent to 7.7 percent, and projected household growth through 2030 supports the conclusion that there will be no net consumer loss at any of the representative locations analyzed. For the regional retail trade areas, the three centers analyzed had a greater overlap with the Candlestick Point market area, and as a result, the potential diversion of the associated consumer bases ranges from 14.7 percent to 16.1 percent. Demand growth in two of the three

representative regional trade areas is projected to be sufficient to fully offset related diversions by 2030, while the Westlake Shopping Center, one of the centers analyzed, may experience a net loss of up to 1.1 percent of its trade area base. In addition, this potential net consumer loss is likely an extreme example based on the study assumption that the planned Candlestick Point retail area will divert a full 50 percent of household demand from the overlapping trade area; this result would be lower if a more moderate assumption of redirected demand had been applied.

Cumulative Impacts

Potential Impacts of HPS Phase II. When taking into consideration all cumulative projects planned in the HPS Phase II market area, sales impacts of up to $0.4 million in 2009 dollars in the other retail stores category are estimated. These impacts are relatively small accounting for only 1.0 percent of the market area sales base. These impacts will likely be spread among many retailers; however, if certain retailers are affected disproportionately, store closures could occur. There is also remaining new household demand of $91.8 million concentrated in the food stores, restaurants, and general merchandise categories in the HPS Phase II neighborhood retail market area. If store closures were to occur in other retail stores category, those vacant spaces could be retenanted by a retailer in a category with remaining new household demand. Because of this remaining demand, CBRE Consulting does not anticipate that any vacancies due to the HPS Phase II in combination with the India Basin project will remain empty for a prolonged period of time. Therefore, existing retail districts in the HPS Phase II market area are unlikely to be substantially negatively impacted by the neighborhood retail planned at HPS Phase II and India Basin. Instead, new household growth in the HPS Phase II market area is likely to benefit the existing retail districts.

Potential Impacts of Candlestick Point. Table 1 summarizes the estimated sales impacts to existing retailers in the Candlestick Point market area due to the Candlestick Point retail components in combination with the cumulative projects.

Table 1
Maximum Cumulative Sales Impacts in Candlestick Point Market Area
2009 Dollars, in millions

Retail Category	Maximum Sales Diverted From Project Market Area Retailers	Maximum Sales Diverted as a Share of Market Base	Final Remaining New Household Demand
Apparel	$23.4	9.1%	$0.0
General Merchandise	$9.9	1.2%	$0.0
Food Stores	$0.0	0.0%	$74.9
Eating and Drinking	$0.0	0.0%	$61.4
Home Furn. & Appliances	$10.8	3.5%	$0.0
Building Materials	$0.0	0.0%	$43.9
"Other Retail Stores"	$81.1	5.1%	$0.0
Total[1]	**$125.3**	**2.4%**	**$180.2**

Source: Exhibit 56.
(1) Figures may not total due to rounding.

As shown, the Candlestick Point market area may experience up to $125.3 million in sales impacts in 2009 dollars concentrated in the other retail stores and apparel categories. Smaller impacts are estimated in the general merchandise and home furnishings & appliances categories. These impacts will likely be spread among many retailers. However, if certain retailers are affected disproportionately, store closures could occur.

Table 1 also shows the final remaining new household demand in the Candlestick Point market area, net of demand that offsets some of the impacts of new retail projects. This $180.2 million in demand is in the Food Stores, Restaurants, and Building Materials categories. If store closures were to occur in Other Retail Stores and Apparel categories, those vacant spaces could be retenanted by a retailer in a category with remaining new household demand. Because of this remaining demand, CBRE Consulting does not believe any vacancies due to Candlestick Point in combination with the cumulative projects will remain empty for a prolonged period of time. The existing retail districts in the Candlestick Point market area also are unlikely to be substantially negatively impacted by planned Candlestick Point retail components in combination with cumulative projects because their main retail categories are estimated to have minimal impacts. The South Bayshore and Third Street retail districts both have retail sales concentrated in the building materials, gas stations, and restaurants categories, which are not estimated to have any impacts. The San Bruno Avenue retail district has most of its sales in the gas stations and restaurants categories and Leland Avenue has retail sales concentrated in the food stores category and the motor vehicles and parts category. Instead, new household growth in the Candlestick Point market area and remaining demand in the restaurants, food stores, and building materials categories are likely to benefit the existing retail districts.

URBAN DECAY DETERMINATION

Study Definition of Urban Decay

For the purpose of this analysis, urban decay is defined as, among other characteristics, multiple visible symptoms of physical deterioration that invite vandalism, loitering, and graffiti that is caused by a downward spiral of business closures and long term vacancies. This physical deterioration to properties or structures is so prevalent, substantial, and lasting for a significant period of time that it impairs the proper utilization of the properties and structures, and the health, safety, and welfare of the surrounding community. The manifestations of urban decay include such visible conditions as plywood-boarded doors and windows, parked trucks and long term unauthorized use of the properties and parking lots, extensive gang and other graffiti and offensive words painted on buildings, dumping of refuse on site, overturned dumpsters, broken parking barriers, broken glass littering the site, dead trees and shrubbery together with weeds, lack of building maintenance, homeless encampments, and unsightly and dilapidated fencing.

Urban Decay Approach

CBRE Consulting's approach to assessing the potential for urban decay is grounded in all of the preceding analysis, focused on determining if the Project and identified cumulative projects will directly or indirectly cause any existing retailers to close, and if the subsequent vacancies will remain vacant for a prolonged period of time such that they develop the symptoms cited above that contribute to and eventually lead to urban decay. As reviewed in the preceding chapters, new household demand by 2030, the assumed operational year of the Project's retail developments, is

anticipated to be sufficient to result in minimal anticipated negative sales impacts on existing retailers attributable to each project independently. There is anticipated to be new demand due to household growth in adequate quantities to support the Project's retail components (as well as recaptured leakage relative to HPS Phase II) as well as existing retail developments that may experience some Project-related diverted sales. This is the case for retail developments located in the respective HPS Phase II and Candlestick Point market areas as well as for nearby retail developments with shared market area portions.

The planned Project's retail developments are also not perceived to lead to the closure of existing retailers on a cumulative basis after consideration of demand generated by household growth. Despite identified plans for 3.5 million square feet of cumulative retail development, the Project's retail components are not anticipated to result in retail store impacts leading to prolonged retail store vacancy. While some stores may close as a result of diverted retail sales, sufficient retail demand is anticipated to occur in other retail categories that will enable new or expanded retail enterprises to backfill the resulting vacancies. Therefore, the existing retail commercial base is not anticipated to experience prolonged vacancy or other condition likely to contribute to or lead to urban decay.

Urban Decay Conclusion

Based upon the findings regarding the presence of new retail demand sufficient to support the planned Project, other cumulative retail projects, and/or backfill retail spaces vacated as a result of project impacts, CBRE Consulting concludes that the Project's retail components will not cause or contribute to urban decay. This finding pertains to the Project's retail components on both an individual and a cumulative basis.

II. INTRODUCTION

This analysis evaluates the economic impact of the retail portion of the Candlestick Point – Hunters Point Shipyard Phase II Development Plan ("Project"), a mixed use development planned for an approximately 764-acre area in the Candlestick Point and Hunters Point Shipyard (HPS) neighborhoods of San Francisco. The many land uses planned for the Candlestick Point – Hunters Point Shipyard Phase II Development Plan (referred to throughout this report as the "Project") include residential, retail, office, research & development, hotel, artist's studios/artist education center, institutional, parks & open space, the 49ers Stadium, ferry terminal, marina, performance venue, and parking. Two major areas of retail are planned: a 635,000-square-foot regional center at Candlestick Point with an adjacent 125,000-square-foot neighborhood retail and business services area; and a second 125,000-square-foot neighborhood retail area at Hunters Point Shipyard. The neighborhood retail at Hunters Point Shipyard ("HPS Phase II") is located in and adjacent to a planned Village Center.

STUDY BACKGROUND AND PURPOSE

An Environmental Impact Report (EIR) for the Project is being prepared and coordinated by PBS&J. To support this effort and comply with the California Environmental Quality Act (CEQA), CBRE Consulting was asked to assess the potential for the proposed retail development to cause urban decay. The decision by the Fifth District Court of Appeal in *Bakersfield Citizens for Local Control v. The City of Bakersfield* indicated that CEQA requires a lead agency to consider and analyze the potential for the introduction of planned retailers to result in adverse physical impacts on the environment by causing a chain reaction of store closures and long-term vacancies, otherwise referred to as a condition of "urban decay." This study addresses the concerns voiced in the Bakersfield decision by considering the potential impact of the Project in conjunction with the introduction of other retail developments in San Francisco and the surrounding area. For purposes of this analysis, and to be consistent with the EIR, the Project is expected to be completed such that the retail tenants will have their first full year of operations in 2030.

STUDY TASKS

CBRE Consulting performed numerous tasks during the course of this assignment. In brief, these tasks included the following:

- Estimated the retail sales associated with the two components of retail planned at the Project;
- Defined the market areas for each retail component;
- Estimated the share of the Project's sales to be generated by residents of the Project market areas;
- Conducted retail demand, sales attraction, and spending leakage analyses for the Project market areas;
- Estimated the maximum potential impacts on existing Project market area retailers due to the introduction of the Project;
- Conducted fieldwork to evaluate existing market conditions;
- Assessed the competitiveness of existing Project market area stores and likely impacts on these stores;
- Identified competitive planned retail projects that could contribute to cumulative impacts;

- Assessed the cumulative impacts of planned retail projects;
- Assessed the potential impacts to retail outside of but near the Project market areas; and
- Assessed the extent to which the Project and the opening of other cumulative retail developments may or may not contribute to urban decay.

These tasks were completed in Summer 2009, and the related analysis is based on government data and other research information most currently available during that period.

STUDY RESOURCES

Many resources were relied upon for this study. Information on the Project was obtained from Lennar Urban and PBS&J. An estimate of the retail mix at the two components was developed in coordination with Lennar Urban and the San Francisco's Base Reuse and Real Estate Development Department. A reference material for determining the retail mix at the neighborhood retail component adjacent to the Candlestick Point regional center was the *Retail Market Analysis for Candlestick Point* study done by Irwin Development Group in January 2008.

Data on retail sales per square foot for store types and specific retailers were obtained from specific stores' 10-K reports on file with the United States Securities and Exchange Commission. Other estimates utilize Retail MAXIM, *Alternative Retail Risk Analysis for Alternative Capital 2004, 2006, and 2008* and *Dollars & Cents of Shopping Centers/The Score 2008*. Market area retail sales estimates for 2008 were obtained from Claritas, Inc., a national provider of demographic and economic data and used in conjunction with taxable sales data from the State of California Board of Equalization (BOE) for 2007, the most recent annual data available when this study was completed. Data for recent trends in San Francisco sales tax came from the city's tax consultant, MuniServices. Projections for retail sales by category were based upon Hinderliter de Llamas (HdL) projections.

Data on drugstore sales payer composition were obtained from company's 10-K filings with the United States Securities and Exchange Commission and the September 2008 Kaiser Family Foundation Report, *Prescription Drug Trends*. Business-specific data identifying local retailers were obtained from Claritas and CoStar, a commercial real estate information service, as well as through field research conducted in May 2009.

The San Francisco Urban Water Management Plan provided household estimates and projections for San Francisco. The Association of Bay Area Government's *2007 Projections* provided household estimates and projections for South San Francisco, Daly City, and Brisbane. Resources prepared by Claritas, Inc. were relied upon for average household income trend data as well as some household estimates. Sources for information on cumulative projects include Fehr & Peers as well as the planning departments of the following cities: San Francisco, Brisbane, South San Francisco, Daly City, Colma, Millbrae, Burlingame, Foster City, San Mateo, and San Bruno.

REPORT ORGANIZATION

This report includes eleven chapters, organized as follows:

I. Executive Summary
II. Introduction
III. Project Definition and Sales Projections
IV. Project Market Area Description
V. Retail Market Characterization
VI. Retail Sales Base Characterization
VII. HPS Phase II Retail Sales Impacts
VIII. Candlestick Point Retail Sales Impacts
IX. Impacts on Retailers Outside the Market Area
X. Cumulative Impacts
XI. Urban Decay Determination

This report is subject to the appended Assumptions and General Limiting Conditions. All of the exhibits referenced in the report are included in the Appendices.

III. PROJECT DEFINITION & SALES PROJECTIONS

CBRE Consulting's findings relative to the anticipated retail sales for the proposed retail at the Project are presented below. These include estimates of the total retail sales generated by the two different retail components of the Project: Candlestick Point Regional Center and Neighborhood Retail/Main Street Concept; and HPS Phase II Neighborhood Retail. Sales calculations for the Project and supporting retail space are based on average sales per square foot estimates for retail store types and categories that will be represented. These averages were calculated using Retail MAXIM, *Alternative Retail Risk Analysis for Alternative Capital 2004, 2006, and 2008*. This portion of the analysis classifies the projected sales according to retail categories reported by the California Board of Equalization, which provides a basis for analyzing potential sales impacts related to the Project and to cumulative retail developments, which are described in Chapters VII, VIII, IX, and X.

DEVELOPMENT PROGRAM AND TIMING

The Candlestick Point and HPS Phase II retail components of the Project are planned in the areas of San Francisco congruent with their names in a 764-acre area east of U.S. Highway 101 in the southeast area of the City and County of San Francisco. Candlestick Point is located near the intersection of Harney Way and Jamestown Avenue and HPS Phase II is planned near the intersection of Spear and Fischer avenues in San Francisco. Build-out for the retail portions of the Project is anticipated for 2030. The components analyzed by CBRE Consulting include the following:

Candlestick Point Retail

- ***Regional Center.*** Anchored by a 125,000-square-foot general merchandiser, this 635,000-square-foot outdoor shopping center is planned in Candlestick Point. Other anchors are a 60,000-square-foot grocery store and a cinema. Large stores planned include those selling books, sporting goods, hardware, and electronics. Smaller stores will include 70,000 square feet of apparel, a food court, sit-down restaurants, furniture and home furnishings, gifts, and specialty retail. A small portion of the space is allocated to business and personal services stores such as banks, spas, and salons.
- ***Neighborhood Retail/Main Street Concept.*** Located on two streets adjacent to the regional center, this retail area will have a total of 125,000 square feet. Half of the space is expected to be composed of business and personal services shops such as doctors, lawyers, and insurance offices that do not produce taxable sales.[1] About 20 percent of the space, or 25,000 square feet, is planned for cafes and other restaurants. A drug store is expected as well as some specialty and other retail stores.

[1] This relatively large amount of business and personal services stores is consistent with The Irwin Development Group's January 2008 study *Retail Market Analysis for Candlestick Point, San Francisco, California*. This study examined three Bay Area retail districts with a Main Street concept (Grand Avenue in South San Francisco, Solano Avenue in Albany, and the Broadway downtown area in Redwood City) and found that each had a similarly high level of business and personal services stores.

HPS Phase II Neighborhood Retail

The HPS Phase II neighborhood will be located in a Village Center and along adjacent streets. With a total of 125,000 square feet, the largest component, a small grocery store, will account for 30 percent of the space. General merchandise retailers, restaurants, and specialty retail are anticipated to account for 15 percent of the space each. Other retailers and business and personal services stores are each projected to account for 10 percent of the space. About 5 percent of the space is estimated to be filled by home furnishings and appliances stores.

These retail components in the Project will comprise a total of 885,000 million square feet of space, which is the focus of this analysis. Exhibit 1 presents the details for the planned development.

APPROACH TO ESTIMATING AND ALLOCATING PROJECTED SALES

In order to estimate the impact of the planned retail centers to the existing retail sales base, CBRE Consulting first allocated the retail by component, provided in Exhibit 1, into the retail categories used by the California State Board of Equalization (BOE). This translation facilitates a direct comparison of the projected Project retail sales to the existing sales in the market areas, which will be identified and defined in the following chapters. The cinema (concession sales) as well as electronics/appliances, sporting goods, and books are classified in the Other Retail category. These retail space category allocations are presented in Exhibit 2.

Project Sales Per Square Foot Assumptions

CBRE Consulting estimated the Project's projected retail sales based on the square feet allocated to each retail category and a sales per square foot figure attributed to each category. If a prospective retail tenant had been identified by the developer, or if a reasonable assumption could be made regarding the specific tenant type that is likely to occupy a space, then CBRE Consulting utilized sales per square foot figures for those specific retail stores or store types. In its 2004, 2006, and 2008 publications titled *Alternative Retail Risk Analysis for Alternative Capital,* Retail MAXIM estimates sales per square foot for retail stores and store categories during the years 2003, 2005, and 2007, respectively. CBRE Consulting averaged the sales per square foot figures achieved by representative retail stores during these three years to estimate the sales per square foot potential for similar stores within the Project. By averaging three years of data that span five years in time, the sales per square foot figures are normalized across several years that had varying economic characteristics. This process is detailed in Exhibit 3. First, the 2005 and 2007 sales estimates were deflated to 2003 dollars, then the sales estimates from all three years (2003, 2005, and 2007) were averaged in 2003 dollars. Finally, the average figure was inflated from 2003 to 2009 dollars.[2] A summary of averages from Exhibit 3 is presented in Exhibit 4 by BOE Category in 2009 dollars.

[2] Inflation was calculated based on the Bureau of Labor Statistics *Consumer Price Index for All Urban Consumers in the United States*. The average annual inflation rates used were: 3.03 percent from 2003 to 2005; 3.04 percent from 2005 to 2007; and 1.44 percent from 2007-2009.

Drug Store Sales Adjustment

The General Merchandise Stores category average is weighted based on the share of General Merchandise sales attributable to drug stores. According to MuniServices, the city's tax consultant, drug store sales in San Francisco represented approximately 21.7 percent of total General Merchandise group sales.

This analysis makes a distinction between total drugstore sales and resident-supported drugstore sales. Prescription drug revenues at drugstores are supported both by customers and third-party payers (such as health insurance groups and Medicaid). A review of major drugstore chains' financial statements found that third-party payments comprise a large share of drugstore revenues, as shown in Exhibit 5. The findings suggest that sales from direct customers support, on average, about 50.5 percent of total drugstore revenues; the remainder of store revenues is generated by third-party payers. Therefore, for the purpose of this analysis, it is assumed that household spending comprises 50.5 percent of total drugstore sales.

Sales Timing and Presentation Level

While the first new retail may open as early as 2015, full build-out is expected to be completed in 2029 such that many Project retailers are likely to open and to have a first full year of operations in 2030. New stores typically require two to three years to reach stabilized sales levels, but for purposes of this analysis, CBRE Consulting assumes that stabilized sales levels for all of the Project's retail components will be achieved in 2030.

CBRE Consulting prepared its sales estimates in constant 2009 dollars. This base year allows for an effective comparison of all related data later in the report. In addition, all sales figures in this analysis, unless stated otherwise, are reported in 2009 constant dollars.

ANTICIPATED PROJECT SALES

BOE Retail Sales Categories

As shown in Exhibit 2 and discussed previously, CBRE Consulting allocated the projected sales to categories that match the classifications reported by the BOE, which publishes taxable retail sales figures for cities and counties. To maximize the use of these data, the analysis is benchmarked to the BOE retail categories and the related sales figures reported in its *Taxable Sales in California* publication. These categories, as typically reported for cities, include the following:

- General Merchandise Stores;
- Apparel Stores;
- Food Stores;
- Eating and Drinking Places;
- Home Furnishings and Appliances;
- Building Materials;
- Motor Vehicles and Parts;
- Service Stations; and
- Other Retail Stores.[3]

[3] The Other Retail Stores category includes a wide range of retailers such as pet supplies, office supplies, garden stores, sporting goods, jewelry, books, florists, and gifts.

The BOE records a retailer's sales in only one sales category, even if that store sells a range of consumer goods that would otherwise be categorized into several different categories if they were sold at stores with more specific product offerings.

Non-Retail Tenant Sales

Some space at each of the Project's retail areas is allocated to non-retail tenants, which include bank branches, business services (e.g., tax preparation, real estate offices), and personal services such as hair and nail salons and dentist offices. Since revenues for these types of tenants are not tracked by the BOE, the analysis uses broader retail demand growth (based on projected new households and BOE-based sales estimates) as a proxy for the likely demand for non-retail services. In other words, if future demand from new household growth is high enough such that substantial retail sales impacts are not anticipated, then the related demand from new households should also be sufficient to support services-oriented tenants in the Project's retail areas as well. This approach will be discussed further in Chapters VII and VIII, which address potential sales impacts. However, the sales estimates that follow are for retail tenants only, as defined by the BOE classifications.

Candlestick Point

Regional Center. In estimating the annual retail sales from the 635,000-square-foot Candlestick Point regional center, CBRE Consulting assumed an average vacancy rate of 5.0 percent of the gross leasable area in order to account for normal tenant turnover. Accounting for this vacancy, the total occupied space for the regional center is estimated to be 606,000 square feet.[4] Table 2 summarizes the distribution of retail sales estimated for the Candlestick Point regional shopping center by BOE category. Total sales are $190.6 million; the largest category is "other retail stores" which includes an electronics/appliance store, sporting goods store, book store, cinema, gift stores, and other specialty retailers. The next two largest categories are general merchandise and apparel.

[4] The 29,000 square feet of vacant space are less than 5.0 percent of the total regional center square feet because the 55,000-square-foot cinema space is assumed to be 100 percent occupied. Therefore, the 5.0 percent vacancy allowance is applied to only 580,000 square feet of gross leasable area.

Table 2: Candlestick Point Regional Center
Estimated Sales by Retail Category[1]
In 2009 Dollars

Retail Category	Estimated Occupied Sq. Ft.	Estimated Sales Per Sq. Ft.	Annual Sales Estimate
Apparel	66,500	$429	$28,528,500
General Merchandise	118,750	$282	$33,441,885
Food Stores	57,000	$462	$26,334,000
Eating and Drinking Places	64,125	$433	$27,766,125
Home Furnishings & Appliances	28,500	$278	$7,923,000
Building Materials	47,500	$312	$14,820,000
Other Retail			
Electronics/Appliance Store	47,500	$496	$23,560,000
Sporting Goods Store	38,000	$254	$9,652,000
Books & Stationary Store	23,750	$263	$6,246,250
Gifts and Novelty Store	23,750	$160	$3,800,000
Other Specialty Store	21,375	$270	$5,771,250
Cinema	55,000	$50	$2,750,000
Other Retail Subtotal	209,375	N/A	$51,779,500
Non-Retail	14,250		
Total	606,000		$190,593,010

Sources: Exhibit 6; and CBRE Consulting.
(1) Based on California State Board of Equalization retail categories.

Subsequent analysis examines the extent to which the $190.6 million in estimated Candlestick Point sales may or may not have an impact on existing retailers.

Neighborhood Retail. In estimating the annual retail sales from the 125,000-square-foot neighborhood retail/main street concept planned on two streets adjacent to the regional center, CBRE Consulting again assumed an average vacancy rate of 5.0 percent of the gross leasable area in order to account for normal tenant turnover. Accounting for this vacancy, the total occupied space is estimated to be 118,750 square feet. Table 3 presents the distribution of retail sales estimated for the Candlestick Point neighborhood retail/Main Street concept by BOE category. Total sales are $26.7 million comprised of $10.3 million in restaurants, $9.1 million in other retail stores, and $7.3 million in general merchandise.

Table 3
Candlestick Point Neighborhood Retail/Main Street Concept
Estimated Sales by Retail Category[1]
In 2009 Dollars

Retail Category	Estimated Occupied Square Feet	Estimated Sales Per Sq. Ft.	Annual Sales Estimate
General Merchandise (Drug Store)	11,875	$617	$7,326,875
Eating & Drinking Places	23,750	$433	$10,283,750
Other Retail Stores	23,750	$382	$9,072,500
Non-Retail	59,375	N/A	N/A
Total	**118,750**		**$26,683,125**

Sources: Exhibit 7; and CBRE Consulting.
(1) Based on California State Board of Equalization retail categories.

Subsequent analysis examines the extent to which the $26.7 million in estimated sales at Candlestick Point may or may not have an impact on existing retailers.

HPS Phase II Neighborhood Retail

The HPS Phase II neighborhood retail is planned for a total of 125,000 square feet. Utilizing the same methodology for estimating retail sales planned at Candlestick Point, CBRE Consulting again assumed that 5.0 percent of the space would be vacant due to normal tenant turnover. Accounting for this unoccupied space, the estimated total occupied space would be 118,748 square feet.

Table 4 summarizes the distribution of retail sales estimated for the HPS Phase II neighborhood retail by BOE category. The largest component of the total $43.5 million in sales will be the grocery store with $16.5 million in sales. The next largest category is Other Retail Stores with $11.3 million retail sales estimated.

Table 4
HPS Phase II Neighborhood Retail
Estimated Sales by Retail Category[1]
In 2009 Dollars

Retail Category	Estimated Occupied Square Feet	Estimated Sales Per Sq. Ft.	Annual Sales Estimate
General Merchandise	17,812	$354	$6,312,779
Food Stores	35,625	$462	$16,458,750
Eating & Drinking Places	17,812	$433	$7,712,596
Home Furnishings & Appliances	5,937	$278	$1,650,486
Other Retail	29,687	$382	$11,340,434
Non-retail	11,875	N/A	N/A
Total	**118,748**		**$43,475,045**

Sources: Exhibit 8; and CBRE Consulting.
(1) Based on California State Board of Equalization retail categories.

Subsequent analysis examines the extent to which the $43.5 million in estimated sales at HPS Phase II may or may not have an impact on existing retailers.

IV. PROJECT MARKET AREA DESCRIPTIONS

This chapter describes the boundaries of the market areas determined for each of the Project retail components – the regional and neighborhood shopping areas at Candlestick Point and the neighborhood retail in HPS Phase II. These market areas are the focal points for further analysis of supply and demand in Chapters VII and VIII, and for the urban decay determination in Chapter XI. In addition, Chapter V, Retail Market Characterization, discusses the broader San Francisco area retail market, including the relevant retail submarkets that are within and near the two defined market areas.

APPROACH TO MARKET AREA DEFINITIONS

For the purpose of analyzing the prospective economic impacts of the retail components of the Project, CBRE Consulting defined a market area for each of the project components: the regional center and neighborhood retail at Candlestick Point and HPS Phase II neighborhood retail. Shopping center trade area definition draws on a range of factors including but not limited to the location of competitive supply, prevailing commute patterns in the region, and physical barriers (both topographical and psychological). The International Council of Shopping Centers (ICSC), widely considered the retail real estate industry's pre-eminent research organization, states:

> "A trade area is the geographic market that you will be offering to potential retailers as a consumer market… Defining a retail trade area is an art and a science. In general, a trade area should reflect the geography from which 75-90 percent of retail sales are generated. Different stores can have different trade areas based on their individual drawing power and the competitive market context."[5]

While geographic considerations and the location of competitive retail centers are a major determinant of a planned center's market area, each shopping center has a unique market draw based on its format and mix of tenants. Literature published by the Urban Land Institute (ULI), a non-profit research and educational organization with the mission of providing leadership in the responsible use of land and in creating and sustaining thriving communities worldwide, supports that a shopping center's format is another major determinant of its market area:[6]

> "The trade area traditionally is the geographic area that provides the majority of the steady customers necessary to support a shopping center. The delineation of trade areas is more complex than in the past as a result of the proliferation in the variety and volume of shopping centers already present in most trade areas. It is further complicated by the existence of multiple consumer markets attracted to a center by their affinity for the type of goods sold and the environment in which they are sold rather than because the center is located within a prescribed distance of home or office."[7]

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[5] International Council of Shopping Centers (ICSC), *Developing Successful Retail in Secondary & Rural Markets*, 2007, p. 7.
[6] ULI mission statement according to the ULI website (http://www.uli.org/LearnAboutULI.aspx), accessed September 2009.
[7] Urban Land Institute, *Shopping Center Development Handbook*, Third Edition, 1999, p. 46.

The two market areas defined for the Project were determined through two distinct processes to account for the fact that the regional center at Candlestick Point and the HPS Phase II neighborhood retail will be oriented towards two distinct consumer markets. Consistent with industry definitions of shopping center market areas, however, they each represent the geographic area in which the estimated majority of the shopping center's repeat customers reside.

CANDLESTICK POINT MARKET AREA

Approach

CBRE Consulting conducted research to estimate the market area for the proposed Candlestick Point regional center and neighborhood retail component. The 635,000-square-foot open-air regional center is planned to be anchored by a 125,000-square-foot general merchandiser, a 60,000-square-foot grocery store, and a cinema. Other large stores are in the categories of electronics, hardware, sporting goods, and books. The neighborhood component is planned as a main street concept located on two streets directly adjacent to the regional center. One street will be dominated by personal and business services while the other street will have a mix of restaurants, cafes, and other retailers. A drug store is planned to anchor the neighborhood component. Because of the close proximity of the neighborhood retail, it is included in the larger regional center's market area. Although neighborhood retail does not typically have a wide draw, when it is part of or near to a regional center it can benefit by the larger draw of the larger center. CBRE Consulting believes that shoppers drawn to the regional center will also visit the stores in the adjacent neighborhood retail component because it is convenient.

Industry sources such as ICSC and ULI were first consulted to determine what factors are most indicative of trade area boundaries for regional shopping centers. The regional shopping center format is defined by ICSC as follows:

> "A regional center provides general merchandise, apparel, furniture, and home furnishings in depth and variety, as well as a range of services and recreational facilities. It is built around one or two full-line department stores of generally not less than 50,000 square feet, although there are exceptions in small communities."[8]

ICSC defines the typical market area for regional shopping centers as being within a 5- to 15-mile radius. San Francisco has a relatively small geography with a dense urban population. Because of this, and the hilly topography of San Francisco, it was determined that a simple radius would be unrealistic and would not reflect the realities of how long it takes to drive from one point to another. Instead, the market area was determined primarily through drive-time analysis. Although up to 15-20 percent of all retail trips to the Project are anticipated to be generated by public transit,[9] the drive-time estimates are viewed as a reasonable approximation of the accessibility of the Project's retail areas.

[8] ICSC / ULI, *Dollars & Cents of Shopping Centers / The Score 2008*, page 5.
[9] Personal communication from Eric Wolmerdorff, Fehr & Peers, to Wells Lawson, City of San Francisco Office of Economic & Workforce Development, October 2009.

Description and Boundaries

The Candlestick Point retail market area is roughly an area that is within a 15-minute drive of the planned center. Exhibit 10 displays its borders. The two major highways, 101 and 280, and major arterial streets, influence the shape of the market area. Market Street in San Francisco was deemed an appropriate northern boundary for the Candlestick regional center market area because it is approximately a 15-minute drive time from Market Street to the Candlestick Point retail site and it marks a geographic boundary between the north of market and south of market neighborhoods. Guerrero Street in the Mission District is another boundary for the market area as well as Geneva Avenue, which crosses from San Francisco into Brisbane. The market area skirts the edge of San Bruno Mountain State and County Park in San Mateo County, a natural boundary. As the market area follows Highway 101 south it includes most of the small City of Brisbane, a small portion of Daly City around the Cow Palace, and a portion of the City of South San Francisco just north of the San Francisco International Airport. The area around the airport was excluded because it has a limited population base.

CBRE Consulting estimates that residents of the Candlestick Point regional center's market area will generate 80 percent of the sales as shown in Exhibit 6 because Hwy 101 provides an opportunity to capture commuters and out-of-town visitors. Thus, shoppers coming from outside the market area will generate the remaining 20 percent of sales. The 20 percent estimate is also consistent with the passage quoted above from ICSC, which states that in general, residents of shopping center market areas generate 75 to 90 percent of sales at that center.

HPS PHASE II MARKET AREA

Approach

CBRE Consulting conducted research to estimate the market area for the proposed HPS Phase II neighborhood retail shopping area. Industry source ICSC was consulted to determine what factors are most indicative of trade area boundaries for neighborhood shopping areas. According to ICSC, neighborhood shopping centers typically have a three-mile trade area radius and are defined as follows:

> "A neighborhood center provides for the sale of convenience goods (food, drugs, and sundries) and personal services (laundry and drycleaning, barbering, shoe repairing, etc.) for the day-to-day living needs of the immediate neighborhood."[10]

Since neighborhood shopping areas cater to convenience shoppers, the trade area was identified based on the proximity of households as well as the location, size, quality, and other characteristics of existing shopping centers and retail districts deemed to be competitive with the planned HPS Phase II neighborhood retail area.

[10] ICSC / ULI, *Dollars & Cents of Shopping Centers / The Score 2008*, page 5.

Description and Boundaries

The market area defined for the HPS Phase II neighborhood retail area is for the most part a three-mile radius. This boundary roughly corresponds with a 10-minute drive time. The market area's northward reach is abbreviated at Cesar Chavez Street. Within the market area there are very few concentrations of neighborhood retail; however, in the area just north of Cesar Chavez Street there are several grocery-anchored neighborhood shopping centers. Residents in those areas are more likely to go to the center closest to them than to the retail planned at HPS Phase II. Therefore, that area was excluded from the HPS Phase II neighborhood retail market area.

CBRE Consulting estimates that market area residents will generate 95 percent of the HPS Phase II neighborhood retail area's sales as shown in Exhibit 8. Thus, shoppers coming from outside the market area will generate the remaining 5 percent of sales. This distribution is consistent with the guidelines set forth by ICSC and ULI (discussed in the previous section of this chapter), and takes into account that the neighborhood retail area's convenience orientation will draw its customer base more from nearby households than from distant ones.

V. RETAIL MARKET CHARACTERIZATION

Retail demand in San Francisco and northern San Mateo County is substantial, though the extent to which it can absorb the Project's planned retail areas without over-saturating the market and contributing to potential store closures and urban decay is dependent upon many complex factors. These include the size and strength of the area's retail inventory, the characterization of San Francisco as a retail hub, the performance of key retail submarkets, the historic ability of the market to back-fill vacancies, and the demonstrated level of retailer interest in establishing new operations in San Francisco. Assessment of these factors provides a backdrop for analyzing the planned Project retail components, as well as other planned new cumulative retail centers.

BACKGROUND

CBRE Consulting's analysis of the local retail market was based on a range of research and background resources. First, the firm has completed numerous real estate research projects in the San Francisco Bay Area and is generally familiar with the characteristics of the geographic areas covered in this study. Second, CBRE Consulting conducted field research of the major regional and neighborhood shopping nodes in southeastern San Francisco and nearby cities in May 2009 to gain a better understanding of current market conditions including shopper volumes, the level of retail vacancy, and the general condition of local retail properties. Various commercial databases, including Claritas and CoStar, informed this fieldwork by providing background on the larger shopping centers and retail businesses in the area. Moreover, taxable retail sales data from the California Board of Equalization (BOE) and information on sales tax collections from the City of San Francisco complemented the field research by providing a view of the relative performance of retail categories within specific geographic areas. Third, CBRE Consulting contacted local economic development and planning officials to understand their views on shopping patterns and the strengths and weaknesses of individual retail areas. Several prior research studies, including a January 2008 report prepared by Irwin Development Group for the Project and a Seifel Consulting May 2009 Draft report prepared for the San Francisco Redevelopment Agency on the Bayview Hunters Point Redevelopment Area offered additional background for this analysis.[11]

RETAIL MARKET OVERVIEW

San Francisco is a major retail attraction market, drawing consumers from far beyond the city limits. Tourism is a significant factor in retail sales. In 2008, the San Francisco Convention & Visitors Bureau estimates that 16.4 million visitors to San Francisco spent $3.6 billion on restaurants, general merchandise, apparel, gas/auto services, and miscellaneous retail.[12] That comprises a large portion of San Francisco's previous year's total annual taxable sales as reported by BOE as $10.0 billion. Although tourism was up in 2008, the California Travel & Tourism Commission forecasts that tourist spending will decline 8 percent in 2009.[13] In fact, in the first half of 2009, hotel occupancy at San Francisco hotels was down 8.4 percent.[14] This drop in tourism

[11] See "Retail Market Analysis for Candlestick Point, San Francisco, California, January 2008," Irwin Development Group, and "Bayview Hunters Point Redevelopment Plan Amendment, Existing Conditions Report, May 2009 Administrative Draft," prepared for the San Francisco Redevelopment Agency by Seifel Consulting.
[12] "Total Direct Visitor Spending within San Francisco: 2008," San Francisco Convention & Visitors Bureau.
[13] "State expects tourist spending to fall 8%", by George Raine, *San Francisco Chronicle*, February 18, 2009.
[14] PKF Consulting.

may have a big effect on San Francisco's retail sales in 2009; however, the decline in tourism is expected to be temporary. Moody's Economy.com forecasts that San Francisco will start to recover from the current recession in 2010.

As a regional center, San Francisco also draws large numbers of commuting employees from surrounding areas, who also contribute to the City's retail sales attraction. For example, the Metropolitan Transportation Commission, the transportation planning agency for the nine-county Bay Area, estimated that San Francisco's net in-commute (i.e., total employment less employed residents) was 171,544 employees in 2006 and projected that this figure would increase to 314,073 employees by 2035.[15] This net inflow contributes to restaurant sales, purchases at downtown shopping areas, and stops at shopping centers along major traffic routes.

According to Terranomics, market rents for shopping centers in San Francisco as of mid-year 2009 ranged from $27.00 to $100.00/year per square foot with an average asking rate of $47.30. [16] This average is higher than any of the other nine counties in the Bay Area. Total leasable space in San Francisco shopping centers is estimated at approximately 3.8 million square feet. However, San Francisco's retail market is highly decentralized, with much of the retail space located outside of formal centers. Statistics from Terranomics exclude the concentration of non-shopping center retail at Union Square, in the Downtown area, and in neighborhood retail districts. The average vacancy rate in San Francisco shopping centers as of mid-year 2009 was at 7.5 percent, up from 5.3 percent one year ago. [17]

RETAIL SALES MIXES BY GEOGRAPHY

San Francisco, San Mateo County, and Selected Cities

The BOE publishes taxable retail sales information for cities and counties in California, which were available for 2007 on a full-year basis and through the first two quarters of 2008 on a quarterly basis when CBRE Consulting's analysis was prepared. Table 5 below presents the BOE information for San Francisco, for San Mateo County, and selected northern San Mateo County cities that have regionally-oriented shopping centers that tend to attract some San Francisco shoppers.

[15] See "Travel Forecasts Data Summary: Transportation 2035 Plan for the San Francisco Bay Area, December 2008," Metropolitan Transportation Commission; (http://www.mtc.ca.gov/maps_and_data/datamart/forecast/).
[16] Annualized NNN. From "Bay Area Retail Report: Mid Year 2009" by Terranomics, the Retail Division of BT Commercial. The average rent among Bay Area shopping centers is estimated at $27.48/month per square foot.
[17] *Ibid.*

Table 5
2007 Taxable Retail Sales for
San Francisco, San Mateo County, and Selected San Mateo County Cities ($ 000s)

Type of Retail	City and County of San Francisco	San Mateo County	City of Daly City	City of San Bruno
Apparel Stores	$1,028,602	$425,086	$67,421	$52,073
General Merchandise	$1,349,158	$1,363,715	$172,447	$147,933
Food Stores	$480,587	$430,879	$48,684	$14,862
Eating & Drinking Places	$2,589,892	$1,245,105	$131,464	$81,352
Home Furn. & Appliances	$608,766	$535,371	$42,527	$9,782
Building Materials	$459,332	$846,050	# (1)	# (1)
Motor Vehicles and Parts	$502,912	$1,579,609	$148,377	$86,450
Service Stations	$565,749	$1,008,460	$109,317	$71,460
Other Retail Stores (1)	$2,421,574	$1,564,706	$125,141	$132,727
Total	**$10,006,572**	**$8,998,981**	**$845,378**	**$596,639**

Sources: State of California Board of Equalization *Taxable Sales in California* report 2007, which was the most recent full year available at the time of this analysis.
(1) The sales marked with a "#" are omitted from the BOE report for the respective year to prevent the disclosure of confidential information. The sales for the unreported categories are incorporated into the Other Retail Stores classification and are also reported as part of total taxable sales.

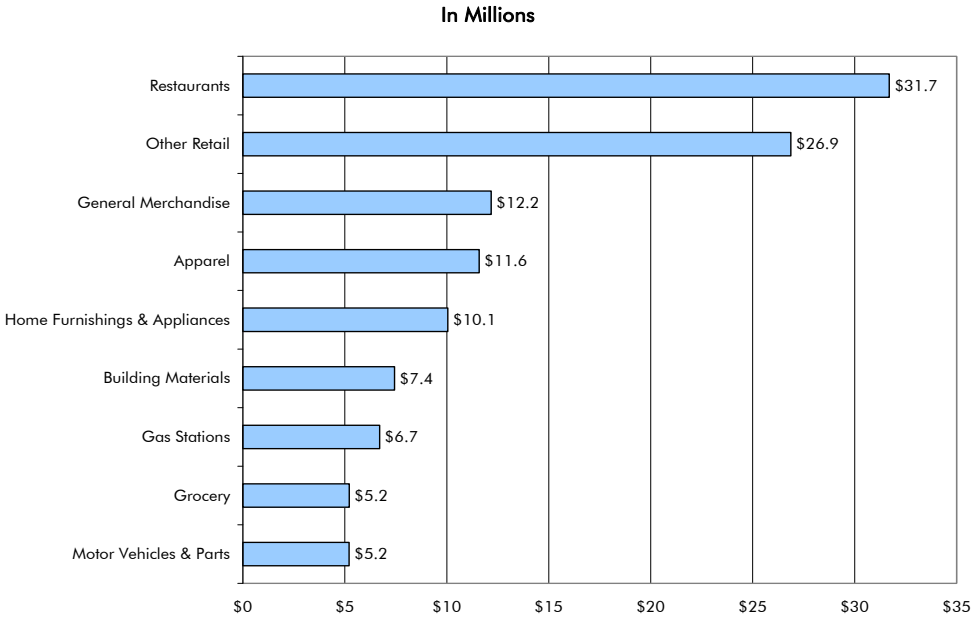
As shown, San Francisco's sales are concentrated in the eating and drinking places category (i.e., restaurants) and among other retail establishments, which include office supplies, computer stores, jewelry, sporting goods, and miscellaneous retail. The sales share for apparel stores (10.3 percent of the total) is also high, especially when compared with the statewide average of 3.7 percent, whereas the shares for motor vehicles and parts, service stations, and building materials are relatively low.[18] San Mateo County, by contrast, offers a much more representative mix of retail when compared with the rest of the state since there are more areas devoted to car dealers and "big box"-type stores. Within San Mateo County, the cities of Daly City and San Bruno host regional-serving retail primarily at Westlake Shopping Center, Serramonte Center, and the Shops at Tanforan, though these two cities still capture a relatively small share of overall purchases among the two counties. Further analysis of the sales mix for the Candlestick Point and HPS Phase II market areas is discussed in Chapter VI, Retail Sales Base Characterization.

San Francisco and Selected Neighborhood Districts

CBRE Consulting also evaluated data provided by the City of San Francisco showing the annual sales tax collections by retail category for 2003-2008, which are prepared by MuniServices, a municipal tax consulting firm. The 2008 sales tax information presents a more current picture of retail activity in San Francisco and reinforces the findings about the mix of retail that were apparent in the BOE figures. Total retail sales tax collected for 2008 was $117.0 million, which reflects San Francisco's percentage share of overall sales tax collections.

[18] See *Taxable Sales In California (Sales & Use Tax) During 2007,* Table 1, California Board of Equalization web site (http://www.boe.ca.gov/news/pdf/ts_a07.pdf).

Chart 1
San Francisco
2008 Retail Sales Tax Collected by Type of Retail



Sources: MuniServices; and CBRE Consulting.

Another advantage of the MuniServices information is that it includes subsets of the data for several neighborhood retail districts within San Francisco, including South Bayshore, which substantially overlaps with the HPS Phase II market area and also accounts for a large section of the Candlestick Point market area. Sales tax data for the Third Street corridor (a subdistrict within South Bayshore), San Bruno Avenue, and Leland Avenue serve as further indicators of the mix and level of the retail activity in the southeastern section of San Francisco. Table 6 presents the sales tax collections for South Bayshore and the other relevant retail districts tracked within the MuniServices data. Since the Third Street corridor appears to be fully within the South Bayshore boundaries, these areas in total provide about 13 percent of the taxable retail purchases in the City.

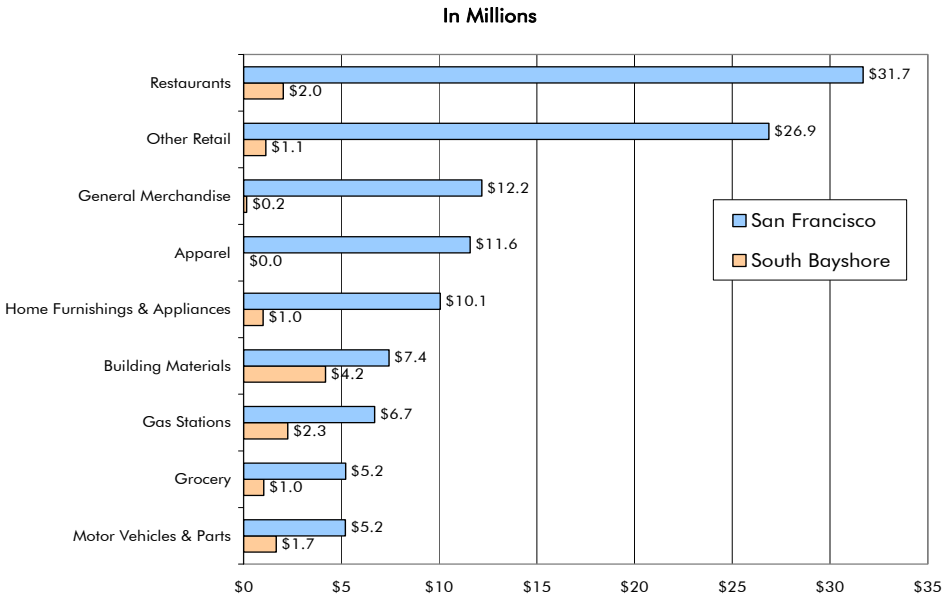
Table 6
Candlestick Point Regional Center Market Area
Retail Districts' Sales Tax Collected for 2008

Retail District/City	2008 Sales Tax	Share of San Francisco
South Bayshore	$13,480,965	11.5%
Third Street (1)	$2,580,886	2.2%
San Bruno Avenue	$1,667,826	1.4%
Leland Avenue	$131,733	0.1%
San Francisco	$116,957,925	100.0%

Source: MuniServices; and CBRE Consulting.
(1) The Third Street Corridor is a subdistrict within the South Bayshore retail district.

The South Bayshore area accounts for the majority of taxable retail activity in these parts of San Francisco. In addition, unlike the City as a whole, the categories of building materials, service stations, and motor vehicles and parts are particularly strong, each comprising at least a third of San Francisco's overall taxable sales in these sectors as shown in Chart 2.

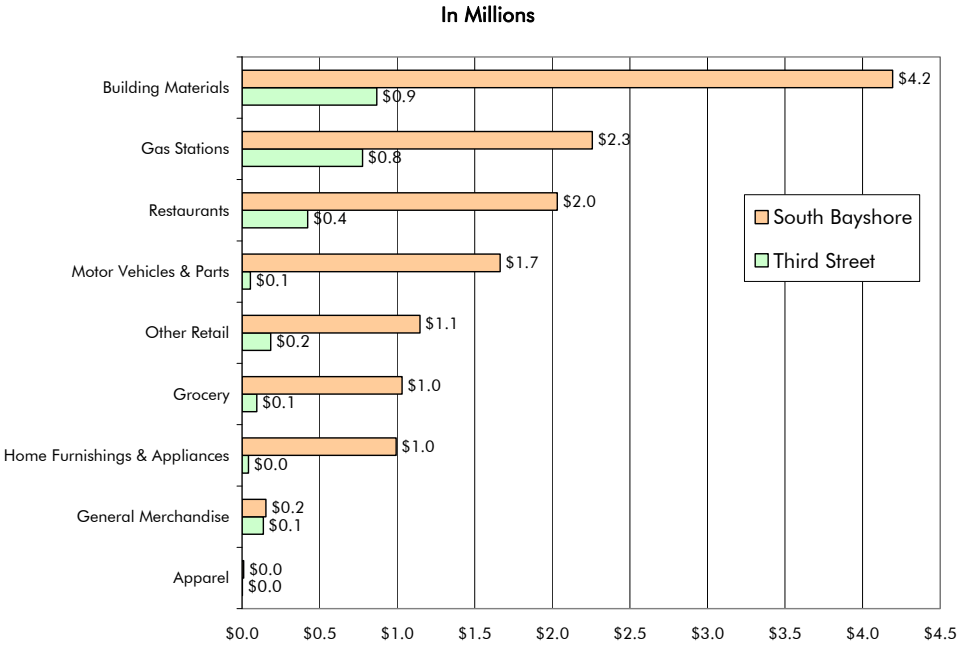
Chart 2
San Francisco vs South Bayshore District
2008 Retail Sales Tax Collected by Type of Retail



Sources: MuniServices; and CBRE Consulting.

The Third Street corridor, a subset of the South Bayshore retail district, is an emerging transit-oriented area following the introduction of a new light rail line along Third Street in 2007. The construction of the Third Street line included a mix of infrastructure improvements such as new sidewalks, lights, and benches. Comprising only 2.2 percent of total San Francisco retail sales tax, with taxable retail sales totaling $258.1 million and sales tax of $2.6 million, the largest taxable retail category in the Third Street corridor is building materials. Gas stations and restaurants are the next two biggest taxable categories. Chart 3 below shows Third Street's retail sales tax in 2008 as compared to tax collected in the much more substantial South Bayshore district.

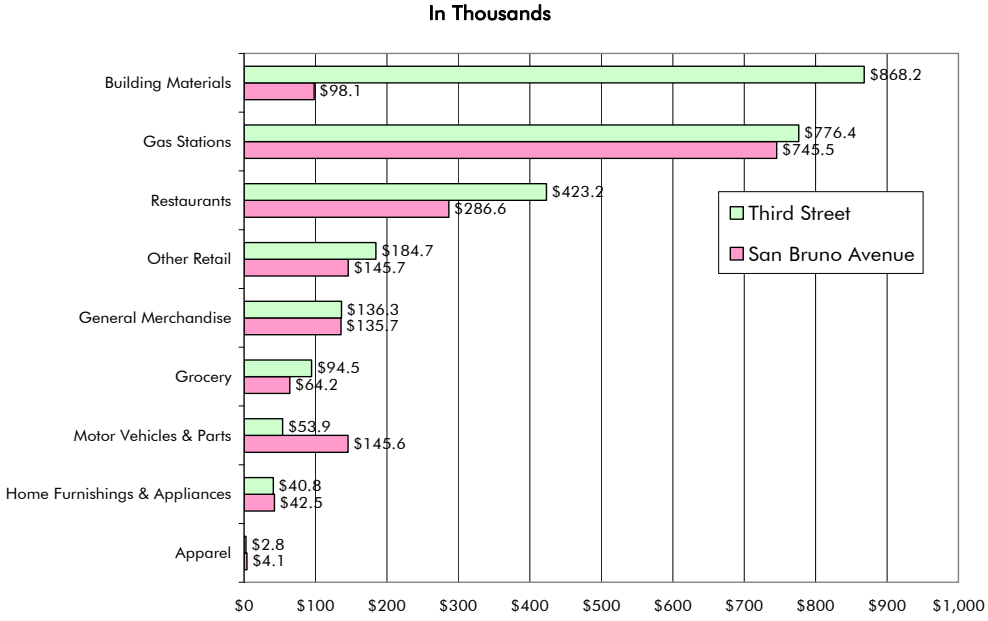
Chart 3
South Bayshore District vs Third Street District
2008 Retail Sales Tax Collected by Type of Retail



Sources: MuniServices; and CBRE Consulting

San Bruno Avenue is a small retail district located just to the southwest of where Highway 101 crosses Interstate 280. The retail sales tax revenues in this corridor account for about 1.4 percent of total sales tax citywide. Gasoline stations contribute the highest share of the district's tax revenues, followed by restaurants, other retail, and motor vehicles and parts (see Chart 4). This neighborhood also appears to have been served by a Cala Foods grocery store (1390 Silver Avenue) that has closed. CBRE Consulting visited this property during its field research in May 2009. At the time, the store was closed with a chain-link fence around the property, and no real estate brokerage signs were visible, which suggests that the property was not yet being marketed to new tenants.

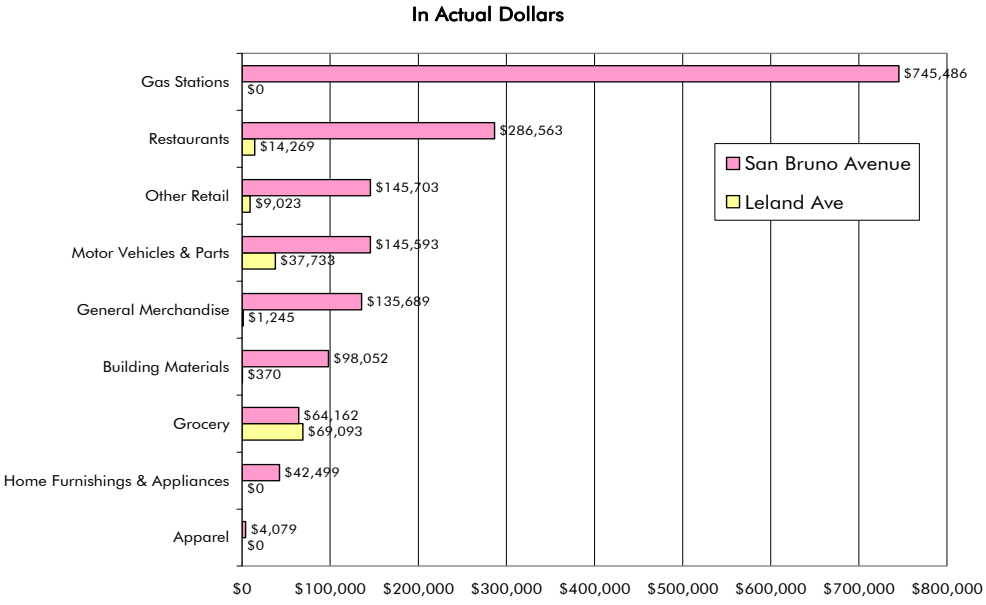
Chart 4
Third Street District vs San Bruno Avenue
2008 Retail Sales Tax Collected by Type of Retail



Sources: MuniServices; and CBRE Consulting.

Leland Avenue's retail district is the smallest of the four neighborhood shopping areas in the MuniServices data that CBRE Consulting analyzed, accounting for 0.1 percent of all retail sales tax collected in San Francisco. Taxable retail sales totaled $13.2 million in 2008, with $131,733 collected in sales tax. Chart 5 below shows this district's sales tax by retail type in comparison to San Bruno Avenue.

Chart 5
San Bruno Avenue vs Leland Avenue
2008 Retail Sales Tax Collected by Type of Retail



Sources: MuniServices; and CBRE Consulting.

Sale tax in the Grocery category comprised about half of all retail sales tax in the Leland Avenue district, though it appears that there has also been a recent food store closure in the area.

PROPERTY CONDITIONS AT THE LARGER SHOPPING NODES

CBRE Consulting visited six regional-serving shopping centers in San Francisco and surrounding San Mateo County cities, and numerous neighborhood retail districts that are proximate enough to be considered competitive with the HPS Phase II retail components. Despite the regional and national recession, shopper volume in most areas was moderate during CBRE Consulting's site visits. Moreover, most retail properties were well-maintained, though there were examples of long-term store vacancies in the South Bayshore area that had fallen into some disrepair.

South Bayshore/Third Street Retail Corridor

As mentioned, the South Bayshore area, which is primarily south of Cesar Chavez Avenue and east of Highway 101 in San Francisco, comprises a large part of both the HPS Phase II and the Candlestick Point market areas. While the introduction of the Third Street light rail line has contributed to investment in this neighborhood, this section of the city is largely within the Bayview Hunters Point Redevelopment Project Area. Specifically, Project Area B, as defined by the San Francisco Redevelopment Agency, encompasses most of the Third Street retail corridor.

Seifel Consulting prepared a recent mandated study of the Bayview Hunters Point Redevelopment Area for the San Francisco Redevelopment Agency. While the report highlighted several positive

improvements in Project Area B including the planned development of a 15,000-square-foot Fresh & Easy grocery store and the potential opening of a Lowe's Home Improvement store, Seifel Consulting concluded that "Project Area B continues to suffer from unsafe and unhealthy buildings, inadequate circulation, lack of economic development, underutilized retail and commercial corridors, environmental impediments, problem businesses and a high crime rate."[19] These conditions are indicative of economic and physical blight and are "substantial and prevalent"[20] in Project Area B such that further redevelopment was recommended.

With regard to retail properties in particular, the Seifel report indicates that the two retail corridors in the area, Third Street and a section of Bayshore Boulevard, have historically had higher vacancies than other areas of San Francisco due to the perception of crime in the area. One business, a Walgreens located on the corner of Third Street and Williams Avenue reportedly spends $15,000 per month on security measures and loses about $12,000 per month in merchandise theft. There are numerous mid-sized to large retail properties in Project Area B that have experienced long-term vacancies and have fallen into disrepair due to limited demand and existing rent levels that are reportedly too low to justify investments in building improvements. Specifically, the 50,000-square-foot former Goodman's Lumber store on Bayshore Boulevard has been vacant for almost a decade while the adjacent former Whole Earth Access store space has been closed for at least 13 years.[21]

Further analysis by Seifel Consulting indicates that retail lease rates in the Project Area B are much lower than other neighborhood shopping districts in San Francisco due a range of factors:

> Bayview neighborhood commercial establishments struggle to attract desirable tenants due to the poor condition of buildings along Third Street, the high crime rate, and public improvement deficiencies. Moreover, the ability to attract tenants is hampered by the lack of local brokers specializing in the area. Retail brokers tend to specialize in geographic areas with a concentration of retailers. The perception of the brokerage community is that the Bayview retail market is weak or non-existent for neighborhood serving retailers. The area will likely continue to struggle unless this perception is changed through redevelopment assistance.[22]

The Seifel Consulting analysis of retail property conditions is consistent with CBRE Consulting's observations about the South Bayshore shopping districts. While there are some larger retailers such as Walgreens, Smart & Final, and a Foods Co. store, which had moderate shopper volumes, there are also sections of Third Street and Bayshore Boulevard with vacant store space that is not likely to be re-tenanted without substantial investment in improvements.

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[19] "Bayview Hunters Point Redevelopment Plan Amendment, Existing Conditions Report, May 2009 Administrative Draft," prepared for the San Francisco Redevelopment Agency by Seifel Consulting, p. I-3.
[20] *Ibid.*, p. III-65.
[21] *Ibid.*, p. III-47; Note that redevelopment of the Goodman's Lumber store site has been planned for years and that Lowe's Home Improvement is currently evaluating the property as a new store location.
[22] *Ibid.*, p. III-50.

San Bruno Avenue

The San Bruno Avenue neighborhood retail district is just west of Highway 101 near South Bayshore. The retail area is primarily an 8- to 10-block stretch of gas stations, shops, restaurants, and service-oriented businesses between Hale Street on the northern end and Paul Street to the south. A few of the intersecting streets are major thoroughfares that pass under elevated sections of the freeway, and there is a highway exit and on-ramp from San Bruno Avenue at Stillman Street. The retail properties in the area tend to be older and are in fair to moderate condition. The larger stores include Walgreens, a Kragen Auto Parts, and a few ethnic specialty food markets. Fast food chains and other convenience restaurants (pizza, taquerias, Asian take-out) are also common. While there were a few retail vacancies in the area, these were being marketed by landlords, and there were signs that older properties had been re-tenanted with new uses, (e.g., a former movie theatre that is now occupied by a church).

Leland Avenue

This shopping district, which is located within the Visitacion Valley neighborhood, has lower traffic volumes and a smaller mix of retail options than either the Third Street or the San Bruno Avenue corridors. The four-block section of Leland Avenue between Bayshore Boulevard and Cora Street has a Bank of America branch, a few small restaurants and produce stores, and some neighborhood services. This district also previously included a small grocery store, the Super Fair market, which was listed in a Claritas database of neighborhood businesses. However, during CBRE Consulting's field research in May 2009, this store building had been razed.

Regional-Serving Shopping Areas

CBRE Consulting also identified seven regionally-oriented shopping centers in San Francisco, Daly City, San Bruno, and San Mateo, which are potentially competitive with the planned regional center at Candlestick Point. Six of these centers were analyzed through field research, and background on these properties is presented below. The seventh center, Hillsdale Shopping Center in San Mateo, was considered too distant to merit a field visit, though this shopping area is included in later analysis presented in Chapter IX, Sales Impacts Beyond the Project Market Areas.

San Francisco Shopping Centre. This upscale center, located on Market Street in downtown San Francisco near Union Square, expanded substantially in 2006 with the opening of a 338,000-square-foot Bloomingdale's store, a 53,000-square-foot cinema, and new space for specialty retail and restaurants. The mixed-use property is 1.5 million square feet in total, including 245,000 square feet of office space, and is reportedly the largest urban shopping center west of the Mississippi River. The retail space is in excellent condition with only a few smaller vacancies. Shopper volume was moderate when CBRE Consulting visited the property as part of its research for this study.

Stonestown Galleria. This center is an enclosed two-story mall located in the western part of San Francisco along 19th Avenue. The property maintains an upscale format, with Macy's and Nordstrom serving as its department store anchors. A Borders bookstore and Trader Joe's are also among the larger tenants. Stonestown Galleria had several inline store vacancies in May 2009. Nevertheless, the property has historically attracted new tenants despite some store turnover and is generally well-maintained.

Westlake Shopping Center. Kimco, the center's owner, has invested in reconfiguring and expanding this older, mid-range shopping center in Daly City. As part of this process, a Home Depot was added as an anchor, complementing an existing Safeway, Burlington Coat Factory, and a Ross Dress for Less. An existing Trader Joe's store was also moved to a new space, and most of the storefronts and walkways have been upgraded. With the expansion of the center, several newer shop and office spaces were vacant in May 2009, and Kimco was actively seeking tenants to fill these sections the property.

Serramonte Center. This 847,000-square-foot regional mall is located just off of Interstate 280 on Serramonte Boulevard in Daly City, and is proximate to other "big box" stores and auto dealerships that have clustered in this area. Serramonte Center is anchored by a Macy's and a Target store, which is described as one of the top 20-performing stores by sales volume among 1,500 Target outlets nationwide.[23] In addition, the interior of the center has been renovated and an expanded food court opened in late 2007.[24] The recent closure of the Mervyns chain created a 75,000-square-foot anchor vacancy in 2008 that has not been filled, and there are also some inline store vacancies. Costar also reports that another 30,000-square-foot store space is available within the mall. Nearby, a Circuit City store on Serramonte Boulevard remains vacant following that chain's bankruptcy.

The Shops at Tanforan. To the southeast of Serramonte Center on El Camino Real in San Bruno, the Shops at Tanforan is a 672,000-square-foot mall anchored by a Target, a Sears, a JC Penney, and a large Barnes and Noble bookstore. This shopping center was renovated in 2005 and benefits from traffic access on Interstate 280 and transit access from the San Bruno BART station and local bus lines. Moreover, adjacent "big box" retail, grocery stores, and restaurants along El Camino Real help support this retail area. The interior and exterior of the Shops at Tanforan were in good condition, and no store vacancies were identified.

Bridgepointe Shopping Center. This power center in eastern San Mateo features a Target, Sports Authority, Marshalls, and Staples, as well as mid-sized chain restaurants and smaller stores. The property is located near a concentration of mid-rise office buildings and hotels, and benefits from a location near the intersection of Highway 92 and Highway 101, each of which are major commuting routes. This center was in good condition with no major vacancies, and shopper volume was moderate during a weekend site visit. Given that many of Bridgepointe's larger tenants are located in and around other regional malls that are closer to the Candlestick Point market area, Bridgepointe Shopping Center may not be highly competitive with the proposed Candlestick Point regional center.

SUMMARY

San Francisco and northern San Mateo County offer a diverse set of retail options, which serve local residents, daily commuters, out-of-town business travelers, and tourists. Despite recent declines in local retail sales, most of the regional- and neighborhood-shopping areas that CBRE Consulting visited had limited vacancies due to store closures, and with the exception of the South Bayshore area, retail properties were typically well-maintained. In addition, the San Francisco metro area is viewed as a vibrant market, where many national retailers are continuing to expand.

[23] According to a property fact sheet available at www.serramontecenter.com.
[24] *Ibid.*

VI. RETAIL SALES BASE CHARACTERIZATION

This section analyzes the retail sales leakage and attraction profile of the market areas, meaning the extent to which market area stores capture retail spending from market area households as well as from households located outside of the market area. It provides a quantitative measure of the market area's sales performance. CBRE Consulting conducts this analysis as a building block towards determining the extent to which the Project's development may or may not divert sales from existing retailers.

METHODOLOGY

CBRE Consulting has developed a statistical regression-based model that estimates retail spending potential for a market area based upon household counts, income, and consumer spending patterns. Generally referred to as a "Retail Demand, Sales Attraction, and Spending Leakage Analysis," or similar nomenclature by real estate-based economic consulting firms comparable to CBRE Consulting, the model determines the extent to which a designated market area is or is not capturing its sales potential based upon reported taxable sales data. In California, these data are generally published by the BOE or provided by municipal tax consultants. Retail categories in which spending is not fully captured are called "leakage" categories, while categories in which more sales are captured than are generated by market area residents are called "attraction" categories. Generally, attraction categories signal particular strengths of a retail market, while leakage categories signal particular weaknesses.

Several data points are presented in the findings of CBRE Consulting's Retail Demand, Sales Attraction, and Spending Leakage Analysis. These include per-household figures and aggregate figures. Per-household figures are presented for the sales achieved by retail category for a control area and the market area under study, as well as an estimate of spending by retail category generated from within the defined market area. The per-household ***spending*** figures (as a proxy for all area spending) in the Retail Sales Leakage Analysis are the result of extensive calculations. On the other hand, the per-household ***sales*** figures simply reflect actual area sales divided by the estimated household count, with some disclosed adjustments for taxable versus non-taxable sales. Additional background about the model's approach to estimating retail demand is presented in Appendix B of this report.

DEMOGRAPHICS

CBRE Consulting's Retail Demand, Sales Attraction, and Spending Leakage Analysis relies on household counts and average household income inputs for its control area benchmarks and for the designated market areas for the analysis. The HPS Phase II neighborhood retail market area is located largely in San Francisco, but one small portion is located in Daly City. The Candlestick Point market area is located in portions of San Francisco as well as portions of South San Francisco, Daly City, and Brisbane. In order to be consistent with the EIR, the household estimate and forecast for the San Francisco portions of the market area were derived from the San

Francisco Urban Water Management Plan's (SFUWMP) estimates and forecast.[25] Claritas, Inc., a national vendor of demographic and employment data, which produces household estimates and forecasts for specific geographic areas, was used to benchmark the share of households within the market area to the larger city. Exhibit 11 and Appendices C and D show the calculations for the number of households in the Candlestick Point and HPS Phase II market areas.

In Appendix C-1 the Claritas estimates and forecasts for households in San Francisco are shown as well as the estimates and forecasts for households within San Francisco's portion of the Candlestick Point market area. In 2009, Claritas data imply that the San Francisco portion of the Candlestick Point market area contains 25.1 percent of all households living in San Francisco. Appendix C-1 also shows the SFUWMP's 2005 estimate that 341,478 households reside in San Francisco. For 2030 the SFUWMP forecasts 403,300 households for San Francisco. This forecast includes extraordinary growth planned at Treasure Island, Park Merced, and the Project. This growth is taken out of the forecast in Appendix C-1 so that the average growth rate in San Francisco can be deductively calculated. The overall annual SFUWMP growth rate including extraordinary growth from 2005 to 2030 is 0.67 percent. However, subtracting out the extraordinary growth (28,400 households), the average annual growth rate for San Francisco is 0.37 percent.

This study's 2009 estimate for households in San Francisco is determined by interpolating between the 2005 estimate and the 2030 forecast without the extraordinary growth. To determine households in the San Francisco portion of the market area, the estimates using SFUWMP are multiplied by the share of the population living in the market area as determined by Claritas resulting in 82,767 households in 2005 in the San Francisco portion of the Candlestick Point market area. In Exhibit 11 the extraordinary growth planned for the Project (10,500 units) and growth planned at the Schlage Lock site in San Francisco (1,600 units) is added back in to the 2030 forecast to determine total growth in the San Francisco portions of the market areas resulting in 109,624 households projected in the San Francisco portion of the Candlestick Point market area by 2030.

Appendices C-2, C-3, and C-4 use the same process to determine households in the portions of the Candlestick Point market area within the cities of Daly City, South San Francisco, and Brisbane. Here the Association of Bay Area Government's *2007 Projections* are used for the household estimates and projections for each entire city. Appendices D-1 and D-2 determine the households in the portions of the HPS Phase II market area within San Francisco and the City of Daly City.

Due to the irregular shapes of the market areas, government-sponsored data sources cannot provide average household income estimates for the HPS Phase II or Candlestick Point Project market areas. The analysis therefore utilized data from Claritas for estimates and projections of average household income, since Claritas is capable of pulling demographic data for user-generated polygons.

[25] The 2005 Urban Water Management Plan for the City and County of San Francisco was prepared by The San Francisco Public Utilities Commission.

Table 7
Average Household Income Estimates
Project Market Areas

Market Area	2000 Estimated	2009 Estimated	Compound Average Annual Growth Rate 2000-2009	2007 Implied Income
Candlestick Point	$70,475	$89,678	2.7%	$85,002
HPS Phase II	$61,941	$82,319	3.2%	$77,277

Sources: Exhibit 13; Claritas; and CBRE Consulting.

At the time this report was prepared, Claritas provided data from years 2000, 2009, and 2014. In order to estimate the average household income for 2007, which is an input to the Retail Demand, Sales Attraction, and Spending Leakage Analyses, CBRE Consulting inflated the 2000 estimate to 2007 using the compound average annual growth rate between 2000 and 2009, as shown in Exhibit 13 and Table 7.

CALCULATION OF THE 2007 MARKET AREA RETAIL SALES BASE

As a necessary input to the Retail Demand, Sales Attraction, and Spending Leakage Analysis, CBRE Consulting estimated sales for the Project market areas utilizing BOE taxable sales data in concert with Claritas data. The BOE publishes taxable sales figures for counties and major cities on a quarterly basis, and the most recent full year for which data were published at the time this study was conducted was 2007. In addition, the first two quarters of 2008 are available. CBRE Consulting used BOE's data for the cities of San Francisco, South San Francisco, Daly City, and Brisbane as presented in Table 3 of the *Taxable Sales in California* publication. In order to use the most recent data available, a year's worth of sales was summed from the last two quarters of 2007 and the first two quarters of 2008. CBRE Consulting also relied on geographic mapping information and data from Claritas to estimate the proportion of taxable sales reported by the BOE that occurred within each market area's boundary. The calculations behind these estimates for the Candlestick Point market area are shown in Exhibits 14 through 18, and in Appendices E and F. The calculations behind these estimates for the HPS Phase II market area are shown in Exhibits 20 through 22, and in Appendices E, F, and G.

Table 8 summarizes the results from these exhibits. The total retail sales column reflects an adjustment for non-taxable retail sales at drug stores and at food stores.[26] CBRE Consulting estimates that 70 percent of food store sales and 67 percent of drug store sales are non-taxable based on discussions with the BOE and research into other industry sources, including U.S. Census publications. In addition, sales of grocery items at non-drug store general merchandise stores are non-taxable and are estimated to equal 10 percent of sales for this sub-set of the retail category based on analysis of the U.S Economic Census for General Merchandise Stores.[27] Consequently, the BOE taxable sales figures for the General Merchandise and Food Stores categories are

[26] Drug stores are a subset of the BOE General Merchandise category.
[27] Per the U.S. Economic Census data, General Merchandise stores encompass a mix of department stores, discount department stores, warehouse clubs, and Supercenters, variety stores, and other general miscellaneous stores. The 10 percent estimate is based on the existing mix of stores in the market areas.

adjusted upward to reflect non-taxable transactions that are not accounted for in the BOE's taxable retail sales estimates.

Table 8
Market Areas' Retail Sales Estimates
2007 Dollars, in Millions

BOE Retail Category	Estimated Total Retail Sales incl. Non-Taxable[1]	
	Candlestick Point Market Area[2]	HPS Phase II Market Area[2]
Apparel Stores	$262.8	$6.9
General Merchandise	$863.0	$65.8
Food Stores	$541.5	$115.2
Eating and Drinking Places	$844.3	$67.4
Home Furnishings & Appliances	$334.5	$62.6
Building Materials	$336.6	$130.9
Motor Vehicles and Parts	$294.4	$39.8
Service Stations	$324.8	$22.3
Other Retail Stores	$1,537.9	$43.3
Total[2]	**$5,339.9**	**$554.1**

Sources: Exhibits 18 and 22.
(1) Estimates include taxable and non-taxable sales, the latter of which consists of drug store sales in the General Merchandise category and grocery store sales in the Food Stores category.
(2) Due to rounding, total may not equal the sum of components shown.

Retail sales in the Candlestick Point market area are generally concentrated in the Other Retail Stores, General Merchandise, Restaurants, and Food Stores categories. By contrast, the HPS Phase II market area, which is a subset of the Candlestick Point market area, has almost a quarter of its sales in Building Materials. The lowest volume of sales in both market areas is estimated to occur in the Apparel category.

DISCUSSION OF CHANGES TO THE RETAIL SALES BASE

Changes to Retail Sales Base

For the purpose of this analysis, the retail sales base is calculated so that the magnitude of each retail component of the Project's impact on the market area may be measured against the existing base. While the analysis assumes the Project will not be fully operational until 2030, the sales base relevant to the analysis for CEQA purposes is the existing sales base, reflective of existing conditions. For analytic purposes, CBRE Consulting developed an estimate of the existing sales base, starting with actual annual sales data from 2007. This base is then adjusted to a 2009

estimate, with further adjustments reflecting expectations regarding the characteristics of the existing base by 2030. Sales base adjustment factors may include:

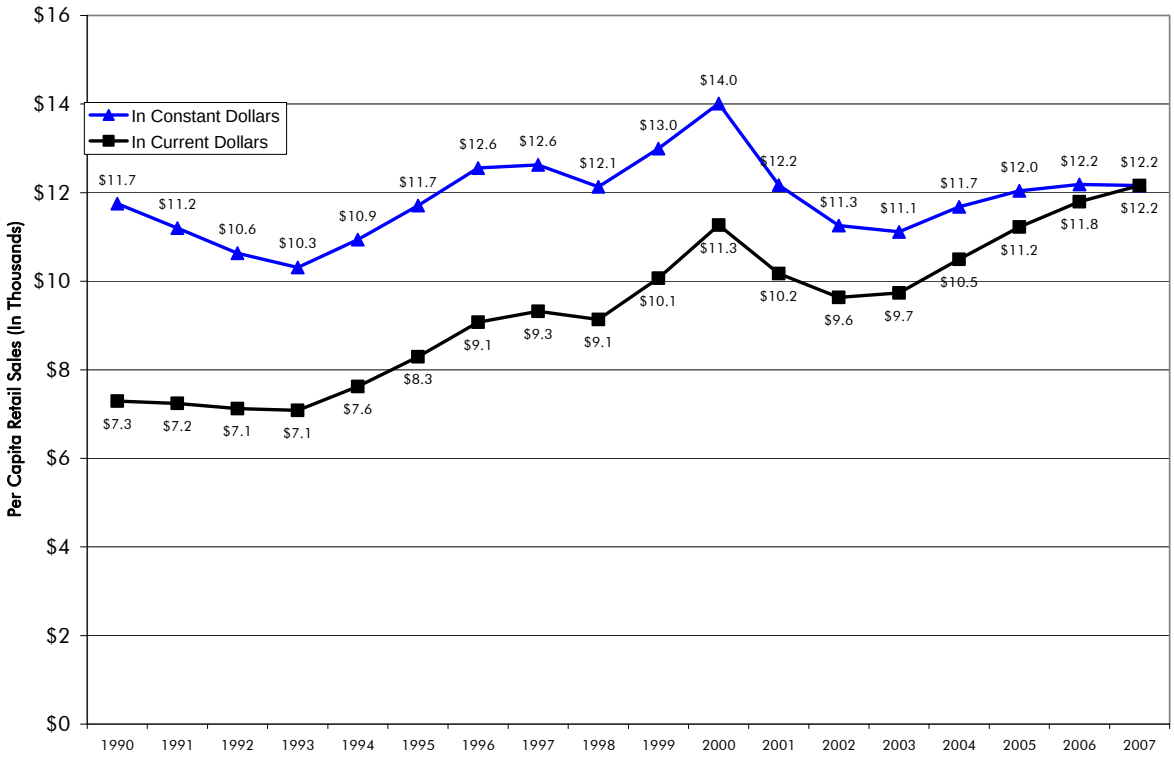
- The opening of new shopping centers and stores;
- The closures of retail stores that contributed to the 2007 sales base;
- Changes in consumer preferences towards retail spending; and
- Residential growth in the area, which drives additional demand for retail goods.

Although there have been some changes to the sales base in the market area from 2007 to 2009, no one store is large enough to make a substantial difference. Given the recessionary conditions it is likely that the store closures have been greater than store openings. As mentioned earlier in the previous chapter, actual sales data for all of San Francisco and the major retail corridors in the Candlestick Point market area were obtained from MuniServices, the tax consultant for San Francisco. In Exhibits 19 and 23 the sales base for each market area is projected from 2007 to 2009. The sales base adjustment figures for 2007-2008 are the actual change in sales taxes in all of San Francisco from 2007 to 2008 based on data from MuniServices and The HdL Companies, the latter comprising another California-based tax consultant firm. CBRE Consulting estimated the trend for 2008 to 2009, assuming one-half the prior year rate of change, with the exception of Service Stations, which are assumed to decline 5.0 percent because of the lower gas prices relative to 2008, and Food Stores, which have been projected by HdL to be flat through 2010. The assumption for using one-half the prior year rate of change is because the recession is expected to lift before the end of 2009; therefore, half the negative growth of the previous year is assumed. This adjustment should cover the impacts of store openings, store closures, changes in consumer preferences towards retail spending and any residential growth in the area. The Candlestick Point market area sales base is $5.34 billion in 2007, but is adjusted to $5.30 billion in 2009. The HPS Phase II market area sales base is $554.1 million in 2009, adjusted to $534.8 million in 2009.

Historical Trends in the Retail Sales Base

Recognizing that stores will continue to open and close between the publication of this analysis and the opening of the Project, it would not be possible to thoroughly estimate the resulting additions to, and subtractions from, the retail sales base. Moreover, for CEQA purposes, the existing base is most relevant as it reflects existing conditions. Therefore, CBRE Consulting assessed the suitability of 2007 as a proxy year for the existing base given historical trends in retail sales in San Francisco. Figure 1 illustrates the results of that analysis. The black trend line shows that retail sales per capita peaked at approximately $11,300 in 2000 before dropping to approximately $9,600 in 2002 with steady increases in each year since. The blue trend line represents taxable sales per capita adjusted to eliminate the effects of inflation. This adjustment was made in order to focus on other economic forces including consumer spending preferences. The trend shows that from 1990 to 1993, real sales per capita retreated from $11,750 to $10,300 in San Francisco, then steadily increased until 1996 and 1997, when they reached $12,600. After a brief drop in 1998, real sales per capita increased to a peak of $14,000 in 2000 during the technology boom. After dropping to $11,100 in 2003 after the dot.com bust real per capita sales has regained some ground. In 2007 real per capita sales was at $12,200, about 2.5 percent higher than the overall 18-year average of $11,900.

Figure 1
San Francisco Taxable Sales Per Capita
1990 – 2007
In Thousands



Considering how close the real per capita sales figure is to the long-term average, the 2007 sales base is an accurate proxy for the 2030 equivalent of the existing retail sales base in San Francisco. It is not believed to overestimate sales occurring in the market area, as would the 2000 sales base, nor is it believed to underestimate them. In 2030, the first full year of sales for the Project's retail components, CBRE Consulting anticipates that the sales base is more likely to be in line with the historical average than with the historic lows experienced in the current recession.

RETAIL DEMAND, SALES ATTRACTION, AND SPENDING LEAKAGE ANALYSES FINDINGS

CBRE Consulting prepared a Retail Demand, Sales Attraction, and Spending Leakage Analysis for each market area to examine its retail sales performance relative to its household base and to assess the degree to which the related stores are serving the retail needs of the resident households. The results for each market area, based upon the annual 2007 data[28], are presented in Exhibits 24 and 26.

[28] Although more recent data from the first and second quarters of 2008 were available from BOE, they were not used. Instead, trends from actual full year 2008 data from MuniServices for San Francisco were used to adjust the 2007 figures from 2007 to 2008.

Candlestick Point Market Area

Based on 2007 retail sales data, the Candlestick Point market area had attraction in all retail categories, except Motor Vehicles and Parts. Overall, the market area attracted 49.6 percent of spending from non-residents. However, the performance across categories was varied, ranging from $77.3 million of attraction in Service Stations to $1.2 billion of attraction in the Other Retail Stores category. The other categories that demonstrated attraction are as follows, listed in descending order based on their percentage of attraction:

- Home Furnishings and Appliances with 72.7 percent sales attraction;
- Eating and Drinking Places with 62.5 percent attraction;
- General Merchandise with 58.5 percent sales attraction;
- Apparel Stores with 49.9 percent sales attraction;
- Building Materials with 39.9 percent sales attraction; and
- Food Stores with 27.2 percent sales attraction.

These findings indicate that in 2007, the defined market area had a strong retail sales draw, to which sales were attracted in almost every retail category. The market area can be characterized as fully meeting the retail needs of its resident population, as well as partially supporting the retail needs for households beyond the market area boundaries. These sales attraction and leakage findings suggest that the market area is a retail destination supporting numerous shopping centers and retailers that draw from a consumer base far exceeding the market area's resident population.

HPS Phase II Neighborhood Retail Market Area

Based on 2007 retail sales data, the HPS Phase II neighborhood retail market area had retail sales leakage, with 10.9 percent of residents' spending ($68.1 million) estimated to occur outside the geographic area. Despite overall retail sales leakage, three categories had attraction: Food Stores with 19.2 percent attraction, Home Furnishings and Appliances with 67.7 percent attraction, and Building Materials with 65.3 percent attraction. The categories that demonstrated leakage are as follows, listed in descending order based on their percentage of leakage:

- Apparel, with 77.3 percent sales leakage;
- Motor Vehicles and Parts, with 72.9 percent sales leakage;
- Service Stations with 61.9 percent sales leakage;
- Other Retail Stores with 39.8 percent sales leakage;
- General Merchandise, with 20.8 percent sales leakage; and
- Eating and Drinking Places with 7.7 percent sales leakage.

These findings indicate that in 2007, the defined market area for HPS Phase II had a net loss of retail sales. Although three retail categories did attract substantial retail sales from non-residents, overall the market area can be characterized as not fully meeting the retail needs of its resident population. These sales attraction and leakage findings suggest that the market area is underserved by retail in most categories except for groceries, home furnishings and appliances, and building materials.

VII. HPS PHASE II RETAIL SALES IMPACTS

The following analysis examines the extent to which the HPS Phase II neighborhood retail is likely to attract new sales to the market area and/or divert sales from existing retailers. For sales that may be diverted, the maximum level of impact on existing HPS Phase II market area retailers is identified. To determine potential sales impacts to existing stores within the HPS Phase II market area, the analysis evaluates existing supply and demand for retail sales within each BOE category. Projected household growth and the recapture of existing leakage are also considered as sources of potential demand that may offset the potential sales impacts associated with the HPS Phase II retail development. For this analysis, the approach assumes that if the retail planned will add sales to a retail category in an amount greater than the combination of estimated recaptured leakage in the category and the expected demand from new households, ***then at worst***, the remaining amount of sales will be diverted away from existing market area retailers.

ESTIMATED NEW DEMAND

HPS Phase II market area household growth represents a major source of new demand for the planned retail and other area retailers. CBRE Consulting prepared projections for this component of demand, as follows.

New Household Growth

As shown in Exhibit 11, CBRE Consulting used projections from the San Francisco Urban Water Management Plan and Claritas to estimate that a total of 13,892 new households will be added to the HPS Phase II market area between 2009 and 2030. This estimate includes the 10,500 units planned for the Project and the 1,600 units planned at Schlage Lock.

New Household Demand Captured by the HPS Phase II Retail Development

In order to help estimate the demand from net new households presented in Exhibit 27, CBRE Consulting calculated the assumed percentage of new demand that may be captured by the HPS Phase II neighborhood retail within the market area. These capture rates were developed based on comparing the share of the new development's projected sales to the total retail sales in the market area. It is likely that not all of the HPS Phase II neighborhood retail sales will be new to the market area; however, this analytic convention comprises a conservative approach to provide minimum capture rate assumptions for the planned retail, assuming that all sales are diverted from existing retailers. These capture rates are calculated in Exhibit 28 and range from 2.7 percent in the home furnishings and appliances category to 24.0 percent in the other retail stores category.

New household spending demand is calculated based on the average household income. Because of the affordable housing requirements at the Project, there will be a relatively large number of households with below-average incomes. Appendix H and Exhibit 29 parse out the new household spending demand based on the type of housing unit (affordable rental, affordable for-sale, and market rate). Appendix H-1 shows the breakdown of affordable housing units by unit type. Assuming that each unit will house an average of one person more than the number of bedrooms, the weighted average of persons per unit in affordable housing is approximately 3.5 (see Appendix H-1 for details). The affordable units at the Project will have income limits of approximately 50

percent of the area median income for rental units and 80 percent of the area median income for for-sale units. The most recent Federal Department of Housing and Urban Development guidelines show that maximum 2009 income at 50 percent of the area median income in San Francisco is $43,550 for a three-person household and $48,400 for a four-person household.[29] Since the average household size in affordable housing planned at the Project is 3.5 persons, the average of those two figures was taken to determine the average household income of households living in affordable rental units. The same process was used to determine the average income for household living in affordable for-sale units and is also presented in Appendix H-1, which shows that the maximum 2009 income at 80 percent of the area median income in San Francisco is $69,700 for a three-person household and $77,450 for a four-person household.[30] The average of those two figures, or $73,575, was used as the average household income of those living in affordable for-sale units at the Project.

Exhibit 29 shows the imputed retail spending demand for households that would qualify for affordable housing at the Project. This retail spending demand is derived from the Retail Demand, Sales Attraction, and Spending Leakage Analysis using the average household income (see Appendix H-2). The retail spending demand for households in market rate units comes from the analysis done in Exhibit 26 after projecting the figures from 2007 to 2009 in Exhibit 27.[31] Using the total household spending for each relevant BOE retail sales category, CBRE Consulting calculated the aggregate new demand by retail sales category that will be generated by the addition of these households to the HPS Phase II market area. As shown in Exhibit 30, the 13,892 households added by 2030 are projected to generate $386.2 million in new retail demand spread across the BOE retail categories.

New Demand Captured by Other Retailers in the HPS Phase II Market Area

CBRE Consulting assumes that all retailers (i.e., existing and planned) within the HPS Phase II market area could reasonably expect to capture between 20 and 90 percent of the new household demand depending on the retail category, as shown in Exhibit 30. These capture rates were estimated based on consumer spending patterns as well as the amount of existing retail offerings in the HPS Phase II market area as opposed to offerings outside the market area. For example, for apparel stores a capture rate of 20 percent was assumed. Given the large amount of apparel offerings outside the market area, this category is not likely to capture a high share of new demand. In contrast, the Food Stores category was assumed to be able to capture 90 percent of new demand because most consumers will do the bulk of their grocery shopping at the store closest to where they live. Pursuant to this capture rate analysis, HPS Phase II market area retailers are assumed to capture up to $116.9 million in sales generated by the new market area residents.

Further applying the capture rates derived for just HPS Phase II, the analysis concludes that $13.8 million in new household demand is likely to be captured by the planned HPS Phase II neighborhood retail stores. This comprises approximately 12 percent of all available market area captured sales. This leaves an additional $103.0 million in new household demand captured by other retailers within the market area, which is available to offset any potential sales impacts. By

[29] *Maximum Income by Household Size: derived from the Unadjusted Area median Income for HUD Metro Fair Market Rent Area that contains San Francisco*, San Francisco Mayor's Office, March 31, 2009.
[30] *Maximum Income by Household Size: derived from the Unadjusted Area median Income for HUD Metro Fair Market Rent Area that contains San Francisco*, San Francisco Mayor's Office, March 31, 2009.
[31] Spending is projected from 2007 to 2009 using the same methods used to project the sales base from 2007 to 2009.

this is meant that $103.0 million in remaining demand is available to offset sales diverted from existing retailers as a result of HPS Phase II achieving its projected level of sales.

RECAPTURED LEAKAGE

Another source of potential retail demand for new retail projects can be recaptured sales leakage from resident spending that is occurring outside the HPS Phase II market area. Exhibit 31 shows that there is leakage in the relevant categories of General Merchandise, Eating and Drinking Places, and Other Retail Stores. It is assumed that only one-third of leakage in the market area in the relevant categories will be absorbed by new retail offerings at HPS Phase II. This is a conservative assumption because consumers often choose to make these types of purchases based on convenience, and the addition of high quality retailers to the market area will reduce the need to travel outside of the market area for neighborhood-oriented shopping.[32] Given this assumption it is estimated that there will be $5.4 million of retail sales leakage in General Merchandise, $1.9 million in Eating and Drinking Places, and $9.8 million in Other Retail Stores available to HPS Phase II retailers.

POTENTIAL SALES IMPACTS

The demand associated with new household growth is expected to absorb a large component of sales at the planned HPS Phase II neighborhood retail area in 2030, which comprises the first full year of operations. Exhibit 31 summarizes the projected sales and the estimates of demand related to household growth, some of which will benefit the existing HPS Phase II market area stores. New demand associated with household growth is estimated to account for $13.8 million of the Project's $41.3 million in market area sales. The remaining $103.0 million in demand from new households will be distributed among other market area stores, such that any potential impacts to existing stores will be fully offset. While these recaptured sales will occur to the detriment of other retailers outside the market area, there is still other remaining demand available to offset both these impacts and the ones in the market area. The calculations leading to these conclusions are detailed in Exhibit 31. Therefore, no substantial impacts are estimated to occur to the detriment of existing retailers due to the planned HPS Phase II neighborhood retail.

Moreover, as shown in Exhibit 8 and Table 4, about 10 percent of the tenant space (11,875 square feet) in the HPS Phase II neighborhood retail area is allocated to non-retail services businesses such as a bank branch or a dry cleaner. Since new household growth is estimated to create demand that is sufficient to offset potential retail sales impacts, it is likely that this incremental demand will also support the anticipated mix of neighborhood-oriented non-retail tenants without generating sales diversions from comparable businesses.

[32] Leakage recapture rates will vary depending on the strength of competitive area retail and the range of new stores within a planned development. CBRE Consulting has typically estimated recapture rates of 50 percent to 75 percent of leakage for underserved retail categories in other retail market areas that the firm has analyzed. The estimate that one-third of existing leakage will be recaptured by the HPS Phase II retailers is based on CBRE Consulting's professional judgment.

VIII. CANDLESTICK POINT RETAIL SALES IMPACTS

The following analysis examines the extent to which the Candlestick Point regional center and neighborhood retail is likely to attract new sales to the market area and/or divert sales from existing retailers. For sales that may be diverted, the maximum level of impact on existing Candlestick Point market area retailers is identified. To determine potential sales impacts to existing stores within the Candlestick Point market area, the analysis evaluates existing supply and demand for retail sales within each BOE category. Projected household growth and the recapture of existing leakage are also considered as sources of potential demand that may offset the potential sales impacts associated with the retail development at Candlestick Point. For this analysis, the approach assumes that if the retail planned will add sales to a retail category in an amount greater than the combination of estimated recaptured leakage in the category and the expected demand from new households, ***then at worst***, the remaining amount of sales will be diverted away from existing market area retailers.

ESTIMATED NEW DEMAND

Candlestick Point market area household growth represents a major source of new demand for the planned retail and other area retailers. CBRE Consulting prepared projections for this component of demand using an approach similar to the HPS Phase II analysis. Accordingly, the same population figures and projections are relevant to the Candlestick Point analysis as documented in Exhibit 11.

New Household Retail Demand

In order to help estimate the demand from net new households, CBRE Consulting calculated the assumed percentage of this new demand within the market area that may be captured by the Candlestick Point regional center and neighborhood retail. These capture rates were developed based on comparing the share of the new development's projected sales to the total retail sales in the market area, similarly to the methods used in the previous chapter. These capture rates are calculated in Exhibit 32 and range from 2.0 percent in the home furnishings and appliances category to 8.9 percent in the apparel category.

Exhibit 33 shows the imputed retail spending demand for households that would qualify for affordable housing at Candlestick Point.[33] This retail spending demand is derived from the Retail Demand, Sales Attraction, and Spending Leakage Analysis using the average household income (see Appendix H-2). The retail spending demand for households in market rate units comes from the analysis done in Exhibit 24 after projecting the figures from 2007 to 2009 in Exhibit 25.[34] As shown in Exhibit 34, the 24,395 households added by 2030 are projected to generate $694.0 million in new retail demand spread across the BOE retail categories.

New Demand Captured

[33] A full explanation of the calculations are in the previous chapter.
[34] Spending is projected from 2007 to 2009 using the same methods used to project the sales base from 2007 to 2009.

CBRE Consulting assumes that Candlestick Point market area retailers could reasonably expect to capture between 50 and 85 percent of the new household demand depending on the retail category, as shown in Exhibit 34. These capture rates were estimated based on consumer spending patterns as well as the amount of existing retail offerings in the Candlestick Point market area as opposed to offerings outside the market area. These rates are higher than the capture rates for the HPS Phase II market area because of the many additional retail offerings in the Candlestick Point market area. A rate of 50 percent was used for apparel, general merchandise, restaurants, home furnishings and appliances, and other retail stores. A higher rate of 80 percent was used for building materials since much of the building materials retailers in San Francisco are located in the Candlestick Point market area. A rate of 85 percent was used for the Food Stores category since most consumers will do the bulk of their grocery shopping at the store closest to where they live. This rate is slightly lower than the capture rate for grocery stores in the HPS Phase II market area because there are more grocery options just outside the Candlestick Point market area. Pursuant to this capture rate analysis, Candlestick Point market area retailers are assumed to capture up to $284.6 million in sales generated by the new market area residents.

Further applying the capture rates derived for just the Candlestick Point project, the analysis concludes that $11.0 million in new household demand is likely to be captured by the planned Candlestick Point regional center and neighborhood retail stores. This comprises approximately 4.0 percent of all available market area captured sales. This means that remaining demand is available to offset sales diverted from existing retailers as a result of the Candlestick Point project achieving its projected level of sales. The $246.3 million in new household demand captured within the market area is available to offset any potential impacts.

RECAPTURED LEAKAGE

Another source of potential retail demand for new retail projects can be recaptured sales leakage from resident spending that is occurring outside the Candlestick Point market area. However, the Candlestick Point market area has retail sales leakage in only one category, motor vehicles and parts. This category is not relevant to the analysis since no motor vehicles and parts retailers are planned for the regional center or neighborhood retail area. Exhibit 35 shows that no potential leakage is available to absorb sales at the new retail planned for Candlestick Point.

POTENTIAL SALES IMPACTS

The demand associated with new household growth is expected to absorb a large component of sales at the planned Candlestick Point neighborhood retail area in 2030, which comprises the first full year of operations. Exhibit 35 summarizes the projected sales and the estimates of demand related to household growth, some of which will benefit the existing Candlestick Point market area stores. New demand associated with household growth is estimated to account for $11.0 million of the Project's $173.2 million in market area sales. The remaining $246.3 million in demand from new households will be distributed among other market area stores, such that potential impacts to existing stores will be at least partially offset. The calculations leading to these conclusions are detailed in Exhibit 35.

Remaining impacts are estimated in the apparel stores and other retail stores categories. However, as a share of the market area sales, these impacts are only 2.3 percent in apparel and less than 1.0 percent in the other retail stores category. There is also still a large amount of remaining

demand in the general merchandise, food stores, restaurants, and building materials categories. If any apparel retailers or other retail stores were to close due to impacts from the Candlestick Point regional center and neighborhood retail, there appears to be sufficient demand for a store in a different retail category to retenant the space. Therefore, no substantial impacts to the detriment of existing retailers are estimated to lead to prolonged vacancies due to the planned Candlestick Point planned retail.

Similarly, new household demand growth is anticipated to be ample enough to support the non-retail tenant space within the regional center and neighborhood retail component without creating substantial sales diversions from competitive businesses in the market area. If, however, a comparable business does close due to the opening of the new non-retail tenants at Candlestick Point, demand for other non-retail services or across retail categories is expected to be sufficient such that any vacant spaces can be re-tenanted.

IX. SALES IMPACTS BEYOND THE PROJECT MARKET AREAS

This chapter discusses potential sales impacts to existing stores that are located outside but near the two respective market areas following potential changes in shopping patterns that may occur after the opening of the Project's retail components. Specifically, some consumers who currently rely on nearby neighborhood shopping areas may be enticed to shift their purchases to HPS Phase II. Similarly, local households that have historically been attracted to regional shopping centers in San Francisco and northern parts of San Mateo County may redirect some of their spending to the Candlestick Point regional retail center.

As described in earlier chapters, two separate market areas – the HPS Phase II neighborhood retail market area and the Candlestick Point regional market area – have been defined based on the mix of planned retail and the types of customers that each shopping area is likely to attract. For each of the two market areas, this analysis identifies the competitive retail locations that are proximate enough such that there may be trade area overlap with the proposed new retail stores that are part of the Project. For simplicity, the level of overlap is estimated in terms of the number of households. This overlap is then compared against projected household growth in individual trade areas, which serves as a proxy for new demand that can partially or fully offset the potential impacts of some trade area shoppers shifting their purchases to the Project's retail components.

APPROACH TO THE ANALYSIS

This analysis is presented in two parts. The first section identifies and compares Food Stores that are near the boundary of the HPS Phase II neighborhood retail market area since grocery stores typically anchor the neighborhood-oriented retail nodes that are likely to be most affected by the introduction of new stores in the HPS Phase II retail area. The second section focuses on competitive regional shopping centers beyond the Candlestick Point market area and the related impacts that could be caused by the opening of the proposed Candlestick Point retail stores. Each of these two analyses focus on sample locations to the north, west, and south of the respective market areas, which are indicative of the potential impacts and future demand growth within estimated trade areas. Given the eastern waterfront locations of both the HPS Phase II neighborhood retail area and the Candlestick Point regional retail area, there are not relevant competitive retail locations other than to the north, west, and south.

NEIGHBORHOOD-ORIENTED RETAIL NEAR THE HPS PHASE II MARKET AREA

Identification of Neighborhood-Oriented Retail Areas

As part of the field research for this report, CBRE Consulting identified and visited neighborhood-oriented shopping nodes within San Francisco and in cities to the south. In most but not all cases, these nodes featured some type of grocery store that catered to local residents and helped draw shoppers to a mix of restaurants, shops, and other service-oriented businesses. Therefore, the analysis of neighborhood retail impacts uses the locations of mid-sized to larger Food Stores as an indicator of the distribution of local shopping areas that are near the HPS Phase II market area.

Although it is possible that this approach will exclude an individual shopping node,[35] the number and concentration of mid-sized to larger Food Stores within a few miles of the market area boundary are substantial enough to estimate the potential impacts on neighborhood-oriented shopping areas.

Exhibit 36 presents a map of 44 grocery stores that are located in San Francisco, Daly City, and South San Francisco. Three of the stores – a Foods Co. supermarket, a Good Life Grocery, and a Smart & Final outlet – are within the HPS Phase II neighborhood market area, which is analyzed in Chapter VII. The remaining 41 stores, including multiple Safeway, Trader Joe's, and Whole Foods Market locations, are viewed as potentially competitive with the Food Stores component of the proposed HPS Phase retail development. The distribution of the grocery stores is largely a reflection of the local residential densities and area geography, with most being located north of Cesar Chavez Street. To the west of the market area boundary, the hills and uninhabited park areas (e.g., McLaren Park, Bernal Heights Park, Holly Park, etc.) comprise barriers to more concentrated shopping nodes. Similarly, San Bruno Mountain to the southwest is primarily a County park, such that larger grocery stores are further away along Highway 82 (El Camino Real).

Industry research from the International Council of Shopping Centers (ICSC)[36] and other sources indicate that supermarkets and neighborhood retail centers typically draw customers from 3- to 5-mile trade areas. Within the San Francisco area, the topography, the smaller size of grocery stores, and residents' propensities to walk or use public transit for neighborhood shopping suggest that this range may be overstated for some areas, particularly those north of Cesar Chavez Avenue. Still, for this analysis, a 3-mile radius trade area is relevant for illustrative purposes.[37] From the grocery stores shown in Exhibit 36, CBRE Consulting selected the following seven to analyze at a more detailed level:

- Whole Foods Market (399 4th Street, San Francisco)
- Foods Co. (1800 Folsom Street, San Francisco)
- Good Life Grocery (1524 20th Street, San Francisco)
- Delano IGA Market (1245 South Van Ness Avenue, San Francisco)
- Safeway (5290 Diamond Heights Boulevard, San Francisco)
- Safeway (4950 Mission Street, San Francisco)
- Safeway (30 Chestnut Avenue, South San Francisco)

These supermarkets were selected based on a combination of their store formats, the mix of neighborhoods they represent, their relative proximity to the HPS Phase II neighborhood market area, and the fact that two of the chains (Foods Co. and Good Life Grocery) operate stores within the HPS Phase II neighborhood retail market area. The Exhibit 36 map also depicts 3-mile radius trade areas for these seven stores.

[35] For example, the San Bruno Avenue shopping district, which is within the Hunters Point neighborhood market area, has a broad mix of retail yet its Food Stores are smaller and more specialty-oriented, like many within San Francisco.

[36] *ICSC's Dictionary of Shopping Center Terms,* International Council of Shopping Centers, New York, 2005, page 101.

[37] The concentration of 12 Safeway stores in Exhibit 36 suggests that the trade area for these supermarkets is smaller than a 3-mile radius. By contrast, specialty-oriented stores, such as Trader Joe's, Whole Foods Market, and certain ethnic-oriented markets would be more likely to draw customers from a 3-mile radius based on their more unique selections of items and more limited penetration of San Francisco and other nearby cities.

Trade Area Household Estimates

Exhibit 37 presents household estimates for each representative trade area based on demographic data obtained from Claritas. These trade area estimates range from 50,648 households for the Safeway in South San Francisco to 247,754 for the Foods Co. supermarket on Folsom Street. These household estimates are indicative of the level of available demand within a store's trade area. In addition, the existing level of competition helps determine how well each store is capturing available demand.

Exhibit 37 also shows the degree to which each store's trade area households overlap with the demand base in the HPS Phase II neighborhood retail market area. For example, the trade area for the Safeway in South San Francisco does not include any overlapping households based on its distance from the market area, while the Safeway at 4950 Mission Street shares 15.4 percent of its trade area households with the HPS Phase II retail market area. It is notable that a few of the other stores (e.g., Foods Co., Good Life Grocery, and Delano IGA Market) are closer to the HPS Phase II retail market area boundary, yet the next highest level of trade area overlap is 9.8 percent. These lower levels of overlap appear to be due to the higher residential concentrations north of Cesar Chavez Avenue, (i.e., the northern sections of the respective trade areas are likely more densely populated than the sections that overlap with the HPS Phase II market area).

Exhibit 38 translates the household overlap figures into estimates of the potential consumer base diversion for a given store. This analysis assumes that as many as half of the households located within the intersection of a store's trade area and the HPS Phase II retail market area may shift their related purchases to the neighborhood retail component of the Project. This assumption is based on the premise that residents living in between an existing store/neighborhood shopping area and the proposed HPS Phase II retail area would be equally likely to shop at either location based on convenience.[38] Consequently, for the Safeway at 4950 Mission Street, up to an estimated 7.7 percent of its 2009 trade area demand (i.e., equivalent to an estimated 9,861 households) may be redirected to the HPS Phase II neighborhood retail stores. Similarly, since this analysis uses the grocery store location as representative of a neighborhood shopping area, up to 7.7 percent of other neighborhood sales near this Safeway store may also be diverted to the HPS Phase II neighborhood retail area. For the other five representative stores with potential impacts, the consumer base diversion is anticipated to range from 0.8 percent to 4.9 percent, assuming a 50 percent shift in existing overlapping household demand,.

Projected Demand Growth, 2009-2030

As mentioned above, the existing trade area household estimates serve as a proxy for available demand for a given store/shopping area. Moreover, forecasting population and household growth is an industry-standard approach to gauging future demand. As stated in *Shopping Centers and Other Retail Properties*:

[38] Another explanation of this approach is that as the assumption all households within the overlapping trade area will shift 50 percent of their convenience-oriented purchases from existing stores to the HPS Phase II neighborhood retail area. This assumption most likely overstates the level sales diversion since shoppers within a given store's trade area often have access to more than one competitive neighborhood shopping area. Therefore, it is not likely that stores in the Hunters Point neighborhood retail area would capture 50 percent of household demand that is currently distributed among other competitive stores.

> "For most retailers, demand is generated by individuals or by households, so these are the most common measures of a market's depth and adequacy, while anticipated household or population growth is indicative of future opportunity."[39]

Within San Francisco, substantial household growth is projected through 2030. According to the San Francisco Urban Water Management Plan, citywide household growth will average 0.67 percent per year from 2005-2030, (see Appendix C-1 for details). Since some of this growth is driven by larger development projects that may not be part of individual trade areas, CBRE Consulting adjusted the forecast downward to exclude 28,400 households planned for Park Merced, Treasure Island, and the Project such that the revised annual growth rate is 0.37 percent per year.

Exhibit 38 projects 2030 trade area households for five of the seven selected grocery stores based on this rate of growth. The analysis does not include a household projection for the South Francisco Safeway store since this location did not have an overlapping trade area. Household demand growth for the remaining store in the exhibit, the Safeway at 4950 Mission Street, is calculated based on a 0.42 percent annual growth rate for 2009-2030, which is the weighted average of the San Francisco projection and forecasts for neighboring cities available from the Association of Bay Area Governments, (see Appendix J for details).[40] Based on this analysis, each of the representative store trade areas is likely to experience sufficient levels of new demand to offset any projected sales diversions prior to 2030. Consequently, none of the seven representative grocery stores or their surrounding local shopping nodes is projected to experience a net loss in demand due to the opening of the planned HPS Phase II neighborhood retail component.

Even though detailed analysis was only performed for representative stores (i.e., seven of the 41 non-market area grocery stores listed in Exhibit 36), a comparable result is anticipated for any of the other supermarkets, as well as for non-market area shopping nodes that may have been excluded based on the Food Stores orientation of the approach. In general, the level of trade area overlap – even for the most proximate grocery stores or neighborhoods – is not substantial compared with the levels of household growth that are projected from 2009-2030.

REGIONAL SHOPPING CENTERS NEAR THE CANDLESTICK POINT MARKET AREA

Identification of Regional Shopping Areas

CBRE Consulting conducted a similar analysis based on the regional shopping areas that are located in San Francisco and other nearby cities, which are relevant to the Candlestick Point regional retail area. In addition to its analysis of neighborhood shopping nodes, CBRE Consulting identified and visited the following seven regional shopping centers that are viewed as potentially competitive with the planned Candlestick Point retail components:

[39] *Shopping Centers and Other Retail Properties*, Edited by John R. White and Kevin D. Gray in association with the Urban Land Institute, 1996, page 129.

[40] Five of the seven stores analyzed have trade areas that are fully within San Francisco. The Safeway at 4950 Mission Street has a trade area that partially includes other cities, including South San Francisco, Brisbane, and Daly City.

- Westfield San Francisco Centre (San Francisco)
- Stonestown Galleria (San Francisco)
- Westlake Shopping Center (Daly City)
- Serramonte Center (Daly City)
- The Shops At Tanforan (San Bruno)
- Bridgepointe Shopping Center (San Mateo)
- Hillsdale Shopping Center (San Mateo)

Regional shopping centers generally have much larger trade areas than neighborhood-serving retail. According to industry research from ICSC, regional shopping centers typically have 400,000-800,000 square feet of retail space and attract the majority of their customers from trade areas of 5-15 miles. Larger centers, which ICSC refers to as superregionals, have more than 800,000 square feet of retail space and trade areas of 5-25 miles. The seven centers listed above range in size from 569,049 square feet (Bridgepointe Shopping Center) to 1,250,000 square feet (Westfield San Francisco Centre), with an average size of about 850,000 square feet according to estimates from CoStar. In addition, a few of the centers (e.g., the Shops at Tanforan, Serramonte Center) are part of larger shopping nodes that also have a regional draw. However, the geography of San Francisco and San Mateo County tends to limit access from several directions, which supports using a drive-time approach as opposed to a large radius (e.g., 5-25 miles) to estimate representative trade areas. Therefore, CBRE Consulting estimated the regional trade areas for each center according to 15-minute drive-time estimates, which tend to fall within the ICSC's mileage ranges and area consistent with the approach used to estimate the trade area for the regional retail proposed for Candlestick Point.

Exhibits 39-41 map the locations of each of these shopping centers in comparison with the Candlestick Point regional market area. In addition, estimated trade areas and trade area overlaps with the Candlestick Point market area are shown for three representative centers: Westfield San Francisco Centre, the Shops at Tanforan, and Westlake Shopping Center. The Westfield San Francisco Centre (see Exhibit 39) is located on the edge of the Candlestick Point market area but has a trade area that extends through most of northern San Francisco.[41] This center's trade area is also representative of Union Square and other downtown retail, which are not presented as regional "centers" yet have some potentially competitive stores.[42] The Shops at Tanforan (see Exhibit 40) is the nearest regional center to the south of the Candlestick Point market area and benefits from its location near each of the major highways serving the Peninsula. Finally, three regional centers are located to the west of the Candlestick Point regional market area, and Westlake Shopping Center serves as the representative center for this area in the analysis.

Trade Area Household Estimates

CBRE Consulting used geographic mapping software and demographic figures available from Claritas to calculate the number of households within each of the three regional shopping center's respective trade areas and the degree of overlap with the Candlestick Point market area. As presented in Exhibit 42, the trade area estimates range from 167,447 to 303,645 households for

[41] The 15-minute drive-time approach also extended the Westfield San Francisco Centre's trade area to parts of Oakland, though these geographic area was excluded from the analysis since the Bay is likely to serve as a geographic boundary for potential shoppers despite the drive-time.

[42] For example, any sales diversions for the Westfield San Francisco Centre are likely to be indicative of similar effects on nearby mainstream retailers such as Macy's, Crate & Barrel, and Old Navy.

each of the three centers. Westlake Shopping Center has the largest percentage of households that overlap with the Candlestick Point regional market area (32.3 percent), followed by the Westfield San Francisco Centre (29.3 percent), and the Shops at Tanforan (24.2 percent).

Exhibit 43 replicates the estimates of potential diversion of the existing consumer base as described earlier in this chapter based on the assumption that up to one-half of the trade area households in the overlapping geographies may redirect their purchasing to the planned Candlestick Point retail stores. Consequently, the representative centers and surrounding regional retail could experience potential sales impacts of as much as 16.1 percent of their 2009 retail base following the opening of the Candlestick Point retail area.

Projected Demand Growth, 2009-2030

Exhibit 43 also presents estimates of the household growth that is projected to occur in each of the representative regional shopping center trade areas. These increases are based on the weighted averages of San Francisco citywide forecasts and projections from the Association of Bay Area Governments for cities in San Mateo County as summarized in Appendix L. For the San Francisco component of these trade areas, a household growth rate of 0.67 percent annually was used in the calculations, which is consistent with the citywide forecast for 2005-2030 in the San Francisco Urban Water Management Plan.[43]

The related projections show that long-term household growth will exceed the estimates of potential consumer sales base diversions for two of the three representative trade areas – Westfield San Francisco Centre and the Shops at Tanforan. In other words, the level of new household demand for the two regional centers is likely to be higher than the baseline 2009 levels such that no net customer loss will occur. The trade area for the third representative regional center, Westlake Shopping Center, is also calculated to have substantial household growth, but could experience a net loss of demand equivalent to as many as 2,021 households in 2030. For reference, this level of demand translates to 1.1 percent of Westlake Shopping Center's 2009 estimated trade area household base. This result is likely a high-end estimate of potential demand impacts and would be lower if a more moderate estimate of redirected demand (e.g., a one-third shift of overlapping trade area demand versus the 50 percent level in the analysis) had been applied. Moreover, if household growth for the trade area continues at a comparable rate beyond 2030, this net consumer loss will be offset within a few years, (e.g., by 2032 or 2033).

While this analysis focused on three regional centers, the locations to the north, west, and south of the proposed Candlestick Point retail area are representative enough that similar results are anticipated for the other regionally-oriented shopping nodes. For example, Bridgepointe shopping center and Hillsdale shopping center are both further south than the Shops at Tanforan and would have lower levels of trade area overlap with the Candlestick Point regional market area. Serramonte Center and Stonestown Galleria are more proximate to the planned retail development, yet their respective trade area overlaps are likely to be comparable to the range found for the other centers analyzed. Consequently, local household growth from 2009-2030 will

[43] The analysis uses the citywide household growth estimate of 0.67 percent annually through 2030 for the San Francisco component of each representative regional center's trade area since these trade areas cover large portions of the city, including one or more of the planned major residential development projects. In the preceding analysis of neighborhood serving retail, a lower projection (0.37 percent per year) was used for household growth since many of the relevant trade areas excluded major planned development sites.

likely generate sufficient new demand to offset most, if not all, of any estimated diversions of their respective consumer sales bases.

SUMMARY OF FINDINGS

Ultimately, many factors will determine whether a competitive shopping area located near the Project's two market areas will be susceptible to potential sales diversions or store closures. These factors include, but are not limited to, store/center management and quality, market strength, levels of service, ability to respond to changing market conditions, and store locations relative to other competitors. Overall, CBRE Consulting finds that the introduction of new retail stores at the Project are likely to attract some shoppers away from existing neighborhood-serving shopping districts and regional centers that are outside the Project's market areas. However, demand growth due to the introduction of new households in San Francisco and surrounding San Mateo County cities is also projected to be strong enough to counter most, if not all, potential sales impacts on competitive stores.

For the neighborhood-serving trade areas in the analysis, potential diversions of the competitive sales base ranged from 0.0 percent to 7.7 percent, and projected household growth through 2030 supports a finding that there will be no net consumer loss at any of the seven representative locations analyzed. For the regional retail trade areas, the three centers analyzed had a greater overlap with the Candlestick Point market area, and as a result, the potential diversion of the associated consumer bases ranges from 14.7 percent to 16.1 percent. Demand growth in two of the three representative regional trade areas is projected to be sufficient to fully offset related diversions by 2030, while the Westlake Shopping Center may experience a net loss of up to 1.1 percent of its trade area base. In addition, this potential net consumer loss is likely an extreme example based on the assumption that the planned Candlestick Point retail area will divert a full 50 percent of household demand from the overlapping trade area and would be lower if a more moderate assumption of redirected demand had been applied.

X. CUMULATIVE IMPACTS

This analysis seeks to quantify the impact of the proposed retail planned at the Project taking into consideration other planned competitive retail developments. The cumulative projects that have been assessed for impacts are those that are reasonably foreseeable to be open and have a first full year of retail operations by 2030. The approach for this analysis is similar to what was used in the assessment of Project sales impacts in that the supply of planned retail and related new sales by BOE category are estimated and compared against the expected new demand associated with household growth and recaptured leakage. If the cumulative retail developments, including the planned retail, add sales to a retail category in an amount greater than the combination of estimated recaptured leakage in the category and the expected demand from new households, ***then at worst,*** the remaining amount of sales are estimated to be diverted from existing market area retailers.

PROJECTS INCLUDED IN THE ANALYSIS

The information on planned retail projects came primarily from city planning offices and select environmental documents. The projects were selected because of their location either in the HPS Phase II and Candlestick Point market areas or nearby the Candlestick Point market area. Through this process, CBRE Consulting identified three cumulative retail projects within the HPS Phase II market area: Lowe's, Brisbane Baylands, and India Basin. However, two of those projects, Lowe's and Brisbane Baylands, are not competitive with the neighborhood retail planned at HPS Phase II. Those two projects likely have much larger draws for residents from a broader area than just the HPS Phase II market area. Therefore, only one project, India Basin, was considered in the cumulative impacts to the HPS Phase II market area. For the Candlestick Point market area, ten projects, including Lowe's and Brisbane Baylands, were identified within the Candlestick Point market area, and another 17 planned retail projects were identified outside of but near the Candlestick Point market area. These projects, along with a description and estimated square footage and opening dates, are presented in Exhibit 44 and mapped in Exhibit 46.

Including all projects located both within and near the Candlestick Point market area boundaries, there are a total of 3.5 million square feet of retail space in planning. Of these 3.5 million square feet, approximately 2.2 million square feet are within the Candlestick Point market area, while the remaining 1.3 million square feet are in locations outside of, but proximate to, the Candlestick Point market area boundary.

Methodology and Calculation of Planned Square Feet

The uncertain nature of the cumulative projects list, which endeavors to inventory all projects that might open over the next two decades, means that the estimated opening timeframes for each of the remaining projects are unknown. These projects are analyzed collectively. Rather than engaging in the highly uncertain task of estimating specific build-out square feet and year for each project, which cannot be accurately estimated at this time, CBRE Consulting utilized a methodology in which all planned retail square feet across the 26 retail projects was aggregated. An attrition rate of 20 percent was applied to each project's planned square feet, which accounts for the anticipation that most projects will not be developed to the density currently envisioned or some projects may not be realized.

The location of each cumulative retail project is mapped in Exhibit 46, which shows that planned projects are widely spread out except for one concentration in the South of Market neighborhood of San Francisco. Only four projects are planned within the central and southern portions of the Candlestick Point market area.

Cumulative Projects Trade Overlap with the Project

The cumulative projects are considered competitive with the Project only insomuch as their trade area overlaps with the HPS Phase II market area or the Candlestick Point market area. To this end, each cumulative project was considered in an attempt to approximate its trade area overlap with the HPS Phase II and Candlestick Point market areas. Cumulative projects were assigned a market area based on whether they draw customers mainly from the surrounding neighborhood or whether they draw residents from beyond just the surrounding neighborhood.

The market area definitions were informed by shopping center definitions published by the ICSC. Smaller projects with a neighborhood draw were assumed to have a market area of a 3-mile radius. Larger projects with a regional draw were assumed to have a market area equivalent to a 15-minute drive time, comparable to the Candlestick Point market area.[44] These are market generalizations given the available project information and deemed sufficient for this level of analysis. These determinations are shown in Exhibit 48. Seven of the 26 projects, when given this trade area definition, were found to be located far enough away from the Project to have no overlap with the HPS Phase II or Candlestick Point market areas. These projects were therefore excluded from the analysis starting in Exhibit 48.

The number of households shared by the market areas are considered to be an indicator of the trade area overlap. Using mapping software and Claritas data, Exhibit 48 calculates the share of households located both within the cumulative projects' market areas and in the HPS Phase II and/or Candlestick Point market area. Applying the resulting percentage to each planned center's estimated sales potential approximates the dollar amount of sales introduced to the HPS Phase II or Candlestick Point market area by that cumulative project, net of sales already accounted for by the Project. For example, if "Planned Project X" is projected to generate $50 million in annual sales, and 20 percent of the households in its market area are also located within the Candlestick Point market area, then it is assumed that $10 million (or 20 percent of $50 million) of additional sales are introduced to the Candlestick Point market area, above and beyond those introduced by the Project's planned retail.

Cumulative Project Sales Estimates and Sales Impacts

Exhibit 47 presents calculations of the estimated retail sales generated by each new development project. Exhibit 49 then applies the percentage estimates derived in Exhibit 48 to these sales in order to arrive at the total sales from each cumulative project that will draw from HPS Phase II or Candlestick Point market area residents. The first percentage applied is the project's market area overlap with the Project's retail component market area, approximated using households as discussed in the previous section of this chapter (and calculated in Exhibit 48). The second percentage applied to the sales estimates is the percentage of sales estimated to originate from

[44] ICSC, *U.S. Shopping Center Definitions,* April 2009 (https://www.icsc.org/srch/lib/2009_S-C_CLASSIFICATION_May09.pdf), accessed September 2009.

each project's market area. This adjustment takes into consideration that shopping center trade areas account for the majority, but not all, of a center's sales. The percentage of sales estimated to originate from outside of each project's market area was based on the available information pertaining to each project's prospective format and size. This percentage ranges from 85 percent for Brisbane Baylands and Lowe's, which are likely to have a strong regional draw, to 95 percent for India Basin, which is likely to draw only from neighborhood residents.

Based on the preceding methodology and the calculations shown in Exhibit 49, cumulative projects located within the HPS Phase II market area will contribute $12.7 million. Cumulative projects located within and near the Candlestick Point market area will contribute $277.7 million in estimated retail sales to the Candlestick Point market area by 2030.[45] Exhibit 50 presents the allocation of cumulative project sales generated by market area residents to the BOE retail categories for purposes of comparing the sales figures with sources of new demand.[46] Exhibit 50 also accounts for normal vacancy in the market area by adjusting the $277.7 million downward by a factor of 5.0 percent to $263.8 million.

HPS PHASE II MARKET AREA IMPACTS

Exhibits 51, 52, and 53 estimate the impacts to the HPS Phase II market area from the planned Project retail component as well as the cumulative India Basin retail project. The process matches the one used to estimate impacts to the HPS Phase II market area in Chapter VII. Exhibit 51 calculates a new household demand capture rate for the HPS Phase II neighborhood retail planned combined with the India Basin retail project. Overall, these two projects will capture 9.1 percent of new household demand, but this varies by relevant category, from 0.5 percent in Building Materials to 23.5 percent in the Other Retail Stores category. Exhibit 52 applies these capture rates and the market area capture rates to determine the capture of household demand within the HPS Phase II market area. The market area capture rates are estimated based on the retail offerings within the market area as compared to options outside the market area. These market area capture rates range from 20 percent in Building Materials to 90 percent in Food Store sales. The result finds that $14.8 million of new household demand for retail is estimated to be captured by the HPS Phase II neighborhood retail area in combination with the India Basin cumulative retail project. The remaining new household demand is $102.1 million.

Table 9 summarizes the estimated sales impacts to existing retailers in the HPS Phase II market area due to the HPS Phase II neighborhood retail project in combination with the India Basin retail project.

[45] Approximately $206.6 million in sales will be generated by projects in the Candlestick Point market area and $71.1 million will come from projects outside of but near the Candlestick Point market area. See Exhibit 49.

[46] Planned retail space with unknown orientation or product type was allocated into BOE categories by CBRE Consulting based on the estimated size of the project and analysis of various existing shopping centers in the Bay Area. See footnote 2 in Exhibit 50 for these distributional assumptions.

Table 9
Maximum Cumulative Sales Impacts in HPS Phase II Market Area
2009 Dollars, in millions

Retail Category	Maximum Sales Diverted From Project Market Area Retailers	Maximum Sales Diverted as a Share of Market Base	Final Remaining New Household Demand
Apparel	$0.0	0.0%	$3.0
General Merchandise	$0.0	0.0%	$13.3
Food Stores	$0.0	0.0%	$45.8
Eating and Drinking	$0.0	0.0%	$20.4
Home Furn. & Appliances	$0.0	0.0%	$3.8
Building Materials	$0.0	0.0%	$5.7
"Other Retail Stores"	$0.4	1.0%	$0.0
Total[1]	**$0.4**	**0.1%**	**$91.8**

Source: Exhibit 53.
(1) Figures may not total due to rounding.

As shown, the HPS Phase II market area may experience up to $0.4 million in sales impacts in 2009 dollars in the Other Retail Stores category. These impacts are relatively small, accounting for only 1.0 percent of the market area sales base in this retail category, or 0.1 percent overall. These impacts will likely be spread among many retailers; however, if certain retailers are affected disproportionately, store closures could occur.

Table 9 also shows the final remaining new household demand in the HPS Phase II market area. This demand is new household demand remaining after potential sales impacts are accounted for. In this case the potential sales impacts in the Other Retail Stores category total $10.7 million, but new household demand reduces those impacts to only $437,000 as shown in Exhibit 53. There is, therefore, no remaining demand in the Other Retail Stores category. Instead, the $91.8 million in remaining demand is most heavily concentrated in the Food Stores, Restaurants, and General Merchandise categories with yet other demand but not in the other retail sales category. If store closures were to occur in Other Retail Stores category, those vacant spaces could be retenanted by a retailer in a category with remaining new household demand. Because of this remaining demand, CBRE Consulting does not believe any vacancies due to the HPS Phase II neighborhood retail area in combination with the India Basin project will remain empty for a prolonged period of time. Therefore, existing retail districts in the HPS Phase II market area, and discussed in Chapter V, Leland Avenue, San Bruno Avenue, Third Street, and South Bayshore, are unlikely to be negatively impacted by the neighborhood retail planned at HPS Phase II and India Basin. Instead, new household growth in the HPS Phase II market area is likely to benefit the existing retail districts.

CANDLESTICK POINT MARKET AREA IMPACTS

Exhibits 54, 55, and 56 estimate the impacts to the Candlestick Point market area from the planned Project retail component as well as the cumulative projects. The process matches the one used to estimate impacts to the Candlestick Point market area in Chapter VIII. Exhibit 54 calculates a new household demand capture rate for the Candlestick Point regional center and neighborhood retail planned combined with the cumulative projects. Overall, these projects will capture 7.6 percent of new household demand, but this varies by relevant category, from 5.5 percent in

Building Materials to 17.3 percent in Apparel. Exhibit 55 applies these capture rates and the market area capture rates to determine the capture of household demand within the Candlestick Point market area.

The market area capture rates are estimated based on the retail offerings within the market area as compared to options outside the market area. Since the Candlestick Point market area is so large and since the cumulative projects' market areas extend to most of San Francisco, these market area capture rates are high. It is estimated that 95 percent of Food Store sales will be captured in the market area. The other categories are set at 90 percent.

The estimated new household demand for retail estimated to be captured by the Candlestick Point regional center and neighborhood retail area in combination with the cumulative projects totals $35.5 million. The remaining new household demand, $389.2 million, is then reduced by the estimated HPS Phase II neighborhood retail sales, since the previous analysis found that all HPS Phase II sales will be offset by new household demand. The net remaining demand that will help offset impacts to other existing retailers is $347.9 million as shown in Exhibit 55.

Table 10 summarizes the estimated sales impacts to existing retailers in the Candlestick Point market area due to the Candlestick Point regional center and neighborhood retail project in combination with the cumulative projects.

Table 10
Maximum Cumulative Sales Impacts in Candlestick Point Market Area
2009 Dollars, in millions

Retail Category	Maximum Sales Diverted From Project Market Area Retailers	Maximum Sales Diverted as a Share of Market Base	Final Remaining New Household Demand
Apparel	$23.4	9.1%	$0.0
General Merchandise	$9.9	1.2%	$0.0
Food Stores	$0.0	0.0%	$74.9
Eating and Drinking	$0.0	0.0%	$61.4
Home Furn. & Appliances	$10.8	3.5%	$0.0
Building Materials	$0.0	0.0%	$43.9
"Other Retail Stores"	$81.1	5.1%	$0.0
Total[1]	**$125.3**	**2.4%**	**$180.2**

Source: Exhibit 56.
(2) Figures may not total due to rounding.

As shown, the Candlestick Point market area may experience up to $125.3 million in sales impacts in 2009 dollars concentrated in the Other Retail Stores and Apparel categories. Smaller impacts are estimated in the General Merchandise and Home Furnishings & Appliances categories. These impacts will likely be spread among many retailers. However, if certain retailers are affected disproportionately, store closures could occur.

Table 10 also shows the final remaining new household demand in the Candlestick Point market area, net of demand that offsets some of the impacts of new retail projects. This $180.2 million in demand is in the Food Stores, Restaurants, and Building Materials categories. If store closures were

to occur in Other Retail Stores and Apparel categories, those vacant spaces could be retenanted by a retailer in a category with remaining new household demand. Because of this remaining demand, CBRE Consulting does not believe any vacancies due to the Candlestick Point regional center and neighborhood retail area in combination with the cumulative projects will remain empty for a prolonged period of time. The existing retail districts in the Candlestick Point market area, Leland Avenue, San Bruno Avenue, Third Street, and South Bayshore, also are unlikely to be negatively impacted by the Candlestick Point regional center and neighborhood retail area in combination with cumulative projects because their main retail categories are estimated to have minimal impacts. South Bayshore and Third Street both have retail sales concentrated in the building materials, gas stations, and restaurants categories, which are not estimated to have any impacts. The San Bruno Avenue retail district has most of its sales in the gas stations and restaurants categories and Leland Avenue has retail sales concentrated in the food stores category and the motor vehicles and parts category. Instead, new household growth in the Candlestick Point market area and remaining demand in the Restaurants, Food Stores, and Building Materials categories are likely to benefit the existing retail districts.

XI. URBAN DECAY DETERMINATION

The purpose of this chapter is to assess the degree to which development of the Project's retail components will or will not contribute to urban decay. This includes impacts associated with the cumulative impacts of the planned HPS Phase II and Candlestick Point retail components and other identified planned retail developments. Urban decay could theoretically result from development of the Project's planned retail and other known planned retail developments due to closure of other stores resulting from negative economic impacts. This chapter discusses the definition of urban decay, approach to assessing the potential for urban decay, and CBRE Consulting's urban decay conclusion.

STUDY DEFINITION OF URBAN DECAY

For the purpose of this analysis, urban decay is defined as, among other characteristics, multiple visible symptoms of physical deterioration that invite vandalism, loitering, and graffiti that is caused by a downward spiral of business closures and long term vacancies. This physical deterioration to properties or structures is so prevalent, substantial, and lasting for a significant period of time that it impairs the proper utilization of the properties and structures, and the health, safety, and welfare of the surrounding community. The manifestations of urban decay include such visible conditions as plywood-boarded doors and windows, parked trucks and long term unauthorized use of the properties and parking lots, extensive gang and other graffiti and offensive words painted on buildings, dumping of refuse on site, overturned dumpsters, broken parking barriers, broken glass littering the site, dead trees and shrubbery together with weeds, lack of building maintenance, homeless encampments, and unsightly and dilapidated fencing.

URBAN DECAY APPROACH

CBRE Consulting's approach to assessing the potential for urban decay is grounded in all of the preceding analysis, focused on determining if the Project's retail development(s) and identified cumulative projects will directly or indirectly cause any existing retailers to close, and if the subsequent vacancies will remain vacant for a prolonged period of time such that they develop the symptoms cited above that contribute to and eventually lead to urban decay. As reviewed in the preceding chapters, new household demand by 2030, the assumed operational year of the Project retail developments, is anticipated to be sufficient to result in minimal anticipated negative sales impacts on existing retailers attributable to each project independently. There is anticipated to be new demand due to household growth in adequate quantities to support the Project's retail projects (as well as recaptured leakage relative to HPS Phase II) as well as existing retail developments that may experience some Project-related diverted sales. This is the case for retail developments located in the respective Project retail market areas as well as for nearby retail developments with shared market area portions.

The planned Project retail developments are also not perceived to lead to the closure of existing retailers on a cumulative basis after consideration of demand generated by household growth. Despite identified plans for 3.5 million square feet of cumulative retail development, the Project retail projects are not anticipated to result in retail store impacts leading to prolonged retail store vacancy. While some stores may close as a result of diverted retail sales, sufficient retail demand is

anticipated to occur in other retail categories that will enable new or expanded retail enterprises to backfill the resulting vacancies. Therefore, the existing retail commercial base is not anticipated to experience prolonged vacancy or other condition likely to contribute to or lead to urban decay.

URBAN DECAY CONCLUSION

Based upon the findings regarding the presence of new retail demand sufficient to support the Project's planned retail components, other cumulative retail projects, and/or backfill retail spaces vacated as a result of project impacts, CBRE Consulting concludes that the Project's retail components will not cause or contribute to urban decay. This findings pertains to the Project's retail components on both an individual and a cumulative basis.

ASSUMPTIONS AND GENERAL LIMITING CONDITIONS

Fieldwork for this study was completed in May 2009. Accordingly, CBRE Consulting assumes no responsibility for market events pertinent to the market area occurring after that time.

CBRE Consulting has made extensive efforts to confirm the accuracy and timeliness of the information contained in this study. Such information was compiled from a variety of sources, including interviews with government officials, review of City and County documents, and other third parties deemed to be reliable. Although CBRE Consulting believes all information in this study is correct, it does not warrant the accuracy of such information and assumes no responsibility for inaccuracies in the information by third parties. We have no responsibility to update this report for events and circumstances occurring after the date of this report. Further, no guarantee is made as to the possible effect on development of present or future federal, state or local legislation, including any regarding environmental or ecological matters.

The accompanying projections and analyses are based on estimates and assumptions developed in connection with the study. In turn, these assumptions, and their relation to the projections, were developed using currently available economic data and other relevant information. It is the nature of forecasting, however, that some assumptions may not materialize, and unanticipated events and circumstances may occur. Therefore, actual results achieved during the projection period will likely vary from the projections, and some of the variations may be material to the conclusions of the analysis.

Contractual obligations do not include access to or ownership transfer of any electronic data processing files, programs or models completed directly for or as by-products of this research effort, unless explicitly so agreed as part of the contract.

This report may not be used for any purpose other than that for which it is prepared. Neither all nor any part of the contents of this study shall be disseminated to the public through publication advertising media, public relations, news media, sales media, or any other public means of communication without prior written consent and approval of CBRE Consulting.

APPENDIX A: EXHIBITS

Exhibit 1
Candlestick Point - Hunters Point Shipyard Phase II Development Plan Allocation
Retail Space by Project and Retail Tenant Type

Type of Retail	BOE Category	Share of Total	Square Feet
Candlestick Point			
Regional Center			
Anchors/Large Stores			
Anchor	General Merchandise	20%	125,000
Grocery Store	Food Stores	9%	60,000
Cinema	Specialty/Other Retail Stores	9%	55,000
Electronics/Appliances Store	Specialty/Other Retail Stores	8%	50,000
Hardware/Garden Store	Building Materials	8%	50,000
Sporting Goods Store	Specialty/Other Retail Stores	6%	40,000
Books and Stationery Store	Specialty/Other Retail Stores	4%	25,000
Smaller Stores			
Clothing Stores	Apparel	11%	70,000
Fast Food/Food Court/Misc. Food Stores	Eating and Drinking Places	7%	43,500
Furniture and Home Furnishings Stores	Home Furnishings and Appliances	5%	30,000
Gifts and Novelty Stores	Specialty/Other Retail Stores	4%	25,000
Sit-Down Restaurants	Eating and Drinking Places	4%	24,000
Other Specialty Stores	Specialty/Other Retail Stores	4%	22,500
Business and Personal Services	Not Applicable	2%	15,000
Subtotal - Regional Shopping Center		**100%**	**635,000**
Neighborhood Retail/Main Street Concept			
Business and Personal Services	Not Applicable	50%	62,500
Restaurants	Eating and Drinking Places	20%	25,000
Specialty Retail	Specialty/Other Retail Stores	12%	15,000
Drug Store	General Merchandise	10%	12,500
Other Retail Stores	Other Retail Stores	8%	10,000
Subtotal - Neighborhood Retail/Main Street Concept		**100%**	**125,000**
Total for Candlestick Point			**760,000**
Hunters Point Shipyard Phase II Neighborhood Retail			
Grocery	Food Stores	30%	37,500
General Merchandise	General Merchandise	15%	18,750
Restaurants	Eating and Drinking Places	15%	18,750
Specialty Retail	Specialty/Other Retail Stores	15%	18,750
Other Retail Stores	Other Retail Stores	10%	12,500
Business and Personal Services	Not Applicable	10%	12,500
Home Furnishings and Appliances	Home Furnishings and Appliances	5%	6,250
Total for Hunters Point Shipyard Phase II Neighborhood Retail		**100%**	**125,000**

Sources: Lennar Urban; and CBRE Consulting.

Exhibit 2
Candlestick Point - Hunters Point Shipyard Phase II Development Plan
Retail Space Allocation by California State Board of Equalization (BOE) Category

Proposed Use	Square Feet (2)	BOE Sales Categories (1) Apparel	General Merchandise (3)	Food Stores	Eating & Drinking Places	Home Furnishings & Appliances	Building Materials	Other Retail	Non-Retail
Candlestick Point									
Regional Shopping Center Tenant Mix									
Anchors/Large Stores									
Anchor	**125,000**	0	125,000	0	0	0	0	0	0
Grocery Store	**60,000**	0	0	60,000	0	0	0	0	0
Cinema	**55,000**	0	0	0	0	0	0	55,000	0
Electronics/Appliances Store	**50,000**	0	0	0	0	0	0	50,000	0
Hardware/Garden Store	**50,000**	0	0	0	0	0	50,000	0	0
Sporting Goods Store	**40,000**	0	0	0	0	0	0	40,000	0
Books and Stationery Store	**25,000**	0	0	0	0	0	0	25,000	0
Smaller Stores									
Clothing Stores	**70,000**	70,000	0	0	0	0	0	0	0
Fast Food/Food Court/Misc. Food Stores	**43,500**	0	0	0	43,500	0	0	0	0
Furniture and Home Furnishings Stores	**30,000**	0	0	0	0	30,000	0	0	0
Gifts and Novelty Stores	**25,000**	0	0	0	0	0	0	25,000	0
Sit-Down Restaurants	**24,000**	0	0	0	24,000	0	0	0	0
Other Specialty Stores	**22,500**	0	0	0	0	0	0	22,500	0
Business and Personal Services	**15,000**	0	0	0	0	0	0	0	15,000
Neighborhood Retail/Main Street Concept									
Business and Personal Services	**62,500**	0	0	0	0	0	0	0	62,500
Restaurants	**25,000**	0	0	0	25,000	0	0	0	0
Specialty Retail	**15,000**	0	0	0	0	0	0	15,000	0
Drug Store (3)	**12,500**	0	12,500	0	0	0	0	0	0
Other Retail Stores	**10,000**	0	0	0	0	0	0	10,000	0
Total for Candlestick Point	**760,000**	**70,000**	**137,500**	**60,000**	**92,500**	**30,000**	**50,000**	**242,500**	**77,500**
Hunters Point Shipyard Phase II Neighborhood Retail									
Grocery	**37,500**	0	0	37,500	0	0	0	0	0
General Merchandise	**18,750**	0	18,750	0	0	0	0	0	0
Restaurants	**18,750**	0	0	0	18,750	0	0	0	0
Specialty Retail	**18,750**	0	0	0	0	0	0	18,750	0
Other Retail Stores	**12,500**	0	0	0	0	0	0	12,500	0
Business and Personal Services	**12,500**	0	0	0	0	0	0	0	12,500
Home Furnishings and Appliances	**6,250**	0	0	0	0	6,250	0	0	0
Total for Hunters Point Shipyard Phase II	**125,000**	**0**	**18,750**	**37,500**	**18,750**	**6,250**	**0**	**31,250**	**12,500**

Sources: Exhibit 1; and CBRE Consulting.

(1) Sales categories reported by the California State Board of Equalization (BOE). CBRE Consulting matched the expected retail sales categories with the BOE categories. Sales categories irrelevant to this analysis (Motor Vehicles and Supplies and Service Stations) are not shown.

(2) See Exhibit 1.

(3) Drug store sales are reported by the BOE in the General Merchandise category.

Exhibit 3
Calculation of Sales Per Square Foot Estimates (1)
Retail Store Types and Specific Retail Stores
National Averages
In 2009 Dollars

	Sales Per Square Foot						
	2003	2005		2007		Average	Average
	In 2003$'s	In 2005$'s	In 2003$'s	In 2007$'s	In 2003$'s	In 2003$'s	In 2009$'s
Store or Category (2)	[A]	[B]	[C]	[D]	[E]	[F = (A+C+E) / 3]	[G]
	(CPI = 184.00)	*(CPI = 195.30)*		*(CPI = 207.34)*			*(CPI = 213.24)*
Apparel - Specialty	$371	$392	$369	$416	$369	$370	$429
Department Stores Category	$239	$234	$220	$304	$270	$243	$282
Domestics Category	$287	$322	$303	$302	$268	$286	$331
Furniture Category	$176	$188	$177	$255	$226	$193	$224
Average of Domestics & Furniture	$232	$255	$240	$279	$247	$240	$278
Neighborhood Center Category	$322	$340	$320	$392	$348	$330	$382
Supermarkets	$348	$450	$424	$480	$426	$399	$462
Drug Stores	$534	$507	$478	$657	$583	$532	$617
Restaurants Category	$389	$372	$350	$430	$382	$374	$433
Home Improvement	$274	$279	$263	$304	$270	$269	$312
Other Retail Categories							
Electronics	$426	$490	$462	$447	$397	$428	$496
Office Supplies	$283	$304	$286	$341	$303	$291	$337
Sports	$209	$243	$229	$246	$218	$219	$254
Pet Supplies	$184	$192	$181	$189	$168	$178	$206
Book Superstores	$244	$237	$223	$242	$215	$227	$263
Video Stores	$106	$106	$100	$117	$104	$103	$119
Toys	$231	$227	$214	$367	$326	$257	$298
Music Superstores	$247	$242	$228	$340	$302	$259	$300
Gifts, Hobbies & Fabrics	$158	$141	$133	$139	$123	$138	$160
Average of Other Retail Categories	$232	$242	$228	$270	$239	$233	$270

Sources: Retail MAXIM, "Alternative Retail Risk Analysis for Alternative Capital" 2004, 2006, and 2008; United States Bureau of Labor Statistics; and CBRE Consulting.

(1) Estimates in columns A, B, and D were obtained from Retail MAXIM. Columns C and E were calculated using the Consumer Price Index for All Urban Consumers in the United States.
(2) Only categories and stores used in this urban decay analysis are shown in this exhibit.

Exhibit 4
Estimate of Average Sales Per Square Foot by BOE Category
National Averages
In 2009 Dollars

Retail Category	Average Sales Per Sq. Ft. 2009$'s (1)	
Apparel Stores		
Apparel - Specialty	$429	
General Merchandise Stores		
Drug Stores	$617	
Department Stores	$282	
Weighted Average	$354	(2)
Food Stores		
Supermarkets	$462	
Eating & Drinking Places		
Restaurants	$433	
Home Furnishings & Appliances		
Domestics	$331	
Furniture	$224	
Average	$278	
Building Materials		
Home Improvement	$312	
Other Retail Stores		
Electronics	$496	
Office Supplies	$337	
Sports	$254	
Pet Supplies	$206	
Book Superstores	$263	
Music Superstores	$300	
Toys	$298	
Gifts, Hobbies & Fabrics	$160	
Video Stores	$119	
Average	$270	

Sources: Exhibit 3; MuniServices, "Sales Tax Review, 4th Quarter 2008"; and CBRE Consulting.

(1) See Exhibit 3.

(2) Represents the weighted average based on the share of General Merchandise sales attributable to drug stores. According to MuniServices data, in the City of San Francisco, drug store sales represented approximately 21.7 percent of total General Merchandise group sales in 2008.

Exhibit 5
Drugstore Sales Payer Composition
2007 Dollars in Millions (1)

Item	Drug Store Operator			Average
	Walgreens	Rite Aid	CVS	
Total Revenues (2)	**$59,034**	**$26,289**	**$48,990**	
Front-end Sales as a % of Sales (3)	*35.1%*	*32.8%*	*32.5%*	
Front-end Sales (4)	**$20,721**	**$8,623**	**$15,922**	
Prescription Drug Sales as a % of Sales (2)	*64.9%*	*67.2%*	*67.5%*	
Prescription Drug Sales (5)	**$38,313**	**$17,666**	**$33,068**	
Third-Party % of Pharmacy Revenue (2)	*95.3%*	*96.3%*	*96.1%*	
Third-Party Plans (6)	**$36,512**	**$17,013**	**$31,779**	
Co-payments (7)	$8,033	$3,743	$6,991	
Direct Payments (8)	**$1,801**	**$654**	**$1,290**	
Direct Revenues from Customers (9)	$30,554	$13,019	$24,203	
Share of Store Revenues from Direct Customers (10)	**51.8%**	**49.5%**	**49.4%**	***50.2%***

Sources: Walgreens 10-K, period ending August 31, 2008; Rite Aid Corporation 10-K, period ending February 28, 2009; CVS Caremark Corp. 10-K, period ending December 31, 2008; Kaiser Family Foundation; and CBRE Consulting.

(1) Data are based on companies' fiscal year ended between December 31, 2008 and February 28, 2009.

(2) Data provided by each company's 10-K report.

(3) Portion of sales that are not prescription drug sales.

(4) Total Revenues multiplied by Front-end Sales as a percent of Sales. Front-end Sales include all store revenues excluding revenues generated from prescription drug sales.

(5) Total Revenues multiplied by Prescription Drug Sales as a percent of Sales.

(6) Prescription Drug Sales multiplied by Third-Party percent of Pharmacy Revenue.

(7) Assumes 22 percent co-payment for drug prescriptions covered by third-party plans. According to a September 2008 Kaiser Family Foundation Report, "Prescription Drug Trends," the share of prescription drug expenses paid out-of-pocket by consumers was an average of 22 percent nationally in 2006.

(8) Prescription Drug Sales minus Third-Party Plans.

(9) Direct Revenues from customers equals Front-end Sales plus Prescription Drug Co-payments plus Prescription Drug Direct Payments.

(10) Ratio of Direct Revenues from Customers to Total Revenues.

Exhibit 6
Candlestick Point - Hunters Point Shipyard Phase II Development Plan Retail Sales Estimates
Candlestick Point Regional Shopping Center Market Area
In 2009 Dollars

Proposed Use By BOE Category (1)	Estimated Square Feet (2)	National Average Estimated Sales Per Sq. Ft.	Annual Sales Estimate	Sales Originating From Market Area Residents (3)
Apparel				
Gross Leasable Area	70,000			
Vacant Space	3,500			
Occupied Space	66,500	$429 (4)	$28,528,500	$22,822,800
General Merchandise				
Gross Leasable Area	125,000			
Vacant Space	6,250			
Occupied Space	118,750	$282 (5)	$33,441,885	$26,753,508
Food Stores				
Gross Leasable Area	60,000			
Vacant Space	3,000			
Occupied Space	57,000	$462 (6)	$26,334,000	$21,067,200
Eating and Drinking Places				
Gross Leasable Area	67,500			
Vacant Space	3,375			
Occupied Space	64,125	$433 (7)	$27,766,125	$22,212,900
Home Furnishings & Appliances				
Gross Leasable Area	30,000			
Vacant Space	1,500			
Occupied Space	28,500	$278 (8)	$7,923,000	$6,338,400
Building Materials				
Gross Leasable Area	50,000			
Vacant Space	2,500			
Occupied Space	47,500	$312 (9)	$14,820,000	$11,856,000
Other Retail				
Gross Leasable Area				
Electronics/Appliance Store	50,000			
Vacant Space	2,500			
Occupied Space	47,500	$496 (10)	$23,560,000	$18,848,000
Sporting Goods Store	40,000			
Vacant Space	2,000			
Occupied Space	38,000	$254 (11)	$9,652,000	$7,721,600
Books & Stationary Store	25,000			
Vacant Space	1,250			
Occupied Space	23,750	$263 (12)	$6,246,250	$4,997,000
Gifts and Novelty Stores	25,000			
Vacant Space	1,250			
Occupied Space	23,750	$160 (13)	$3,800,000	$3,040,000
Other Specialty Stores	22,500			
Vacant Space	1,125			
Occupied Space	21,375	$270 (14)	$5,771,250	$4,617,000
Cinema Space	55,000	$50 (15)	$2,750,000	$2,200,000
Subtotal Other Retail Occupied Space	*209,375*		*$51,779,500*	*$41,423,600*
Non-Retail				
Gross Leasable Area	15,000			
Vacant Space	750			
Occupied Space	14,250	N/A	N/A	N/A
Occupied Space Total	**606,000 (16)**	**--**	**$190,593,010**	**$152,474,408**

Sources: Exhibits 1, 2, 3, and 4; and CBRE Consulting.

Exhibit 6
Candlestick Point - Hunters Point Shipyard Phase II Development Plan Retail Sales Estimates
Candlestick Point Regional Shopping Center Market Area
In 2009 Dollars

(1) Allocations of retail space by BOE sales categories are shown in Exhibit 2. Categories irrelevant to this analysis are excluded.
(2) Unless otherwise noted, see Exhibit 2 for square footage allocations (gross leasable area). For the purposes of estimating Candlestick Point Regional Center retail sales, CBRE Consulting assumed an average vacancy rate of 5.0 percent of gross leasable area.
(3) CBRE Consulting estimates that 80 percent of the regional shopping center sales will originate from market area residents.
(4) Represents the average sales per square foot figures from Retail MAXIM for the Apparel - Specialty category. See Exhibit 4.
(5) Represents the weighted average sales per square foot figures from Retail MAXIM for Department Stores. See Exhibit 4.
(6) Sales per square foot for Food Stores represents the Retail MAXIM figure for Supermarkets. See Exhibit 4.
(7) Sales per square foot for Eating and Drinking Places represents the Retail MAXIM figure for Restaurants. See Exhibit 4.
(8) Sales per square foot for Home Furnishings and Appliances represents the Retail MAXIM average of the Domestics and Furniture categories. See Exhibit 4.
(9) Sales per square foot for Building Materials represents the Retail MAXIM average sales per square foot for the Home Improvement category. See Exhibit 4.
(10) Sales per square foot for the Electronics/Appliance Store represents the Retail MAXIM figure for Electronics. See Exhibit 4.
(11) Sales per square foot for the Sporting Goods Store represents the Retail MAXIM figure for Sports. See Exhibit 4.
(12) Sales per square foot for the Books & Stationary Store represents the Retail MAXIM figure for Book Superstores. See Exhibit 4.
(13) Sales per square foot for the Gifts and Novelty Stores represents the Retail MAXIM figure for Gifts, Hobbies & Fabrics. See Exhibit 4.
(14) Represents the average sales per square foot figures from Retail MAXIM for the following categories: Electronics; Office Supplies; Sports; Toys; Pet Supplies; Book Superstores; Music Superstores; Gifts, Hobbies & Fabrics; and Video Stores. See Exhibit 4.
(15) CBRE Consulting estimate of the portion of cinema sales classified among BOE retail categories for snacks and beverages.
(16) Represents the total square feet to which retail sales are allocated, i.e., the total gross leasable area for Candlestick Point Regional Center of 635,000 square feet shown in Exhibit 1, less 5.0 percent of the non-cinema space to allow for vacancy and space turnover.

Exhibit 7
Candlestick Point - Hunters Point Shipyard Phase II Development Plan Retail Sales Estimates
Candlestick Point Neighborhood Retail/Main Street Concept Market Area
In 2009 Dollars

Proposed Use By BOE Category (1)	Estimated Square Feet (2)	National Average Estimated Sales Per Sq. Ft.	Annual Sales Estimate	Sales Originating From Market Area Residents (3)
General Merchandise (Drug Store)				
Gross Leasable Area	12,500			
Vacant Space	625			
Occupied Space	11,875	$617 (4)	$7,326,875	$3,312,128 (5)
Eating and Drinking Places				
Gross Leasable Area	25,000			
Vacant Space	1,250			
Occupied Space	23,750	$433 (6)	$10,283,750	$9,255,375
Other Retail				
Gross Leasable Area	25,000			
Vacant Space	1,250			
Occupied Space	23,750	$382 (7)	$9,072,500	$8,165,250
Non-Retail				
Gross Leasable Area	62,500			
Vacant Space	3,125			
Occupied Space	59,375	N/A	N/A	N/A
Occupied Space Total	**118,750 (8)**	**--**	**$26,683,125**	**$20,732,753**

Sources: Exhibits 1, 2, 3, 4, and 5; Retail MAXIM, "Alternative Retail Risk Analysis for Alternative Capital," July 2008; and CBRE Consulting.

(1) Allocation of retail space by BOE sales categories are shown in Exhibit 2. Categories irrelevant to this analysis are excluded.

(2) See Exhibit 2 for the square footage of the Candlestick Point Neighborhood Retail/Main Street Concept. For the purposes of estimating sales at the Candlestick Point - Hunters Point Shipyard Phase II Development Plan, CBRE Consulting assumed an average vacancy rate of 5.0 percent of gross leasable area.

(3) CBRE Consulting estimates that 90 percent of the Candlestick Point Neighborhood Retail/Main Street Concept sales will originate from market area residents.

(4) The sales per square foot figure of $617 represents the Retail MAXIM estimate for drug stores. See Exhibit 4.

(5) Total sales for the planned drug store retailer has been reduced to reflect the 50.2 percent average share of drug store revenues from direct customers determined in Exhibit 5.

(6) Represents the average sales per square foot figures from Retail MAXIM for Restaurants. See Exhibit 4.

(7) Represents the average sales per square foot figures from Retail MAXIM for Neighborhood Centers. See Exhibit 3.

(8) Represents the total square feet to which retail sales are allocated, i.e., the total gross leasable area for the Candlestick Point Neighborhood Retail/Main Street Concept 125,000 square feet shown in Exhibit 1 less 5.0 percent to allow for vacancy and space turnover.

Exhibit 8
Candlestick Point - Hunters Point Shipyard Phase II Development Plan Retail Sales Estimates
Hunters Point Shipyard Phase II Neighborhood Retail Market Area
In 2009 Dollars

Proposed Use By BOE Category (1)	Estimated Square Feet (2)		National Average Estimated Sales Per Sq. Ft.		Annual Sales Estimate	Sales Originating From Market Area Residents (3)
General Merchandise						
Gross Leasable Area	18,750					
Vacant Space	938					
Occupied Space	17,812		$354	(4)	$6,312,779	$5,997,140
Food Stores						
Gross Leasable Area	37,500					
Vacant Space	1,875					
Occupied Space	35,625		$462	(5)	$16,458,750	$15,635,813
Eating and Drinking Places						
Gross Leasable Area	18,750					
Vacant Space	938					
Occupied Space	17,812		$433	(6)	$7,712,596	$7,326,966
Home Furnishings & Appliances						
Gross Leasable Area	6,250					
Vacant Space	313					
Occupied Space	5,937		$278	(7)	$1,650,486	$1,567,962
Other Retail						
Gross Leasable Area	31,250					
Vacant Space	1,563					
Occupied Space	29,687		$382	(8)	$11,340,434	$10,773,412
Non-Retail						
Gross Leasable Area	12,500					
Vacant Space	625					
Occupied Space	11,875		N/A		N/A	N/A
Occupied Space Total	**118,748**	**(9)**	--		**$43,475,045**	**$41,301,293**

Sources: Exhibits 1, 2, and 4; Retail MAXIM, "Alternative Retail Risk Analysis for Alternative Capital," July 2008; and CBRE Consulting.

(1) Allocation of retail space by BOE sales categories are shown in Exhibit 2. Categories irrelevant to this analysis are excluded.

(2) See Exhibit 2 for the square footage of the Hunters Point Shipyard Phase II Neighborhood Retail. For the purpose of estimating sales at the Candlestick Point - Hunters Point Shipyard Phase II Development Plan, CBRE Consulting assumed an average vacancy rate of 5.0 percent of gross leasable area.
(3) CBRE Consulting estimates that 95 percent of the Hunters Point Shipyard Phase II Neighborhood Retail sales will originate from market area residents.
(4) Represents the weighted average based on the share of General Merchandise sales attributable to drug stores. In the City of San Francisco, drug stores sales represented approximately 21.7 percent of total General Merchandise group sales during 2008.
(5) Sales per square foot for Food Stores represents the Retail MAXIM figure for Supermarkets. See Exhibit 4.
(6) Represents the average sales per square foot figures from Retail MAXIM for Restaurants. See Exhibit 4.
(7) Sales per square foot for Home Furnishings and Appliances represent the Retail MAXIM average of the "Domestics" and "Furniture" categories. See Exhibit 4.
(8) Represents the average sales per square foot figures from Retail MAXIM for Neighborhood Centers. See Exhibit 3.
(9) Represents the total square feet to which retail sales are allocated, i.e., the total gross leasable area for the Hunters Point Neighborhood Shipyard Phase II Retail 125,000 square feet shown in Exhibit 1 less 5.0 percent to allow for vacancy and space turnover.

Exhibit 9
Candlestick Point - Hunters Point Shipyard Phase II Development Plan Retail Sales Estimates Summary
In 2009 Dollars

Proposed Use	Estimated Occupied Retail Square Feet	Annual Sales Estimate	Sales Originating From Market Area Residents
Candlestick Point Regional Center (1)	606,000	$190,593,010	$152,474,408
Candlestick Point Neighborhood Retail / Main Street Concept (2)	118,750	$26,683,125	$20,732,753
Candlestick Point Subtotal	**724,750**	**$217,276,135**	**$173,207,161**
Hunters Point Shipyard Phase II Neighborhood Retail (3)	118,748	$43,475,045	$41,301,293
Project Total	**843,498**	**$260,751,180**	**$214,508,454**

Sources: Exhibits 6, 7, and 8; and CBRE Consulting.

(1) See Exhibit 6.
(2) See Exhibit 7.
(3) See Exhibit 8.

Exhibit 10: Candlestick Point and Hunters Point Shipyard Phase II Market Areas

San Francisco, CA

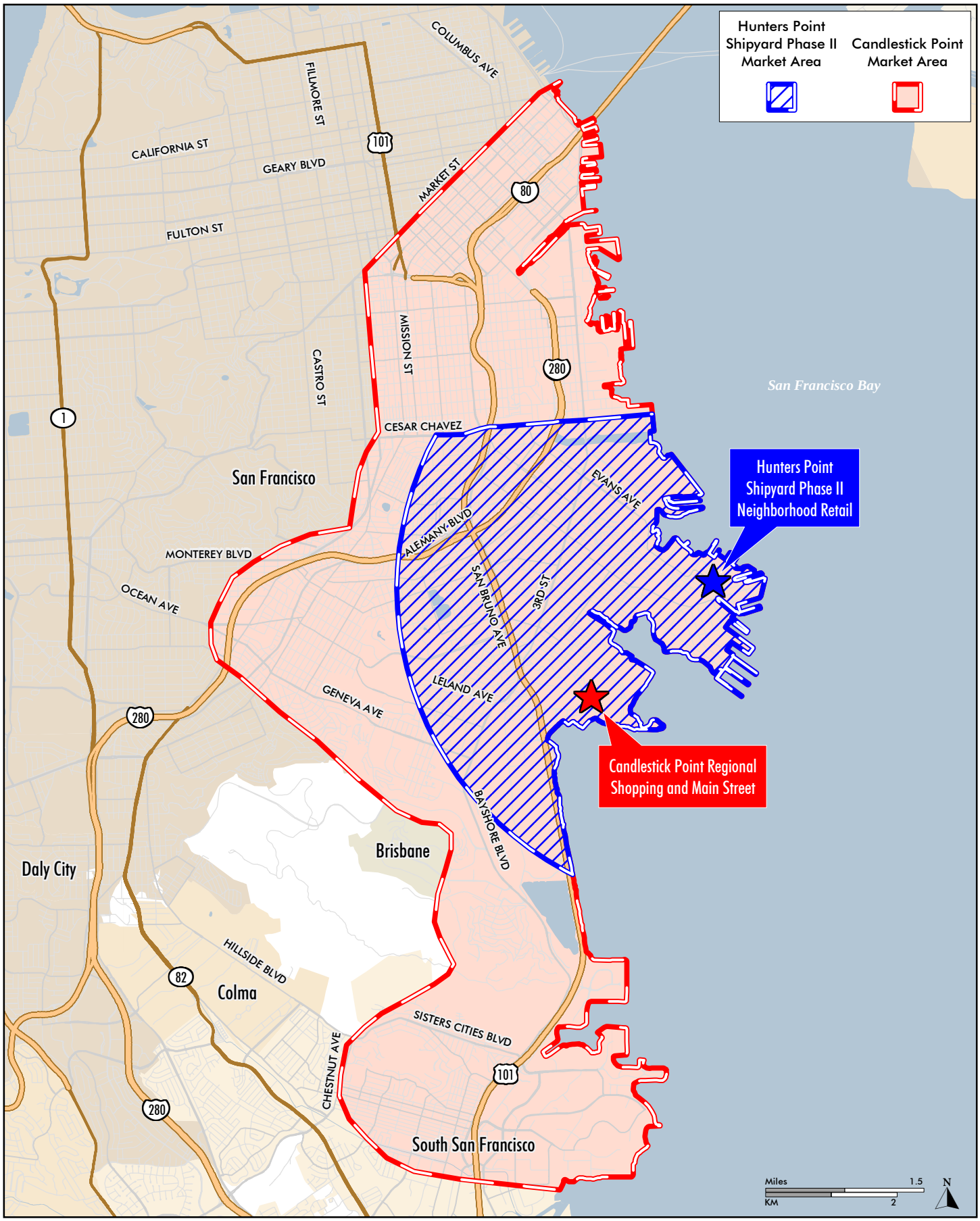


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Exhibit 11
Household Estimates and Projections
Candlestick Point and Hunters Point Shipyard Phase II Retail Market Areas

Geography	2000 (1)	2005	2007	2009 (1)	2014 (1)	2030 (2)		Compound Average Annual Growth Rates 2000-2009	2009-2014	2014-2030
Candlestick Point										
San Francisco Portion (3)	--	82,767	84,894	87,076	91,867	109,624	(4)	--	1.1%	1.1%
South San Francisco Portion (5)	6,141	6,131	6,162	6,470	6,708	7,555		0.6%	0.7%	0.7%
Daly City Portion (6)	1,501	1,537	1,560	1,635	1,702	1,866		1.0%	0.8%	0.6%
Brisbane Portion (7)	1,456	1,479	1,507	1,536	1,632	2,065		0.6%	1.2%	1.5%
Total Candlestick Point Market Area:	--	**91,913**	**94,123**	**96,716**	**101,909**	**121,111**		--	**1.1%**	**1.1%**
Hunters Point										
San Francisco Portion (8)	--	22,701	22,809	22,917	23,259	36,791	(4)	--	0.3%	2.9%
Daly City Portion (9)	147	154	157	161	168	184		1.0%	0.8%	0.6%
Total Hunters Point Shipyard Phase II Market Area:	--	**22,855**	**22,966**	**23,078**	**23,426**	**36,975**		--	**0.3%**	**2.9%**

Sources: Claritas; Association of Bay Area Governments, "Projections 2007"; San Francisco Urban Water Management Plan projections from email sent by PBS&J dated July 2, 2009; and CBRE Consulting.

(1) Claritas data interpolated from 2000 data, 2009 estimates, and 2014 projections, excluding San Francisco.
(2) Comprises the analysis year.
(3) See Appendix C-1.
(4) The total from Appendix C-1 has been increased by 10,500 and 1,600 to account for households planned at Hunters Point and Schlage Lock, respectively.
(5) See Appendix C-2.
(6) See Appendix C-3.
(7) See Appendix C-4.
(8) See Appendix D-1.
(9) See Appendix D-2.

Exhibit 12
Average Household Income Estimates, 2000 and 2009
Candlestick Point - Hunters Point Shipyard Phase II Development Plan
In 2000 and 2009 Year Dollars

Year / Market Area	Average Household Income
2000	
Candlestick Point	
San Francisco Portion	$70,201
South San Francisco Portion	$71,589
Daly City Portion	$75,732
Brisbane Portion	$74,721
Candlestick Point Market Area (1)	$70,475
Hunters Point Shipyard Phase II	
San Francisco Portion	$61,921
Daly City Portion	$64,947
Hunters Point Shipyard Phase II Market Area (1)	$61,941
2009	
Candlestick Point	
San Francisco Portion	$89,210
South San Francisco Portion	$89,268
Daly City Portion	$102,953
Brisbane Portion	$104,672
Candlestick Point Market Area (1)	$89,678
Hunters Point Shipyard Phase II	
San Francisco Portion	$82,246
Daly City Portion	$93,091
Hunters Point Shipyard Phase II Market Area (1)	$82,319

Sources: Claritas; and CBRE Consulting.

(1) Represents the weighted average household income based on the distribution of households across the different Market Areas.

Exhibit 13
Calculation of 2007 Average Household Income Estimates (1)
Candlestick Point - Hunters Point Shipyard Phase II Development Plan
In 2000, 2007, and 2009 Dollars

Market Area / Item	Amount
Candlestick Point Market Area	
Average Household Income 2000 (2)	$70,475
Average Household Income 2009 (2)	$89,678
Compound Average Annual Growth Rate, 2000-2009	2.7%
Implied Average Household Income, 2007	$85,002
Hunters Point Shipyard Phase II Market Area	
Average Household Income 2000 (2)	$61,941
Average Household Income 2009 (2)	$82,319
Compound Average Annual Growth Rate, 2000-2009	3.2%
Implied Average Household Income, 2007	$77,277

Sources: Exhibit 12; and CBRE Consulting.

(1) Average household income estimate is calculated for 2007 in order to conduct the Retail Demand, Sales Attraction, and Spending Leakage Analysis.
(2) See Exhibit 12.

Exhibit 14
Calculation of 2007 Market Area Retail Sales
Candlestick Point Regional Shopping Center and Neighborhood/Main Street Concept Retail Market Area
San Francisco's Portion of the Market Area
In 2007 and 2008 Dollars

	Claritas Retail Sales in 2008 (1)			BOE Sales in 2007			
Type of Retailer	Total Retail Sales in San Francisco County [A]	Total Retail Sales in San Francisco's Portion of Candlestick Point Market Area [B]	Ratio of San Francisco's Portion of the Market Area to County [C = B / A]	Taxable Sales in San Francisco County [D]	Total Retail Sales in San Francisco County [E]		2007 San Francisco's Portion of Candlestick Point Market Area Retail Sales [F = E * C]
Apparel Stores	$1,452,000,000	$368,000,000	25.3%	$1,028,602,000	$1,028,602,000		$260,692,518
General Merchandise Stores	$1,456,700,000	$543,300,000	37.3%	$1,349,158,000	$2,190,901,034	(2)	$817,132,239
Food Stores	$2,033,100,000	$651,600,000	32.0%	$480,587,000	$1,601,956,667	(2)	$513,420,375
Eating and Drinking Places	$3,028,800,000	$914,400,000	30.2%	$2,589,892,000	$2,589,892,000		$781,892,910
Home Furnishings & Appliances	$851,400,000	$434,100,000	51.0%	$608,766,000	$608,766,000		$310,389,148
Building Materials	$431,800,000	$288,600,000	66.8%	$459,332,000	$459,332,000		$307,001,425
Motor Vehicles & Parts	$570,100,000	$301,700,000	52.9%	$502,912,000	$502,912,000		$266,143,747
Service Stations	$477,300,000	$239,000,000	50.1%	$565,749,000	$565,749,000		$283,289,359
Other Retail Stores	$5,041,000,000	$2,927,900,000	58.1%	$2,421,574,000	$2,421,574,000		$1,406,492,068
Total	**$15,342,200,000**	**$6,668,600,000**	**43.5%**	**$10,006,572,000**	**$11,969,684,701**		**$4,946,453,789**

Sources: Appendices E, F-1, and F-2, Claritas Inc. 2008; California State Board of Equalization, "Taxable Sales in California 2007"; and CBRE Consulting.

(1) Claritas data are in 2008 dollars. See Appendices F-1 and F-2 for a translation of Claritas data into BOE retail categories.

(3) Column E represents all retail sales (taxable and non-taxable) based on upward adjustments to the General Merchandise and Food Store amounts in Column D to reflect the non-taxable sales in those categories. CBRE Consulting estimates that 30 percent of food store sales and 33 percent of drug store sales are taxable, based on discussions with the California BOE, examination of U.S. Census data, and the drug store sales information in Exhibit 5. In San Francisco County, drug store sales in 2008 represented approximately 21.7 percent of all general merchandise store sales, and CBRE Consulting applied that percentage to the market area calculation in Column D and then adjusted upward for non-taxable sales. In addition, CBRE Consulting estimates that a minimum of 10.0 percent of the remaining non-drug store General Merchandise sales are for grocery items which are also non-taxable. This estimate is based on the analyses of the 2002 U.S. Economic Census (see Appendix E which attributes 19 percent of General Merchandise Stores sales to food. This 19 percent of food sales was then adjusted downward to account for the portion that is taxable.

Exhibit 15
Calculation of 2007 Market Area Retail Sales
Candlestick Point Regional Shopping Center and Neighborhood Retail/Main Street Concept Market Area
City of South San Francisco's Portion of the Market Area
In 2007 and 2008 Dollars

	Claritas Retail Sales in 2008 (1)			BOE Sales in 2007			
Type of Retailer	Total Retail Sales in San Mateo County [A]	Total Retail Sales in the City of S. San Francisco's Portion of Candlestick Point Market Area [B]	Ratio of S. San Francisco's Portion of the Market Area to County [C = B / A]	Taxable Sales in San Mateo County [D]	Total Retail Sales in San Mateo County [E]		2007 S. San Francisco's Portion of Candlestick Point Market Area Retail Sales [F = E * C]
Apparel Stores	$499,000,000	$1,800,000	0.4%	$425,086,000	$425,086,000		$1,533,376
General Merchandise Stores	$1,818,400,000	$27,600,000	1.5%	$1,363,715,000	$2,013,544,127	(2)	$30,561,932
Food Stores	$1,814,300,000	$29,200,000	1.6%	$430,879,000	$1,436,263,333	(2)	$23,115,741
Eating and Drinking Places	$1,502,900,000	$50,400,000	3.4%	$1,245,105,000	$1,245,105,000		$41,754,802
Home Furnishings & Appliances	$472,800,000	$19,500,000	4.1%	$535,371,000	$535,371,000		$22,080,657
Building Materials	$1,221,700,000	$18,900,000	1.5%	$846,050,000	$846,050,000		$13,088,602
Motor Vehicles & Parts	$2,639,800,000	$44,400,000	1.7%	$1,579,609,000	$1,579,609,000		$26,568,164
Service Stations	$624,700,000	$21,800,000	3.5%	$1,008,460,000	$1,008,460,000		$35,191,977
Other Retail Stores	$1,507,400,000	$59,800,000	4.0%	$1,564,706,000	$1,564,706,000		$62,073,384
Total	**$12,101,000,000**	**$273,400,000**	**2.3%**	**$8,998,981,000**	**$10,654,194,461**		**$255,968,635**

Sources: Appendices E, F-3, and F-4; Claritas Inc. 2008; California State Board of Equalization, "Taxable Sales in California 2007"; and CBRE Consulting.

(1) Claritas data are in 2008 dollars. See Appendices F-3 and F-4 for a translation of Claritas data into BOE retail categories.

(2) Column E represents all retail sales (taxable and non-taxable) based on upward adjustments to the General Merchandise and Food Store amounts in Column D to reflect the non-taxable sales in those categories. CBRE Consulting estimates that 30 percent of food store sales and 33 percent of drug store sales are taxable, based on discussions with the California BOE, examination of U.S. Census data, and the drug store sales information in Exhibit 5. In San Mateo County, drug store sales in 2008 represented approximately 13.5 percent of all general merchandise store sales, and CBRE Consulting applied that percentage to the market area calculation in Column D and then adjusted upward for non-taxable sales. In addition, CBRE Consulting estimates that a minimum of 10.0 percent of the remaining non-drug store General Merchandise sales are for grocery items which are also non-taxable. This estimate is based on the analyses of the 2002 U.S. Economic Census (see Appendix E which attributes 19 percent of General Merchandise Stores sales to food. This 19 percent of food sales was then adjusted downward to account for the portion that is taxable.

Exhibit 16
Calculation of 2007 Market Area Retail Sales
Candlestick Point Regional Shopping Center and Neighborhood Retail/Main Street Concept Market Area
City of Daly City's Portion of the Market Area
In 2007 and 2008 Dollars

	Claritas Retail Sales in 2008 (1)			BOE Sales in 2007			
Type of Retailer	Total Retail Sales in San Mateo County [A]	Total Retail Sales in the City of Daly City's Portion of Candlestick Point Market Area [B]	Ratio of Daly City's Portion of the Market Area to County [C = B / A]	Taxable Sales in San Mateo County [D]	Total Retail Sales in San Mateo County [E]		2007 Daly City's Portion of Candlestick Point Market Area Retail Sales [F = E * C]
Apparel Stores	$499,000,000	$0	0.0%	$425,086,000	$425,086,000		$0
General Merchandise Stores	$1,818,400,000	$10,800,000	0.6%	$1,363,715,000	$2,013,544,127	(2)	$11,959,017
Food Stores	$1,814,300,000	$1,400,000	0.1%	$430,879,000	$1,436,263,333	(2)	$1,108,289
Eating and Drinking Places	$1,502,900,000	$21,500,000	1.4%	$1,245,105,000	$1,245,105,000		$17,812,068
Home Furnishings & Appliances	$472,800,000	$500,000	0.1%	$535,371,000	$535,371,000		$566,171
Building Materials	$1,221,700,000	$2,800,000	0.2%	$846,050,000	$846,050,000		$1,939,052
Motor Vehicles & Parts	$2,639,800,000	$500,000	0.0%	$1,579,609,000	$1,579,609,000		$299,191
Service Stations	$624,700,000	$3,900,000	0.6%	$1,008,460,000	$1,008,460,000		$6,295,812
Other Retail Stores	$1,507,400,000	$6,200,000	0.4%	$1,564,706,000	$1,564,706,000		$6,435,702
Total	**$12,101,000,000**	**$47,600,000**	**0.4%**	**$8,998,981,000**	**$10,654,194,461**		**$46,415,302**

Sources: Appendices E, F-3, and F-5; Claritas Inc. 2008; California State Board of Equalization, "Taxable Sales in California 2007"; and CBRE Consulting.

(1) Claritas data are in 2008 dollars. See Appendices F-3 and F-5 for a translation of Claritas data into BOE retail categories.

(2) Column E represents all retail sales (taxable and non-taxable) based on upward adjustments to the General Merchandise and Food Store amounts in Column D to reflect the non-taxable sales in those categories. CBRE Consulting estimates that 30 percent of food store sales and 33 percent of drug store sales are taxable, based on discussions with the California BOE, examination of U.S. Census data, and the drug store sales information in Exhibit 5. In San Mateo County, drug store sales in 2008 represented approximately 13.5 percent of all general merchandise store sales, and CBRE Consulting applied that percentage to the market area calculation in Column D and then adjusted upward for non-taxable sales. In addition, CBRE Consulting estimates that a minimum of 10.0 percent of the remaining non-drug store General Merchandise sales are for grocery items which are also non-taxable. This estimate is based on the analyses of the 2002 U.S. Economic Census (see Appendix E which attributes 19 percent of General Merchandise Stores sales to food. This 19 percent of food sales was then adjusted downward to account for the portion that is taxable.

Exhibit 17
Calculation of 2007 Market Area Retail Sales
Candlestick Point Regional Shopping Center and Neighborhood Retail/Main Street Concept Market Area
City of Brisbane's Portion of the Market Area
In 2007 and 2008 Dollars

	Claritas Retail Sales in 2008 (1)			BOE Sales in 2007			
Type of Retailer	Total Retail Sales in San Mateo County [A]	Total Retail Sales in the City of Daly City's Portion of Candlestick Point Market Area [B]	Ratio of Daly City's Portion of the Market Area to County [C = B / A]	Taxable Sales in San Mateo County [D]	Total Retail Sales in San Mateo County [E]		2007 Daly City's Portion of Candlestick Point Market Area Retail Sales [F = E * C]
Apparel Stores	$499,000,000	$700,000	0.1%	$425,086,000	$425,086,000		$596,313
General Merchandise Stores	$1,818,400,000	$3,000,000	0.2%	$1,363,715,000	$2,013,544,127	(2)	$3,321,949
Food Stores	$1,814,300,000	$4,900,000	0.3%	$430,879,000	$1,436,263,333	(2)	$3,879,011
Eating and Drinking Places	$1,502,900,000	$3,400,000	0.2%	$1,245,105,000	$1,245,105,000		$2,816,792
Home Furnishings & Appliances	$472,800,000	$1,300,000	0.3%	$535,371,000	$535,371,000		$1,472,044
Building Materials	$1,221,700,000	$21,100,000	1.7%	$846,050,000	$846,050,000		$14,612,143
Motor Vehicles & Parts	$2,639,800,000	$2,400,000	0.1%	$1,579,609,000	$1,579,609,000		$1,436,117
Service Stations	$624,700,000	$0	0.0%	$1,008,460,000	$1,008,460,000		$0
Other Retail Stores	$1,507,400,000	$60,600,000	4.0%	$1,564,706,000	$1,564,706,000		$62,903,797
Total	**$12,101,000,000**	**$97,400,000**	**0.8%**	**$8,998,981,000**	**$10,654,194,461**		**$91,038,166**

Sources: Appendices E, F-3, and F-6; Claritas Inc. 2008; California State Board of Equalization, "Taxable Sales in California 2007"; and CBRE Consulting.

(1) Claritas data are in 2008 dollars. See Appendices F-3 and F-6 for a translation of Claritas data into BOE retail categories.

(2) Column E represents all retail sales (taxable and non-taxable) based on upward adjustments to the General Merchandise and Food Store amounts in Column D to reflect the non-taxable sales in those categories. CBRE Consulting estimates that 30 percent of food store sales and 33 percent of drug store sales are taxable, based on discussions with the California BOE, examination of U.S. Census data, and the drug store sales information in Exhibit 5. In San Mateo County, drug store sales in 2008 represented approximately 13.5 percent of all general merchandise store sales, and CBRE Consulting applied that percentage to the market area calculation in Column D and then adjusted upward for non-taxable sales. In addition, CBRE Consulting estimates that a minimum of 10.0 percent of the remaining non-drug store General Merchandise sales are for grocery items which are also non-taxable. This estimate is based on the analyses of the 2002 U.S. Economic Census (see Appendix E which attributes 19 percent of General Merchandise Stores sales to food. This 19 percent of food sales was then adjusted downward to account for the portion that is taxable.

Exhibit 18
Candlestick Point Regional Shopping Center and Neighborhood Retail/Main Street Concept Market Area
Total Project Market Area Sales Estimates
In 2007 and 2008 Dollars

Type of Retailer	Candlestick Point Market Area Section of San Francisco (1) [A]	Candlestick Point Market Area Section of S. San Francisco (2) [B]	Candlestick Point Market Area Section of Daly City (3) [C]	Candlestick Point Market Area Section of Brisbane (4) [D]	2007 Total Estimated Candlestick Point Market Area Retail Sales [E = A + B + C + D]
Apparel Stores	$260,692,518	$1,533,376	$0	$596,313	$262,822,207
General Merchandise Stores	$817,132,239	$30,561,932	$11,959,017	$3,321,949	$862,975,137
Food Stores	$513,420,375	$23,115,741	$1,108,289	$3,879,011	$541,523,416
Eating and Drinking Places	$781,892,910	$41,754,802	$17,812,068	$2,816,792	$844,276,572
Home Furnishings & Appliances	$310,389,148	$22,080,657	$566,171	$1,472,044	$334,508,020
Building Materials	$307,001,425	$13,088,602	$1,939,052	$14,612,143	$336,641,222
Motor Vehicles and Parts	$266,143,747	$26,568,164	$299,191	$1,436,117	$294,447,219
Service Stations	$283,289,359	$35,191,977	$6,295,812	$0	$324,777,148
Other Retail Stores	$1,406,492,068	$62,073,384	$6,435,702	$62,903,797	$1,537,904,951
Total	**$4,946,453,789**	**$255,968,635**	**$46,415,302**	**$91,038,166**	**$5,339,875,892**

Sources: Exhibits 14, 15, 16, and 17; and CBRE Consulting.

(1) See Exhibit 14.
(2) See Exhibit 15.
(3) See Exhibit 16.
(4) See Exhibit 17.

Exhibit 19
Candlestick Point Market Area 2009 Sales Base
Inflated to 2009 Dollars
In 2007 and 2009 Dollars

Retail Category	Candlestick Point Market Area Sales Base 2007$'s (1)	Sales Base Adjustment (2) 2007-2008	Sales Base Adjustment (2) 2008-2009	Candlestick Point Market Area Sales Base 2009$'s
Apparel Stores	$262,822,207	-1.5%	-0.8%	$256,938,275
General Merchandise Stores	$862,975,137	-3.6%	-1.8%	$816,933,687
Food Stores	$541,523,416	5.6%	0.0%	$571,848,727
Eating & Drinking Places	$844,276,572	2.9%	1.5%	$881,357,621
Home Furnishings & Appliances	$334,508,020	-4.6%	-2.3%	$311,780,876
Building Materials	$336,641,222	-6.8%	-3.4%	$303,082,132
Motor Vehicles & Parts	$294,447,219	-19.3%	-9.7%	$214,688,681
Service Stations	$324,777,148	11.8%	-5.0%	$344,945,809
Other Retail Stores	$1,537,904,951	2.5%	1.3%	$1,596,056,982
Total / Weighted Average	**$5,339,875,892**			**$5,297,632,791**

Sources: Exhibit 24; MuniServices; The HdL Companies; and CBRE Consulting.

(1) See Exhibit 24.
(2) The sales base adjustment figures for 2007-2008 are the actual change in sales taxes in the entire City of San Francisco from 2007 to 2008 based on data from MuniServices and The HdL Companies. CBRE Consulting estimated the trend for 2008 to 2009, assuming one-half the prior year rate of change, with the exception of Service Stations, which are assumed to decline 5.0 percent because of the relatively lower gas prices, and Food Stores, which have been projected by HdL to be flat through 2010.

Exhibit 20
Calculation of 2007 Market Area Retail Sales
Hunters Point Shipyard Phase II Neighborhood Retail
San Francisco's Portion of the Market Area
In 2007 and 2008 Dollars

	Claritas Retail Sales in 2008 (1)			BOE Sales in 2007			
Type of Retailer	Total Retail Sales in San Francisco County [A]	Total Retail Sales in San Francisco's Portion of Hunters Point Shipyard Phase II Market Area [B]	Ratio of San Francisco's Portion of the Market Area to County [C = B / A]	Taxable Sales in San Francisco County [D]	Total Retail Sales in San Francisco County [E]		2007 San Francisco's Portion of Hunters Point Shipyard Phase II Market Area Retail Sales [F = E * C]
Apparel Stores	$1,452,000,000	$9,700,000	0.7%	$1,028,602,000	$1,028,602,000		$6,871,515
General Merchandise Stores	$1,456,700,000	$43,600,000	3.0%	$1,349,158,000	$2,190,901,034	(2)	$65,575,125
Food Stores	$2,033,100,000	$146,000,000	7.2%	$480,587,000	$1,601,956,667	(2)	$115,038,942
Eating and Drinking Places	$3,028,800,000	$78,600,000	2.6%	$2,589,892,000	$2,589,892,000		$67,209,955
Home Furnishings & Appliances	$851,400,000	$87,500,000	10.3%	$608,766,000	$608,766,000		$62,564,042
Building Materials	$431,800,000	$122,900,000	28.5%	$459,332,000	$459,332,000		$130,736,227
Motor Vehicles & Parts	$570,100,000	$45,100,000	7.9%	$502,912,000	$502,912,000		$39,784,829
Service Stations	$477,300,000	$17,300,000	3.6%	$565,749,000	$565,749,000		$20,505,882
Other Retail Stores	$5,041,000,000	$87,300,000	1.7%	$2,421,574,000	$2,421,574,000		$41,936,800
Total	**$15,342,200,000**	**$638,000,000**	**4.2%**	**$10,006,572,000**	**$11,969,684,701**		**$550,223,317**

Sources: Appendices E, F-1, and G-1; Claritas Inc. 2008; California State Board of Equalization, "Taxable Sales in California 2007"; and CBRE Consulting.

(1) Claritas data are in 2008 dollars. See Appendices F-1 and G-1 for a translation of Claritas data into BOE retail categories.

(2) Column E represents all retail sales (taxable and non-taxable) based on upward adjustments to the General Merchandise and Food Store amounts in Column D to reflect the non-taxable sales in those categories. CBRE Consulting estimates that 30 percent of food store sales and 33 percent of drug store sales are taxable, based on discussions with the California BOE, examination of U.S. Census data, and the drug store sales information in Exhibit 5. In San Francisco County, drug store sales in 2008 represented approximately 21.7 percent of all general merchandise store sales, and CBRE Consulting applied that percentage to the market area calculation in Column D and then adjusted upward for non-taxable sales. In addition, CBRE Consulting estimates that a minimum of 10.0 percent of the remaining non-drug store General Merchandise sales are for grocery items which are also non-taxable. This estimate is based on the analyses of the 2002 U.S. Economic Census (see Appendix E which attributes 19 percent of General Merchandise Stores sales to food. This 19 percent of food sales was then adjusted downward to account for the portion that is taxable.

Exhibit 21
Calculation of 2007 Market Area Retail Sales
Hunters Point Shipyard Phase II Neighborhood Retail
City of Daly City's Portion of the Market Area
In 2007 and 2008 Dollars

	Claritas Retail Sales in 2008 (1)			BOE Sales in 2007		
Type of Retailer	Total Retail Sales in San Mateo County [A]	Total Retail Sales in the City of Daly City's Portion of Hunters Point Shipyard Phase II Market Area [B]	Ratio of Daly City's Portion of the Market Area to County [C = B / A]	Taxable Sales in San Mateo County [D]	Total Retail Sales in San Mateo County [E]	2007 Daly City's Portion of Hunters Point Shipyard Phase II Market Area Retail Sales [F = E * C]
Apparel Stores	$499,000,000	$0	0.00%	$425,086,000	$425,086,000	$0
General Merchandise Stores	$1,818,400,000	$200,000	0.01%	$1,363,715,000	$2,013,544,127 (2)	$221,463
Food Stores	$1,814,300,000	$200,000	0.01%	$430,879,000	$1,436,263,333 (2)	$158,327
Eating and Drinking Places	$1,502,900,000	$200,000	0.01%	$1,245,105,000	$1,245,105,000	$165,694
Home Furnishings & Appliances	$472,800,000	$0	0.00%	$535,371,000	$535,371,000	$0
Building Materials	$1,221,700,000	$300,000	0.02%	$846,050,000	$846,050,000	$207,756
Motor Vehicles & Parts	$2,639,800,000	$0	0.00%	$1,579,609,000	$1,579,609,000	$0
Service Stations	$624,700,000	$1,100,000	0.18%	$1,008,460,000	$1,008,460,000	$1,775,742
Other Retail Stores	$1,507,400,000	$1,300,000	0.09%	$1,564,706,000	$1,564,706,000	$1,349,421
Total	**$12,101,000,000**	**$3,300,000**	**0.03%**	**$8,998,981,000**	**$10,654,194,461**	**$3,878,403**

Sources: Appendices E, F-3, and G-2; Claritas Inc. 2008; California State Board of Equalization, "Taxable Sales in California 2007"; and CBRE Consulting.

(1) Claritas data are in 2008 dollars. See Appendices F-3 and G-2 for a translation of Claritas data into BOE retail categories.

(2) Column E represents all retail sales (taxable and non-taxable) based on upward adjustments to the General Merchandise and Food Store amounts in Column D to reflect the non-taxable sales in those categories. CBRE Consulting estimates that 30 percent of food store sales and 33 percent of drug store sales are taxable, based on discussions with the California BOE, examination of U.S. Census data, and the drug store sales information in Exhibit 5. In San Mateo County, drug store sales in 2008 represented approximately 13.5 percent of all general merchandise store sales, and CBRE Consulting applied that percentage to the market area calculation in Column D and then adjusted upward for non-taxable sales. In addition, CBRE Consulting estimates that a minimum of 10.0 percent of the remaining non-drug store General Merchandise sales are for grocery items which are also non-taxable. This estimate is based on the analyses of the 2002 U.S. Economic Census (see Appendix E which attributes 19 percent of General Merchandise Stores sales to food. This 19 percent of food sales was then adjusted downward to account for the portion that is taxable.

Exhibit 22
Hunters Point Shipyard Phase II Neighborhood Retail
Total Project Market Area Sales Estimates
In 2007 and 2008 Dollars

Type of Retailer	Hunters Point Shipyard Phase II Market Area Section of San Francisco (1) [A]	Hunters Point Shipyard Phase II Market Area Section of Daly City (2) [B]	2007 Total Estimated Hunters Point Shipyard Phase II Market Area Retail Sales [C = A + B]
Apparel Stores	$6,871,515	$0	$6,871,515
General Merchandise Stores	$65,575,125	$221,463	$65,796,588
Food Stores	$115,038,942	$158,327	$115,197,269
Eating and Drinking Places	$67,209,955	$165,694	$67,375,649
Home Furnishings & Appliances	$62,564,042	$0	$62,564,042
Building Materials	$130,736,227	$207,756	$130,943,983
Motor Vehicles and Parts	$39,784,829	$0	$39,784,829
Service Stations	$20,505,882	$1,775,742	$22,281,624
Other Retail Stores	$41,936,800	$1,349,421	$43,286,221
Total	**$550,223,317**	**$3,878,403**	**$554,101,720**

Sources: Exhibits 20, and 21; and CBRE Consulting.

(1) See Exhibit 20.
(2) See Exhibit 21.

Exhibit 23
Hunters Point Shipyard Phase II Market Area 2009 Sales Base
Inflated to 2009 Dollars
In 2007 and 2009 Dollars

Retail Category	Hunters Point Shipyard Phase II Market Area Sales Base 2007$'s (1)	Sales Base Adjustment (2) 2007-2008	Sales Base Adjustment (2) 2008-2009	Hunters Point Shipyard Phase II Market Area Sales Base 2009$'s
Apparel Stores	$6,871,515	-1.5%	-0.8%	$6,717,679
General Merchandise Stores	$65,796,588	-3.6%	-1.8%	$62,286,208
Food Stores	$115,197,269	5.6%	0.0%	$121,648,316
Eating & Drinking Places	$67,375,649	2.9%	1.5%	$70,334,821
Home Furnishings & Appliances	$62,564,042	-4.6%	-2.3%	$58,313,316
Building Materials	$130,943,983	-6.8%	-3.4%	$117,890,439
Motor Vehicles & Parts	$39,784,829	-19.3%	-9.7%	$29,008,094
Service Stations	$22,281,624	11.8%	-5.0%	$23,665,313
Other Retail Stores	$43,286,221	2.5%	1.3%	$44,922,981
Total / Weighted Average	**$554,101,720**			**$534,787,167**

Sources: Exhibit 22; MuniServices; The HdL Companies; and CBRE Consulting.

(1) See Exhibit 22.

(2) The sales base adjustment figures for 2007-2008 are the actual change in sales taxes in the entire City of San Francisco from 2007 to 2008 based on data from MuniServices and The HdL Companies. CBRE Consulting estimated the trend for 2008 to 2009, assuming one-half the prior year rate of change, with the exception of Service Stations, which are assumed to decline 5.0 percent because of the relatively lower gas prices, and Food Stores, which have been projected by HdL to be flat through 2010.

Exhibit 24
Retail Demand, Sales Attraction, and Spending Leakage Analysis (1)
Candlestick Point Market Area
2007

Type of Retailer	Candlestick Point Mkt. Area Per Household (2)		Candlestick Point Market Area Total (In $ 000's)			
	Spending	Sales	Spending	Sales	Attraction/ (Leakage)	Percent
Apparel Stores	$1,399	$2,792	$131,666	$262,822	$131,156	49.9%
General Merchandise Stores (3)	$3,807	$9,169	$358,339	$862,975	$504,636	58.5%
Food Stores (4)	$4,187	$5,753	$394,094	$541,523	$147,429	27.2%
Eating and Drinking Places	$3,364	$8,970	$316,636	$844,277	$527,640	62.5%
Home Furnishings & Appliances	$972	$3,554	$91,445	$334,508	$243,063	72.7%
Building Materials	$2,149	$3,577	$202,230	$336,641	$134,411	39.9%
Motor Vehicles & Parts	$6,771	$3,128	$637,281	$294,447	($342,834)	(53.8%)
Service Stations	$2,629	$3,451	$247,454	$324,777	$77,323	23.8%
Other Retail Stores (5)	$3,296	$16,339	$310,195	$1,537,905	$1,227,710	79.8%
Total	**$28,573**	**$56,734**	**$2,689,341**	**$5,339,876**	**$2,650,535**	**49.6%**

Sources: Exhibits 11 and 13; California State Board of Equalization (BOE), Taxable Sales in California, 2007; Claritas; MuniServices; and CBRE Consulting.

(1) All figures are expressed in constant 2007 dollars. Product line control area defined as the Bay Area (San Francisco CMSA). Consumer expenditure control area defined as US West (states of Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming).
(2) Analysis assumes an average household income of $85,002 in 2007, as shown in Exhibit 13. Household count estimated at 94,123 as shown in Exhibit 11. Average household income for the reference area, California, estimated at $68,757 in 2007.
(3) Includes general merchandise and drug stores. Drug stores are assumed to comprise 21.7 percent of total general merchandise sales based on CBRE Consulting's analysis of 2008 San Francisco County taxable sales data from MuniServices. Taxable sales for drug stores have been adjusted to account for the estimated two-thirds of drug store sales that are non-taxable.
(4) Sales for food stores have been adjusted to account for non-taxable sales; only 30 percent of all food store sales are estimated to be taxable.
(5) Other retail stores includes packaged liquor stores, gifts, art goods and novelties, sporting goods, florists, photographic equipment and supplies, musical instruments, stationary and books, jewelry, office supplies, computer stores, second-hand merchandise, farm and garden supply stores, fuel and ice dealers, and miscellaneous other retail stores.

Exhibit 25
Retail Spending Potential
Candlestick Point Market Area
Inflated to 2009 Dollars

Retail Store Type	Candlestick Point Market Area Total Retail Spending Adjustment (2) 2007$'s (1) [A]	2007-2008 [B]	2008-2009 [C]	2009$'s [D = A * (1+B) * (1+C)]	Adjusted Market Area Sales Base 2009$'s (3) [E]	Adjusted Market Area Attraction / (Leakage) 2009$'s [F = E - D]	Percent [G]
Apparel Stores	$131,665,830	-1.5%	-0.8%	$128,718,161	$256,938,275	$128,220,114	49.9%
General Merchandise Stores	$358,339,326	-3.6%	-1.8%	$339,221,206	$816,933,687	$477,712,481	58.5%
Food Stores	$394,094,478	5.6%	0.00%	$416,163,768	$571,848,727	$155,684,959	27.2%
Eating & Drinking Places	$316,636,086	2.9%	1.45%	$330,542,901	$881,357,621	$550,814,720	62.5%
Home Furnishings & Appliances	$91,445,008	-4.6%	-2.3%	$85,232,051	$311,780,876	$226,548,825	72.7%
Building Materials	$202,229,754	-6.8%	-3.4%	$182,069,874	$303,082,132	$121,012,257	39.9%
Motor Vehicles & Parts	$637,281,318	-19.3%	-9.7%	$464,657,422	$214,688,681	($249,968,741)	(53.8%)
Service Stations	$247,454,192	11.8%	-5.0%	$262,821,097	$344,945,809	$82,124,711	23.8%
Other Retail Stores	$310,194,645	2.5%	1.25%	$321,923,880	$1,596,056,982	$1,274,133,102	79.8%
Total	**$2,689,340,636**			**$2,531,350,362**	**$5,297,632,791**	**$2,766,282,429**	**52.2%**

Sources: Exhibits 19 and 24; MuniServices; The HdL Companies; and CBRE Consulting.

(1) See Exhibit 24.

(2) The sales base adjustment figures for 2007-2008 are the actual change in sales taxes in the entire City of San Francisco from 2007 to 2008 based on data from MuniServices and The HdL Companies. CBRE Consulting estimated the trend for 2008 to 2009, assuming one-half the prior year rate of change, with the exception of Service Stations, which are assumed to decline 5.0 percent because of the relatively lower gas prices, and Food Stores, which have been projected by HdL to be flat through 2010.

(3) See Exhibit 19.

Exhibit 26
Retail Demand, Sales Attraction, and Spending Leakage Analysis (1)
Hunters Point Shipyard Phase II Market Area
2007

Type of Retailer	Hunters Point Shipyard Phase II Mkt. Area Per Household (2)		Hunters Point Shipyard Phase II Market Area Total (In $ 000's)			
	Spending	Sales	Spending	Sales	Attraction/ (Leakage)	Percent
Apparel Stores	$1,318	$299	$30,278	$6,872	($23,406)	(77.3%)
General Merchandise Stores (3)	$3,618	$2,865	$83,086	$65,797	($17,289)	(20.8%)
Food Stores (4)	$4,052	$5,016	$93,064	$115,197	$22,133	19.2%
Eating and Drinking Places	$3,179	$2,934	$73,005	$67,376	($5,629)	(7.7%)
Home Furnishings & Appliances	$880	$2,724	$20,210	$62,564	$42,354	67.7%
Building Materials	$1,981	$5,702	$45,499	$130,944	$85,445	65.3%
Motor Vehicles & Parts	$6,381	$1,732	$146,550	$39,785	($106,766)	(72.9%)
Service Stations	$2,549	$970	$58,542	$22,282	($36,260)	(61.9%)
Other Retail Stores (5)	$3,133	$1,885	$71,959	$43,286	($28,673)	(39.8%)
Total	**$27,092**	**$24,127**	**$622,193**	**$554,102**	**($68,091)**	**(10.9%)**

Sources: Exhibits 11 and 13; California State Board of Equalization (BOE), Taxable Sales in California, 2007; Claritas; MuniServices; and CBRE Consulting.

(1) All figures are expressed in constant 2007 dollars. Product line control area defined as the Bay Area (San Francisco CMSA). Consumer expenditure control area defined as US West (states of Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming).

(2) Analysis assumes an average household income of $77,277 in 2007, as shown in Exhibit 13. Household count estimated at 22,966 as shown in Exhibit 11. Average household income for the reference area, California, estimated at $68,757 in 2007.

(3) Includes general merchandise and drug stores. Drug stores are assumed to comprise 21.7 percent of total general merchandise sales based on CBRE Consulting's analysis of 2008 San Francisco County taxable sales data from MuniServices. Taxable sales for drug stores have been adjusted to account for the estimated two-thirds of drug store sales that are non-taxable.

(4) Sales for food stores have been adjusted to account for non-taxable sales; only 30 percent of all food store sales are estimated to be taxable.

(5) Other retail stores includes packaged liquor stores, gifts, art goods and novelties, sporting goods, florists, photographic equipment and supplies, musical instruments, stationary and books, jewelry, office supplies, computer stores, second-hand merchandise, farm and garden supply stores, fuel and ice dealers, and miscellaneous other retail stores.

Exhibit 27
Retail Spending Potential
Hunters Point Shipyard Phase II Market Area
Inflated to 2009 Dollars

Retail Store Type	Hunters Point Shipyard Phase II Market Area Total Retail Spending Adjustment (2) 2007$'s (1) [A]	2007-2008 [B]	2008-2009 [C]	2009$'s [D = A * (1+B) * (1+C)]	Adjusted Market Area Sales Base 2009$'s (3) [E]	Adjusted Market Area Attraction / (Leakage) 2009$'s [F = E - D]	Percent [G]
Apparel Stores	$30,277,600	-1.5%	-0.8%	$29,599,760	$6,717,679	($22,882,082)	(77.3%)
General Merchandise Stores	$83,085,654	-3.6%	-1.8%	$78,652,868	$62,286,208	($16,366,660)	(20.8%)
Food Stores	$93,064,158	5.6%	0.0%	$98,275,750	$121,648,316	$23,372,566	19.2%
Eating & Drinking Places	$73,004,699	2.9%	1.5%	$76,211,102	$70,334,821	($5,876,281)	(7.7%)
Home Furnishings & Appliances	$20,209,780	-4.6%	-2.3%	$18,836,687	$58,313,316	$39,476,629	67.7%
Building Materials	$45,499,420	-6.8%	-3.4%	$40,963,674	$117,890,439	$76,926,765	65.3%
Motor Vehicles & Parts	$146,550,429	-19.3%	-9.7%	$106,853,508	$29,008,094	($77,845,415)	(72.9%)
Service Stations	$58,542,005	11.8%	-5.0%	$62,177,464	$23,665,313	($38,512,151)	(61.9%)
Other Retail Stores	$71,959,099	2.5%	1.3%	$74,680,052	$44,922,981	($29,757,071)	(39.8%)
Total	**$622,192,844**			**$586,250,866**	**$534,787,167**	**($51,463,699)**	**(8.8%)**

Sources: Exhibits 23 and 26; MuniServices; The HdL Companies; and CBRE Consulting.

(1) See Exhibit 26.

(2) The sales base adjustment figures for 2007-2008 are the actual change in sales taxes in the entire City of San Francisco from 2007 to 2008 based on data from MuniServices and The HdL Companies. CBRE Consulting estimated the trend for 2008 to 2009, assuming one-half the prior year rate of change, with the exception of Service Stations, which are assumed to decline 5.0 percent because of the relatively lower gas prices, and Food Stores, which have been projected by HdL to be flat through 2010.

(3) See Exhibit 23.

Exhibit 28
Estimated Capture Rates of New Household Demand in the Hunters Point Shipyard Phase II Market Area
In 2009 Dollars

Retail Category	Hunters Point Market Area Adjusted Sales Base (1) [A]	Market Area Sales from Hunters Point (2) [B]	Hunters Point Capture Rate of Market Area Sales (3) [C = B / A]
Apparel Stores	$6,717,679	$0	0.0%
General Merchandise Stores	$62,286,208	$5,997,140	9.6%
Food Stores	$121,648,316	$15,635,813	12.9%
Eating & Drinking Places	$70,334,821	$7,326,966	10.4%
Home Furnishings & Appliances	$58,313,316	$1,567,962	2.7%
Building Materials	$117,890,439	$0	0.0%
Motor Vehicles & Parts	$29,008,094	$0	0.0%
Service Stations	$23,665,313	$0	0.0%
Other Retail Stores	$44,922,981	$10,773,412	24.0%
Total	**$534,787,167**	**$41,301,293**	**7.7%**

Sources: Exhibits 8 and 23; and CBRE Consulting.

(1) See Exhibit 23.
(2) See Exhibit 8.
(3) Represents the assumed percentage of new demand that may be captured by Hunters Point Shipyard Phase II Neighborhood Retail within the market area. Capture rates were developed based on comparing the share of the new development's projected sales to the total retail sales in the market area. It is likely that not all the Hunters Point market area sales will be new to the market area; however, this is a conservative approach to provide minimum capture rate assumptions for the project, assuming that all sales are diverted from existing retailers.

Exhibit 29
New Demand Generated by New Households by Type of Unit (1)
Hunters Point Shipyard Phase II Market Area
2009-2030
In 2009 Dollars (2)

	Affordable Rental Units (3)		Affordable For Sale Units (3)		Other New Households in Market Rate Units				
	Per Household Demand 2009$'s	Demand From New Households 2009-2030	Per Household 2009$'s	Demand From New Households 2009-2030	Per Household Demand (4)				Demand From New Mkt Rate HHs 2009-2030
Retail Category	[A]	[B = A * 1,644]	[C]	[D = C * 1,701]	2007$'s [E]	2007-2008 [F]	2008-2009 [G]	2009$'s [H]	[I = H * 10,552]
Apparel Stores	$869	$1,428,967	$1,280	$2,176,906	$1,399	-1.5%	-0.8%	$1,436	$15,147,356
General Merchandise Stores	$2,811	$4,621,615	$3,527	$5,999,422	$3,807	-3.6%	-1.8%	$3,907	$41,224,769
Food Stores	$3,420	$5,623,277	$3,988	$6,783,006	$4,187	5.6%	0.0%	$4,297	$45,338,183
Eating & Drinking Places	$2,212	$3,637,019	$3,090	$5,256,129	$3,364	2.9%	1.5%	$3,452	$36,427,064
Home Furnishings & Appliances	$637	$1,047,284	$836	$1,422,213	$972	-4.6%	-2.3%	$997	$10,520,194
Building Materials	$1,213	$1,993,745	$1,901	$3,233,481	$2,149	-6.8%	-3.4%	$2,205	$23,265,308
Motor Vehicles & Parts	$4,071	$6,692,811	$6,194	$10,536,812	$6,771	-19.3%	-9.7%	$6,948	$73,315,356
Service Stations	$2,012	$3,308,061	$2,511	$4,270,755	$2,629	11.8%	-5.0%	$2,698	$28,468,106
Other Retail Stores	$2,203	$3,621,678	$3,055	$5,197,360	$3,296	2.5%	1.3%	$3,382	$35,686,015
Total	**$19,449**	**$31,974,456**	**$26,382**	**$44,876,083**	**$28,573**			**$29,321**	**$309,392,351**

Sources: Exhibit 26, Appendix H-1, and Appendix H-2; and CBRE Consulting.

(1) See Exhibit 11 for the household projections. There are 10,552 new housing units projected to be added to the Hunters Point Shipyard Phase II market area between 2009 and 2030. This figure is in addition to the affordable units planned at Hunters Point Shipyard and Candlestick Point, of which there will be 1,644 in affordable rental units and 1,701 in affordable for-sale units.
(2) Figures are in 2009 dollars unless otherwise noted.
(3) See Appendix H-1 and Appendix H-2 for per household demand for affordable rental and for-sale units.
(4) See Exhibit 24 for the 2007 household demand estimate. See Exhibit 27 footnote 2 for the explanation of projecting household demand from 2007 to 2009.

Exhibit 30
New Demand Generated by Household Growth
Hunters Point Shipyard Phase II Market Area
2009-2030
In 2009 Dollars (1)

Retail Category	Demand From New Households 2009-2030 (2) [A]	Hunters Point Shipyard Phase II Market Area Capture Rate (3) [B]	Market Area Sales Captured [C = A * B]	Project Capture Rate of Market Area Sales (4) [D]	Estimated Capture of Demand from New Households [E = C * D]	Remaining Potential Demand (Captured By Other Stores) [F = C - E]
Apparel Stores	$18,753,229	20.0%	$3,750,646	0.0%	$0	$3,750,646
General Merchandise Stores	$51,845,807	30.0%	$15,553,742	9.6%	$1,497,570	$14,056,172
Food Stores	$57,744,465	90.0%	$51,970,019	12.9%	$6,679,858	$45,290,161
Eating & Drinking Places	$45,320,212	50.0%	$22,660,106	10.4%	$2,360,564	$20,299,542
Home Furnishings & Appliances	$12,989,690	30.0%	$3,896,907	2.7%	$104,782	$3,792,125
Building Materials	$28,492,534	20.0%	$5,698,507	0.0%	$0	$5,698,507
Motor Vehicles & Parts	$90,544,978	N/A	N/A	0.0%	N/A	N/A
Service Stations	$36,046,922	N/A	N/A	0.0%	N/A	N/A
Other Retail Stores	$44,505,053	30.0%	$13,351,516	24.0%	$3,201,955	$10,149,560
Total	**$386,242,889**		**$116,881,442**		**$13,844,730**	**$103,036,712**

Sources: Exhibits 11, 26, and 28; and CBRE Consulting.

(1) Figures are in 2009 dollars unless otherwise noted.
(2) See Exhibit 29. New demand includes households living in affordable units.
(3) Capture rates estimated based on the retail offerings within the market area as compared to options outside the market area.
(4) Capture rates reflect that market area residents may choose to shop at retail shopping centers other than Hunters Point Shipyard Phase II, and as such, Hunters Point Shipyard Phase II will only capture a fraction of demand generated by new household growth. See Exhibit 28 for the calculation of the capture rates by retail category.

Exhibit 31
Potential Sales Impacts
Hunters Point Shipyard Phase II Market Area
In 2009 Dollars

Retail Category	Hunters Point Shipyard Phase II Market Area Sales (1) [A]	Hunters Point Shipyard Phase II Capture of New Demand (2) [B]	2009 Market Area Adjusted Sales Base (3) [C]	Potential Absorbed Leakage (4) [D]	Intermediary Potential Sales Impacts		Remaining Potential Demand from New Households (2) [G]	Sales Diverted From Existing Market Area Retailers	
					Amount [E = A - B +D]	Percent [F = E / C]		Amount [H = E - G]	Percent [I = H / C]
Apparel Stores	$0	$0	$6,717,679	$0	$0	0.0%	$3,750,646	$0	0.0%
General Merchandise Stores	$5,997,140	$1,497,570	$62,286,208	($5,400,998)	$0	0.0%	$14,056,172	$0	0.0%
Food Stores	$15,635,813	$6,679,858	$121,648,316	$0	$8,955,955	7.4%	$45,290,161	$0	0.0%
Eating & Drinking Places	$7,326,966	$2,360,564	$70,334,821	($1,939,173)	$3,027,230	4.3%	$20,299,542	$0	0.0%
Home Furnishings & Appliances	$1,567,962	$104,782	$58,313,316	$0	$1,463,179	2.5%	$3,792,125	$0	0.0%
Building Materials	$0	$0	$117,890,439	$0	$0	0.0%	$5,698,507	$0	0.0%
Motor Vehicles & Parts	$0	N/A	$29,008,094	N/A	N/A	N/A	N/A	$0	0.0%
Service Stations	$0	N/A	$23,665,313	N/A	N/A	N/A	N/A	$0	0.0%
Other Retail Stores	$10,773,412	$3,201,955	$44,922,981	($9,819,833)	$0	0.0%	$10,149,560	$0	0.0%
Total	**$41,301,293**	**$13,844,730**	**$534,787,167**	**($17,160,004)**	**$13,446,364**	**2.5%**	**$103,036,712**	**$0**	**0.0%**

Sources: Exhibits 8, 28, and 30; and CBRE Consulting.

(1) See Exhibit 8.
(2) See Exhibit 30.
(3) See Exhibit 28.
(4) Calculated as 33 percent of leakage amounts in Exhibit 27, for relevant categories with Hunters Point Shipyard Phase II sales.

Exhibit 32
Estimated Capture Rates of New Household Demand in the Candlestick Point Market Area
In 2009 Dollars

Retail Category	Candlestick Point Market Area Adjusted Sales Base (1) [A]	Market Area Sales from Candlestick Point (2) [B]	Candlestick Point Capture Rate of Market Area Sales (3) [C = B / A]
Apparel Stores	$256,938,275	$22,822,800	8.9%
General Merchandise Stores	$816,933,687	$30,065,636	3.7%
Food Stores	$571,848,727	$21,067,200	3.7%
Eating & Drinking Places	$881,357,621	$31,468,275	3.6%
Home Furnishings & Appliances	$311,780,876	$6,338,400	2.0%
Building Materials	$303,082,132	$11,856,000	3.9%
Motor Vehicles & Parts	$214,688,681	$0	0.0%
Service Stations	$344,945,809	$0	0.0%
Other Retail Stores	$1,596,056,982	$49,588,850	3.1%
Total	**$5,297,632,791**	**$173,207,161**	**3.3%**

Sources: Exhibits 6, 7, and 19; and CBRE Consulting.

(1) See Exhibit 19.
(2) See Exhibits 6 and 7.
(3) Represents the assumed percentage of new demand that may be captured by Candlestick Point within the market area. Capture rates were developed based on comparing the share of the new development's projected sales to the total retail sales in the market area. It is likely that not all the Candlestick Point market area sales will be new to the market area; however, this is a conservative approach to provide minimum capture rate assumptions for the project, assuming that all sales are diverted from existing retailers.

Exhibit 33
New Demand Generated by New Households by Type of Unit (1)
Candlestick Point Market Area
2009-2030
In 2009 Dollars (2)

	Affordable Rental Units (3)		Affordable For Sale Units (3)		Other New Households in Market Rate Units				
					Per Household Demand (4)				Demand From New Mkt Rate HHs
Retail Category	Per Household Demand 2009$'s [A]	Demand From New Households 2009-2030 [B = A * 1,644]	Per Household 2009$'s [C]	Demand From New Households 2009-2030 [D = C * 1,701]	2007$'s [E]	2007-2008 [F]	2008-2009 [G]	2009$'s [H]	2009-2030 [I = H * 21,049]
Apparel Stores	$869	$1,428,967	$1,280	$2,176,906	$1,399	-1.5%	-0.8%	$1,436	$30,216,288
General Merchandise Stores	$2,811	$4,621,615	$3,527	$5,999,422	$3,807	-3.6%	-1.8%	$3,907	$82,236,099
Food Stores	$3,420	$5,623,277	$3,988	$6,783,006	$4,187	5.6%	0.0%	$4,297	$90,441,630
Eating & Drinking Places	$2,212	$3,637,019	$3,090	$5,256,129	$3,364	2.9%	1.5%	$3,452	$72,665,529
Home Furnishings & Appliances	$637	$1,047,284	$836	$1,422,213	$972	-4.6%	-2.3%	$997	$20,985,921
Building Materials	$1,213	$1,993,745	$1,901	$3,233,481	$2,149	-6.8%	-3.4%	$2,205	$46,410,162
Motor Vehicles & Parts	$4,071	$6,692,811	$6,194	$10,536,812	$6,771	-19.3%	-9.7%	$6,948	$146,251,126
Service Stations	$2,012	$3,308,061	$2,511	$4,270,755	$2,629	11.8%	-5.0%	$2,698	$56,788,820
Other Retail Stores	$2,203	$3,621,678	$3,055	$5,197,360	$3,296	2.5%	1.3%	$3,382	$71,187,268
Total	**$19,449**	**$31,974,456**	**$26,382**	**$44,876,083**	**$28,573**			**$29,321**	**$617,182,843**

Sources: Exhibit 24, Appendix H-1, and Appendix H-2; and CBRE Consulting.

(1) See Exhibit 11 for the household projections. There are 21,049 new housing units projected to be added to the Candlestick Point market area between 2009 and 2030. This figure is in addition to the affordable units planned at Hunters Point Shipyard Phase II and Candlestick Point, of which there will be 1,644 in affordable rental units and 1,701 in affordable for-sale units.
(2) Figures are in 2009 dollars unless otherwise noted.
(3) See Appendix H-1 and Appendix H-2 for per household demand for affrodable rental and for-sale units.
(4) See Exhibit 24 for the 2007 household demand estimate. See Exhibit 27 footnote 2 for the explanation of projecting household demand from 2007 to 2009.

Exhibit 34
New Demand Generated by Household Growth
Candlestick Point Market Area
2009-2030
In 2009 Dollars (1)

Retail Category	Demand From New Households 2009-2030 (2) [A]	Candlestick Point Market Area Capture Rate (3) [B]	Market Area Sales Captured [C = A * B]	Project Capture Rate of Market Area Sales (4) [D]	Estimated Capture of Demand from New Households [E = C * D]	New Demand Captured by Hunters Point Shipyard Phase II Retail (5) [F]	Other Demand Offsetting Impacts in Hunters Pt. Shipyard Phase II Market Area (6) [G]	Remaining Potential Demand (Captured By Other Stores) [H = C - E - F - G]
Apparel Stores	$33,822,161	50.0%	$16,911,081	8.9%	$1,502,144	$0	$0	$15,408,937
General Merchandise Stores	$92,857,137	50.0%	$46,428,569	3.7%	$1,708,712	$1,497,570	$0	$43,222,286
Food Stores	$102,847,912	85.0%	$87,420,725	3.7%	$3,220,624	$6,679,858	$8,955,955	$68,564,289
Eating & Drinking Places	$81,558,677	50.0%	$40,779,338	3.6%	$1,455,999	$2,360,564	$3,027,230	$33,935,546
Home Furnishings & Appliances	$23,455,417	50.0%	$11,727,708	2.0%	$238,420	$104,782	$1,463,179	$9,921,326
Building Materials	$51,637,388	80.0%	$41,309,910	3.9%	$1,615,966	$0	$0	$39,693,944
Motor Vehicles & Parts	$163,480,748	N/A	N/A	0.0%	N/A	N/A	N/A	N/A
Service Stations	$64,367,636	N/A	N/A	0.0%	N/A	N/A	N/A	N/A
Other Retail Stores	$80,006,306	50.0%	$40,003,153	3.1%	$1,242,882	$3,201,955	$0	$35,558,316
Total	**$694,033,382**		**$284,580,484**		**$10,984,746**	**$13,844,730**	**$13,446,364**	**$246,304,644**

Sources: Exhibits 11, 24, and 32; and CBRE Consulting.

(1) Figures are in 2009 dollars unless otherwise noted.
(2) See Exhibit 33 for the calculation of new demand by unit type.
(3) Capture rates estimated based on the retail offerings within the market area as compared to options outside the market area.
(4) Capture rates reflect that market area residents may choose to shop at retail shopping centers other than Candlestick Point, and as such, Candlestick Point will only capture a fraction of demand generated by new household growth. See Exhibit 32 for the calculation of the capture rates by retail category.

(5) See Exhibit 30. The demand captured by Hunters Point Shipyard Phase II Neighborhood Retail is not available to offset impacts in the Candlestick Point market area; therefore, is taken out to avoid double counting.
(6) See Exhibit 31. The demand available in the Hunters Point Shipyard Phase II Market Area to offset impacts are removed to avoid double counting.

Exhibit 35
Potential Sales Impacts
Candlestick Point Market Area
In 2009 Dollars

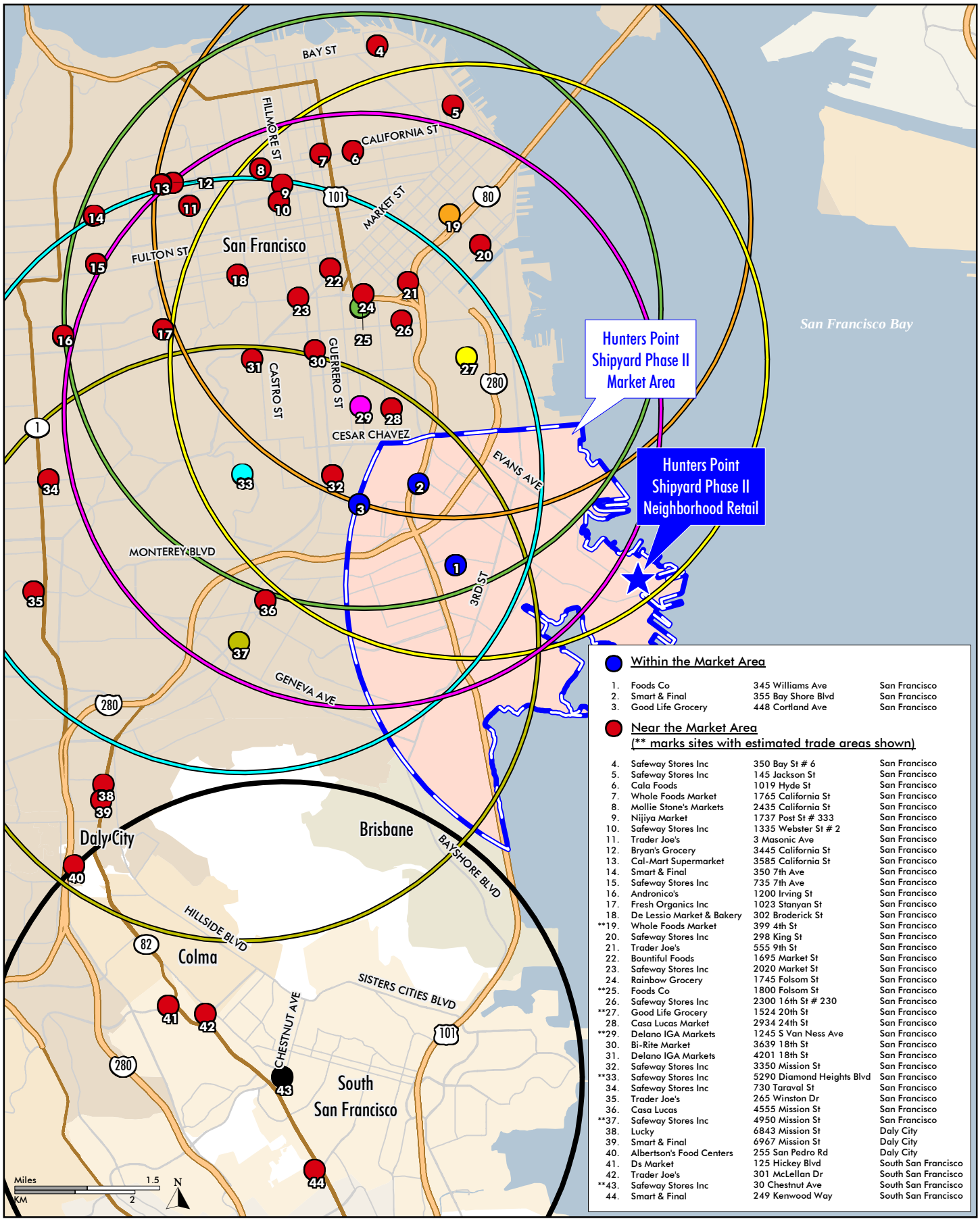
Retail Category	Candlestick Point Market Area Sales (1) [A]	Candlestick Point Capture of New Demand (2) [B]	2009 Market Area Adjusted Sales Base (3) [C]	Potential Absorbed Leakage (4) [D]	Intermediary Potential Sales Impacts Amount [E = A - B +D]	Remaining Potential Demand from New Households (5) [F]	Sales Diverted From Existing Market Area	
							Amount [G = E - F]	Percent [H = G / C]
Apparel Stores	$22,822,800	$1,502,144	$256,938,275	$0	$21,320,656	$15,408,937	$5,911,719	2.3%
General Merchandise Stores	$30,065,636	$1,708,712	$816,933,687	$0	$28,356,924	$43,222,286	$0	0.0%
Food Stores	$21,067,200	$3,220,624	$571,848,727	$0	$17,846,576	$68,564,289	$0	0.0%
Eating & Drinking Places	$31,468,275	$1,455,999	$881,357,621	$0	$30,012,276	$33,935,546	$0	0.0%
Home Furnishings & Appliances	$6,338,400	$238,420	$311,780,876	$0	$6,099,980	$9,921,326	$0	0.0%
Building Materials	$11,856,000	$1,615,966	$303,082,132	$0	$10,240,034	$39,693,944	$0	0.0%
Motor Vehicles & Parts	$0	N/A	$214,688,681	$0	N/A	N/A	N/A	N/A
Service Stations	$0	N/A	$344,945,809	$0	N/A	N/A	N/A	N/A
Other Retail Stores	$49,588,850	$1,242,882	$1,596,056,982	$0	$48,345,968	$35,558,316	$12,787,653	0.8%
Total	**$173,207,161**	**$10,984,746**	**$5,297,632,791**	**$0**	**$162,222,414**	**$246,304,644**	**$18,699,372**	**0.4%**

Sources: Exhibits 6, 7, 32, 34, and 30; and CBRE Consulting.

(1) See Exhibit 6 and 7.
(2) See Exhibit 34.
(3) See Exhibit 32.
(4) Since the only category with leakage is the Service Stations category, to which Candlestick Point will not contribute any new sales, there is no potential for recaptured leakage from the project.
(5) Demand remaining after sales captured by Hunters Point retail are accounted for as well as remaining demand available to Hunters Point Shipyard Phase II market area existing retailers.

Exhibit 36: Estimated Trade Areas of Grocery Stores Within and Near the Neighborhood Retail Market Area

San Francisco, CA



Within the Market Area

1.	Foods Co	345 Williams Ave	San Francisco
2.	Smart & Final	355 Bay Shore Blvd	San Francisco
3.	Good Life Grocery	448 Cortland Ave	San Francisco

Near the Market Area
(** marks sites with estimated trade areas shown)

4.	Safeway Stores Inc	350 Bay St # 6	San Francisco
5.	Safeway Stores Inc	145 Jackson St	San Francisco
6.	Cala Foods	1019 Hyde St	San Francisco
7.	Whole Foods Market	1765 California St	San Francisco
8.	Mollie Stone's Markets	2435 California St	San Francisco
9.	Nijiya Market	1737 Post St # 333	San Francisco
10.	Safeway Stores Inc	1335 Webster St # 2	San Francisco
11.	Trader Joe's	3 Masonic Ave	San Francisco
12.	Bryan's Grocery	3445 California St	San Francisco
13.	Cal-Mart Supermarket	3585 California St	San Francisco
14.	Smart & Final	350 7th Ave	San Francisco
15.	Safeway Stores Inc	735 7th Ave	San Francisco
16.	Andronico's	1200 Irving St	San Francisco
17.	Fresh Organics Inc	1023 Stanyan St	San Francisco
18.	De Lessio Market & Bakery	302 Broderick St	San Francisco
**19.	Whole Foods Market	399 4th St	San Francisco
20.	Safeway Stores Inc	298 King St	San Francisco
21.	Trader Joe's	555 9th St	San Francisco
22.	Bountiful Foods	1695 Market St	San Francisco
23.	Safeway Stores Inc	2020 Market St	San Francisco
24.	Rainbow Grocery	1745 Folsom St	San Francisco
**25.	Foods Co	1800 Folsom St	San Francisco
26.	Safeway Stores Inc	2300 16th St # 230	San Francisco
**27.	Good Life Grocery	1524 20th St	San Francisco
28.	Casa Lucas Market	2934 24th St	San Francisco
**29.	Delano IGA Markets	1245 S Van Ness Ave	San Francisco
30.	Bi-Rite Market	3639 18th St	San Francisco
31.	Delano IGA Markets	4201 18th St	San Francisco
32.	Safeway Stores Inc	3350 Mission St	San Francisco
**33.	Safeway Stores Inc	5290 Diamond Heights Blvd	San Francisco
34.	Safeway Stores Inc	730 Taraval St	San Francisco
35.	Trader Joe's	265 Winston Dr	San Francisco
36.	Casa Lucas	4555 Mission St	San Francisco
**37.	Safeway Stores Inc	4950 Mission St	San Francisco
38.	Lucky	6843 Mission St	Daly City
39.	Smart & Final	6967 Mission St	Daly City
40.	Albertson's Food Centers	255 San Pedro Rd	Daly City
41.	Ds Market	125 Hickey Blvd	South San Francisco
42.	Trader Joe's	301 McLellan Dr	South San Francisco
**43.	Safeway Stores Inc	30 Chestnut Ave	South San Francisco
44.	Smart & Final	249 Kenwood Way	South San Francisco

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Exhibit 37
Trade Area Households of Select Grocery Stores
Near the Hunters Point Shipyard Phase II Neighborhood Retail Market Area (1)
2009 and 2030

Store (4)	Trade Area Households 2009 (2) Total	Trade Area Households 2009 (2) Overlapping With the Hunters Point Shipyard Phase II Market Area	Percent Overlapping With the Project Market Area	Trade Area Households 2030 (3) Total	Trade Area Households 2030 (3) Increase from 2009
	[A]	[B]	[C = B / A]	[D]	[E = D - A]
19. Whole Foods Market (399 4th St., SF)	200,184	3,385	1.7%	216,328	16,144
25. Foods Co. (1800 Folsom St., SF)	247,754	13,338	5.4%	267,733	19,980
27. Good Life Grocery (1524 20th St., SF)	197,446	19,239	9.7%	213,369	15,923
29. Delano IGA Market (1245 S. Van Ness, SF)	225,244	22,035	9.8%	243,408	18,164
33. Safeway (5290 Diamond Heights Blvd., SF)	206,331	19,330	9.4%	222,970	16,639
37. Safeway (4950 Mission St., SF)	128,274	19,722	15.4%	140,174	11,899
43. Safeway (30 Chestnut Ave., South SF)	50,648	0	0.0%	54,732	N/A

Sources: Exhibit 36; Claritas, Inc.; San Francisco Urban Water Management Plan projections from email sent by PBS&J dated July 2, 2009; Association of Bay Area Governments (ABAG) "Projections 2007"; International Council of Shopping Centers (ICSC), U.S. Shopping Center Definitions, April 2009 (https://www.icsc.org/srch/lib/2009_S-C_CLASSIFICATION_May09.pdf); and CBRE Consulting.

(1) For the purposes of analysis, the trade area for the stores presented is defined as the area within a 3-mile radius of the respective store based on research prepared by the International Council of Shopping Centers. Household estimates and projections were obtained from Claritas, Inc.

(2) The first column shows the estimates of the total households in each grocery store's trade area in 2009. The second column displays the number of households in each store's trade area that are also within the Hunters Point Shipyard Phase II market area. See Appendices I-1, I-2, and I-3.

(3)The trade areas for store numbers 19, 25, 27, 29 and 33 are fully within the City of San Francisco boundaries. For these stores, a citywide growth rate of 0.37 percent per year has been assumed for the years 2009-2030 based on citywide estimates obtained from the San Francisco Urban Water Management Plan (see Appendix C-1). The 0.37 percent rate excludes major development projects at Treasure Island, Park Merced, and Hunters Point/Candlestick, which raise the San Francisco citywide rate to 0.67 percent annually through 2030. CBRE Consulting made this downward adjustment to the overal growth rate since the local trade areas analyzed may not overlap with the locations of the larger developments. For store number 37, the weighted average household growth rate for the proportional sections of these geographic areas is 0.42 percent per year using the combination of San Francisco estimate and data for other cities obtained from the Association of Bay Area Governments (see Appendix J for details). No estimate was prepared for the store number 43, the Safeway store in South San Francisco, since the associated 3-mile radius trade area does not overlap with the Hunters Point Shipyard Phase II Neighborhood market area.

(4) Store numbering matches the identification in the Exhibit 36 map. If a store from Exhibit 36 is not included in the list, then the store's estimated trade area does not overlap with the market area.

Exhibit 38
Offsetting Effects of Household Growth for Select Grocery Stores
Near the Hunters Point Shipyard Phase II Neighborhood Retail Market Area
2009 - 2030

	Trade Area Households 2009 (1)		Potential Diversion of 2009 Consumer Base (2)		Households Gain 2009-2030 (1)	Net Potential Customer Loss 2030	
	Radius Total	% Overlapping with HP Shipyard Phase II Market Area	Percent	Total	Radius Total	Amount (3)	%
Store (4)	[A]	[B]	[C = B / 2]	[D = A * C]	[E]	[F = D - E]	[G = F/D]
19. Whole Foods Market (399 4th St., SF)	200,184	1.7%	0.8%	1,692	16,144	0	0.0%
25. Foods Co. (1800 Folsom St., SF)	247,754	5.4%	2.7%	6,669	19,980	0	0.0%
27. Good Life Grocery (1524 20th St., SF)	197,446	9.7%	4.9%	9,620	15,923	0	0.0%
29. Delano IGA Market (1245 S. Van Ness, SF)	225,244	9.8%	4.9%	11,018	18,164	0	0.0%
33. Safeway (5290 Diamond Heights Blvd., SF)	206,331	9.4%	4.7%	9,665	16,639	0	0.0%
37. Safeway (4950 Mission St., SF)	128,274	15.4%	7.7%	9,861	11,899	0	0.0%
43. Safeway (30 Chestnut Ave., South SF)	50,648	0.0%	0.0%	0	N/A	0	0.0%

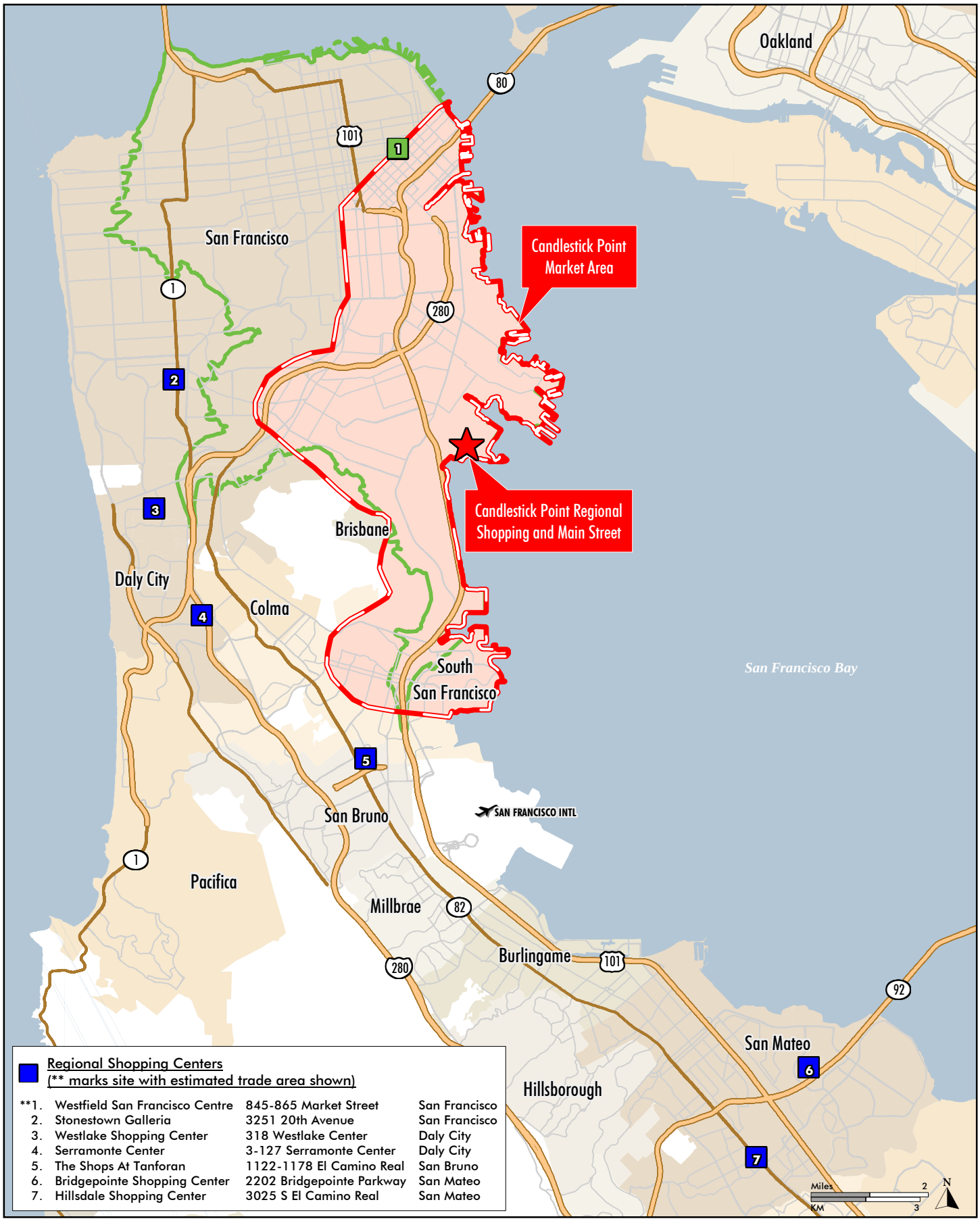
Sources: Exhibits 36 and 37; Claritas, Inc.; and CBRE Consulting.

(1) See Exhibit 37.
(2) Reflects the potential loss in the store's trade area households should one-half (50 percent) of those households divert their grocery purchases to the Hunters Point Shipyard Phase II Neighborhood retc
(3) A "0" is shown if the amount of the difference between column E and column D is less than or equal to zero.

(4) Store numbering matches the identification in the Exhibit 36 map. If a store from Exhibit 36 is not included in the list, then the store's estimated trade area does not overlap with the market area.

Exhibit 39: Regional Shopping Centers and Estimated Trade Area for Westfield San Francisco Centre

San Francisco, CA



Regional Shopping Centers
(** marks site with estimated trade area shown)

**1.	Westfield San Francisco Centre	845-865 Market Street	San Francisco
2.	Stonestown Galleria	3251 20th Avenue	San Francisco
3.	Westlake Shopping Center	318 Westlake Center	Daly City
4.	Serramonte Center	3-127 Serramonte Center	Daly City
5.	The Shops At Tanforan	1122-1178 El Camino Real	San Bruno
6.	Bridgepointe Shopping Center	2202 Bridgepointe Parkway	San Mateo
7.	Hillsdale Shopping Center	3025 S El Camino Real	San Mateo

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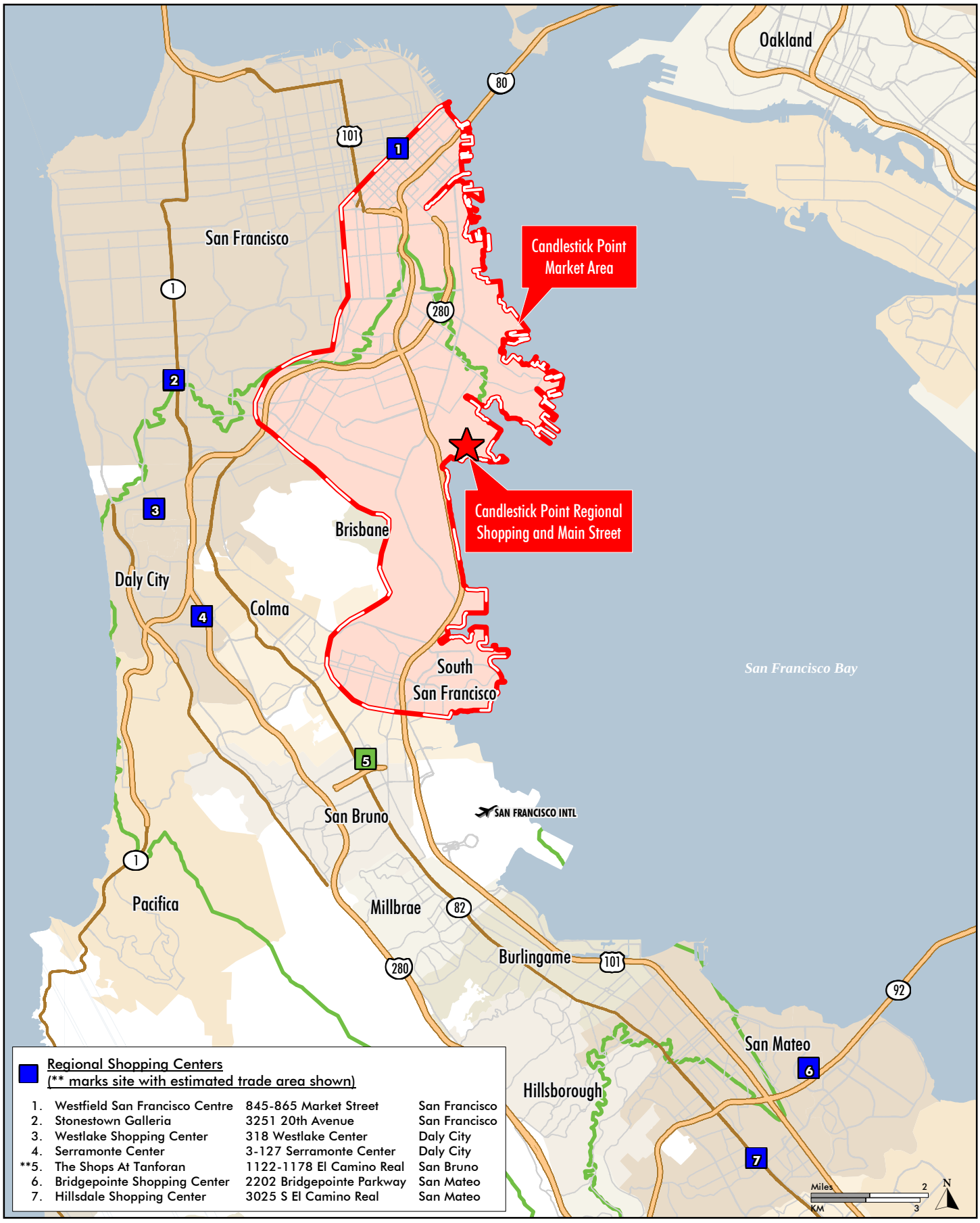
Exhibit 40: Regional Shopping Centers and Estimated Trade Area for the Shops at Tanforan

San Francisco, CA



Regional Shopping Centers
(** marks site with estimated trade area shown)

1.	Westfield San Francisco Centre	845-865 Market Street	San Francisco
2.	Stonestown Galleria	3251 20th Avenue	San Francisco
3.	Westlake Shopping Center	318 Westlake Center	Daly City
4.	Serramonte Center	3-127 Serramonte Center	Daly City
**5.	The Shops At Tanforan	1122-1178 El Camino Real	San Bruno
6.	Bridgepointe Shopping Center	2202 Bridgepointe Parkway	San Mateo
7.	Hillsdale Shopping Center	3025 S El Camino Real	San Mateo

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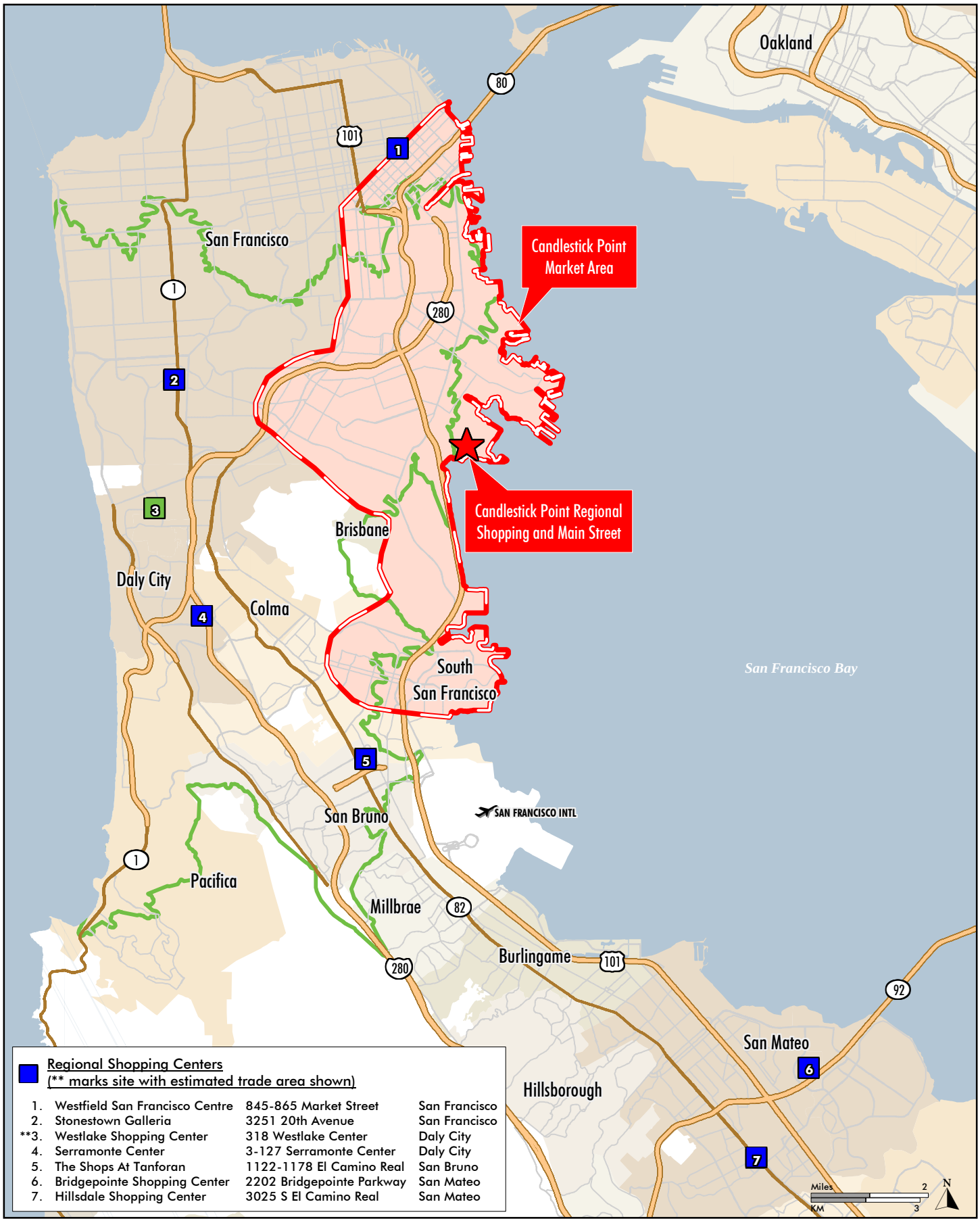
Exhibit 41: Regional Shopping Centers and Estimated Trade Area for Westlake Shopping Center

San Francisco, CA



Regional Shopping Centers
(** marks site with estimated trade area shown)

1.	Westfield San Francisco Centre	845-865 Market Street	San Francisco
2.	Stonestown Galleria	3251 20th Avenue	San Francisco
**3.	Westlake Shopping Center	318 Westlake Center	Daly City
4.	Serramonte Center	3-127 Serramonte Center	Daly City
5.	The Shops At Tanforan	1122-1178 El Camino Real	San Bruno
6.	Bridgepointe Shopping Center	2202 Bridgepointe Parkway	San Mateo
7.	Hillsdale Shopping Center	3025 S El Camino Real	San Mateo

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Exhibit 42
Trade Area Households of Select Regional Shopping Centers
Near the Candlestick Point Regional Center Retail Market Area (1)
2009 and 2030

Shopping Center	Trade Area Households 2009 (2) Total	Trade Area Households 2009 (2) Overlapping With the Project Market Area	Percent Overlapping With the Project Market Area	Trade Area Households 2030 (3) Total	Trade Area Households 2030 (3) Increase from 2009
	[A]	[B]	[C = B / A]	[D]	[E = D - A]
Westfield San Francisco Centre	303,645	89,089	29.3%	349,628	45,984
The Shops at Tanforan	167,447	40,546	24.2%	192,170	24,724
Westlake Shopping Center	186,031	60,060	32.3%	214,040	28,009

Sources: Exhibits 39, 40, and 41; Claritas, Inc.; San Francisco Urban Water Management Plan projections from email sent by PBS&J dated July 2, 2009; Association of Bay Area Governments (ABAG) "Projections 2007"; International Council of Shopping Centers; and CBRE Consulting.

(1) For the purposes of analysis, the trade area for the regional shopping centers is primarily defined as the area within a 15-minute drive-time of the respective center based on research prepared by the International Council of Shopping Centers. Household estimates and projections were derived from Claritas, Inc. data.
(2) The first column shows the estimates of the total households in each shopping center's trade area in 2009. See Appendices K-1, K-2, and K-3.
(3) For the 2030 regional shopping center's household the weighted average household growth rate for the proportional sections of these geographic areas is 0.8 percent per year using data obtained from the Association of Bay Area Governments and the San Francisco Urban Water Management Plan. See Appendix L.

Exhibit 43
Offsetting Effects of Household Growth for Select Regional Shopping Centers
Near the Candlestick Point Regional Center Retail Market Area
2009 - 2030

	Trade Area Households 2009 (1)		Potential Diversion of 2009 Consumer Base (2)		Households Gain 2009-2030 (1)	Net Potential Customer Loss 2030	
	Radius Total	% Overlapping with the CP Market Area	Percent	Total	Radius Total	Amount (3)	%
Shopping Center	[A]	[B]	[C = B / 2]	[D = A * C]	[E]	[F = D - E]	[G]
Westfield San Francisco Centre	303,645	29.3%	14.7%	44,544	45,984	0	0.0%
The Shops at Tanforan	167,447	24.2%	12.1%	20,273	24,724	0	0.0%
Westlake Shopping Center	186,031	32.3%	16.1%	30,030	28,009	2,021	1.1%

Sources: Exhibits 39, 40, 41, and 42; Claritas, Inc.; and CBRE Consulting.

(1) See Exhibit 42.
(2) Reflects the potential loss in the shopping center's trade area households should one-half (50 percent) of those households divert their shopping center purchases to the Candlestick Point Regional Shopping Center.
(3) A "0" is shown if the amount of the difference between column E and column D is less than or equal to zero.

Exhibit 44
Cumulative Retail Development Projects In or Near the Candlestick Point - Hunters Point Shipyard Phase II Development Plan Market Area (15,000 + Square Feet)
August 2009

Project Name or Applicant/ Location	City	Description	Status	Planned Sq. Ft. (1)	Estimated Opening (2)
Within the Candlestick Point and Hunters Point Shipyard Phase II Market Areas					
1. India Basin	San Francisco	Neighborhood serving retail.	Proposed	100,000	N/A
Within the Candlestick Point Market Area					
2. Brisbane Baylands (3)	Brisbane	The Brisbane Baylands Planning subarea, as defined by the City's General Plan, encompasses approximately 660 acres generally bordered on the west by Bayshore Boulevard, on the north by the City and County of San Francisco, on the east by the U.S. Highway 101 causeway, and on the south by Brisbane Lagoon. Known as the Baylands, the site presents both an opportunity and formidable challenges for the City of Brisbane. The site's history of railyard and landfill activity have left a legacy of contamination requiring millions of dollars and years of remediation, which is still ongoing. The property owner, Universal Paragon Corporation, submitted a Specific Plan in February 2006 for the easterly approximately 300 acres of the site. The City is now in the process of developing alternatives to the proposed project, as part of the Environmental Impact Report. The proposed project includes office, retail, and open space.	Plan Filed	1,775,000	N/A
3. Lowe's (3) 491 Bayshore Boulevard	San Francisco	In April 2009, Lowe's signed a lease for the former Goodman's Lumber site that Home Depot had previously taken through the entitlement process. The Lowe's lease reportedly gives the chain a six-month due diligence period.	In Planning	107,000	N/A
4. Foundry Square III 400 Howard Street	San Francisco	This project is a master-planned urban office complex and would comprise one 9-story and three 10-story office buildings, consisting of 1.14 million square feet of office space, 46,500 square feet of ground-floor retail, and two levels of underground parking.	Building Permit Filed	46,500	2013
5. 250 The Embarcadero	San Francisco	A 15-story office building with 38,000 square feet of retail.	Under Construction	38,000	2011
6. The Infinity 300 Spear Street	San Francisco	A mixed-use project that consists of 800 dwelling units, 36,000 square feet of retail/commercial, and 890 parking spaces.	Under Construction	36,000	2011
7. 836 Brannan Street	San Francisco	Conversion of 27,000-square-foot office/industrial building to retail space with 11,000 square feet of office on the 3rd floor. Proposed tenant is REI.	Plan Approved	30,000	2010
8. Bay West Cove 105-185 Oyster Point Boulevard	South San Francisco	Genentech has secured approval to build 622,000 square feet of office and R&D space, along with 20,000 square feet of restaurant and retail space.	Plan Approved	20,000	N/A
9. 1745 Folsom Street	San Francisco	Proposed demolition of existing parking and construction of 16,000 square feet of retail.	Plan Filed	16,000	2010
Subtotal - Candlestick Point Market Area				**2,068,500**	

Exhibit 44
Cumulative Retail Development Projects In or Near the Candlestick Point - Hunters Point Shipyard Phase II Development Plan
Market Area (15,000 + Square Feet)
August 2009

Project Name or Applicant/ Location	City	Description	Status	Planned Sq. Ft. (1)	Estimated Opening (2)
Outside of the Candlestick Point Market Area					
10. Piers 27-31	San Francisco	To develop and rehabilitate Piers 27, 29, 29 1/2, and 31 into a 1.1 million-square-foot mixed-use recreational, commercial, maritime, and open space complex including 446,000 square feet of retail.	Plan Filed	446,000	2029
11. Piers 30-32	San Francisco	Currently under construction, this project comprises a new cruise terminal, office space, residential units or a hotel/timeshare, and retail spaces on the seawall lot.	Under Construction	221,500	2011
12. Pier 45	San Francisco	To develop an educational and entertainment attraction within Shed A on Pier 45 to include 121,195 square feet of retail.	Plan Filed	121,195	2029
13. Bay Meadows	San Mateo	Wilson Meany Sullivan has received approval to develop approximately 100,000 square feet of retail space as part of a larger mixed use office/residential/retail project at the site of the former Bay Meadows race track.	Approved	100,000	N/A
14. Westlake Shopping Center Expansion	Daly City	Tenant improvements are underway for 96,000 square feet of new commercial space, some of which appears to have opened in 2009.	Tenant Improvements Underway	96,000	2009
15. 180 El Camino Real	South San Francisco	The demolition and redevelopment of a 141,194-square-foot retail center that is currently anchored by a Safeway, a Long's, and a Bally Fitness. Marketing materials posted on the developer's web site, www.wtmitchellgroup.com, indicate that 225,000 square feet of retail is planned, for a net increase of 83,806 square feet.	Plan Filed	83,806	2011
16. Lucas Film 1110 Gorgas Avenue	San Francisco		Under Construction	50,000	2011
17. Mirabella Parkview Plaza	Foster City	A mixed-use senior living development with 50,000 square feet of retail space.	Plan Filed	50,000	N/A
18. 1450 Howard Avenue	Burlingame	A new Safeway store and a retail/office building are planned at the site of an existing 23,000-square-foot Safeway and a 12,400-square-foot Walgreens, which will be demolished. The new Safeway will be a 44,982-square-foot store and other retail totaling 20,197 square feet is planned such that the net addition will be 29,779 square feet.	Plan Filed	29,779	N/A
19. Macy's O'Farrell and Stockton streets	San Francisco	Currently under construction, this is an addition of 28,000 square feet of retail to the existing store by demolishing two buildings in Union Square, rebuilding one of the buildings, to unify the adjoining Macy's complex. The new building will be about 30 feet higher than the existing building.	Under Construction	28,000	2009

Exhibit 44
Cumulative Retail Development Projects In or Near the Candlestick Point - Hunters Point Shipyard Phase II Development Plan Market Area (15,000 + Square Feet)
August 2009

Project Name or Applicant/ Location	City	Description	Status	Planned Sq. Ft. (1)	Estimated Opening (2)
Outside of the Candlestick Point Market Area (continued)					
20. Landmark Plaza Mission Street and Hillside	Daly City	The expansion of a mixed use development that will include 27,000 square feet of new retail space.	Under	27,000	2010
21. 245-249 Hyde Street	San Francisco	Proposed demolition of two existing 2-story buildings to construct an 8-story, 105-270-square-foot building to include 150 residential units and 25,580 square feet of retail space on the first two floors.	Plan Filed	25,580	2019
22. 400-406 Sutter Street	San Francisco	This project consists of the demolition of an existing building and then the construction of a 68-room hotel with 20,880 square feet of ground floor retail.	Under Construction	20,880	2010
23. 479 Castro Street	San Francisco	This project is the construction of an interior connection between two retail stores to create one large store.	Building Permit Issued	19,200	2011
24. 160 Jefferson Street	San Francisco	Proposed demolition of an existing 9,820-square-foot retail/bakery and the construction of a two-story, 27,032-square-foot center including bakery, retail, and a restaurant, for a net increase of 17,212 square feet.	Plan Filed	17,212	2011
25. 5 Masonic	San Francisco	Proposed demolition of nine buildings to construct a mixed-use building with 57 dwelling units and 17,000 square feet of ground floor retail.	Plan Filed	17,000	2011
26. 165 Pierce Street	Daly City	A 14,000-square-foot Walgreens store and 1,400 square feet of other retail planned as part of a mixed-used senior housing development.	Approved	15,400	2011
Subtotal - Outside of the Candlestick Point Market Area:				**1,368,552**	
GRAND TOTAL - All Projects:				**3,537,052**	

Sources: The Planning Departments of the cities of San Francisco, Brisbane, South San Francisco, Daly City, Millbrae, Burlingame, Foster City, San Mateo, and San Bruno, and the Town of Colma; PBS&J; Fehr & Peers; and CBRE Consulting.

(1) Square footages reflect future retail or commercial space, and therefore exclude retail space already built and occupied by retail tenants.
(2) The development schedules for many of the cumulative retail projects on this list do not have specified timing. Consequently, the Estimated Opening for these projects is denoted as "N/A", which stands for Not Available. The factors that contribute to this uncertainty include: lack of financing; the unpredictability of the land use entitlements process; and the possibility that most projects will require a general economic recovery in order to become financially feasible.
(3) Brisbane Baylands and Lowe's are both located in the Hunters Point Shipyard Phase II market area, but due to their size and nature have a much larger draw and are not deemed competitive with the Hunters Point Shipyard Phase II Neighborhood Retail.

Exhibit 45
Estimated Development Schedules for Cumulative Retail Projects with Unknown Development Schedules (1)

Project Name or Applicant (1)	Planned Retail Sq. Ft. (1) [A]	Rate of Project Attrition (2) [B]	Estimated Sq. Ft. Delivered [C = A * (1 - B)]	Within CP and HP Market Areas Est. Sq. Ft. Delivered 2030 [D = C * 100%]	Within Only Candlestick Point Market Area Est. Sq. Ft. Delivered 2030 [D = C * 100%]	Outside Candlestick Point Market Area Est. Sq. Ft. Delivered 2030 [E = C * 100%]
Within the Candlestick Point and Hunters Point Shipyard Phase II Market Areas						
1. India Basin	100,000	20%	80,000	80,000	0	0
Within Candlestick Point Market Area						
2. Brisbane Baylands (3)	1,775,000	20%	1,420,000	0	1,420,000	0
3. Lowe's (3)	107,000	20%	85,600	0	85,600	0
4. Foundry Square III	46,500	20%	37,200	0	37,200	0
5. 250 The Embarcadero	38,000	20%	30,400	0	30,400	0
6. The Infinity	36,000	20%	28,800	0	28,800	0
7. 836 Brannan Street	30,000	20%	24,000	0	24,000	0
8. Bay West Cove	20,000	20%	16,000	0	16,000	0
9. 1745 Folsom Street	16,000	20%	12,800	0	12,800	0
Outside Both Market Areas						
10. Piers 27-31	446,000	20%	356,800	0	0	356,800
11. Piers 30-32	221,500	20%	177,200	0	0	177,200
12. Pier 45	121,195	20%	96,956	0	0	96,956
13. Bay Meadows	100,000	20%	80,000	0	0	80,000
14. Westlake Shopping Center Expansion	96,000	20%	76,800	0	0	76,800
15. 180 El Camino Real	83,806	20%	67,045	0	0	67,045
16. Lucas Film	50,000	20%	40,000	0	0	40,000
17. Mirabella Parkview Plaza	50,000	20%	40,000	0	0	40,000
18. 1450 Howard Avenue	29,779	20%	23,823	0	0	23,823
19. Macy's	28,000	20%	22,400	0	0	22,400
20. Landmark Plaza	27,000	20%	21,600	0	0	21,600
21. 245-249 Hyde Street	25,580	20%	20,464	0	0	20,464
22. 400-406 Sutter Street	20,880	20%	16,704	0	0	16,704
23. 479 Castro Street	19,200	20%	15,360	0	0	15,360
24. 160 Jefferson Street	17,212	20%	13,770	0	0	13,770
25. 5 Masonic	17,000	20%	13,600	0	0	13,600
26. 165 Pierce Street	15,400	20%	12,320	0	0	12,320
TOTAL	**3,537,052**		**2,829,642**	**80,000**	**1,654,800**	**1,094,842**

Sources: Exhibit 44; and CBRE Consulting.

(1) See Exhibit 44.
(2) Some development projects will be delayed, cancelled, or repositioned because of economic, market, or financial difficulties. These possibilities are accounted for in the attrition rate, which is assumed at 20 percent.
(3) Brisbane Baylands and Lowe's are both located in the Hunters Point market area, but due to their size and nature have a much larger draw and are not deemed competitive with the Hunters Point Shipyard Phase II Neighborhood Retail.

Exhibit 46: Cumulative Retail Development Projects
In or Near the Candlestick Point and Hunters Point Shipyard Phase II Market Areas

San Francisco, CA

	Project Name	City	Planned Square Feet
	Within the Hunters Point Shipyard Phase II and Candlestick Point Market Areas		
1.	India Basin	San Francisco	100,000
	Within the Candlestick Point Market Area		
2.	Brisbane Baylands	Brisbane	1,775,000
3.	Lowe's	San Francisco	107,000
4.	Foundry Square III	San Francisco	46,500
5.	250 The Embarcadero	San Francisco	38,000
6.	The Infinity	San Francisco	36,000
7.	836 Brannan Street	San Francisco	30,000
8.	Bay West Cove	South San Francisco	20,000
9.	1745 Folsom Street	San Francisco	16,000
	Outside of the Candlestick Point Market Area		
10.	Piers 27-31	San Francisco	446,000
11.	Pier 30-32	San Francisco	221,500
12.	Pier 45	San Francisco	121,195
13.	Bay Meadows	San Mateo	100,000
14.	Westlake Shopping Center Expansion	Daly City	96,000
15.	180 El Camino Real	South San Francisco	83,806
16.	Lucas Film	San Francisco	50,000
17.	Mirabella Parkview Plaza	Foster City	50,000
18.	1450 Howard Avenue	Burlingame	29,779
19.	Macy's	San Francisco	28,000
20.	Landmark Plaza	Daly City	27,000
21.	245-249 Hyde Street	San Francisco	25,580
22.	400-406 Sutter Street	San Francisco	20,880
23.	479 Castro Street	San Francisco	19,200
24.	160 Jefferson Street	San Francisco	17,212
25.	5 Masonic	San Francisco	17,000
26.	165 Pierce Street	Daly City	15,400

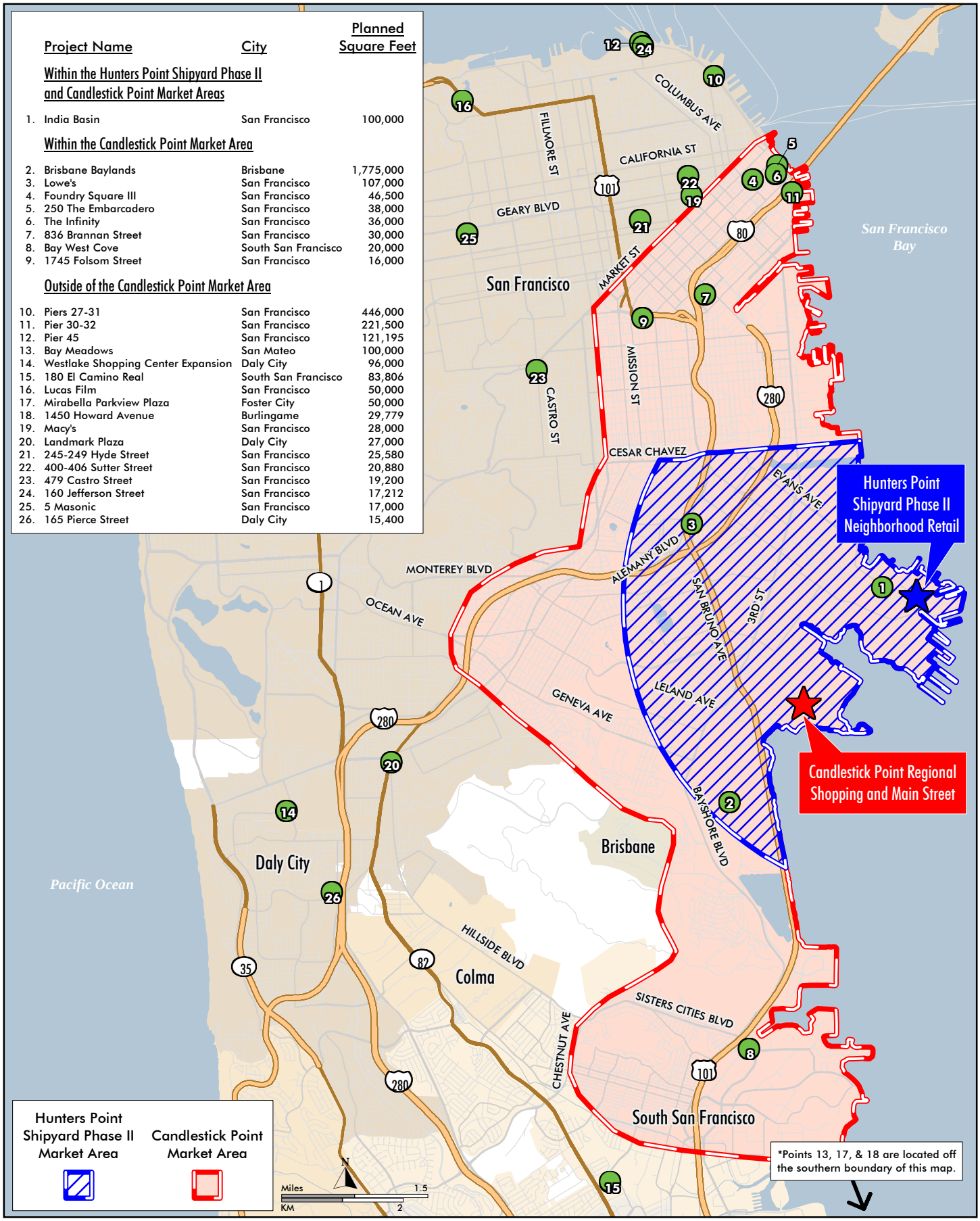

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Exhibit 47
Sales Estimates for Cumulative Retail Projects Completed Prior to 2030
In 2007 Dollars (1)

Project Name or Applicant	Square Feet (2)	Sales Per Sq. Ft. (3)		Annual Sales
Within the Candlestick Point and Hunters Point Shipyard Phase II Market Areas				
1. India Basin				
Unknown Retail	80,000	$331		$26,480,000
Within Candlestick Point Market Area				
2. Brisbane Baylands				
Unknown Retail	1,420,000	$324		$460,080,000
3. Lowe's	85,600	$258	(4)	$22,084,800
4. Foundry Square III				
Unknown Retail	37,200	$364		$13,540,800
5. 250 The Embarcadero				
Unknown Retail	30,400	$364		$11,065,600
6. The Infinity				
Unknown Retail	28,800	$364		$10,483,200
7. 836 Brannan Street				
REI	24,000	$254	(5)	$6,091,247
8. Bay West Cove				
Unknown Retail	16,000	$364		$5,824,000
9. 1745 Folsom Street				
Unknown Retail	12,800	$364		$4,659,200
Total - Candlestick Point Market Area:	**1,654,800**			**$533,828,847**
Outside of the Candlestick Point Market Area				
10. Piers 27-31				
Unknown Retail	356,800	$356		$127,020,800
11. Piers 30-32				
Unknown Retail	177,200	$331		$58,653,200
12. Pier 45				
Unknown Retail	96,956	$331		$32,092,436
13. Bay Meadows				
Unknown Retail	80,000	$331		$26,480,000
14. Westlake Shopping Center Expansion				
Unknown Retail	76,800	$356		$27,340,800
15. 180 El Camino Real				
Unknown Retail	67,045	$364		$24,404,307
16. Lucas Film				
Unknown Retail	40,000	$364		$14,560,000
17. Mirabella Parkview Plaza				
Unknown Retail	40,000	$364		$14,560,000
18. 1450 Howard Avenue				
Safeway	17,586	$527	(6)	$9,267,611
Unknown Retail	6,238	$364		$2,270,486
Subtotal	23,823			$11,538,098

Exhibit 47
Sales Estimates for Cumulative Retail Projects Completed Prior to 2030
In 2007 Dollars (1)

Project Name or Applicant	Square Feet (2)	Sales Per Sq. Ft. (3)	Annual Sales
19. Macy's	22,400	$170 (7)	$3,808,000
20. Landmark Plaza			
Unknown Retail	21,600	$364	$7,862,400
21. 145-249 Hyde Street			
Unknown Retail	20,464	$364	$7,448,896
22. 400-406 Sutter Street			
Unknown Retail	16,704	$364	$6,080,256
23. 479 Castro Street			
Unknown Retail	15,360	$364	$5,591,040
24. 160 Jefferson Street (8)			
Restaurant	3,000	$433 (9)	$1,300,300
Bakery	1,500	$433 (9)	$650,150
Unknown Retail	9,270	$364	$3,374,134
Subtotal	13,770		$5,324,585
25. 5 Masonic			
Unknown Retail	13,600	$364	$4,950,400
26. 165 Pierce Street			
Walgreens	11,200	$812 (10)	$9,094,400
Unknown Retail	1,120	$364	$407,680
Subtotal	12,320		$9,502,080
Total - Outside of Candlestick Point Market Area	**1,094,842**		**$387,217,298**

Sources: International Council of Shopping Centers (ICSC), U.S. Shopping Center Definitions, April 2009 (https://www.icsc.org/srch/lib/2009_S-C_CLASSIFICATION_May09.pdf); Dollars & Cents of Shopping Centers/The Score 2008; Retail MAXIM, "Alternative Retail Risk Analysis for Alternative Capital", 2008; Lowe's Companies Inc. Form 10-K for period ending January 31, 2009; The Nielsen Company, "2009 Retail Tenant Directory"; and CBRE Consulting.

(1) CBRE Consulting has assumed that sales will remain flat consistent with the project assumptions.
(2) Unless otherwise noted, see Exhibit 44.
(3) CBRE Consulting has defined the shopping center type for each cumulative project based on ICSC U.S. Shopping Center definitions matching the square footages used from Exhibit 39. Sales per square foot are in 2007 dollars. For each shopping center type the sales per square foot are estimated based on average sales per square foot figures for shopping centers in the Western U.S. provided by Dollars & Cents of Shopping Centers/The Score 2008 Unless otherwise noted. Neighborhood Centers are defined as under 100,000 square feet with an average sales per square foot of $364; Community Centers are defined as 100,000 - 399,999 square feet with an average sales per square foot of $331; Regional Centers are defined as 400,000-799,999 square feet with an average sales per square foot of $356; and Super Regional Centers are defined as 800,000+ square feet with an average sales per square foot of $324.
(4) Sales per square foot from Lowe's Companies Inc. Form 10-K for the period ending January 31, 2009.
(5) See Exhibit 4. The Sports category is estimated at $254 per square foot.
(6) Based on the average sales per square foot for Safeway provided by Retail Maxim.
(7) Based on the average sales per square foot for Macys provided by Retail Maxim.
(8) Square footages for the restaurant and bakery estimated by CBRE Consulting.
(9) Based on the average sales per square foot for the Restaurants category as calculated in Exhibit 4.
(10) Based on the average sales per square foot for Walgreens provided by Retail Maxim.

Exhibit 48
Extent of Cumulative Projects' Trade Area Overlap with Candlestick Point and Hunters Point Shipyard Phase II Market Areas (1)

Hunters Point Shipyard Phase II and Candlestick Point Market Areas Project Name	Planned Project Trade Area Radius (Miles) or Drive-Time (2)	2009 Radius Households (3) Total	2009 Radius Households (3) Overlapping With HP Shipyard Phase II Market Area	Est. Percent Share Overlapping with HP Shipyard Phase II Market Area
1. India Basin	3 Miles	43,875	22,140	50.5%

Candlestick Point Market Area Project Name	Planned Project Trade Area Radius (Miles) or Drive-Time (2)	2009 Radius Households (2) Total	2009 Radius Households (2) Overlapping With Candlestick Point Market Area	Est. Percent Share Overlapping with Candlestick Point Market Area
2. Brisbane Baylands	15 Minutes	207,716	92,818	44.7%
3. Lowe's	15 Minutes	335,521	92,825	27.7%
7. 836 Brannan Street	3 Miles	213,025	57,397	26.9%
10. Piers 27-31	15 Minutes	242,616	67,874	28.0%
11. Piers 30-32	15 Minutes	303,577	82,968	27.3%
12. Pier 45	3 Miles	140,954	19,003	13.5%
14. Westlake Shopping Center Expansion	15 Minutes	193,502	61,268	31.7%
15. 180 El Camino Real	3 Miles	44,240	7,502	17.0%
16. Lucas Film	3 Miles	178,690	11,863	6.6%
19. Macy's	3 Miles	302,642	85,419	28.2%
20. Landmark Plaza	15 Minutes	81,864	19,631	24.0%
21. 245-249 Hyde Street	3 Miles	212,174	46,393	21.9%
22. 400-406 Sutter Street	3 Miles	187,296	41,472	22.1%
23. 479 Castro Street	3 Miles	258,083	64,061	24.8%
24. 160 Jefferson Street	3 Miles	142,360	19,897	14.0%
25. 5 Masonic	3 Miles	234,478	31,192	13.3%
26. 165 Pierce Street	3 Miles	63,424	4,107	6.5%
Candlestick Point Total / Average		**3,342,162**	**805,690**	**24.1%**

Sources: Claritas; International Council of Shopping Centers (ICSC), U.S. Shopping Center Definitions, April 2009 (https://www.icsc.org/srch/lib/2009_S-C_CLASSIFICATION_May09.pdf); and CBRE Consulting.

(1) Includes only projects from Exhibits 44-47 that have estimated trade area overlap with Candlestick Point and Hunters Point Shipyard Phase II; therefore some project numbers are not listed.
(2) Trade area radii were approximated by CBRE Consulting based on the type of planned cumulative retail project. Neighborhood centers and community centers are estimated to have radii of 3.0 miles. Power centers, regional malls, and lifestyle centers are estimated to have a 15-minute drive time trade area.
(3) The first column indicates the total households in each development's estimated trade area. The second column displays the number of households in each center's trade area that also are part of the associated Market Area. These figures are used to estimate the percentage of households within each cumulative project's market area that is also located within the Candlestick Point or Hunters Point Shipyard Phase II Market Areas. The 2009 data are the most recent data available, and are believed by CBRE Consulting to be an accurate approximation for 2009.

Exhibit 49
Estimation of Cumulative Project Sales Estimates Originating from the Project Market Area
Projects Completed Prior to 2030
In 2009 Dollars

Project Name or Applicant (4)	Total Annual Store Sales (1) [A]	Share Overlap With HP Shipyard Phase II Market Area (2) [B]	Percent of Sales Originating From Market Area (3) [C]	Total Store Sales Originating From Market Area [D = A * B * C]
Within Hunters Point Shipyard Phase II Market Area				
1. India Basin				
Unknown Retail	$26,480,000	50.5%	95%	$12,694,105

Project Name or Applicant	Total Annual Store Sales (1) [A]	Share Overlap With Candlestick Point Market Area (2) [B]	Percent of Sales Originating From Market Area (3) [C]	Total Store Sales Originating From Market Area [D = A * B * C]
Within Candlestick Point Market Area				
1. India Basin				
Unknown Retail	$26,480,000	100.0%	95%	$25,156,000
2. Brisbane Baylands				
Unknown Retail	$460,080,000	44.7%	85%	$174,748,934
3. Lowe's	$22,084,800	27.7%	85%	$5,193,470
7. 836 Brannan Street				
REI	$6,091,247	26.9%	90%	$1,477,091
Total - Candlestick Point Market Area:	**$514,736,047**			**$206,575,496**
Outside of the Candlestick Point Market Area				
10. Piers 27-31				
Unknown Retail	$127,020,800	28.0%	90%	$31,981,686
11. Piers 30-32				
Unknown Retail	$58,653,200	27.3%	90%	$14,426,998
12. Pier 45				
Unknown Retail	$32,092,436	13.5%	90%	$3,893,946
14. Westlake Shopping Center Expansion				
Unknown Retail	$27,340,800	31.7%	90%	$7,791,157
15. 180 El Camino Real				
Unknown Retail	$24,404,307	17.0%	90%	$3,724,525
16. Lucas Film				
Unknown Retail	$14,560,000	6.6%	90%	$869,958
19. Macy's	$3,808,000	28.2%	90%	$967,308
20. Landmark Plaza				
Unknown Retail	$7,862,400	24.0%	90%	$1,696,864
21. 145-249 Hyde Street				
Unknown Retail	$7,448,896	21.9%	90%	$1,465,867
22. 400-406 Sutter Street				
Unknown Retail	$6,080,256	22.1%	90%	$1,211,688
23. 479 Castro Street				
Unknown Retail	$5,591,040	24.8%	90%	$1,249,020
24. 160 Jefferson Street (7)				
Restaurant	$1,300,300	14.0%	90%	$163,563
Bakery	$650,150	14.0%	90%	$81,782
Unknown Retail	$3,374,134	14.0%	90%	$424,428
Subtotal	$5,324,585			$669,773
25. 5 Masonic				
Unknown Retail	$4,950,400	13.3%	90%	$592,685
26. 165 Pierce Street				
Walgreens	$9,094,400	6.5%	90%	$530,014
Unknown Retail	$407,680	6.5%	90%	$23,759
Subtotal	$9,502,080			$553,774
Total - Outside of Candlestick Point Market Area	**334,639,200**			**$71,095,251**

Sources: Exhibits 48 and 47; and CBRE Consulting.

(1) See Exhibit 47.
(2) See Exhibit 48.
(3) Estimated by CBRE Consulting.
(4) Included only projects listed from Exhibits 44-47 that have estimated trade area overlap with Candlestick Point and Hunters Point Shipyard Phase II; therefore some project numbers are not listed.

Exhibit 50
BOE Categorization of Sales Estimates for Cumulative Retail Projects Completed Prior to 2030
Projects In or Near the Hunters Point Shipyard Phase II and Candlestick Point Market Areas
In 2009 Dollars

Project Name or Applicant / Store Name or Type	Market Area Total Annual Sales (1)	Apparel	General Merchandise	Food Stores	Eating & Drinking Places	Home Furnishings & Appliances	Building Materials	Other Retail
Within Hunters Point Shipyard Phase II Market Area								
1. India Basin								
Unknown Retail	$12,694,105	$1,904,116	$5,077,642	$634,705	$634,705	$634,705	$634,705	$3,173,526
Less Vacancy Allowance (4)	**$12,059,399**	**$1,808,910**	**$4,823,760**	**$602,970**	**$602,970**	**$602,970**	**$602,970**	**$3,014,850**
Within Candlestick Point Market Area								
1. India Basin	$25,156,000	$3,773,400	$10,062,400	$1,257,800	$1,257,800	$1,257,800	$1,257,800	$6,289,000
Unknown Retail								
2. Brisbane Baylands								
Unknown Retail (2)	$174,748,934	$17,474,893	$34,949,787	$17,474,893	$17,474,893	$17,474,893	$0	$69,899,574
3. Lowe's (3)	$5,193,470	$0	$0	$0	$0	$1,246,433	$3,168,017	$779,021
7. 836 Brannan Street								
REI	$1,477,091	$0	$0	$0	$0	$0	$0	$1,477,091
Subtotal - Candlestick Point Market Area	**$206,575,496**	**$21,248,293**	**$45,012,187**	**$18,732,693**	**$18,732,693**	**$19,979,126**	**$4,425,817**	**$78,444,686**
Less Vacancy Allowance (4)	**$196,246,721**	**$20,185,879**	**$42,761,578**	**$17,796,059**	**$17,796,059**	**$18,980,170**	**$4,204,526**	**$74,522,451**
Outside of the Candlestick Point Market Area								
10. Piers 27-31								
Unknown Retail (2)	$31,981,686	$4,797,253	$11,193,590	$3,198,169	$1,599,084	$1,599,084	$1,599,084	$7,995,422
11. Piers 30-32								
Unknown Retail (2)	$14,426,998	$2,164,050	$1,442,700	$1,442,700	$3,606,750	$1,442,700	$0	$4,328,099
12. Pier 45								
Unknown Retail (2)	$3,893,946	$584,092	$389,395	$389,395	$973,487	$389,395	$0	$1,168,184
13. Westlake Shopping Center Expansion								
Unknown Retail (2)	$7,791,157	$1,168,674	$779,116	$779,116	$1,947,789	$779,116	$0	$2,337,347
15. 180 El Camino Real								
Unknown Retail (2)	$3,724,525	$558,679	$372,453	$372,453	$931,131	$372,453	$0	$1,117,358
16. Lucas Film								
Unknown Retail (2)	$869,958	$130,494	$86,996	$86,996	$217,489	$86,996	$0	$260,987
19. Macy's	$967,308	$967,308	$0	$0	$0	$0	$0	$0
20. Landmark Plaza								
Unknown Retail (2)	$1,696,864	$254,530	$169,686	$169,686	$424,216	$169,686	$0	$509,059

Exhibit 50
BOE Categorization of Sales Estimates for Cumulative Retail Projects Completed Prior to 2030
Projects In or Near the Hunters Point Shipyard Phase II and Candlestick Point Market Areas
In 2009 Dollars

Project Name or Applicant / Store Name or Type	Market Area Total Annual Sales (1)	Apparel	General Merchandise	Food Stores	Eating & Drinking Places	Home Furnishings & Appliances	Building Materials	Other Retail
21. 145-249 Hyde Street								
Unknown Retail (2)	$1,465,867	$219,880	$146,587	$146,587	$366,467	$146,587	$0	$439,760
22. 400-406 Sutter Street								
Unknown Retail (2)	$1,211,688	$181,753	$121,169	$121,169	$302,922	$121,169	$0	$363,506
23. 479 Castro Street								
Unknown Retail (2)	$1,249,020	$187,353	$124,902	$124,902	$312,255	$124,902	$0	$374,706
24. 160 Jefferson Street (7)								
Restaurant	$163,563	$0	$0	$0	$163,563	$0	$0	$0
Bakery	$81,782	$0	$0	$0	$81,782	$0	$0	$0
Unknown Retail (2)	$424,428	$63,664	$42,443	$42,443	$106,107	$42,443	$0	$127,329
Subtotal	$669,773							
25. 5 Masonic								
Unknown Retail (2)	$592,685	$88,903	$59,268	$59,268	$148,171	$59,268	$0	$177,805
26. 165 Pierce Street								
Walgreens	$530,014	$0	$530,014	$0	$0	$0	$0	$0
Unknown Retail (2)	$23,759	$3,564	$2,376	$2,376	$5,940	$2,376	$0	$7,128
Subtotal	$553,774							
Total - Outside of Candlestick Point Market Area	**$71,095,251**	**$11,370,195**	**$15,460,694**	**$6,935,258**	**$11,187,154**	**$5,336,174**	**$1,599,084**	**$19,206,691**
Less Vacancy Allowance (4)	**$67,540,489**	**$10,801,686**	**$14,687,660**	**$6,588,495**	**$10,627,796**	**$5,069,365**	**$1,519,130**	**$18,246,356**
GRAND TOTAL CANDLESTICK POINT OCCUPIED SPACE - ALL PROJECTS	**$263,787,209**	**$30,987,564**	**$57,449,237**	**$24,384,554**	**$28,423,855**	**$24,049,535**	**$5,723,656**	**$92,768,808**

Sources: Exhibits 49; Lowe's Companies Inc 2008 Annual Report; and CBRE Consulting.

(1) See Exhibit 49.
(2) Planned retail space with unknown orientation or product type was allocated into BOE categories by CBRE Consulting based on the estimated size of the project and analysis of various existing shopping centers in the Bay Area. Super regional centers sales are allocated as 15 percent apparel, 40 percent general merchandise, 5 percent food stores, 5 percent eating and drinking, 5 percent home furnishings and appliances, 5 percent building materitals, and 25 percent other retail. Regional centers sales are allocated as 15 percent apparel, 35 percent general merchandise, 10 percent food stores, 5 percent eating and drinking, 5 percent home furnishings and appliances, 5 percent building materitals, and 25 percent other retail.The remaining center types sales are allocated as 15 percent apparel, 10 percent general merchandise, 10 percent food stores, 25 percent eating and drinking, 10 percent home furnishings and appliances, and 35 percent other retail.
(3) The BOE category breakdown for Lowe's based on data given in the Lowe's Companies Inc. 2008 Annual Report.
(4) CBRE Consulting estimates that the market vacancy rate for new shopping centers is 5 percent.

Exhibit 51
Estimated Capture Rates of New Household Demand for All Hunters Point Shipyard Phase II Market Area Cumulative Projects
In 2009 Dollars

Retail Category	Hunters Point Shipyard Phase II Market Area Adjusted Sales Base (1) [A]	Hunters Point Shipyard Phase II Project Sales (2) [B]	Total HP Shipyard Phase II Market Area Cumulative Projects Occupied Space Sales (3) [C]	Hunters Point Shipyard Phase II Plus Cumul. Projects in HP Market Area Total Sales [D = B + C]	All Cumulative Projects Capture Rate of Market Area Sales (4) [E = D / (A + D)]
Apparel Stores	$6,717,679	$0	$1,808,910	$1,808,910	21.2%
General Merchandise Stores	$62,286,208	$5,997,140	$4,823,760	$10,820,900	14.8%
Food Stores	$121,648,316	$15,635,813	$602,970	$16,238,782	11.8%
Eating & Drinking Places	$70,334,821	$7,326,966	$602,970	$7,929,936	10.1%
Home Furnishings & Appliances	$58,313,316	$1,567,962	$602,970	$2,170,932	3.6%
Building Materials	$117,890,439	$0	$602,970	$602,970	0.5%
Motor Vehicles & Parts	$29,008,094	$0	$0	$0	0.0%
Service Stations	$23,665,313	$0	$0	$0	0.0%
Other Retail Stores	$44,922,981	$10,773,412	$3,014,850	$13,788,262	23.5%
Total	**$534,787,167**	**$41,301,293**	**$12,059,399**	**$53,360,692**	**9.1%**

Sources: Exhibits 8, 23, and 50; and CBRE Consulting.

(1) See Exhibit 23.
(2) See Exhibit 8.
(3) See Exhibit 50. This reflects the planned India Basin project less a vacancy allowance.
(4) Represents the assumed percentage of new demand that may be captured by all the cumulative projects including the Hunters Point Shipyard Phase II Neighborhood Retail project within the market area. Capture rates were developed based on comparing the share of the cumulative projects' projected sales to the total retail sales in the market area. It is likely that not all the market area sales will be new to the market area; however, this is a conservative approach to provide minimum capture rate assumptions for the project, assuming that all sales are diverted from existing retailers.

Exhibit 52
Capture of New Household Demand
Within the Hunters Point Shipyard Phase II Market Area
2030

Retail Category	Demand from New Households 2009-2030 (1) [A]	All Cumul. Projects Mkt Area Capture Rate (2) [B]	Market Area Sales Captured [C = A * B]	All Cumul. Projects Capture Rate of Mkt Area Sales (3) [D]	Estimated Capture of Demand from New Households [E = C * D]	Remaining Demand [F = C - E]
Apparel Stores	$18,753,229	20.0%	$3,750,646	21.2%	$795,697	$2,954,949
General Merchandise Stores	$51,845,807	30.0%	$15,553,742	14.8%	$2,302,177	$13,251,565
Food Stores	$57,744,465	90.0%	$51,970,019	11.8%	$6,120,441	$45,849,578
Eating and Drinking Places	$45,320,212	50.0%	$22,660,106	10.1%	$2,295,966	$20,364,140
Home Furnishings and Appliances	$12,989,690	30.0%	$3,896,907	3.6%	$139,870	$3,757,037
Building Materials	$28,492,534	20.0%	$5,698,507	0.5%	$28,998	$5,669,509
Motor Vehicles & Parts	$90,544,978	N/A	N/A	0.0%	N/A	N/A
Service Stations	$36,046,922	N/A	N/A	0.0%	N/A	N/A
Other Retail Stores	$44,505,053	30.0%	$13,351,516	23.5%	$3,135,587	$10,215,929
Total	**$386,242,889**	--	**$116,881,442**	--	**$14,818,734**	**$102,062,708**

Sources: Exhibits 30 and 51; and CBRE Consulting.

(1) See Exhibit 30.
(2) Capture rates estimated based on the retail offerings within the market area as compared to options outside the market area.
(3) See Exhibit 51.

Exhibit 53
Potential Cumulative Sales Impacts
Within the Hunters Point Shipyard Phase II Market Area
In 2009 Dollars

Retail Category	Hunters Point Shipyard Phase II Plus Cumul. Projects in HP Market Area Total Sales (1) [A]	Estimated Capture of Demand from New Households (2) [B]	2009 Market Area Adjusted Sales Base (3) [C]	Potential Sales Impacts Amount [D = A - B]	Net Remaining Potential Demand from New Households (4) [E]	Sales Diverted From Existing Market Area Amount [F = D - E]	Sales Diverted From Existing Market Area Percent [G = F / C]	Final Remaining New Demand [H = E - F]
Apparel Stores	$1,808,910	$795,697	$6,717,679	$1,013,213	$2,954,949	$0	0.0%	$2,954,949
General Merchandise Stores	$10,820,900	$2,302,177	$62,286,208	$8,518,723	$13,251,565	$0	0.0%	$13,251,565
Food Stores	$16,238,782	$6,120,441	$121,648,316	$10,118,342	$45,849,578	$0	0.0%	$45,849,578
Eating & Drinking Places	$7,929,936	$2,295,966	$70,334,821	$5,633,971	$20,364,140	$0	0.0%	$20,364,140
Home Furnishings & Appliances	$2,170,932	$139,870	$58,313,316	$2,031,062	$3,757,037	$0	0.0%	$3,757,037
Building Materials	$602,970	$28,998	$117,890,439	$573,972	$5,669,509	$0	0.0%	$5,669,509
Motor Vehicles & Parts	$0	N/A	$29,008,094	$0	N/A	N/A	N/A	$0
Service Stations	$0	N/A	$23,665,313	$0	N/A	N/A	N/A	$0
Other Retail Stores	$13,788,262	$3,135,587	$44,922,981	$10,652,675	$10,215,929	$436,746	1.0%	$0
Total	**$53,360,692**	**$14,818,734**	**$534,787,167**	**$38,541,958**	**$102,062,708**	**$436,746**	**0.1%**	**$91,846,778**

Sources: Exhibits 23, 51, and 52; and CBRE Consulting.

(1) See Exhibit 51.
(2) See Exhibit 52.
(3) See Exhibit 23.
(4) See Exhibit 52. Demand remaining after sales captured by Hunters Point retail are accounted for as well as remaining demand available to Hunters Point Shipyard Phase II market area existing retailers.

Exhibit 54
Estimated Capture Rates of New Household Demand for All Cumulative Projects
Candlestick Point Market Area
In 2009 Dollars

Retail Category	Candlestick Point Market Area Adjusted Sales Base (1) [A]	Candlestick Point Project Sales (2) [B]	Total Cumulative Projects Occupied Space Sales (3) [C]	Candlestick Point Plus Cumul. Projects in CP Market Area Total Sales [D = B + C]	All Cumulative Projects Capture Rate of Market Area Sales (4) [E = D / (A + D)]
Apparel Stores	$256,938,275	$22,822,800	$30,987,564	$53,810,364	17.3%
General Merchandise Stores	$816,933,687	$30,065,636	$57,449,237	$87,514,873	9.7%
Food Stores	$571,848,727	$21,067,200	$24,384,554	$45,451,754	7.4%
Eating & Drinking Places	$881,357,621	$31,468,275	$28,423,855	$59,892,130	6.4%
Home Furnishings & Appliances	$311,780,876	$6,338,400	$24,049,535	$30,387,935	8.9%
Building Materials	$303,082,132	$11,856,000	$5,723,656	$17,579,656	5.5%
Motor Vehicles & Parts	$214,688,681	$0	$0	$0	0.0%
Service Stations	$344,945,809	$0	$0	$0	0.0%
Other Retail Stores	$1,596,056,982	$49,588,850	$92,768,808	$142,357,658	8.2%
Total	**$5,297,632,791**	**$173,207,161**	**$263,787,209**	**$436,994,370**	**7.6%**

Sources: Exhibits 6, 7, 19, and 50; and CBRE Consulting.

(1) See Exhibit 19.
(2) See Exhibits 6 and 7.
(3) See Exhibit 50.
(4) Represents the assumed percentage of new demand that may be captured by all the cumulative projects including the Candlestick Point Project within the market area. Capture rates were developed based on comparing the share of the cumulative projects projected sales to the total retail sales in the market area. It is likely that not all the market area sales will be new to the market area; however, this is a conservative approach to provide minimum capture rate assumptions for the project, assuming that all sales are diverted from existing retailers.

Exhibit 55
Capture of New Household Demand
Within the Candlestick Point Market Area
2030

Retail Category	Demand from New Households 2009-2030 (1) [A]	All Cumul. Projects Mkt Area Capture Rate (2) [B]	Market Area Sales Captured [C = A * B]	All Cumul. Projects Capture Rate of Mkt Area Sales (3) [D]	Estimated Capture of Demand from New Households [E = C * D]	Remaining Demand [F = C - E]	Hunters Point Project Sales (4) [G]	Net Remaining Demand [H = F - G]
Apparel Stores	$33,822,161	90.0%	$30,439,945	17.3%	$5,271,092	$25,168,853	$0	$25,168,853
General Merchandise Stores	$92,857,137	90.0%	$83,571,424	9.7%	$8,086,411	$75,485,013	$5,997,140	$69,487,872
Food Stores	$102,847,912	95.0%	$97,705,517	7.4%	$7,194,044	$90,511,472	$15,635,813	$74,875,660
Eating and Drinking Places	$81,558,677	90.0%	$73,402,809	6.4%	$4,670,653	$68,732,157	$7,326,966	$61,405,190
Home Furnishings and Appliances	$23,455,417	90.0%	$21,109,875	8.9%	$1,874,763	$19,235,112	$1,567,962	$17,667,150
Building Materials	$51,637,388	90.0%	$46,473,649	5.5%	$2,547,827	$43,925,822	$0	$43,925,822
Motor Vehicles & Parts	$163,480,748	N/A	N/A	0.0%	N/A	N/A	$0	N/A
Service Stations	$64,367,636	N/A	N/A	0.0%	N/A	N/A	$0	N/A
Other Retail Stores	$80,006,306	90.0%	$72,005,675	8.2%	$5,896,498	$66,109,177	$10,773,412	$55,335,765
Total	**$694,033,382**	--	**$424,708,894**	--	**$35,541,288**	**$389,167,605**	**$41,301,293**	**$347,866,312**

Sources: Exhibit 34; and CBRE Consulting.

(1) See Exhibit 34.
(2) Capture rates estimated based on the retail offerings within the market area as compared to options outside the market area.
(3) See Exhibit 54.
(4) See Exhibits 6 and 7.

Exhibit 56
Potential Cumulative Sales Impacts
Within and Near the Candlestick Point Market Area
In 2009 Dollars

Retail Category	Candlestick Point Project Plus Cumul. Projects in CP Market Area Total Sales (1) [A]	Estimated Capture of Demand from New Households (2) [B]	2009 Candlestick Point Market Area Adjusted Sales Base (3) [C]	Intermediary Potential Sales Impacts Amount [D = A - B]	Net Remaining Potential Demand from New Households (4) [E]	Sales Diverted From Existing Market Area Retailers Amount [F = D - E]	Sales Diverted From Existing Market Area Retailers Percent [G = F / C]	Final Remaining New Demand [H = E - F]
Apparel Stores	$53,810,364	$5,271,092	$256,938,275	$48,539,273	$25,168,853	$23,370,419	9.1%	$0
General Merchandise Stores	$87,514,873	$8,086,411	$816,933,687	$79,428,462	$69,487,872	$9,940,590	1.2%	$0
Food Stores	$45,451,754	$7,194,044	$571,848,727	$38,257,710	$74,875,660	$0	0.0%	$74,875,660
Eating & Drinking Places	$59,892,130	$4,670,653	$881,357,621	$55,221,477	$61,405,190	$0	0.0%	$61,405,190
Home Furnishings & Appliances	$30,387,935	$1,874,763	$311,780,876	$28,513,172	$17,667,150	$10,846,022	3.5%	$0
Building Materials	$17,579,656	$2,547,827	$303,082,132	$15,031,829	$43,925,822	$0	0.0%	$43,925,822
Motor Vehicles & Parts	$0	N/A	$214,688,681	N/A	N/A	$0	N/A	N/A
Service Stations	$0	N/A	$344,945,809	N/A	N/A	$0	N/A	N/A
Other Retail Stores	$142,357,658	$5,896,498	$1,596,056,982	$136,461,159	$55,335,765	$81,125,395	5.1%	$0
Total	**$436,994,370**	**$35,541,288**	**$5,297,632,791**	**$401,453,082**	**$347,866,312**	**$125,282,425**	**2.4%**	**$180,206,672**

Sources: Exhibits 6, 7, 19, 50, and 55; and CBRE Consulting.

(1) See Exhibit 6, 7, and 50.
(2) See Exhibit 55.
(3) See Exhibit 19.
(4) See Exhibit 55. Demand remaining after sales captured by the Candlestick Point Project are accounted for as well as remaining demand available to Hunters Point Shipyard Phase II market area existing retailers.

APPENDIX B: CBRE CONSULTING RETAIL DEMAND, SALES ATTRACTION, AND SPENDING LEAKAGE ANALYSIS METHODOLOGY

APPENDIX B: RETAIL DEMAND, SALES ATTRACTION, AND SPENDING LEAKAGE ANALYSIS METHODOLOGY

This Appendix provides detailed documentation for CBRE Consulting's Retail Demand, Sales Attraction, and Spending Leakage Analysis, a tool frequently used in the firm's retail studies. The tool has several applications, which primarily includes forecasting retail demand generated by residents of a defined geographic area, comparing actual area sales to anticipated resident demand, and characterizing a market's relative strengths and weaknesses. CBRE Consulting's Retail Demand, Sales Attraction, and Spending Leakage Analysis involves many computational steps, relying on publicly available data resources. The purpose of this Appendix is to explain the approach to the analysis and to document, to the extent possible, the general formulation of the analysis. The intent of the Appendix is to provide a description that can be followed and generally understood by a reader with knowledge of the data resources and general principles involved in this type of analysis.

APPROACH

CBRE Consulting has developed a model that estimates retail spending potential for a market area (usually a city, grouping of cities, or county) based upon population, income, and consumer spending patterns. The model then computes the extent to which a market area is or is not capturing this sales potential based upon taxable sales data published by the State of California Board of Equalization or provided by local government municipal tax consultants. For any study area, retail categories in which spending by residents is not fully captured are called "leakage" categories, while retail categories in which more sales are captured than are generated by residents are called "attraction" categories. Thus, the model is called a "Retail Demand, Sales Attraction, and Spending Leakage Analysis." Generally, attraction categories signal particular strengths of a retail market, while leakage categories signal particular weaknesses.

In order to determine the anticipated pattern of retail spending for a market area, the Retail Demand, Sales Attraction, and Spending Leakage Analysis uses several benchmarked control areas. These control areas are representative of characteristics of consumer expenditures and retail product line sales by store type sales generated by resident populations. The results of the Retail Demand, Sales Attraction, and Spending Leakage Analysis provide a general barometer for the characterization of the retail market under study. The purpose of the control areas is to control for characteristics unique to specific geographies that affect the spending pattern of area residents.

While presented as a unique formulation, CBRE Consulting's Retail Demand and Sales Attraction, and Spending Leakage Analysis is not conceptually unique. The same type of analysis is conducted by many other real estate-based economic consulting firms, with the premise being the comparison of expected resident spending to actual sales. These other firms have a range of labels for the analysis, including "Retail Sales Leakage" (Bay Area Economics, 2004), "Retail Sales and Estimated Demand" (Economic Planning Systems, 2005), "Retail Demand and Sales Leakage Analysis" (Williams Kuebelbeck & Associates, Inc., 2003), and "Regional Trade Area Household Demand and Retail Demand and Sales Leakage Analysis" (Applied Development Economics, 2004).

METHODOLOGY

The methodology to estimate the retail spending potential of residents in a market area relative to actual sales involves the following steps:

1. Benchmark **Consumer Retail Expenditures** of the residents of the market area against a control area, of which the market area is a part, and that is reasonably representative of the spending patterns of the residents within that geography. This spending pattern is profiled for different average household income brackets.

2. Estimate the retail expenditures for the **Target Income Level** (market area's average household income) from among the different income brackets from step 1, adjusted based on consumer expenditure control area averages.

3. Align the consumer expenditure categories in step 1 with the **Economic Census Retail Product Line**. This establishes what product line retail items per the Economic Census ("EC") comprise specific consumer expenditure categories per the Consumer Expenditure Survey ("CES").

4. Distribute **Product Line Expenditures to Retail Store Categories** where the products are sold, per the product line control area pattern.

5. **Aggregate Product Lines and Retail Businesses**, to correspond with the Board of Equalization and municipal tax consultants retail store classifications. The aggregate consumer expenditures at the respective retail businesses are the average household spending potentials by market area residents at those retail store types.

6. Multiply the imputed household averages for potential market area resident spending into total potential spending and **Compare with the Actual Retail Sales**, thus profiling retail sales leakage/attraction in the market area. This becomes the Retail Demand, Sales Attraction, and Spending Leakage Analysis for the market area.

A detailed description of the above steps follows, profiled by data source and the analytic steps involved.

Consumer Expenditure Survey ("CES")

The CES, released annually by the Bureau of Labor Statistics, tabulates household expenditures for various categories, including retail items. This is available for different household income brackets for the U.S. Western Region, as well as other geographic regions. The CES provides all household expenditures, some of which, such as shelter, education, day-care, taxes, etc., are not relevant to retail analysis, and are therefore not incorporated in this analysis. Certain expenditure categories may have partial retail components that are estimated. For example, the household repairs expenditure category includes home insurance, which is estimated by CBRE Consulting based on industry sources for average home insurance in California, and deducted from that category for analytic purposes. Exhibit B-1 presents the retail expenditures component of the Western Region's 2004 Consumer Expenditure Survey, by category and by household income bracket.[1] Exhibit B-2 profiles the retail expenditure variation in every income bracket from the average expenditure for that category across all households. The reason for this approach is elaborated in the next step.

[1] At the time the study was conducted, 2004 was the most recently published survey year.

Consumer Expenditure Control Area

At the smaller metropolitan statistical area (MSA) geographies, household expenditures are available only as an average across all income brackets (see Exhibit B-3). To estimate expenditures across all income brackets, CBRE Consulting utilized the Western Region's spending pattern across individual income brackets relative to overall average. The expenditure variation for each income bracket from the average expenditure across all households was tabulated, for each retail category (see Exhibit B-2). For example, if in the "food at home" category, an average household in a particular income bracket spends $80 and another household in a different income bracket spent $120, while the overall average across all income brackets is $100, then the variance for the respective income bracket in this retail item would be 80 percent and 120 percent, where the overall average is 100 percent. This variance was applied to the given MSA level average (assumed to be 100 percent) for all households, to generate estimated retail expenditures by income bracket. In California, these MSAs are Los Angeles, San Francisco, and San Diego, for a total of four consumer expenditure control areas (including the Western US). These areas' expenditure characteristics 'control' the market area's household expenditure patterns across income brackets.

Target Income Bracket and Income Sensitivity

Given a market area's average household income, the model selects the corresponding CES income bracket, for analytical purposes. However, the CES income brackets do not have a uniform range, varying from $5,000 to $20,000. Thus, the expenditure estimates need to be sensitive to, and be correspondingly adjusted to, reflect the market area's average household income. This refinement is made by adjusting for the difference between the market area's average household income and that income bracket's average figure. The expenditure estimates would therefore vary even within an income bracket, depending on how close or far the market area's average household income is from the average income in that bracket. For example, for a market area with average household income of $83,300, its pattern of consumer expenditures for each retail category would be expected to vary between the pattern of the target income bracket as well as the preceding or subsequent income bracket (see Exhibit B-4). How much that pattern would vary will be determined by the extent to which $83,300 lies between the average incomes in the preceding or subsequent and target income brackets ($59,100 and $118,500 in this case). The overall retail expenditure average per household therefore gets adjusted to approximately $30,930, between the averages of the preceding ($26,100) and the target income bracket ($37,930). This adjustment is made to every retail expenditure category.

Product Line Adjustments by Kind of Business

The consumer expenditure estimates that are computed represent expenses for separate retail items. In order for these expenses by item to be allocated to the respective retail stores where those items are sold, CBRE Consulting utilized data from the Census Bureau's Economic Census Subject Series for Retail Trade ("EC"). The EC profiles 45 retail items by five-digit codes (product line items) tracking their sales in 65 different retail store and non-store categories. These stores are classified per their four, five, or six-digit NAICS codes[2]. Of the 45 product line items, three relate to non-retail store goods, and are excluded from the analysis (e.g., non-merchandise

[2] The North American Industry Classification System (NAICS, pronounced Nakes) was developed as the standard for use by Federal statistical agencies in classifying business establishments for the collection, analysis, and publication of statistical data related to the business economy of the U.S. NAICS was developed under the auspices of the Office of Management and Budget (OMB), and adopted in 1997 to replace the old Standard Industrial Classification (SIC) system. It was also developed in cooperation with the statistical agencies of Canada and Mexico to establish a 3-country standard that allows for a high level of comparability in business statistics among the three countries.

goods, crude oil, and household fuels). For comparability with the CES, the product line items relevant to building materials (product line item codes 20600 thru 20670, and 20690) are analyzed in aggregate form, resulting in a total of 38 product line items. Exhibit B-5 details the percentage of sales for each of the 38 product line items by the category of store at which they are sold, e.g., of all sales of paper and related products (product line item code 20190), 39 percent transpire at general merchandise stores, 53 percent at food stores, and the rest at various other retail stores.

It is important to note that the consumer expenditure retail categories from the CES do not necessarily directly correspond with the product line item codes from the EC. Therefore, based on the nature of these items and their relevance to the respective expenditure categories, a "bridge" between the two datasets needed to be established to facilitate analysis. Exhibit B-6 profiles the "bridge" established; the EC product line codes are presented, and matched with the CES categories contributing to the respective item sales. For example, grocery and meal products from the EC were matched with CES 'food at home' expenditures; soaps, detergents and paper towel products matched to 'housekeeping supplies in laundry and cleaning' expenditures; and footwear products matched to 'other apparel products' expenditures, etc. A few CES categories may include more than one product line item from the EC. Such retail expenditures are split between those product items per their relative actual sales in the relevant 'product line control area'. For example, the CES category of TV, radio and sound equipment expenditure is distributed between the EC product line items of 20320 and 20330 (see Exhibit B-6) based on the actual relative sales of the items in 'product line control areas'. Also, the CES does not directly provide the categories relevant to building materials product items. Therefore, CBRE Consulting assumed that all the 'other household expenses' under the household operations category, 'other household products' under the housekeeping supplies, and 75 percent of the 'maintenance, repair, insurance & other expenses' under housing will be spent on building material items. This 75 percent figure was selected due to the retailing dominance of major US home improvement retailers.

Product Line Control Areas

The EC provides the product line data for various geographies, with MSA's being the smallest. However, due to proprietary sales data disclosure issues at the MSA level, detailed product line items sales may not be available for all 65 of the four, five, or six-digit NAICS retail categories' classifications. For those categories, the analysis assumes that the share of six-digit codes within four-digit or five-digit codes would be the same in that geography as they are statewide. Thus, CBRE Consulting generated a matrix of 38 product line items by their share of sales at 65 retail store categories, and collapsed them to correspond with the State of California Board of Equalization ("BOE") retail store categories, as pointed out above. CBRE Consulting thus developed a matrix of product line characteristics at retail stores for five geographies, which represent the 'product line control area' for market areas within California. These control areas are: California statewide, Los Angeles-Long Beach-Riverside Consolidated Metropolitan Statistical Area ("CMSA"), San Francisco-San Jose-Oakland CMSA, Sacramento-Arden-Arcade-Truckee CMSA, and Fresno-Madera CMSA.

Expenditure Potential by Aggregated Retail Products and Stores

Based on the above methodology, an end product generated for the Retail Demand, Sales Attraction, and Spending Leakage Analysis is a matrix of product line retail items aggregated by type, and sorted by their sales at various retail store categories, per BOE classification. The 38 product line items and the 65 retail categories are each aggregated to correspond with the BOE retail store categories. Exhibit B-7 summarizes the sales and percentage shares of the aggregated product line items by the retail stores. Footnotes to the same exhibit detail the EC codes and the

NAICS codes that are aggregated to generate the product line categories and the retail store categories, respectively.

Three out of the 65 EC business categories are electronic mail-order shopping, vending machine operators, and direct selling establishments, which form non-store retail sales and are profiled as such. It should be noted that the EC does not include eating and drinking places in the Retail Trade Subject series. However, this retail store category has very limited overlap with other retail stores in terms of the retail product line items. CBRE Consulting therefore assumed that all the consumer expenditure in the 'Food away from home' category is spent at Eating & Drinking places.

Retail Sales Attraction/Spending Leakage

The expenditure potentials generated thus, for each of the retail store categories, are then multiplied by the total number of households in the market area to arrive at the 'total spending potential' of the residents therein. This comprises the expected level of retail demand for the market area. These spending potentials for each retail store category are then compared with the actual retail sales in the market area, as available from BOE or municipal tax consultants. The result is the "Retail Demand, Sales Attraction, and Spending Leakage Analysis". For any market area, retail categories in which spending by locals is not fully captured, i.e., potential exceeds sales, are called "leakage" categories, while retail categories in which more sales are captured than are generated by residents are called "attraction" categories.

A presumption behind the interpretation of the Retail Demand, Sales Attraction, and Spending Leakage Analysis is that a community with no identified net spending leakage or sales attraction is capturing 100 percent of resident spending potential. This presumption is a generalization for analytic purposes, as there are almost always net outflows of retail expenditures by local residents. The level of this outflow will vary depending upon the size of the geography, with the likelihood that the larger the geography, the greater the potential of retaining resident sales. However, as CBRE Consulting's Retail Demand, Sales Attraction, and Spending Leakage Analysis is a tool designed to characterize the relative strengths and weaknesses of a retail market, as are comparable models supported by other economic consulting firms, it is conceived that identified leakage comprises lost resident retail spending potential and that attraction comprises net inflows of retail sales generated variously by residents, businesses, and tourists located outside the area of study.

DEMOGRAPHIC ESTIMATES AND RETAIL SALES ADJUSTMENTS

Demographic Estimates

For the Retail Demand, Sales Attraction, and Spending Leakage Analysis, different sources are used for population and mean household income figures and projections. Figures are derived from data compiled by the local Council of Governments (COG), State Department of Finance, or other private market research and data collection companies, e.g., Claritas. The population estimates are projected forward using a compound average growth rate, derived from relevant projected population data. The intermediary years are calculated by interpolation.

Non-Taxable Sales Adjustments

Actual sales are provided by BOE or municipal tax consultants. However, they include only taxable sales, not non-taxable. These non-taxable sales primarily include pharmaceutical sales at drug stores and a portion of food sales at grocery stores. Based upon detailed analysis of sales trends reported by the EC and supplemented by discussions with BOE representatives, CBRE Consulting's

analysis assumes that 30 percent of drug store sales and 30 percent of food store sales are taxable. Sales adjustments to these retail sales categories are reflected in the Retail Demand, Sales Attraction, and Spending Leakage Analysis. Therefore, CBRE Consulting's Retail Demand, Sales Attraction, and Spending Leakage Analysis conducts the analysis for all retail sales in an area, including taxable and nontaxable.

Drug Store Share of General Merchandise

The BOE categorizes drug store sales under the general merchandise stores category. As discussed in the preceding paragraph, drug stores have a component of non-taxable sales. It is therefore important to separate the drug stores sales component from the total general merchandise sales. The BOE or the local government municipal tax consultants may provide this break-down of sales for select market areas. For market areas where drug store sales are not separately provided, CBRE Consulting assumes the drug store sales component to be the same as in the County in which the market area lies.

Analytic Adjustment Required Due to Data Confidentiality

The Retail Demand, Sales Attraction, and Spending Leakage Analysis sometimes involves an analytic adjustment due to data limitations. When BOE publicly reports data, or data are provided by municipal tax consultants, they do not report data for a sales category if it violates certain disclosure prohibitions necessary to protect proprietary business information. For example, if there are four or fewer stores in a category or if one retailer greatly dominates the category in sales volume (i.e. comprising 80 percent or more of category sales), then the sales in that category will not be publicly released. Instead, sales data will be combined with the sales in the next most relevant category to preserve confidentiality. To remain consistent and accurate in leakage/attraction estimation, CBRE Consulting therefore reallocates the retail spending in the relevant categories for methodological purposes.

TARGET YEAR PROJECTIONS

The Retail Demand, Sales Attraction, and Spending Leakage Analysis is often conducted for a 'base' year, and extrapolated to a future 'target' year. The target year is chosen as relevant for the respective study, such as estimating demand generated by residents of a new subdivision or estimating the sale impacts of a new store or retail development upon stabilization. The base year is the most recent full year for which annual retail sales data are available from the BOE/municipal tax consultants at the time the study was initiated.

Population Growth Adjustments

The retail expenditure pattern per household from the base year is assumed to be equivalent to the target year pattern, with adjustments for interim population growth and inflation. The purpose of this adjustment is to more appropriately benchmark the analysis to the target year.

Retail Sales Base Adjustment

The retail sales base is grown out to the target year pursuant to the study's inflationary assumptions.

Existing Stores Capture of New Demand

The population growth in the market area between base and target years will create additional spending potential. A certain portion of this new resident spending potential is likely to be

absorbed by the existing retailers in the market area, or by planned retailers if a new development is anticipated. Therefore, the analysis requires the formulation of capture rates for relevant retail categories, for which there can be several approaches.

In the absence of planned retailers, where the analysis is being conducted to characterize the future retail market, the following approach is programmed into the model: for retail categories where attraction is less than five percent, the analysis assumes no new capture; if attraction is less then 50 percent, the analysis assumes the same percentage for capture as is the leakage; and, for greater then 50 percent attraction, the analysis assumes 50 percent capture by existing retailers. Alternatively, where the analysis pertains to analysis of new retailers, capture rates are developed in a customized manner based on variety of different factors, including the existing retailers in the market by category, competitiveness of existing retailers, size of existing retail base, projected location of new households, and current retail patterns of existing households based on interviews with commercial real estate brokers.

Leakage Adjustments for New Competitive Stores or Store Closures

CBRE Consulting makes adjustments to the projected retail sales base to account for new stores that have located in the market area since the base year, the most recent year with complete actual annual sales data. The purpose of this adjustment is to estimate more accurate retail sales base for analytic purposes. Thus, an adjustment in the Retail Demand, Sales Attraction, and Spending Leakage Analysis results, reflecting estimated new store sales, is required. These new store sales are generally estimated using store sales performance data reported in store's 10-K report filed with the Securities and Exchange Commission or other published data source. In like manner, a similar adjustment is made for stores anticipated to close between the base year and target year. This could include stores that have already announced their anticipated closure or relocation out of a community, or stores that will be replaced by new or expanded stores operated by the same retailer.

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MODEL CUSTOMIZATION FOR CURRENT STUDY

Highlighted below are the assumptions feeding into the above methodology, as relevant to this study:

- *Population Source:* Claritas, Inc. and San Francisco Urban Water Management Plan Projections from email sent by PBS&J dated July 2, 2009
- *Income Source:* Claritas, Inc.
- *Actual Retail Sales Source:* BOE and Claritas, Inc.
- *Base Year for Analysis:* 2007-2008
- *Target Years for Analysis:* 2030
- *Consumer Expenditure Control Area:* US Western Region
- *Product Line Control Area:* San Francisco CMSA
- *Drug Store Share of General Merchandise:* 21.7%

Inflation Indices N/A

- *Base to Current Year Annual Inflation for Spending:* N/A
- *Base to Current Year Annual Inflation for Sales:* N/A
- *Current to Target Year Annual Inflation for Spending:* N/A
- *Current to Target Year Annual Inflation for Sales:* N/A

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Exhibit B-1: Consumer Expenditure Survey, 2005 for the Western Region
Average Annual Household Expenditure by Household Income, and Retail Category

US WESTERN REGION	Total Complete Reporting	Less than $5,000	$5,000 to $9,999	$10,000 to $14,999	$15,000 to $19,999	$20,000 to $29,999	$30,000 to $39,999	$40,000 to $49,999	$50,000 to $69,999	$70,000 and over
Number of consumer units (in thousands)	24,064	1,064	1,531	1,787	1,634	2,976	2,715	2,343	3,573	6,441
Income before taxes	$54,416	$466	$7,816	$12,480	$17,351	$24,859	$34,543	$44,499	$59,076	$118,492
Income after taxes	51,815	531	7,874	12,534	17,305	24,472	33,581	43,358	56,884	110,964
Average number in consumer unit:	2.6	1.6	1.6	1.7	2.3	2.4	2.5	2.7	2.8	3.2
Average annual expenditures	$47,527	$22,470	$17,262	$22,178	$25,678	$30,850	$37,586	$42,313	$52,315	$81,900
Average annual retail expenditures (1)	$25,566	$11,909	$8,862	$11,956	$13,703	$16,056	$20,035	$22,100	$27,462	$41,767
Food at home	3,635	2,055	1,798	2,387	2,453	2,819	3,235	3,616	3,860	4,948
Food away from home	2,742	1,253	981	1,095	1,277	1,623	2,077	2,330	2,951	4,566
Alcoholic beverages	534	289	284	179	221	274	374	495	637	861
Maintenance, repairs, insurance, other expenses	1,125	447	196	706	553	778	702	723	1,190	1,992
Other household expenses	705	223	152	315	543	390	385	450	587	1,377
Laundry and cleaning supplies	150	63	82	102	130	121	153	161	168	181
Other household products	328	173	106	171	253	199	267	245	350	514
Household textiles	156	62	19	52	161	86	189	107	174	230
Furniture	560	103	123	182	192	198	365	410	445	1,183
Floor coverings	68	222	23	16	7	19	14	67	80	144
Major appliances	255	54	45	69	189	143	171	201	270	459
Small appliances, miscellaneous	156	43	31	99	84	102	138	133	127	267
Miscellaneous household equipment	975	185	240	348	403	487	1,100	798	915	1,678
Men, 16 and over	416	136	180	153	204	255	356	266	393	728
Boys, 2 to 15	93	42	42	41	52	66	72	90	110	140
Women, 16 and over	706	341	377	310	290	457	557	420	805	1,161
Girls, 2 to 15	130	25	26	63	50	57	90	134	135	230
Children under 2	141	46	54	59	120	164	95	117	127	216
Footwear	331	114	278	188	181	250	312	276	342	475
Other apparel products and services	395	111	143	213	198	247	292	280	334	723
Vehicle purchases (net outlay)	4,295	2,758	1,126	1,286	1,534	2,393	2,929	3,555	4,872	7,785
Gasoline and motor oil	1,979	797	667	919	1,068	1,406	1,701	1,976	2,291	2,960
Vehicle maintenance and repair	843	302	276	284	524	524	712	732	938	1,365
Postage and stationery	186	64	46	88	170	109	177	170	214	269
Drugs	457	258	205	435	458	368	392	542	423	574
Medical supplies	119	49	31	61	98	79	92	94	138	184
Television, radios, sound equipment	923	347	331	450	509	612	752	795	980	1,495
Pets, toys, hobbies, and playground equipment	490	260	113	217	258	224	335	410	479	884
Other entertainment	596	180	129	298	423	297	286	649	744	973
Personal care products and services	648	290	255	344	324	446	472	618	654	1,042
Reading	154	68	59	66	83	90	106	140	149	266
Tobacco products and smoking supplies	239	161	192	197	239	205	315	244	282	224
Miscellaneous	1,036	387	250	563	453	568	822	856	1,298	1,672

Sources: Bureau of Labor Statistics, Consumer Expenditure Survey, 2004-05, Table 34; and CBRE Consulting.

(1) CBRE Consulting included expenditures on gifts for relevant categories in total retail expenditures.

Exhibit B-2: Consumer Expenditure Survey, 2005 for the Western Region
Average Annual Household Expenditure by Household Income, and Retail Category – Variance from Average (1)

WESTERN REGION	Total Complete Reporting	Less than $5,000	$5,000 to $9,999	$10,000 to $14,999	$15,000 to $19,999	$20,000 to $29,999	$30,000 to $39,999	$40,000 to $49,999	$50,000 to $69,999	$70,000 and over
% VARIANCE FROM AVERAGE (Per Household)										
Income before taxes	100.0%	0.9%	14.4%	22.9%	31.9%	45.7%	63.5%	81.8%	108.6%	217.8%
Average annual expenditures	100.0%	47.3%	36.3%	46.7%	54.0%	64.9%	79.1%	89.0%	110.1%	172.3%
Average annual retail expenditure	100.0%	46.6%	34.7%	46.8%	53.6%	62.8%	78.4%	86.4%	107.4%	163.4%
Food at home	100.0%	56.5%	49.5%	65.7%	67.5%	77.6%	89.0%	99.5%	106.2%	136.1%
Food away from home	100.0%	45.7%	35.8%	39.9%	46.6%	59.2%	75.7%	85.0%	107.6%	166.5%
Alcoholic beverages	100.0%	54.1%	53.2%	33.5%	41.4%	51.3%	70.0%	92.7%	119.3%	161.2%
Maintenance, repairs, insurance, other expenses	100.0%	39.7%	17.4%	62.8%	49.2%	69.1%	62.4%	64.2%	105.8%	177.0%
Other household expenses	100.0%	31.6%	21.6%	44.7%	77.0%	55.3%	54.6%	63.8%	83.3%	195.3%
Laundry and cleaning supplies	100.0%	41.8%	54.8%	68.0%	86.6%	80.4%	101.9%	107.2%	111.4%	120.3%
Other household products	100.0%	52.9%	32.4%	52.1%	77.1%	60.8%	81.5%	74.8%	106.9%	156.8%
Household textiles	100.0%	39.7%	12.2%	33.3%	103.2%	55.1%	121.2%	68.6%	111.5%	147.4%
Furniture	100.0%	18.4%	22.0%	32.5%	34.3%	35.4%	65.2%	73.2%	79.5%	211.3%
Floor coverings	100.0%	326.5%	33.8%	23.5%	10.3%	27.9%	20.6%	98.5%	117.6%	211.8%
Major appliances	100.0%	21.2%	17.6%	27.1%	74.1%	56.1%	67.1%	78.8%	105.9%	180.0%
Small appliances, miscellaneous	100.0%	27.6%	19.9%	63.5%	53.8%	65.4%	88.5%	85.3%	81.4%	171.2%
Miscellaneous household equipment	100.0%	19.0%	24.6%	35.7%	41.3%	49.9%	112.8%	81.8%	93.8%	172.1%
Men, 16 and over	100.0%	32.6%	43.3%	36.8%	49.1%	61.3%	85.7%	63.9%	94.5%	175.1%
Boys, 2 to 15	100.0%	45.4%	45.2%	44.0%	55.7%	70.8%	76.7%	96.9%	118.1%	150.0%
Women, 16 and over	100.0%	48.3%	53.5%	44.0%	41.1%	64.7%	78.9%	59.6%	114.1%	164.5%
Girls, 2 to 15	100.0%	19.3%	19.7%	48.1%	38.5%	44.0%	69.1%	102.5%	103.5%	176.6%
Children under 2	100.0%	32.6%	38.3%	41.8%	85.1%	116.3%	67.4%	83.0%	90.1%	153.2%
Footwear	100.0%	34.4%	84.0%	56.8%	54.7%	75.5%	94.3%	83.4%	103.3%	143.5%
Other apparel products and services	100.0%	28.1%	36.2%	53.9%	50.1%	62.5%	73.9%	70.9%	84.6%	183.0%
Vehicle purchases (net outlay)	100.0%	64.2%	26.2%	29.9%	35.7%	55.7%	68.2%	82.8%	113.4%	181.2%
Gasoline and motor oil	100.0%	40.3%	33.7%	46.4%	54.0%	71.0%	86.0%	99.9%	115.8%	149.6%
Vehicle maintenance and repair	100.0%	35.9%	32.7%	33.7%	62.2%	62.2%	84.4%	86.7%	111.2%	161.9%
Postage and stationery	100.0%	34.4%	25.0%	47.3%	91.5%	58.5%	95.0%	91.3%	115.2%	144.9%
Drugs	100.0%	56.5%	44.8%	95.3%	100.4%	80.5%	85.9%	118.7%	92.7%	125.8%
Medical supplies	100.0%	41.4%	26.2%	51.0%	82.8%	66.7%	77.5%	79.3%	116.0%	155.3%
Television, radios, sound equipment	100.0%	37.6%	35.9%	48.8%	55.2%	66.4%	81.4%	86.1%	106.2%	161.9%
Pets, toys, hobbies, and playground equipment	100.0%	53.1%	23.1%	44.3%	52.7%	45.7%	68.4%	83.7%	97.8%	180.4%
Other entertainment	100.0%	30.2%	21.6%	49.9%	70.9%	49.7%	48.0%	108.9%	124.8%	163.3%
Personal care products and services	100.0%	44.8%	39.4%	53.1%	50.0%	68.8%	72.8%	95.4%	100.9%	160.8%
Reading	100.0%	44.2%	38.3%	42.9%	53.9%	58.4%	68.8%	90.9%	96.8%	172.7%
Tobacco products and smoking supplies	100.0%	67.4%	80.3%	82.4%	100.0%	85.8%	131.8%	102.1%	118.0%	93.7%
Miscellaneous	100.0%	37.4%	24.1%	54.3%	43.7%	54.8%	79.3%	82.6%	125.3%	161.4%

Sources: Bureau of Labor Statistics, Consumer Expenditure Survey, 2004-05, Table 34; and CBRE Consulting.

(1) CBRE Consulting calculated the expenditures in each income bracket relative to the average across all households, for each expenditure category.

Exhibit B-3: Consumer Expenditure Survey, 2005 for Select Western MSA's

Average Annual Household Expenditure by Retail Category (1)

	Los Angeles	San Francisco	San Diego	Portland	Seattle	Honolulu	Anchorage	Phoenix	Denver
Number of consumer units (in thousands)	5,112	2,724	892	1,052	1,801	278	119	1,423	1,270
Income before taxes	$65,810	$86,935	$69,067	$56,702	$63,888	$70,104	$71,031	$60,726	$65,224
Age of reference person	46.9	47	50.1	47.9	47.8	51.8	45.8	45.7	45.6
Average number in consumer unit: Persons	2.9	2.6	2.6	2.5	2.3	2.8	2.5	2.6	2.4
Average annual expenditures	$55,760	$60,992	$59,805	$50,313	$54,027	$54,937	$59,427	$49,009	$49,996
Average annual retail expenditures	**$27,540**	**$27,080**	**$27,404**	**$24,530**	**$26,016**	**$27,282**	**$28,949**	**$25,252**	**$23,301**
Food at home	3,876	3,909	3,462	3,557	3,908	4,231	3,713	3,599	3,789
Food away from home	3,185	3,672	2,976	2,820	2,996	3,858	2,698	2,835	2,462
Alcoholic beverages	485	628	613	526	781	463	636	585	635
Maintenance, repairs, insurance, other expenses	1,346	1,668	1,511	1,102	1,184	1,079	1,295	979	1,096
Other household expenses	784	886	1,000	598	464	443	631	630	462
Laundry and cleaning supplies	143	144	146	125	160	185	175	137	124
Other household products	312	313	319	273	348	403	381	299	270
Household textiles	149	156	141	128	179	154	168	117	99
Furniture	585	610	551	500	701	604	659	458	389
Floor coverings	71	74	67	61	85	73	80	56	47
Major appliances	260	271	245	222	312	269	293	203	173
Small appliances, miscellaneous	139	145	131	119	166	144	156	109	92
Miscellaneous household equipment	916	956	865	784	1,099	948	1,033	718	610
Men, 16 and over	452	451	366	345	347	408	345	355	332
Boys, 2 to 15	101	101	82	77	78	92	77	80	75
Women, 16 and over	773	772	627	590	594	699	590	608	569
Girls, 2 to 15	143	143	116	109	110	129	109	112	105
Children under 2	115	115	93	88	88	104	88	90	84
Footwear	404	404	328	309	311	365	308	318	297
Other apparel products and services	398	397	323	304	306	360	304	313	293
Vehicle purchases (net outlay)	4,996	3,347	5,681	3,964	3,897	4,768	6,082	5,490	3,529
Gasoline and motor oil	2,312	1,922	2,094	1,742	1,914	1,658	2,157	1,769	1,755
Vehicle maintenance and repair	955	1,039	816	801	887	765	1,021	918	811
Postage and stationery	177	177	181	155	198	229	216	169	153
Drugs	393	480	525	466	503	450	587	500	471
Medical supplies	102	125	137	121	131	117	153	130	122
Television, radios, sound equipment	915	989	893	1,029	1,010	1,052	1,151	792	1,086
Pets, toys, hobbies, and playground equipment	479	517	467	538	528	550	602	415	568
Other entertainment	591	639	577	665	653	680	743	512	701
Personal care products and services	798	664	805	578	625	772	615	666	636
Reading	158	212	192	188	214	128	218	132	144
Tobacco products and smoking supplies	179	143	136	344	236	241	440	373	308
Miscellaneous	848	1,014	940	1,303	1,004	861	1,227	786	1,010

Sources: Bureau of Labor Statistics, Consumer Expenditure Survey, 2004-05, Table 24; and CBRE Consulting.

(1) CBRE Consulting split expenditures in Home Furnishings and Appliances, Apparel, and some Other Retail categories per Western Region shares, in order to get comparable sub-categories corresponding to the Western Region dataset.

CBRE
CB RICHARD ELLIS

Exhibit B-4: Consumer Expenditure Imputation for Illustrative Market Area's Average Household Income Per Household Retail Expenditure Estimates at a Hypothetical Household Income of $83,300

	All HH Average	Target Estimates	- 5,000	5,000 10,000	10,000 15,000	15,000 20,000	20,000 30,000	30,000 40,000	40,000 50,000	50,000 70,000	70,000 -
Household Average Income before taxes	$54,416	$83,297	$466	$7,816	$12,480	$17,351	$24,859	$34,543	$44,499	$59,076	$118,492
Per HH avg. annual retail expenditure	$23,080	$30,931	$10,654	$8,423	$11,200	$13,211	$15,804	$19,324	$20,606	$26,115	$37,928
Food at home	$3,531	$4,163	$2,199	$1,829	$2,308	$2,690	$2,980	$3,283	$3,562	$3,766	$4,740
Food away from home	2,520	3,416	1,271	857	965	1,253	1,606	1,992	2,213	2,793	4,321
Alcoholic beverages	477	659	276	177	194	228	266	360	392	541	832
Maintenance, repairs, insurance, other expenses	$1,045	$1,401	$504	$264	$628	$553	$795	$773	$835	$1,103	$1,833
Other household expenses	529	699	216	114	248	431	343	338	394	469	1,034
Laundry and cleaning supplies	138	163	71	52	111	119	121	133	147	157	172
Other household products	262	346	155	74	158	153	161	213	195	278	445
Household textiles	$160	$195	$55	$54	$70	$154	$84	$173	$113	$140	$275
Furniture	496	743	143	121	215	182	211	322	345	538	1,041
Floor coverings	76	117	39	7	60	15	21	28	81	94	151
Major appliances	230	319	43	55	96	173	140	216	244	291	359
Small appliances, miscellaneous housewares	119	142	24	34	53	66	89	129	115	106	195
Miscellaneous household equipment	786	1,150	289	156	362	383	482	507	657	982	1,395
Men, 16 and over	$328	$431	$231	$145	$120	$161	$174	$304	$238	$330	$577
Boys, 2 to 15	88	115	38	32	37	56	68	67	72	86	157
Women, 16 and over	659	906	280	264	285	356	408	517	398	712	1,188
Girls, 2 to 15	106	152	49	26	33	77	69	77	92	135	176
Children under 2	91	114	36	33	39	86	74	63	79	87	153
Footwear	313	381	165	242	206	272	214	266	241	321	469
Other apparel products and services	300	391	122	118	160	155	166	267	256	281	551
Vehicle purchases (net outlay)	$4,004	$5,919	$1,459	$1,207	$1,407	$1,449	$2,655	$3,206	$3,386	$5,182	$6,992
Gasoline and motor oil	1,618	2,151	719	607	804	989	1,185	1,489	1,695	1,961	2,426
Maintenance and repairs	822	1,099	346	283	308	585	564	732	800	944	1,324
Postage and stationery	$171	$235	$50	$61	$106	$145	$95	$148	$141	$216	$262
Drugs	449	475	227	371	437	467	414	397	452	418	557
Medical supplies	138	173	36	51	94	122	117	148	95	155	199
Television, radios, sound equipment	778	1,035	326	302	374	431	581	661	777	893	1,240
Pets, toys, hobbies, and playground equipment	442	617	235	84	184	199	250	325	447	502	784
Other entertainment	666	933	214	59	276	227	262	800	513	717	1,247
Personal care products and services	613	786	320	243	423	304	404	476	588	632	1,011
Reading	148	194	67	57	76	81	94	104	144	147	263
Tobacco products and smoking supplies	224	241	129	164	181	228	233	253	259	257	218
Miscellaneous	752	1,073	324	299	207	385	514	585	690	939	1,266

Source: CBRE Consulting.

Exhibit B-5: Economic Census Retail Trade Subject Series [1]
Illustrative [2] Product Line [3] Sales by Kind of Business [4]

STATEWIDE CALIFORNIA	20100	20120	20130	20140	20150	20160	20180	20190	20200	20220	20240	20260	20270	20280
Clothing & accessories stores	0.00%	0.00%	0.00%	0.00%	0.00%	0.94%	0.00%	0.00%	52.26%	58.46%	43.87%	14.48%	0.10%	5.16%
Shoes	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.93%	0.57%	0.68%	48.20%	0.00%	0.00%
Apparel stores group	0.00%	0.00%	0.00%	0.00%	0.00%	0.94%	0.00%	0.00%	54.19%	59.03%	44.54%	62.67%	0.10%	5.16%
General merchandise stores	13.97%	14.38%	0.00%	7.05%	34.00%	19.85%	42.65%	35.81%	37.13%	34.52%	51.45%	22.92%	24.74%	38.43%
Drug stores	1.32%	0.14%	0.00%	7.65%	3.07%	50.79%	3.52%	2.89%	0.08%	0.38%	0.26%	0.35%	0.20%	0.01%
General merchandise group	15.30%	14.52%	0.00%	14.70%	37.07%	70.64%	46.17%	38.70%	37.21%	34.90%	51.70%	23.27%	24.94%	38.43%
Gifts, art goods, and novelties	0.08%	0.17%	0.00%	0.07%	0.25%	0.06%	0.08%	1.24%	0.16%	0.17%	1.13%	0.05%	0.00%	0.03%
Sporting goods	0.01%	0.06%	0.00%	0.02%	0.01%	0.00%	0.00%	0.00%	3.66%	1.08%	0.59%	9.10%	0.00%	0.00%
Florists	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Photographic equipment and supplies	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Musical instruments & Music stores	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Stationery and books	0.02%	1.85%	0.00%	0.00%	0.07%	0.00%	0.00%	0.00%	0.17%	0.04%	0.02%	0.00%	0.00%	0.00%
Jewelry	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Office, store, and school supplies	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.03%	0.10%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Radio, television, & other electronics stores	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.05%	0.00%
Other specialties	0.36%	0.68%	2.28%	0.12%	8.91%	8.30%	1.09%	0.26%	0.19%	0.18%	0.10%	0.28%	66.33%	1.72%
Specialty stores group	0.47%	2.76%	2.28%	0.22%	9.23%	8.36%	1.20%	1.60%	4.18%	1.49%	1.83%	9.42%	66.38%	1.75%
All food stores	78.47%	66.80%	83.34%	54.19%	25.43%	14.56%	47.38%	52.71%	0.03%	0.16%	0.17%	0.07%	0.58%	0.13%
Food stores group	78.47%	66.80%	83.34%	54.19%	25.43%	14.56%	47.38%	52.71%	0.03%	0.16%	0.17%	0.07%	0.58%	0.13%
Household and home furnishings	0.06%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.02%	0.01%	0.16%	0.00%	0.49%	35.60%
Household appliance dealers	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.46%	0.52%
Household group	0.06%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.02%	0.01%	0.16%	0.00%	0.94%	36.12%
Lumber and other building materials	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.09%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.05%
Hardware stores and Home Centers	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.83%	0.00%	0.03%	0.00%	0.00%	0.02%	0.17%	6.09%
Farm & garden supply stores	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.07%	0.00%	0.00%	0.04%	0.00%	0.00%
Building material group	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	3.92%	0.00%	0.10%	0.00%	0.00%	0.05%	0.17%	6.14%
Motor vehicle dealers	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.30%	0.15%	0.00%	0.01%	0.00%	0.00%
Automotive supplies and parts	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Service stations	2.53%	10.90%	3.06%	5.88%	23.70%	0.23%	0.62%	0.63%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Automotive group	2.53%	10.90%	3.06%	5.88%	23.70%	0.23%	0.62%	0.63%	0.30%	0.15%	0.00%	0.01%	0.00%	0.00%
Packaged liquor stores	0.62%	0.79%	11.31%	22.69%	4.19%	0.11%	0.33%	0.37%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Second-hand merchandise	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.86%	0.96%	1.28%	0.44%	0.13%	0.49%
Fuel and ice dealers	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Mobile homes, trailers, and campers	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
All other retail stores group	0.62%	0.79%	11.31%	22.69%	4.19%	0.12%	0.33%	0.37%	0.86%	0.96%	1.28%	0.44%	0.13%	0.49%
All Retail Stores Totals	97.46%	95.76%	100.00%	97.68%	99.62%	94.84%	99.62%	94.01%	96.89%	96.68%	99.70%	95.94%	93.25%	88.22%
Non-Store Outlets	2.54%	4.24%	0.00%	2.32%	0.38%	5.16%	0.38%	5.99%	3.11%	3.32%	0.30%	4.06%	6.75%	11.78%
Total All Outlets	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Source: US Census Bureau – Economic Census 2002: Retail Trade Subject Series, Product Lines by Kind of Business; and CBRE Consulting.

(1) Exhibit details the sales of product line items by the retail store at which the sales are made.
(2) Figures represent California statewide product line sales by kind of business.
(3) Refer to Exhibit B-6 for description of product line item codes 20100 through 29810.
(4) Retail businesses classification and categorization per EC.

Exhibit B-5: Economic Census Retail Trade Subject Series [1]
Illustrative [2] Product Line [3] Sales by Kind of Business [4] (continued)

STATEWIDE CALIFORNIA	20300	20310	20320	20330	20340	20360	20370	20380	20400	20420	20440	20460	20490	20500
Clothing & accessories stores	0.00%	0.00%	0.00%	0.00%	0.01%	0.00%	0.00%	5.61%	5.11%	0.00%	0.00%	12.19%	1.90%	0.72%
Shoes	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.33%	0.00%	0.00%	0.00%	0.00%	0.35%
Apparel stores group	0.00%	0.00%	0.00%	0.00%	0.01%	0.00%	0.00%	5.61%	5.44%	0.00%	0.00%	12.19%	1.90%	1.07%
General merchandise stores	36.14%	55.04%	25.26%	18.29%	12.03%	3.52%	6.99%	27.92%	21.80%	19.70%	22.97%	32.17%	21.24%	16.89%
Drug stores	0.00%	11.61%	0.24%	2.91%	0.00%	0.00%	0.00%	1.88%	1.70%	2.30%	26.48%	2.26%	6.33%	0.15%
General merchandise group	36.14%	66.65%	25.51%	21.20%	12.03%	3.52%	6.99%	29.80%	23.50%	22.00%	49.45%	34.43%	27.57%	17.04%
Gifts, art goods, and novelties	0.00%	0.04%	0.78%	0.27%	0.23%	0.00%	0.02%	3.20%	1.64%	1.16%	0.03%	2.47%	0.02%	0.06%
Sporting goods	0.00%	0.00%	0.01%	0.01%	0.00%	0.00%	0.00%	0.07%	0.34%	0.00%	0.00%	0.09%	2.46%	47.79%
Florists	0.00%	0.00%	0.00%	0.00%	0.01%	0.00%	0.00%	0.27%	0.00%	0.02%	0.00%	0.07%	0.00%	0.00%
Photographic equipment and supplies	0.00%	0.00%	0.18%	0.02%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	36.41%	0.00%	0.00%	0.00%
Musical instruments & Music stores	0.00%	0.00%	3.25%	31.64%	0.00%	0.00%	0.10%	0.01%	0.02%	0.42%	0.00%	0.40%	0.00%	0.00%
Stationery and books	0.00%	0.00%	1.14%	2.39%	0.00%	0.00%	0.39%	0.20%	0.12%	56.51%	0.00%	0.13%	0.00%	0.00%
Jewelry	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.55%	58.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Office, store, and school supplies	0.00%	0.00%	0.00%	0.01%	3.14%	0.00%	4.80%	0.08%	0.00%	0.22%	0.00%	0.05%	0.00%	0.01%
Radio, television, & other electronics stores	6.44%	0.93%	52.46%	25.96%	0.73%	0.00%	18.37%	0.00%	0.02%	0.06%	4.18%	7.39%	0.11%	0.00%
Other specialties	3.23%	2.16%	8.66%	7.04%	1.58%	0.00%	32.82%	2.80%	0.61%	3.08%	0.00%	33.45%	65.51%	1.37%
Specialty stores group	9.67%	3.13%	66.48%	67.35%	5.69%	0.00%	56.50%	7.17%	60.76%	61.48%	40.63%	44.05%	68.11%	49.23%
All food stores	0.00%	2.37%	0.01%	1.34%	0.00%	0.00%	0.00%	4.31%	0.41%	4.75%	8.20%	1.70%	0.00%	0.06%
Food stores group	0.00%	2.37%	0.01%	1.34%	0.00%	0.00%	0.00%	4.31%	0.41%	4.75%	8.20%	1.70%	0.00%	0.06%
Household and home furnishings	2.38%	7.02%	0.95%	0.39%	69.08%	59.25%	0.08%	33.96%	0.26%	0.13%	0.00%	0.45%	0.00%	0.05%
Household appliance dealers	35.77%	3.12%	1.47%	0.60%	0.16%	0.23%	0.08%	0.25%	0.00%	0.00%	0.05%	0.00%	0.00%	0.02%
Household group	38.15%	10.14%	2.42%	0.99%	69.24%	59.48%	0.16%	34.21%	0.26%	0.13%	0.05%	0.45%	0.00%	0.07%
Lumber and other building materials	0.56%	0.03%	0.00%	0.00%	0.07%	11.15%	0.01%	0.49%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%
Hardware stores and Home Centers	10.23%	9.78%	0.01%	0.01%	4.35%	21.21%	0.00%	3.47%	0.00%	0.00%	0.00%	0.06%	0.00%	0.18%
Farm & garden supply stores	0.00%	0.00%	0.00%	0.00%	0.30%	0.00%	0.00%	0.21%	0.00%	0.00%	0.00%	0.01%	0.00%	0.11%
Building material group	10.79%	9.81%	0.01%	0.01%	4.73%	32.36%	0.01%	4.16%	0.00%	0.00%	0.00%	0.07%	0.00%	0.29%
Motor vehicle dealers	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.75%
Automotive supplies and parts	0.12%	0.00%	0.11%	3.12%	0.00%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.02%
Service stations	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.15%	0.03%	0.01%	0.00%	0.17%
Automotive group	0.12%	0.00%	0.11%	3.12%	0.00%	0.01%	0.00%	0.00%	0.00%	0.15%	0.03%	0.01%	0.00%	25.93%
Packaged liquor stores	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.12%	0.05%	0.04%	0.00%	0.03%	0.00%	0.00%
Second-hand merchandise	0.31%	1.29%	0.14%	0.56%	1.85%	0.14%	0.07%	1.32%	0.96%	1.99%	0.04%	0.20%	0.02%	0.19%
Fuel and ice dealers	0.37%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Mobile homes, trailers, and campers	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
All other retail stores group	0.68%	1.29%	0.14%	0.56%	1.85%	0.14%	0.07%	1.43%	1.01%	2.03%	0.04%	0.23%	0.02%	0.19%
All Retail Stores Totals	95.54%	93.39%	94.68%	94.56%	93.55%	95.51%	63.73%	86.70%	91.38%	90.54%	98.40%	93.13%	97.60%	93.88%
Non-Store Outlets	4.46%	6.61%	5.32%	5.44%	6.45%	4.49%	36.27%	13.30%	8.62%	9.46%	1.60%	6.87%	2.40%	6.12%
Total All Outlets	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Source: US Census Bureau – Economic Census 2002: Retail Trade Subject Series, Product Lines by Kind of Business; and CBRE Consulting.

(1) Exhibit details the sales of product line items by the retail store at which the sales are made.
(2) Figures represent California statewide product line sales by kind of business.
(3) Refer to Exhibit B-6 for description of product line item codes 20100 through 29810.
(4) Retail businesses classification and categorization per EC.

Exhibit B-5: Economic Census Retail Trade Subject Series [1]
Illustrative [2] Product Line [3] Sales by Kind of Business [4] (continued)

STATEWIDE CALIFORNIA	20580	20680	20700	20720	20730	20740	20800	20850	29810	20600-20670, 20690	Retail Total
Clothing & accessories stores	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.50%	2.58%	0.00%	4.84%
Shoes	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.02%	0.22%	0.00%	0.81%
Apparel stores group	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.52%	2.80%	0.00%	**5.65%**
General merchandise stores	0.00%	0.00%	0.00%	0.03%	9.08%	4.28%	22.59%	10.93%	26.87%	6.55%	13.47%
Drug stores	0.00%	0.00%	0.00%	0.00%	3.38%	0.03%	1.12%	4.11%	29.67%	0.36%	5.05%
General merchandise group	0.00%	0.00%	0.00%	0.03%	12.46%	4.31%	23.72%	15.04%	56.54%	6.90%	**18.52%**
Gifts, art goods, and novelties	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.02%	11.98%	2.30%	0.01%	0.73%
Sporting goods	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.07%	1.01%	0.00%	0.93%
Florists	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.21%	0.17%	2.00%	0.17%
Photographic equipment and supplies	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%	0.00%	0.11%
Musical instruments & Music stores	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.09%	0.52%	0.00%	0.53%
Stationery and books	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.74%	0.54%	0.00%	0.60%
Jewelry	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.07%	1.20%	0.00%	0.81%
Office, store, and school supplies	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	14.72%	1.62%	0.00%	0.82%
Radio, television, & other electronics stores	0.00%	0.00%	0.00%	0.00%	0.00%	0.02%	0.00%	6.82%	2.72%	0.06%	2.06%
Other specialties	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	50.64%	12.56%	7.39%	0.21%	3.60%
Specialty stores group	0.00%	0.00%	0.00%	0.00%	0.00%	0.02%	50.67%	48.27%	17.48%	2.29%	**10.37%**
All food stores	0.00%	0.00%	0.00%	0.65%	4.60%	0.06%	22.06%	4.25%	3.17%	2.38%	16.77%
Food stores group	0.00%	0.00%	0.00%	0.65%	4.60%	0.06%	22.06%	4.25%	3.17%	2.38%	**16.77%**
Household and home furnishings	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.88%	1.90%	0.24%	3.24%
Household appliance dealers	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.15%	0.28%	0.17%	0.47%
Household group	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.04%	2.18%	0.42%	**3.71%**
Lumber and other building materials	0.00%	0.00%	0.00%	0.00%	0.11%	0.01%	0.01%	0.04%	1.61%	33.78%	2.80%
Hardware stores and Home Centers	0.00%	0.00%	0.00%	0.00%	0.81%	0.08%	0.58%	0.03%	1.05%	44.33%	4.12%
Farm & garden supply stores	0.26%	0.00%	0.00%	0.00%	0.11%	0.01%	1.72%	0.19%	1.20%	7.51%	0.64%
Building material group	0.26%	0.00%	0.00%	0.00%	1.03%	0.10%	2.31%	0.27%	3.85%	85.62%	**7.56%**
Motor vehicle dealers	99.71%	1.12%	99.51%	0.10%	30.44%	29.71%	0.00%	1.63%	4.37%	0.04%	23.15%
Automotive supplies and parts	0.00%	0.00%	0.01%	0.03%	23.53%	56.66%	0.00%	0.01%	0.56%	0.22%	1.83%
Service stations	0.00%	0.00%	0.00%	98.71%	22.33%	2.80%	0.40%	0.24%	5.54%	0.05%	6.61%
Automotive group	99.71%	1.12%	99.52%	98.85%	76.30%	89.17%	0.40%	1.89%	10.47%	0.32%	**31.59%**
Packaged liquor stores	0.00%	0.00%	0.00%	0.00%	0.41%	0.00%	0.13%	0.24%	0.26%	0.00%	0.66%
Second-hand merchandise	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.46%	0.18%	0.01%	0.31%
Fuel and ice dealers	0.00%	0.00%	0.00%	0.46%	5.18%	0.00%	0.00%	0.00%	0.19%	0.02%	0.04%
Mobile homes, trailers, and campers	0.03%	98.88%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.08%	0.00%	0.13%
All other retail stores group	0.03%	98.88%	0.00%	0.46%	5.59%	0.00%	0.13%	2.70%	0.71%	0.03%	**1.14%**
All Retail Stores Totals	100.00%	100.00%	99.52%	100.00%	99.98%	93.66%	99.29%	73.95%	97.21%	97.96%	**95.30%**
Non-Store Outlets	0.00%	0.00%	0.48%	0.00%	0.02%	6.34%	0.71%	26.05%	2.79%	2.04%	4.70%
Total All Outlets	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	**100.00%**

Source: US Census Bureau – Economic Census 2002: Retail Trade Subject Series, Product Lines by Kind of Business; and CBRE Consulting.

(1) Exhibit details the sales of product line items by the retail store at which the sales are made.
(2) Figures represent California statewide product line sales by kind of business.
(3) Refer to Exhibit B-6 for description of product line item codes 20100 through 29810.
(4) Retail businesses classification and categorization per EC.

CBRE
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Exhibit B-6: CES and EC Bridge (1)
Allocation of CES Category Expenditures to the EC Product Line Items

Economic Census		Consumer Expenditure Survey	Share of CES categories' Allocation (2)				
Code	Product Line Description	Category Description	CA	Bay Ar.	So. CA	No. CA	Cen. CA
20100	Groceries & other foods for human consumption off the premises	Food - Food at Home	96.0%	96.0%	96.0%	96.0%	96.0%
20120	Meals, unpack snacks, sandwiches, etc for immediate consumption	Food - Food at Home	4.0%	4.0%	4.0%	4.0%	4.0%
20130	Alcoholic drinks served at the establishment	Food - Alcoholic Beverages	0.4%	0.5%	0.5%	0.5%	0.5%
20140	Packaged liquor, wine, & beer	Food - Alcoholic Beverages	99.6%	99.5%	99.5%	99.5%	99.5%
20150	Cigars, cigarettes & smokers' accessories, excl. sales from vending	Tobacco Products & Smoking Supplies	100.0%	100.0%	100.0%	100.0%	100.0%
20160	Drugs, health aids, beauty aids, including cosmetics	Health Care - Drugs	100.0%	100.0%	100.0%	100.0%	100.0%
		Health Care - Medical Supplies	100.0%	100.0%	100.0%	100.0%	100.0%
		Personal Care Products & Services	100.0%	100.0%	100.0%	100.0%	100.0%
20180	Soaps, detergents, & household cleaners	Housekeeping Supplies - Laundry & Cleaning	52.7%	53.7%	51.3%	52.9%	51.4%
20190	Paper & related prod, incl paper towels, toilet tissue, wraps,etc	Housekeeping Supplies - Laundry & Cleaning	47.3%	46.3%	48.7%	47.1%	48.6%
20200	Men's wear	Apparel - Men 16 and over	100.0%	100.0%	100.0%	100.0%	100.0%
20220	Women's, juniors', & misses' wear	Apparel - Women 16 and over	100.0%	100.0%	100.0%	100.0%	100.0%
20240	Children's wear, incl boys, girls, & infants & toddlers	Apparel - Children under 2	100.0%	100.0%	100.0%	100.0%	100.0%
		Apparel - Boys 2 to 15	100.0%	100.0%	100.0%	100.0%	100.0%
		Apparel - Girls 2 to 15	100.0%	100.0%	100.0%	100.0%	100.0%
20260	Footwear, including accessories	Apparel - Footwear	100.0%	100.0%	100.0%	100.0%	100.0%
		Apparel - Other Apparel Products and Services	49.5%	45.5%	50.3%	52.1%	50.2%
20270	Sewing, knitting materials & supplies, needlework goods	Apparel - Other Apparel Products and Services	6.0%	5.9%	5.3%	2.7%	2.5%
20280	Curtains, draperies, blinds, slipcovers, bed & table coverings	Household Furnishing - Household Textiles	100.0%	100.0%	100.0%	100.0%	100.0%
20300	Major household appliances	Household Furnishing - Major Appliances	100.0%	100.0%	100.0%	100.0%	100.0%
20310	Small electric appliances & personal care appliances	Household Furnishing - Small Appliances	100.0%	100.0%	100.0%	100.0%	100.0%
20320	TVs, video recorders, video cameras, video tapes, DVDs	Entertainment - Television, Radios & Sound Equipments	49.8%	48.2%	50.7%	48.4%	49.5%
20330	Audio equip, musical instr, radios, stereos, CDs, records	Entertainment - Television, Radios & Sound Equipments	50.2%	51.8%	49.3%	51.6%	50.5%
20340	Furniture, sleep equipment & outdoor/patio furniture	Household Furnishing - Furniture	100.0%	100.0%	100.0%	100.0%	100.0%
20360	Flooring & floor coverings	Household Furnishing - Floor Covering	100.0%	100.0%	100.0%	100.0%	100.0%
20370	Computer hardware, software, & supplies	Entertainment - Other Entertainment Supplies, Equipment & Services	51.7%	68.5%	61.8%	43.2%	31.4%
		Miscellaneous	28.9%	37.2%	30.4%	25.3%	14.2%
20380	Kitchenware & home furnishings	Household Furnishing - Miscellaneous Household equipment	71.0%	76.9%	70.4%	62.2%	71.5%
20400	Jewelry, incl watches, watch attach, novelty jewelry	Apparel - Other Apparel Products and Services	44.5%	48.6%	44.4%	45.2%	47.3%
20420	Books	Reading	100.0%	100.0%	100.0%	100.0%	100.0%
20440	Photographic equipment & supplies	Entertainment - Other Entertainment Supplies, Equipment & Services	7.9%	6.8%	7.4%	7.3%	12.2%
20460	Toys, hobby goods, & games	Entertainment - Pets, Toys, and Playground Equipment	37.1%	39.9%	39.3%	31.7%	37.0%
20490	Optical goods, incl eyeglasses, contact lenses, sunglasses	Miscellaneous	3.5%	3.1%	3.3%	4.3%	6.0%
20500	Sporting goods	Entertainment - Pets, Toys, and Playground Equipment	42.2%	40.5%	40.5%	46.5%	37.5%
		Entertainment - Other Entertainment Supplies, Equipment & Services	40.4%	24.7%	30.8%	49.5%	56.4%
20580	RVs, incl camping trailers travel trailers, truck campers	Transportation - Vehicle Purchases (Net Outlay)	2.8%	1.7%	2.3%	5.6%	7.1%
20600	Hardware, tools, & plumbing & electrical supplies						
20620	Lawn, garden, & farm equipment & supplies						
20640	Dimensional lumber & oth bldg/structural materials & supplies	BM Group (3)	98.4%	98.7%	98.6%	98.0%	98.4%
20670	Paint & sundries	Household Furnishing - Miscellaneous Household Equipment	29.0%	23.1%	29.6%	37.8%	28.5%
20690	Wallpaper & other flexible wallcoverings						
20680	Manufactured (mobile) homes	BM Group *	1.6%	1.3%	1.4%	2.0%	1.6%
20700	Automobiles, cars, vans, trucks, motorcycles, motor scooters	Transportation - Vehicle Purchases (Net Outlay)	97.2%	98.3%	97.7%	94.4%	92.9%
20720	Automotive fuels	Transportation - Gasoline & Motor Oil	100.0%	100.0%	100.0%	100.0%	100.0%
20730	Automotive lubricants, including oil, greases	Transportation - Other Vehicle Expenses - Maintenance & Repairs	5.1%	4.7%	4.7%	4.0%	4.5%
20740	Automotive tires, tubes, batteries, parts, accessories	Transportation - Other Vehicle Expenses - Maintenance & Repairs	94.9%	95.3%	95.3%	96.0%	95.5%
20800	Pets, pet foods, & pet supplies	Entertainment - Pets, Toys, and Playground Equipment	20.7%	19.6%	20.2%	21.8%	25.5%
20850	Other merchandise (Stationery, office products, luggage, machine parts, etc.)	Miscellaneous	56.5%	48.0%	58.1%	56.6%	52.3%
		Postage and Stationery	100.0%	100.0%	100.0%	100.0%	100.0%
29810	All other merchandise	Miscellaneous	11.1%	11.7%	8.2%	13.8%	27.5%

Sources: US Bureau of Census, Economic Census 2002 "Retail Trade Subject Series: Product Lines by Kind of Business, 2002"; US Department of Commerce, Bureau of Labor Statistics, Consumer Expenditure Survey - 2003-04; and CBRE Consulting.

(1) CBRE Consulting established which CES expenditure categories comprise spending on what EC products items to establish a bridge between the two datasets.

(2) The CES category allocation into product items will vary for different 'product line control areas' based on consumer propensity for certain kinds of goods in these areas, for instance, Bay Area consumers spend less on apparel accessories but more on computers than the rest of the state, while Northern California consumers spend more on sporting goods than other regions.

(3) BM (Building Materials) Group for consumer expenditure includes all of 'Other household products' under housekeeping supplies; all of 'Other household expenses' under household operations; and three-fourths of expenditures under 'Maintenance, repair, insurance and other expenses' under household operation.

Exhibit B-7: Aggregated Product Line Sales by Kind of Retailers [1]
Per Household Estimates at a Hypothetical Average Household Retail Expenditure of $27,600

BOE Retail Category (3)	Product Line Items Aggregated by Product Type - By Amount (2)								Total
	BM	AS	HF	AD	GS	FS	GM & OR	ED	
Apparel Stores (AS)	0	1,308	56	0	0	0	57	0	1,420
General Merchandise Stores (GM)	165	854	622	52	1	732	1,970	0	4,396
Food Stores (FS)	57	3	39	3	14	3,605	446	0	4,168
Eating and Drinking Places (ED)	0	0	0	0	0	0	0	3,416	3,416
Home Furnishings & Appliance Stores (HF)	10	1	1,070	0	0	2	32	0	1,116
Building Materials' Stores (BM)	2,052	1	167	2	0	0	16	0	2,238
Auto Dealers & Parts Stores (AD)	6	3	0	4,908	3	0	366	0	5,287
Gasoline Stations (GS)	1	0	0	42	2,123	158	72	0	2,396
Other Retail (OR)	56	235	170	3	10	200	2,445	0	3,120
TOTAL	**2,347**	**2,405**	**2,125**	**5,010**	**2,151**	**4,699**	**5,403**	**3,416**	**27,555**

BOE Retail Category (3)	Product Line Items Aggregated by Product Type - By Percent (2)								Total
	BM	AS	HF	AD	GS	FS	GM & OR	ED	
Apparel Stores (AS)	0.0%	52.5%	2.4%	0.0%	0.0%	0.0%	0.9%	0.0%	4.9%
General Merchandise Stores (GM)	6.9%	34.3%	26.7%	1.0%	0.0%	15.2%	32.2%	0.0%	15.2%
Food Stores (FS)	2.4%	0.1%	1.7%	0.1%	0.7%	74.8%	7.3%	0.0%	14.5%
Eating and Drinking Places (ED)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	11.8%
Home Furnishings & Appliance Stores (HF)	0.4%	0.1%	45.9%	0.0%	0.0%	0.0%	0.5%	0.0%	3.9%
Building Materials' Stores (BM)	85.6%	0.0%	7.2%	0.0%	0.0%	0.0%	0.3%	0.0%	7.8%
Auto Dealers & Parts Stores (AD)	0.3%	0.1%	0.0%	96.3%	0.1%	0.0%	6.0%	0.0%	18.3%
Gasoline Stations (GS)	0.1%	0.0%	0.0%	0.8%	98.7%	3.3%	1.2%	0.0%	8.3%
Other Retail (OR)	2.3%	9.5%	7.3%	0.1%	0.5%	4.2%	39.9%	0.0%	10.8%
TOTAL (4)	**98.0%**	**96.6%**	**91.1%**	**98.3%**	**100.0%**	**97.4%**	**88.2%**	**100.0%**	**95.6%**

Sources: US Bureau of Census, Economic Census 2002 "Retail Trade Subject Series: Kind of Business by Product Lines, 2002"; US Department of Commerce, Bureau of Labor Statistics, Consumer Expenditure Survey - 2004-05; and CBRE Consulting.

(1) Kind of Retailer categorized to facilitate use of BOE/municipal tax consultant data.
(2) Apparel Store product line (AS) includes codes 20200, 20220, 20240, 20260, 20270 and 20400; Grocery product line includes 20100, 20120, 20130, and 20140;Home Furnishings/Appliance product line (HF) includes 20280, 20300, 20310, 20340, 20360, and 20380; Building materials product line includes 20600, 20620, 20640, 20670, and 20690; Automobile product line includes 20700, 20730 and 20740; Gasoline station product line includes 20720; General merchandise and other retail product codes includes rest of the codes.
(3) Auto Dealers and Parts stores categorized by 4-digit NAICS codes 4411, 4412, and 4413; Home Furnishings and Appliance stores by 6-digit NAICS codes 442110, 442210, 442291, 442299, and 443111; Building Materials stores by 3-digit NAICS code 444; Grocery and Convenience stores by 3-digit NAICS code 445; Gasoline Stations by 3-digit NAICS code 447; Apparel stores by 3-digit NAICS code 448; General Merchandise stores by 3-digit NAICS code 452 and 5-digit 44611; Non-store retailers are categorized in 3-digit NAICS code 454; and Specialty and Other Retail stores include the rest of the NAICS codes between 3-digit 441 and 454, which is the range of businesses classified as Retail by the Economic Census.
(4) The percentages do not total to 100% due to non-store sales' (electronic mail-order shopping, vending machine operators, and direct selling establishments) component.

APPENDIX C: BENCHMARK CALCULATION OF HOUSEHOLDS, CANDLESTICK POINT MARKET AREA

Appendix C-1
Benchmark Calculation of Households
Candlestick Point Market Area
San Francisco's Portion

	Claritas Data (1)				
	San Francisco County	San Francisco's Portion of the Market Area	Ratio of San Francisco's Portion to Entire County	San Francisco (2)	San Francisco's Portion of the Market Area
Year	[A]	[B]	[C = B / A]	[D]	[E = D * C]
2000	**329,700**	**76,414**	23.2%	--	--
2005	331,306	80,301	24.2%	**341,478** (3)	82,767
2007	331,950	81,911	24.7%	344,038	84,894
2009	**332,596**	**83,553**	25.1%	346,618	87,076
2014	**339,598**	**88,341**	26.0%	353,152	91,867
2030	--	--	--	**374,900** (3)	97,524

Sources: Claritas Inc., 2009; San Francisco Urban Water Management Plan projections from email sent by PBS&J dated July 2, 2009; and CBRE Consulting, Inc.

(1) Claritas data interpolated from 2000 data, 2009 estimates, and 2014 projections. Base figures bolded.
(2) San Francisco Urban Water Management Plan data interpolated from 2005 and 2030 estimates and projections. Base figures bolded.
(3) San Francisco's portion of the market area 2030 household forecast is based on the San Francisco Urban Water Management Plan household forecast of 403,300 for San Francisco in 2030. The overall annual growth rate from 2005 to 2030 is 0.67 percent. However, Treasure Island, Park Merced, and Hunters Point / Candlestick Point plan to have extraordinary growth. Subtracting out that growth (28,400 households), the average annual growth rate for San Francisco is 0.37 percent. This 2030 forecast uses the lower growth rate to determine the natural growth in households.

Appendix C-2
Benchmark Calculation of Households
Candlestick Point Market Area
City of South San Francisco's Portion

	Claritas Data (1)			ABAG Data (2)	
Year	City of S. San Francisco [A]	City of S. San Francisco's Portion of the Market Area [B]	Ratio of S. San Francisco's Portion to Entire City [C = B / A]	City of S. San Francisco D	S. San Francisco's Portion of the Market Area [E = D * C]
2000	**19,671**	**6,139**	31.2%	**19,677**	6,141
2005	19,972	6,083	30.5%	**20,130**	6,131
2007	20,094	6,060	30.2%	20,431	6,162
2009	**20,216**	**6,307**	31.2%	20,737	6,470
2014	**20,854**	**6,500**	31.2%	21,522	6,708
2030	--	--	--	**24,240**	7,555

Sources: Claritas Inc., 2009; Association of Bay Area Governments (ABAG), "Projections 2007"; and CBRE Consulting, Inc.

(1) Claritas data interpolated from 2000 data, 2009 estimates, and 2014 projections. Base figures bolded.
(2) ABAG data interpolated from 2000 data, 2005 estimates, and 2030 projections. Base figures bolded.

Appendix C-3
Benchmark Calculation of Households
Candlestick Point Market Area
City of Daly City's Portion

	Claritas Data (1)			ABAG Data (2)	
Year	City of Daly City [A]	City of Daly City Portion of the Market Area [B]	Ratio of Daly City Portion to Entire City [C = B / A]	City of Daly City D	Daly City's Portion of the Market Area [E = D * C]
2000	**30,771**	**1,501**	4.9%	**30,777**	1,501
2005	30,208	1,487	4.9%	**31,210**	1,537
2007	29,986	1,482	4.9%	31,571	1,560
2009	**29,765**	**1,524**	5.1%	31,937	1,635
2014	**29,779**	**1,542**	5.2%	32,869	1,702
2030	--	--	--	**36,040**	1,866

Sources: Claritas Inc., 2009; Association of Bay Area Governments (ABAG), "Projections 2007"; and CBRE Consulting, Inc.

(1) Claritas data interpolated from 2000 data, 2009 estimates, and 2014 projections. Base figures bolded.
(2) ABAG data interpolated from 2000 data, 2005 estimates, and 2030 projections. Base figures bolded.

Appendix C-4
Benchmark Calculation of Households
Candlestick Point Market Area
City of Brisbane's Portion

	Claritas Data (1)			ABAG Data (2)	
	City of Brisbane	City of Brisbane's Portion of the Market Area	Ratio of Brisbane's Portion to Entire City	City of Brisbane	Brisbane's Portion of the Market Area
Year	[A]	[B]	[C = B / A]	D	[E = D * C]
2000	**1,620**	**1,456**	89.9%	**1,620**	1,456
2005	1,648	1,443	87.5%	**1,690**	1,479
2007	1,660	1,437	86.6%	1,740	1,507
2009	**1,671**	**1,432**	85.7%	1,792	1,536
2014	**1,736**	**1,469**	84.6%	1,929	1,632
2030	--	--	--	**2,440**	2,065

Sources: Claritas Inc., 2009; Association of Bay Area Governments (ABAG), "Projections 2007"; and CBRE Consulting, Inc.

(1) Claritas data interpolated from 2000 data, 2009 estimates, and 2014 projections. Base figures bolded.
(2) ABAG data interpolated from 2000 data, 2005 estimates, and 2030 projections. Base figures bolded.

APPENDIX D: BENCHMARK CALCULATION OF HOUSEHOLDS, HUNTERS POINT SHIPYARD PHASE II MARKET AREA

Appendix D-1
Benchmark Calculation of Households
Hunters Point Shipyard Phase II Market Area
City of San Francisco's Portion

	Claritas Data (1)		Ratio of		
	San Francisco County	San Francisco's Portion of the Market Area	San Francisco's Portion to Entire County	San Francisco (2)	San Francisco's Portion of the Market Area
Year	[A]	[B]	[C = B / A]	[D]	[E = D * C]
2000	**329,700**	**22,069**	6.7%	--	--
2005	331,306	22,025	6.6%	**341,478** (3)	22,701
2007	331,950	22,008	6.6%	344,038	22,809
2009	**332,596**	**21,990**	6.6%	346,618	22,917
2014	**339,598**	**22,366**	6.6%	353,152	23,259
2030	--	--	--	**374,900** (3)	24,691

Sources: Claritas Inc., 2009; San Francisco Urban Water Management Plan projections from email sent by PBS&J dated July 2, 2009; and CBRE Consulting, Inc.

(1) Claritas data interpolated from 2000 data, 2009 estimates, and 2014 projections. Base figures bolded.
(2) San Francisco Urban Water Management Plan data interpolated from 2005 and 2030 estimates and projections. Base figures bolded.
(3) San Francisco's portion of the market area 2030 household forecast is based on the San Francisco Urban Water Management Plan household forecast of 403,300 for San Francisco in 2030. The overall annual growth rate from 2005 to 2030 is 0.67 percent. However, Treasure Island, Park Merced, and Hunters Point / Candlestick Point plan to have extraordinary growth. Subtracting out that growth (28,400 households), the average annual growth rate for San Francisco is 0.37 percent. This 2030 forecast uses the lower growth rate to determine the natural growth in households.

Appendix D-2
Benchmark Calculation of Households
Hunters Point Shipyard Phase II Market Area
City of Daly City's Portion

	Claritas Data (1)			ABAG Data (2)	
Year	City of Daly City [A]	City of Daly City's Portion of the Market Area [B]	Ratio of Daly City's Portion to Entire City [C = B / A]	City of Daly City D	Daly City's Portion of the Market Area [E = D * C]
2000	**30,771**	**147**	0.5%	**30,777**	147
2005	30,208	149	0.5%	**31,210**	154
2007	29,986	149	0.5%	31,571	157
2009	**29,765**	**150**	0.5%	31,937	161
2014	**29,779**	**152**	0.5%	32,869	168
2030	--	--	--	**36,040**	184

Sources: Claritas Inc., 2009; Association of Bay Area Governments (ABAG), "Projections 2007"; and CBRE Consulting, Inc.

(1) Claritas data interpolated from 2000 data, 2009 estimates, and 2014 projections. Base figures bolded.
(2) ABAG data interpolated from 2000 data, 2005 estimates, and 2030 projections. Base figures bolded.

APPENDIX E: TRANSLATION OF US ECONOMIC CENSUS RETAIL SALES CATEGORIES TO BOE CATEGORIES, TYPES OF BUSINESSES BY BROAD PRODUCT LINE

Appendix E
Translation of U.S. Economic Census Retail Sales Categories to BOE Categories
Types of Businesses by Broad Product Line
General Merchandise Stores
2002 Dollars ($000's) (1)

US Census Sales Category	Retail Sales (in 000's)	BOE Category	Percentage of Total Sales	BOE Category Percentage
Children's wear, including boys' (sizes 2 to 7 & 8 to 20), girls' (sizes 4 to 6x & 7 to 14), & infants' & toddlers' clothing & accessories	$19,496,298	Apparel	4.45%	
Footwear, including accessories	$10,205,733	Apparel	2.33%	**24.9%**
Jewelry, including watches, watch attachments, novelty jewelry etc	$7,818,804	Apparel	1.78%	
Men's wear	$24,881,238	Apparel	5.67%	
Women's, juniors', & misses' wear	$46,770,091	Apparel	10.67%	
Automotive fuels	$130,831	Auto Dealers and Auto Supplies	0.03%	
Automotive lubricants, I ncluding oil, greases, etc	$1,109,606	Auto Dealers and Auto Supplies	0.25%	**1.6%**
Automotive tires, tubes, batteries, parts accessories	$5,834,640	Auto Dealers and Auto Supplies	1.33%	
Dimensional lumber & other building/structural materials & supplies, including heating stoves & prefabricated fireplaces, spas, hot tubs & saunas, stock kitchen & bathroom cabinets to be installed	$84,712	Building Materials	0.02%	
Hardware, tools, & plumbing & electrical supplies, including ceiling fans & light fixtures	$8,996,682	Building Materials	2.05%	**4.6%**

Appendix E
Translation of U.S. Economic Census Retail Sales Categories to BOE Categories
Types of Businesses by Broad Product Line
General Merchandise Stores
2002 Dollars ($000's) (1)

US Census Sales Category	Retail Sales (in 000's)	BOE Category	Percentage of Total Sales	BOE Category Percentage
Lawn, garden, & farm equipment & supplies, cut flowers; plants & shrubs; fertilizers; animal feed, other than for pets, etc	$9,423,200	Building Materials	2.15%	
Paint and Sundries	$1,859,594	Building Materials	0.42%	
Wallpaper & other flexible wallcoverings	$186	Building Materials	0.00%	
Meals, unpackaged snacks, sandwiches, ice cream & yogurt, baker items & non-alcoholic beverages generally served for immediate consumption.		Eating & Drinking Places	0.00%	
Groceries & other food items for human consumption off the premises, including bottles, canned, or packaged soft drinks; candy; gum; packaged snacks; etc.	$80,007,499	Food Stores	18.25%	19.0%
Packaged Liquor, wine & beer	$3,136,009	Food Stores	0.72%	
Drugs, health aids, beauty aids, including cosmetics	$53,481,662	General Merchandise	12.20%	
Paper & related products, including paper towels, toilet tissue, wraps, bags, foils, etc.	$9,517,305	General Merchandise	2.17%	17.1%
Soaps, detergents and household cleaners	$11,921,033	General Merchandise	2.72%	
Curtains, draperies, blinds, slipcovers, bed & table coverings	$12,402,090	Home Furnishings & Appliances	2.83%	
Flooring and floor coverings	$845,853	Home Furnishings & Appliances	0.19%	
Furniture, sleep equipment & outdoor/patio furniture	$8,035,151	Home Furnishings & Appliances	1.83%	
Kitchen & home furn, incl cookware, cooking access, dinnerware, glassware, giftware, decorative access & lighting, clocks, mirrors, closet & bathroom access, outdoor charcoal grills, planters, etc	$14,403,319	Home Furnishings & Appliances	3.29%	
Major household appl incl vacuum cleaners, sewing machines, refrigerators, freezers, dehumidifiers, room air-conditioners, dishwashers, ranges, microwaves, washers & dryers, outdoor gas grills, etc.	$10,641,300	Home Furnishings & Appliances	2.43%	14.5%

Appendix E
Translation of U.S. Economic Census Retail Sales Categories to BOE Categories
Types of Businesses by Broad Product Line
General Merchandise Stores
2002 Dollars ($000's) (1)

US Census Sales Category	Retail Sales (in 000's)	BOE Category	Percentage of Total Sales	BOE Category Percentage
Small electric appliances, including mixers, blenders, can openers, toasters, coffee makers, fry pans & personal care appliances, such as hair dryers, curling irons, shavers, etc.	$5,725,410	Home Furnishings & Appliances	1.31%	
Televisions, video records, video cameras, video tapes, DVDs, etc including electronic game/dvd combination devices, parts and accessories	$11,412,022	Home Furnishings & Appliances	2.60%	
All other merchandise	$17,408,161	Other Retail	3.97%	
All other merchandise	$3,882,957	Other Retail	0.89%	
Audio equipment, musical instruments, radios, stereos, compact discs, records, tapes, audio tape books, sheet music, accessories	$9,815,273	Other Retail	2.24%	
Books	$2,613,668	Other Retail	0.60%	
Cigars, cigarettes, tobacco, & smoker's accessories, excluding sales from vending machines operated by others	$7,107,737	Other Retail	1.62%	
Computer hardware, software, & supplies, including computer game software	$3,856,557	Other Retail	0.88%	
Household fuels, including oil, LP gas, wood, coal	$66,316	Other Retail	0.02%	
Optical goods, including eyeglasses, contact lenses, sunglasses, etc	$1,816,227	Other Retail	0.41%	**18.3%**
Pets, pet foods & pet supplies	$6,067,104	Other Retail	1.38%	
Photographic equipment & supplies	$2,323,042	Other Retail	0.53%	
Sewing, knitting materials & supplies, needlework goods, including fabrics, patters, sewing supplies, notions, yarns, laces, trimmings, needlework kits, etc.	$2,253,502	Other Retail	0.51%	

Appendix E
Translation of U.S. Economic Census Retail Sales Categories to BOE Categories
Types of Businesses by Broad Product Line
General Merchandise Stores
2002 Dollars ($000's) (1)

US Census Sales Category	Retail Sales (in 000's)	BOE Category	Percentage of Total Sales	BOE Category Percentage
Sporting goods, including saddlery, boats, personal watercraft, snowmobiles, al-terrain vehicles (ATVs), golf cars, & other motorizes sport vehicles, bicycles, parts & accessories, etc	$9,114,181	Other Retail	2.08%	
Toys, hobby goods, & games, including stuffed animals, video & electronic games, electronic game devices & wheel goods, except bicycles	$13,985,515	Other Retail	3.19%	
Total	**$438,450,508**		**100.0%**	

Sources: U.S. Census Bureau, "2002 Economic Census, Table 2, Kinds of Business by Broad Product Line for the United States"; State Board of Equalization; CBRE Consulting.

APPENDIX F: TRANSLATION OF CLARITAS RETAIL SALES CATEGORIES TO BOE CATEGORIES, CANDLESTICK POINT MARKET AREA, 2008

Appendix F-1
Translation of Claritas Retail Sales Categories to BOE Categories
San Francisco County
In 2008 Dollars (Millions)

Claritas Sales Category	Claritas Retail Sales 2008 2008 $'s	BOE Category
Motor Vehicle & Parts Dealers		
- Automotive Dealers	$476.60	**Motor Vehicles & Parts**
- Other Motor Vehicle Dealers	$33.80	
- Automotive Parts, Accessories, & Tire Stores	$59.70	
Furniture & Home Furnishings Stores		
- Furniture Stores	$206.60	
- Home Furnishing Stores	$319.10	**Home Furnishings and Appliances**
Electronics & Appliance Stores		
- Appliance, Television, and Other Electronics	$325.70	
- Household Appliances Stores	$49.60	
- Radio Television and Other Electronics	$276.00	
- Computer and Software Stores	$107.50	**Other Retail Stores**
- Camera & Photographic Equipment Stores	$52.70	
Building Material & Garden Equipment & Supply Dealers		
- Building Material & Supply Dealers	$431.80	**Building Materials and Farm Implements**
- Home Centers	$60.20	
- Paint and Wallpaper Stores	$26.30	
- Hardware Stores	$13.10	
- Other Building Materials Dealers	$332.20	
- Building Materials, Lumberyards	$113.30	
- Lawn and Garden Equipment and Supplies	$18.50	**Other Retail Stores**
- Outdoor Power Equipment Stores	$1.20	
- Nursery and Garden Centers	$17.30	
Food & Beverage Stores		
- Grocery Stores	$1,678.30	**Food Stores**
- Supermarkets and Other Grocery Stores	$1,647.10	
- Convenience Stores	$31.10	
- Specialty Food Stores	$212.90	
- Beer, Wine, & Liquor Stores	$141.90	
Health & Personal Care Stores		**General Merchandise**
- Pharmacies and Drug Stores	$664.40	
- Cosmetics, Beauty Supplies and Perfume Stores	$39.50	**Other Retail Stores**
- Optical Goods Stores	$21.80	
- Other Health and Personal Care Stores	$53.20	
Gasoline Stations		
- Gasoline Stations with Convenience Stores	$293.30	**Service Stations**
- Other Gasoline Stations	$184.00	
Clothing & Clothing Accessories Stores		
- Clothing Stores	$1,277.90	**Apparel Stores**
- Men's Clothing Stores	$52.70	
- Women's Clothing Stores	$347.90	
- Children's and Infants' Clothing Stores	$23.40	
- Family Clothing Stores	$719.80	
- Clothing Accessories Stores	$36.00	
- Other Clothing Stores	$98.10	
- Shoe Stores	$174.10	
- Jewelry, Luggage, & Leather Goods Stores	$325.30	**Other Retail Stores**
- Jewelry Stores	$287.60	
- Luggage, & Leather Goods Stores	$37.80	
Sporting Goods, Hobby, Book, & Music Stores		
- Sporting Goods, Hobby, & Musical Instruments	$151.30	**Other Retail Stores**
- Sporting Goods Stores	$69.80	
- Hobby, Toys and Games Stores	$39.90	
- Sew, Needlework, Piece Goods Stores	$21.90	
- Musical Instrument and Supplies Stores	$19.70	
- Book, Periodical, & Music Stores	$204.10	
- Book Stores and News Dealers	$114.80	
- Book Stores	$107.40	
- News Dealers and Newsstands	$7.50	
- Prerecorded Tape, Compact Disc, & Records	$89.20	
General Merchandise Stores		
- Department Stores excluding Leased Dept Stores	$560.10	**General Merchandise Stores**
- Other General Merchandise Stores	$232.20	
- Warehouse Clubs and Super Stores	$84.70	
- All Other General Merchandise Stores	$147.60	
Miscellaneous Store Retailers		
- Florists	$35.20	**Other Retail Stores**
- Office Supplies, Stationery, & Gift Stores	$248.50	
- Office Supplies and Stationery Stores	$79.00	
- Gift, Novelty, and Souvenir Stores	$169.50	
- Used Merchandise Stores	$93.20	
- Other Miscellaneous Store Retailers	$269.40	
Non-store Retailers		
- Electronic Shopping and Mail-order Houses	$3,170.20	**Other Retail Stores**
- Vending Machine Operators	$11.70	
- Direct Selling Establishments	$238.90	
Foodservice & Drinking Places		
- Full-Service Restaurants	$1,797.50	**Eating and Drinking Places**
- Limited-service Eating Places	$733.60	
- Special Foodservices	$233.10	
- Drinking Places - Alcoholic Beverages	$264.60	
TOTAL RETAIL STORES	**$15,342.20**	

Summary by BOE Category	
BOE Category	In Millions
Apparel Stores	$1,452.0
General Merchandise Stores	$1,456.7
Food Stores	$2,033.1
Eating & Drinking Places	$3,028.8
Home Furnishings and Appliances	$851.4
Building Materials	$431.8
Motor Vehicles & Parts	$570.1
Service Stations	$477.3
Other Retail Stores	$5,041.0
Retail Total	**$15,342.2**

Sources: Claritas; State of California Board of Equalization; and CBRE Consulting.

Appendix F-2
Translation of Claritas Retail Sales Categories to BOE Categories
San Francisco's Portion of Candlestick Point Market Area
In 2008 Dollars (Millions)

Claritas Sales Category	Claritas Retail Sales 2008 2008 $'s	BOE Category
Motor Vehicle & Parts Dealers		
- Automotive Dealers	$248.80	**Motor Vehicles & Parts**
- Other Motor Vehicle Dealers	$17.20	
- Automotive Parts, Accessories, & Tire Stores	$35.70	
Furniture & Home Furnishings Stores		
- Furniture Stores	$111.00	
- Home Furnishing Stores	$165.10	**Home Furnishings and Appliances**
Electronics & Appliance Stores		
- Appliance, Television, and Other Electronics	$158.00	
- Household Appliances Stores	$28.60	
- Radio Television and Other Electronics	$129.50	
- Computer and Software Stores	$54.90	**Other Retail Stores**
- Camera & Photographic Equipment Stores	$18.70	
Building Material & Garden Equipment & Supply Dealers		
- Building Material & Supply Dealers	$288.60	**Building Materials and Farm Implements**
- Home Centers	$44.10	
- Paint and Wallpaper Stores	$16.50	
- Hardware Stores	$4.60	
- Other Building Materials Dealers	$223.50	
- Building Materials, Lumberyards	$76.20	
- Lawn and Garden Equipment and Supplies	$7.40	**Other Retail Stores**
- Outdoor Power Equipment Stores	$0.30	
- Nursery and Garden Centers	$7.20	
Food & Beverage Stores		
- Grocery Stores	$537.30	
- Supermarkets and Other Grocery Stores	$528.40	**Food Stores**
- Convenience Stores	$8.90	
- Specialty Food Stores	$66.00	
- Beer, Wine, & Liquor Stores	$48.30	
Health & Personal Care Stores		**General Merchandise Stores**
- Pharmacies and Drug Stores	$195.70	
- Cosmetics, Beauty Supplies and Perfume Stores	$13.10	**Other Retail Stores**
- Optical Goods Stores	$6.90	
- Other Health and Personal Care Stores	$19.80	
Gasoline Stations		
- Gasoline Stations with Convenience Stores	$157.90	**Service Stations**
- Other Gasoline Stations	$81.10	
Clothing & Clothing Accessories Stores		
- Clothing Stores	$320.00	
- Men's Clothing Stores	$21.30	
- Women's Clothing Stores	$104.60	
- Children's and Infants' Clothing Stores	$4.30	**Apparel Stores**
- Family Clothing Stores	$144.60	
- Clothing Accessories Stores	$19.20	
- Other Clothing Stores	$26.00	
- Shoe Stores	$48.00	
- Jewelry, Luggage, & Leather Goods Stores	$105.90	**Other Retail Stores**
- Jewelry Stores	$93.80	
- Luggage, & Leather Goods Stores	$12.10	
Sporting Goods, Hobby, Book, & Music Stores		
- Sporting Goods, Hobby, & Musical Instruments	$78.50	
- Sporting Goods Stores	$42.30	
- Hobby, Toys and Games Stores	$23.60	
- Sew, Needlework, Piece Goods Stores	$5.80	**Other Retail Stores**
- Musical Instrument and Supplies Stores	$6.70	
- Book, Periodical, & Music Stores	$44.90	
- Book Stores and News Dealers	$25.90	
- Book Stores	$23.70	
- News Dealers and Newsstands	$2.30	
- Prerecorded Tape, Compact Disc, & Records	$19.00	
General Merchandise Stores		
- Department Stores excluding Leased Dept Stores	$295.60	**General Merchandise Stores**
- Other General Merchandise Stores	$52.00	
- Warehouse Clubs and Super Stores	$23.70	
- All Other General Merchandise Stores	$28.30	
Miscellaneous Store Retailers		
- Florists	$12.60	
- Office Supplies, Stationery, & Gift Stores	$77.10	**Other Retail Stores**
- Office Supplies and Stationery Stores	$38.00	
- Gift, Novelty, and Souvenir Stores	$39.10	
- Used Merchandise Stores	$39.30	
- Other Miscellaneous Store Retailers	$104.10	
Non-store Retailers		
- Electronic Shopping and Mail-order Houses	$2,230.70	**Other Retail Stores**
- Vending Machine Operators	$6.00	
- Direct Selling Establishments	$108.00	
Foodservice & Drinking Places		
- Full-Service Restaurants	$551.60	**Eating and Drinking Places**
- Limited-service Eating Places	$187.10	
- Special Foodservices	$103.30	
- Drinking Places - Alcoholic Beverages	$72.40	
TOTAL RETAIL STORES	**$6,668.60**	

Summary by BOE Category	
BOE Category	In Millions
Apparel Stores	$368.0
General Merchandise Stores	$543.3
Food Stores	$651.6
Eating & Drinking Places	$914.4
Home Furnishings and Appliances	$434.1
Building Materials	$288.6
Motor Vehicles & Parts	$301.7
Service Stations	$239.0
Other Retail Stores	$2,927.9
Retail Total	**$6,668.6**

Sources: Claritas; State of California Board of Equalization; and CBRE Consulting.

Appendix F-3
Translation of Claritas Retail Sales Categories to BOE Categories
San Mateo County
In 2008 Dollars (Millions)

Claritas Sales Category	Claritas Retail Sales 2008 2008 $'s	BOE Category
Motor Vehicle & Parts Dealers		
- Automotive Dealers	$2,441.00	**Motor Vehicles & Parts**
- Other Motor Vehicle Dealers	$56.10	
- Automotive Parts, Accessories, & Tire Stores	$142.70	
Furniture & Home Furnishings Stores		
- Furniture Stores	$106.30	
- Home Furnishing Stores	$98.40	**Home Furnishings and Appliances**
Electronics & Appliance Stores		
- Appliance, Television, and Other Electronics	$268.10	
- Household Appliances Stores	$55.10	
- Radio Television and Other Electronics	$213.00	
- Computer and Software Stores	$78.80	**Other Retail Stores**
- Camera & Photographic Equipment Stores	$3.70	
Building Material & Garden Equipment & Supply Dealers		
- Building Material & Supply Dealers	$1,221.70	**Building Materials and Farm Implements**
- Home Centers	$516.50	
- Paint and Wallpaper Stores	$63.00	
- Hardware Stores	$179.20	
- Other Building Materials Dealers	$463.10	
- Building Materials, Lumberyards	$157.90	
- Lawn and Garden Equipment and Supplies	$43.80	**Other Retail Stores**
- Outdoor Power Equipment Stores	$2.20	
- Nursery and Garden Centers	$41.60	
Food & Beverage Stores		
- Grocery Stores	$1,659.90	**Food Stores**
- Supermarkets and Other Grocery Stores	$1,615.80	
- Convenience Stores	$44.10	
- Specialty Food Stores	$71.50	
- Beer, Wine, & Liquor Stores	$82.90	
Health & Personal Care Stores		**General Merchandise Stores**
- Pharmacies and Drug Stores	$568.60	
- Cosmetics, Beauty Supplies and Perfume Stores	$19.90	**Other Retail Stores**
- Optical Goods Stores	$20.00	
- Other Health and Personal Care Stores	$54.60	
Gasoline Stations		
- Gasoline Stations with Convenience Stores	$461.10	**Service Stations**
- Other Gasoline Stations	$163.60	
Clothing & Clothing Accessories Stores		
- Clothing Stores	$438.50	**Apparel Stores**
- Men's Clothing Stores	$20.00	
- Women's Clothing Stores	$76.20	
- Children's and Infants' Clothing Stores	$21.70	
- Family Clothing Stores	$283.30	
- Clothing Accessories Stores	$8.10	
- Other Clothing Stores	$29.20	
- Shoe Stores	$60.50	
- Jewelry, Luggage, & Leather Goods Stores	$88.30	**Other Retail Stores**
- Jewelry Stores	$82.50	
- Luggage, & Leather Goods Stores	$5.90	
Sporting Goods, Hobby, Book, & Music Stores		
- Sporting Goods, Hobby, & Musical Instruments	$187.40	**Other Retail Stores**
- Sporting Goods Stores	$91.10	
- Hobby, Toys and Games Stores	$51.80	
- Sew, Needlework, Piece Goods Stores	$11.70	
- Musical Instrument and Supplies Stores	$32.80	
- Book, Periodical, & Music Stores	$61.70	
- Book Stores and News Dealers	$38.50	
- Book Stores	$37.00	
- News Dealers and Newsstands	$1.50	
- Prerecorded Tape, Compact Disc, & Records	$23.20	
General Merchandise Stores		
- Department Stores excluding Leased Dept Stores	$909.40	**General Merchandise Stores**
- Other General Merchandise Stores	$340.40	
- Warehouse Clubs and Super Stores	$299.50	
- All Other General Merchandise Stores	$40.90	
Miscellaneous Store Retailers		
- Florists	$20.90	**Other Retail Stores**
- Office Supplies, Stationery, & Gift Stores	$161.00	
- Office Supplies and Stationery Stores	$80.80	
- Gift, Novelty, and Souvenir Stores	$80.20	
- Used Merchandise Stores	$34.10	
- Other Miscellaneous Store Retailers	$103.90	
Non-store Retailers		
- Electronic Shopping and Mail-order Houses	$506.30	**Other Retail Stores**
- Vending Machine Operators	$8.80	
- Direct Selling Establishments	$114.20	
Foodservice & Drinking Places		
- Full-Service Restaurants	$670.90	**Eating and Drinking Places**
- Limited-service Eating Places	$517.40	
- Special Foodservices	$295.10	
- Drinking Places - Alcoholic Beverages	$19.50	
TOTAL RETAIL STORES	**$12,101.00**	

Summary by BOE Category	
BOE Category	In Millions
Apparel Stores	$499.0
General Merchandise Stores	$1,818.4
Food Stores	$1,814.3
Eating & Drinking Places	$1,502.9
Home Furnishings and Appliances	$472.8
Building Materials	$1,221.7
Motor Vehicles & Parts	$2,639.8
Service Stations	$624.7
Other Retail Stores	$1,507.4
Retail Total	**$12,101.0**

Sources: Claritas; State of California Board of Equalization; and CBRE Consulting.

Appendix F-4
Translation of Claritas Retail Sales Categories to BOE Categories
City of South San Francisco's Portion of Candlestick Point Market Area
In 2008 Dollars (Millions)

Claritas Sales Category	Claritas Retail Sales 2008 2008 $'s	BOE Category
Motor Vehicle & Parts Dealers		
- Automotive Dealers	$40.00	Motor Vehicles & Parts
- Other Motor Vehicle Dealers	$1.20	
- Automotive Parts, Accessories, & Tire Stores	$3.20	
Furniture & Home Furnishings Stores		
- Furniture Stores	$8.70	
- Home Furnishing Stores	$3.80	Home Furnishings and Appliances
Electronics & Appliance Stores		
- Appliance, Television, and Other Electronics	$7.00	
- Household Appliances Stores	$0.90	
- Radio Television and Other Electronics	$6.10	
- Computer and Software Stores	$1.40	Other Retail Stores
- Camera & Photographic Equipment Stores	$0.00	
Building Material & Garden Equipment & Supply Dealers		
- Building Material & Supply Dealers	$18.90	Building Materials and Farm Implements
- Home Centers	$0.00	
- Paint and Wallpaper Stores	$1.00	
- Hardware Stores	$9.00	
- Other Building Materials Dealers	$9.00	
- Building Materials, Lumberyards	$3.10	
- Lawn and Garden Equipment and Supplies	$1.90	Other Retail Stores
- Outdoor Power Equipment Stores	$0.20	
- Nursery and Garden Centers	$1.70	
Food & Beverage Stores		
- Grocery Stores	$17.40	
- Supermarkets and Other Grocery Stores	$16.60	Food Stores
- Convenience Stores	$0.80	
- Specialty Food Stores	$8.10	
- Beer, Wine, & Liquor Stores	$3.70	
Health & Personal Care Stores		General Merchandise Stores
- Pharmacies and Drug Stores	$9.00	
- Cosmetics, Beauty Supplies and Perfume Stores	$0.10	Other Retail Stores
- Optical Goods Stores	$0.00	
- Other Health and Personal Care Stores	$0.20	
Gasoline Stations		
- Gasoline Stations with Convenience Stores	$17.70	Service Stations
- Other Gasoline Stations	$4.10	
Clothing & Clothing Accessories Stores		
- Clothing Stores	$1.80	
- Men's Clothing Stores	$0.10	
- Women's Clothing Stores	$1.20	
- Children's and Infants' Clothing Stores	$0.00	Apparel Stores
- Family Clothing Stores	$0.00	
- Clothing Accessories Stores	$0.00	
- Other Clothing Stores	$0.50	
- Shoe Stores	$0.00	
- Jewelry, Luggage, & Leather Goods Stores	$2.30	Other Retail Stores
- Jewelry Stores	$2.30	
- Luggage, & Leather Goods Stores	$0.00	
Sporting Goods, Hobby, Book, & Music Stores		
- Sporting Goods, Hobby, & Musical Instruments	$4.80	
- Sporting Goods Stores	$2.00	
- Hobby, Toys and Games Stores	$0.60	
- Sew, Needlework, Piece Goods Stores	$0.00	Other Retail Stores
- Musical Instrument and Supplies Stores	$2.20	
- Book, Periodical, & Music Stores	$1.00	
- Book Stores and News Dealers	$0.40	
- Book Stores	$0.10	
- News Dealers and Newsstands	$0.30	
- Prerecorded Tape, Compact Disc, & Records	$0.60	
General Merchandise Stores		
- Department Stores excluding Leased Dept Stores	$9.10	General Merchandise Stores
- Other General Merchandise Stores	$9.50	
- Warehouse Clubs and Super Stores	$7.60	
- All Other General Merchandise Stores	$1.90	
Miscellaneous Store Retailers		
- Florists	$0.30	
- Office Supplies, Stationery, & Gift Stores	$5.70	Other Retail Stores
- Office Supplies and Stationery Stores	$1.70	
- Gift, Novelty, and Souvenir Stores	$4.10	
- Used Merchandise Stores	$0.70	
- Other Miscellaneous Store Retailers	$1.70	
Non-store Retailers		
- Electronic Shopping and Mail-order Houses	$33.10	Other Retail Stores
- Vending Machine Operators	$0.30	
- Direct Selling Establishments	$6.30	
Foodservice & Drinking Places		
- Full-Service Restaurants	$21.40	Eating and Drinking Places
- Limited-service Eating Places	$14.60	
- Special Foodservices	$13.80	
- Drinking Places - Alcoholic Beverages	$0.60	
TOTAL RETAIL STORES	**$273.40**	

Summary by BOE Category	
BOE Category	In Millions
Apparel Stores	$1.8
General Merchandise Stores	$27.6
Food Stores	$29.2
Eating & Drinking Places	$50.4
Home Furnishings and Appliances	$19.5
Building Materials	$18.9
Motor Vehicles & Parts	$44.4
Service Stations	$21.8
Other Retail Stores	$59.8
Retail Total	**$273.4**

Sources: Claritas; State of California Board of Equalization; and CBRE Consulting.

Appendix F-5
Translation of Claritas Retail Sales Categories to BOE Categories
City of Daly City's Portion of Candlestick Point Market Area
In 2008 Dollars (Millions)

Claritas Sales Category	Claritas Retail Sales 2008 2008 $'s	BOE Category
Motor Vehicle & Parts Dealers		
- Automotive Dealers	$0.50	Motor Vehicles & Parts
- Other Motor Vehicle Dealers	$0.00	
- Automotive Parts, Accessories, & Tire Stores	$0.00	
Furniture & Home Furnishings Stores		
- Furniture Stores	$0.00	
- Home Furnishing Stores	$0.50	Home Furnishings and Appliances
Electronics & Appliance Stores		
- Appliance, Television, and Other Electronics	$0.00	
- Household Appliances Stores	$0.00	
- Radio Television and Other Electronics	$0.00	
- Computer and Software Stores	$0.00	Other Retail Stores
- Camera & Photographic Equipment Stores	$0.00	
Building Material & Garden Equipment & Supply Dealers		
- Building Material & Supply Dealers	$2.80	Building Materials and Farm Implements
- Home Centers	$1.50	
- Paint and Wallpaper Stores	$0.00	
- Hardware Stores	$0.00	
- Other Building Materials Dealers	$1.20	
- Building Materials, Lumberyards	$0.40	
- Lawn and Garden Equipment and Supplies	$0.00	Other Retail Stores
- Outdoor Power Equipment Stores	$0.00	
- Nursery and Garden Centers	$0.00	
Food & Beverage Stores		
- Grocery Stores	$1.40	Food Stores
- Supermarkets and Other Grocery Stores	$1.40	
- Convenience Stores	$0.00	
- Specialty Food Stores	$0.00	
- Beer, Wine, & Liquor Stores	$0.00	
Health & Personal Care Stores		General Merchandise Stores
- Pharmacies and Drug Stores	$9.00	
- Cosmetics, Beauty Supplies and Perfume Stores	$0.00	Other Retail Stores
- Optical Goods Stores	$0.00	
- Other Health and Personal Care Stores	$0.00	
Gasoline Stations		
- Gasoline Stations with Convenience Stores	$0.00	Service Stations
- Other Gasoline Stations	$3.90	
Clothing & Clothing Accessories Stores		
- Clothing Stores	$0.00	Apparel Stores
- Men's Clothing Stores	$0.00	
- Women's Clothing Stores	$0.00	
- Children's and Infants' Clothing Stores	$0.00	
- Family Clothing Stores	$0.00	
- Clothing Accessories Stores	$0.00	
- Other Clothing Stores	$0.00	
- Shoe Stores	$0.00	
- Jewelry, Luggage, & Leather Goods Stores	$0.00	Other Retail Stores
- Jewelry Stores	$0.00	
- Luggage, & Leather Goods Stores	$0.00	
Sporting Goods, Hobby, Book, & Music Stores		
- Sporting Goods, Hobby, & Musical Instruments	$0.00	Other Retail Stores
- Sporting Goods Stores	$0.00	
- Hobby, Toys and Games Stores	$0.00	
- Sew, Needlework, Piece Goods Stores	$0.00	
- Musical Instrument and Supplies Stores	$0.00	
- Book, Periodical, & Music Stores	$0.00	
- Book Stores and News Dealers	$0.00	
- Book Stores	$0.00	
- News Dealers and Newsstands	$0.00	
- Prerecorded Tape, Compact Disc, & Records	$0.00	
General Merchandise Stores		
- Department Stores excluding Leased Dept Stores	$0.00	General Merchandise Stores
- Other General Merchandise Stores	$1.80	
- Warehouse Clubs and Super Stores	$1.80	
- All Other General Merchandise Stores	$0.00	
Miscellaneous Store Retailers		
- Florists	$0.00	Other Retail Stores
- Office Supplies, Stationery, & Gift Stores	$4.90	
- Office Supplies and Stationery Stores	$0.00	
- Gift, Novelty, and Souvenir Stores	$4.90	
- Used Merchandise Stores	$1.30	
- Other Miscellaneous Store Retailers	$0.00	
Non-store Retailers		
- Electronic Shopping and Mail-order Houses	$0.00	Other Retail Stores
- Vending Machine Operators	$0.00	
- Direct Selling Establishments	$0.00	
Foodservice & Drinking Places		
- Full-Service Restaurants	$0.70	Eating and Drinking Places
- Limited-service Eating Places	$2.30	
- Special Foodservices	$18.50	
- Drinking Places - Alcoholic Beverages	$0.00	
TOTAL RETAIL STORES	**$47.60**	

Summary by BOE Category	
BOE Category	In Millions
Apparel Stores	$0.0
General Merchandise Stores	$10.8
Food Stores	$1.4
Eating & Drinking Places	$21.5
Home Furnishings and Appliances	$0.5
Building Materials	$2.8
Motor Vehicles & Parts	$0.5
Service Stations	$3.9
Other Retail Stores	$6.2
Retail Total	**$47.6**

Sources: Claritas; State of California Board of Equalization; and CBRE Consulting.

Appendix F-6
Translation of Claritas Retail Sales Categories to BOE Categories
City of Brisbane's Portion of Candlestick Point Market Area
In 2008 Dollars (Millions)

Claritas Sales Category	Claritas Retail Sales 2008 2008 $'s	BOE Category
Motor Vehicle & Parts Dealers		
- Automotive Dealers	$2.40	**Motor Vehicles & Parts**
- Other Motor Vehicle Dealers	$0.00	
- Automotive Parts, Accessories, & Tire Stores	$0.00	
Furniture & Home Furnishings Stores		
- Furniture Stores	$0.50	
- Home Furnishing Stores	$0.40	**Home Furnishings and Appliances**
Electronics & Appliance Stores		
- Appliance, Television, and Other Electronics	$0.40	
- Household Appliances Stores	$0.30	
- Radio Television and Other Electronics	$0.10	
- Computer and Software Stores	$0.10	**Other Retail Stores**
- Camera & Photographic Equipment Stores	$0.00	
Building Material & Garden Equipment & Supply Dealers		
- Building Material & Supply Dealers	$21.10	**Building Materials and Farm Implements**
- Home Centers	$0.00	
- Paint and Wallpaper Stores	$0.00	
- Hardware Stores	$13.20	
- Other Building Materials Dealers	$7.90	
- Building Materials, Lumberyards	$2.70	
- Lawn and Garden Equipment and Supplies	$1.60	**Other Retail Stores**
- Outdoor Power Equipment Stores	$0.00	
- Nursery and Garden Centers	$1.60	
Food & Beverage Stores		
- Grocery Stores	$2.60	**Food Stores**
- Supermarkets and Other Grocery Stores	$2.60	
- Convenience Stores	$0.00	
- Specialty Food Stores	$0.60	
- Beer, Wine, & Liquor Stores	$1.70	
Health & Personal Care Stores		**General Merchandise Stores**
- Pharmacies and Drug Stores	$0.00	
- Cosmetics, Beauty Supplies and Perfume Stores	$0.00	**Other Retail Stores**
- Optical Goods Stores	$0.00	
- Other Health and Personal Care Stores	$1.00	
Gasoline Stations		
- Gasoline Stations with Convenience Stores	$0.00	**Service Stations**
- Other Gasoline Stations	$0.00	
Clothing & Clothing Accessories Stores		
- Clothing Stores	$0.70	**Apparel Stores**
- Men's Clothing Stores	$0.00	
- Women's Clothing Stores	$0.00	
- Children's and Infants' Clothing Stores	$0.00	
- Family Clothing Stores	$0.00	
- Clothing Accessories Stores	$0.10	
- Other Clothing Stores	$0.60	
- Shoe Stores	$0.00	
- Jewelry, Luggage, & Leather Goods Stores	$0.10	**Other Retail Stores**
- Jewelry Stores	$0.10	
- Luggage, & Leather Goods Stores	$0.00	
Sporting Goods, Hobby, Book, & Music Stores		
- Sporting Goods, Hobby, & Musical Instruments	$0.20	**Other Retail Stores**
- Sporting Goods Stores	$0.20	
- Hobby, Toys and Games Stores	$0.00	
- Sew, Needlework, Piece Goods Stores	$0.00	
- Musical Instrument and Supplies Stores	$0.00	
- Book, Periodical, & Music Stores	$0.40	
- Book Stores and News Dealers	$0.00	
- Book Stores	$0.00	
- News Dealers and Newsstands	$0.00	
- Prerecorded Tape, Compact Disc, & Records	$0.40	
General Merchandise Stores		
- Department Stores excluding Leased Dept Stores	$0.00	**General Merchandise Stores**
- Other General Merchandise Stores	$3.00	
- Warehouse Clubs and Super Stores	$1.90	
- All Other General Merchandise Stores	$1.10	
Miscellaneous Store Retailers		
- Florists	$0.10	**Other Retail Stores**
- Office Supplies, Stationery, & Gift Stores	$1.00	
- Office Supplies and Stationery Stores	$1.00	
- Gift, Novelty, and Souvenir Stores	$0.00	
- Used Merchandise Stores	$0.00	
- Other Miscellaneous Store Retailers	$0.60	
Non-store Retailers		
- Electronic Shopping and Mail-order Houses	$32.30	**Other Retail Stores**
- Vending Machine Operators	$0.20	
- Direct Selling Establishments	$23.00	
Foodservice & Drinking Places		
- Full-Service Restaurants	$0.20	**Eating and Drinking Places**
- Limited-service Eating Places	$1.20	
- Special Foodservices	$2.00	
- Drinking Places - Alcoholic Beverages	$0.00	
TOTAL RETAIL STORES	**$97.40**	

Summary by BOE Category	
BOE Category	In Millions
Apparel Stores	$0.7
General Merchandise Stores	$3.0
Food Stores	$4.9
Eating & Drinking Places	$3.4
Home Furnishings and Appliances	$1.3
Building Materials	$21.1
Motor Vehicles & Parts	$2.4
Service Stations	$0.0
Other Retail Stores	$60.6
Retail Total	**$97.4**

Sources: Claritas; State of California Board of Equalization; and CBRE Consulting.

APPENDIX G: TRANSLATION OF CLARITAS RETAIL SALES CATEGORIES TO BOE CATEGORIES, HUNTERS POINT SHIPYARD PHASE II MARKET AREA, 2008

Appendix G-1
Translation of Claritas Retail Sales Categories to BOE Categories
San Francisco's Portion of Hunters Point Shipyard Phase II Market Area
In 2008 Dollars (Millions)

Claritas Sales Category	Claritas Retail Sales 2008 2008 $'s	BOE Category
Motor Vehicle & Parts Dealers		
- Automotive Dealers	$36.60	**Motor Vehicles & Parts**
- Other Motor Vehicle Dealers	$0.50	
- Automotive Parts, Accessories, & Tire Stores	$8.00	
Furniture & Home Furnishings Stores		
- Furniture Stores	$9.50	
- Home Furnishing Stores	$53.10	**Home Furnishings and Appliances**
Electronics & Appliance Stores		
- Appliance, Television, and Other Electronics	$24.90	
- Household Appliances Stores	$4.60	
- Radio Television and Other Electronics	$20.30	
- Computer and Software Stores	$0.90	**Other Retail Stores**
- Camera & Photographic Equipment Stores	$2.10	
Building Material & Garden Equipment & Supply Dealers		
- Building Material & Supply Dealers	$122.90	**Building Materials and Farm Implements**
- Home Centers	$23.50	
- Paint and Wallpaper Stores	$1.90	
- Hardware Stores	$1.00	
- Other Building Materials Dealers	$96.60	
- Building Materials, Lumberyards	$32.90	
- Lawn and Garden Equipment and Supplies	$4.30	**Other Retail Stores**
- Outdoor Power Equipment Stores	$0.10	
- Nursery and Garden Centers	$4.20	
Food & Beverage Stores		
- Grocery Stores	$123.10	**Food Stores**
- Supermarkets and Other Grocery Stores	$122.30	
- Convenience Stores	$0.70	
- Specialty Food Stores	$14.90	
- Beer, Wine, & Liquor Stores	$8.00	
Health & Personal Care Stores		**General Merchandise Stores**
- Pharmacies and Drug Stores	$21.90	
- Cosmetics, Beauty Supplies and Perfume Stores	$0.10	**Other Retail Stores**
- Optical Goods Stores	$0.00	
- Other Health and Personal Care Stores	$0.20	
Gasoline Stations		
- Gasoline Stations with Convenience Stores	$0.00	**Service Stations**
- Other Gasoline Stations	$17.30	
Clothing & Clothing Accessories Stores		
- Clothing Stores	$9.30	**Apparel Stores**
- Men's Clothing Stores	$0.90	
- Women's Clothing Stores	$3.30	
- Children's and Infants' Clothing Stores	$0.50	
- Family Clothing Stores	$3.40	
- Clothing Accessories Stores	$0.20	
- Other Clothing Stores	$1.10	
- Shoe Stores	$0.40	
- Jewelry, Luggage, & Leather Goods Stores	$3.90	**Other Retail Stores**
- Jewelry Stores	$2.40	
- Luggage, & Leather Goods Stores	$1.50	
Sporting Goods, Hobby, Book, & Music Stores		
- Sporting Goods, Hobby, & Musical Instruments	$7.50	**Other Retail Stores**
- Sporting Goods Stores	$2.00	
- Hobby, Toys and Games Stores	$5.50	
- Sew, Needlework, Piece Goods Stores	$0.00	
- Musical Instrument and Supplies Stores	$0.00	
- Book, Periodical, & Music Stores	$4.70	
- Book Stores and News Dealers	$3.20	
- Book Stores	$3.00	
- News Dealers and Newsstands	$0.10	
- Prerecorded Tape, Compact Disc, & Records	$1.60	
General Merchandise Stores		
- Department Stores excluding Leased Dept Stores	$8.10	**General Merchandise Stores**
- Other General Merchandise Stores	$13.60	
- Warehouse Clubs and Super Stores	$6.40	
- All Other General Merchandise Stores	$7.10	
Miscellaneous Store Retailers		
- Florists	$2.10	**Other Retail Stores**
- Office Supplies, Stationery, & Gift Stores	$7.60	
- Office Supplies and Stationery Stores	$6.60	
- Gift, Novelty, and Souvenir Stores	$1.00	
- Used Merchandise Stores	$2.70	
- Other Miscellaneous Store Retailers	$18.80	
Non-store Retailers		
- Electronic Shopping and Mail-order Houses	$8.00	**Other Retail Stores**
- Vending Machine Operators	$2.20	
- Direct Selling Establishments	$22.20	
Foodservice & Drinking Places		
- Full-Service Restaurants	$39.00	**Eating and Drinking Places**
- Limited-service Eating Places	$12.50	
- Special Foodservices	$24.40	
- Drinking Places - Alcoholic Beverages	$2.70	
TOTAL RETAIL STORES	**$638.00**	

Summary by BOE Category	
BOE Category	In Millions
Apparel Stores	$9.7
General Merchandise Stores	$43.6
Food Stores	$146.0
Eating & Drinking Places	$78.6
Home Furnishings and Appliances	$87.5
Building Materials	$122.9
Motor Vehicles & Parts	$45.1
Service Stations	$17.3
Other Retail Stores	$87.3
Retail Total	**$638.0**

Sources: Claritas; State of California Board of Equalization; and CBRE Consulting.

Appendix G-2
Translation of Claritas Retail Sales Categories to BOE Categories
City of Daly City's Portion of Hunters Point Shipyard Phase II Market Area
In 2008 Dollars (Millions)

Claritas Sales Category	Claritas Retail Sales 2008 2008 $'s	BOE Category
Motor Vehicle & Parts Dealers		
- Automotive Dealers	$0.00	Motor Vehicles & Parts
- Other Motor Vehicle Dealers	$0.00	
- Automotive Parts, Accessories, & Tire Stores	$0.00	
Furniture & Home Furnishings Stores		
- Furniture Stores	$0.00	
- Home Furnishing Stores	$0.00	Home Furnishings and Appliances
Electronics & Appliance Stores		
- Appliance, Television, and Other Electronics	$0.00	
- Household Appliances Stores	$0.00	
- Radio Television and Other Electronics	$0.00	
- Computer and Software Stores	$0.00	Other Retail Stores
- Camera & Photographic Equipment Stores	$0.00	
Building Material & Garden Equipment & Supply Dealers		
- Building Material & Supply Dealers	$0.30	Building Materials and Farm Implements
- Home Centers	$0.00	
- Paint and Wallpaper Stores	$0.00	
- Hardware Stores	$0.00	
- Other Building Materials Dealers	$0.30	
- Building Materials, Lumberyards	$0.10	
- Lawn and Garden Equipment and Supplies	$0.00	Other Retail Stores
- Outdoor Power Equipment Stores	$0.00	
- Nursery and Garden Centers	$0.00	
Food & Beverage Stores		
- Grocery Stores	$0.20	Food Stores
- Supermarkets and Other Grocery Stores	$0.20	
- Convenience Stores	$0.00	
- Specialty Food Stores	$0.00	
- Beer, Wine, & Liquor Stores	$0.00	
Health & Personal Care Stores		General Merchandise Stores
- Pharmacies and Drug Stores	$0.10	
- Cosmetics, Beauty Supplies and Perfume Stores	$0.00	Other Retail Stores
- Optical Goods Stores	$0.00	
- Other Health and Personal Care Stores	$0.00	
Gasoline Stations		
- Gasoline Stations with Convenience Stores	$0.00	Service Stations
- Other Gasoline Stations	$1.10	
Clothing & Clothing Accessories Stores		
- Clothing Stores	$0.00	Apparel Stores
- Men's Clothing Stores	$0.00	
- Women's Clothing Stores	$0.00	
- Children's and Infants' Clothing Stores	$0.00	
- Family Clothing Stores	$0.00	
- Clothing Accessories Stores	$0.00	
- Other Clothing Stores	$0.00	
- Shoe Stores	$0.00	
- Jewelry, Luggage, & Leather Goods Stores	$0.00	Other Retail Stores
- Jewelry Stores	$0.00	
- Luggage, & Leather Goods Stores	$0.00	
Sporting Goods, Hobby, Book, & Music Stores		
- Sporting Goods, Hobby, & Musical Instruments	$0.00	Other Retail Stores
- Sporting Goods Stores	$0.00	
- Hobby, Toys and Games Stores	$0.00	
- Sew, Needlework, Piece Goods Stores	$0.00	
- Musical Instrument and Supplies Stores	$0.00	
- Book, Periodical, & Music Stores	$0.00	
- Book Stores and News Dealers	$0.00	
- Book Stores	$0.00	
- News Dealers and Newsstands	$0.00	
- Prerecorded Tape, Compact Disc, & Records	$0.00	
General Merchandise Stores		
- Department Stores excluding Leased Dept Stores	$0.00	General Merchandise Stores
- Other General Merchandise Stores	$0.10	
- Warehouse Clubs and Super Stores	$0.10	
- All Other General Merchandise Stores	$0.00	
Miscellaneous Store Retailers		
- Florists	$0.00	Other Retail Stores
- Office Supplies, Stationery, & Gift Stores	$1.30	
- Office Supplies and Stationery Stores	$0.00	
- Gift, Novelty, and Souvenir Stores	$1.30	
- Used Merchandise Stores	$0.00	
- Other Miscellaneous Store Retailers	$0.00	
Non-store Retailers		
- Electronic Shopping and Mail-order Houses	$0.00	Other Retail Stores
- Vending Machine Operators	$0.00	
- Direct Selling Establishments	$0.00	
Foodservice & Drinking Places		
- Full-Service Restaurants	$0.00	Eating and Drinking Places
- Limited-service Eating Places	$0.00	
- Special Foodservices	$0.20	
- Drinking Places - Alcoholic Beverages	$0.00	
TOTAL RETAIL STORES	**$3.30**	

Summary by BOE Category	
BOE Category	In Millions
Apparel Stores	$0.0
General Merchandise Stores	$0.2
Food Stores	$0.2
Eating & Drinking Places	$0.2
Home Furnishings and Appliances	$0.0
Building Materials	$0.3
Motor Vehicles & Parts	$0.0
Service Stations	$1.1
Other Retail Stores	$1.3
Retail Total	**$3.3**

Sources: Claritas; State of California Board of Equalization; and CBRE Consulting.

APPENDIX H: NEW HOUSEHOLD DEMAND BY TYPE OF AFFORDABLE HOUSING

Appendix H-1
Candlestick Point - Hunters Point Shipyard Phase II Development Plan
Average Household Income for New Households in Affordable Units
2009

Unit Type	Total	Units (1) For Rent	Units (1) For Sale	Average Persons Per Household	Persons For Rent	Persons For Sale
Senior	312	312	0	1.0	312	-
1-Bedroom	535	263	272	2.0	526	544
2-Bedroom	1,023	427	595	3.0	1,282	1,786
3-Bedroom	1,376	543	833	4.0	2,170	3,334
4+Bedroom	99	99	0	5.0	493	-
Total	**3,345**	**1,644**	**1,701**		**4,784**	**5,664**
Weighted Average Persons Per Household					**3.4**	**3.5**

Maximum Income by Household Size for 2009 (2)

Maximum Income (3)	Household Size 3 Person	4 Person	Average
50% of Median (Rental)	$43,550	$48,400	$45,975
80% of Median (For Sale)	$69,700	$77,450	$73,575

Sources: "Bayview Waterfront Project Description", February 2008; "Maximum Income by Household Size: derived from the Unadjusted Area Median Income for HUD Metro Fair Market Rent Area that contains San Francisco", San Francisco Mayor's Office, March 31, 2009; and CBRE Consulting.

(1) From Table II-3 "Candlestick Point - Hunters Point Shipyard Phase II - Housing Mix" in the "Bayview Waterfront Project Description", February 2008.
(2) "Maximum Income by Household Size: derived from the Unadjusted Area Median Income for HUD Metro Fair Market Rent Area that contains San Francisco", San Francisco Mayor's Office, March 31, 2009.
(3) The Candlestick Point - Hunters Point Shipyard Phase II Development Plan sets affordable housing limits at an average of 50% of Area Median Income (AMI) for rental units and an average of 80% AMI for ownership units. See http://www.sfgov.org/site/sfra_page.asp?id=5581.

Appendix H-2
Candlestick Point - Hunters Point Shipyard Phase II Development Plan
Retail Demand Spending Analysis
Household Spending Potential for Households in Affordable Rentals (1)
Candlestick Point Market Area and Hunters Point Shipyard Phase II Market Area
2009

	Affordable Rentals		Affordable For-Sale Units	
Type of Retailer	Per Household (2) Spending	Area Total (in $ 000's) Spending	Per Household (2) Spending	Area Total (in $ 000's) Spending
Apparel Stores	$869	$84,063	$1,280	$123,771
General Merchandise Stores	$2,811	$271,880	$3,527	$341,106
Food Stores	$3,420	$330,805	$3,988	$385,658
Eating and Drinking Places	$2,212	$213,958	$3,090	$298,845
Home Furnishings and Appliances	$637	$61,609	$836	$80,862
Building Materials (3)	$1,213	$117,288	$1,901	$183,845
Auto Dealers and Auto Supplies	$4,071	$393,724	$6,194	$599,087
Service Stations	$2,012	$194,606	$2,511	$242,820
Other Retail Stores (4)	$2,203	$213,056	$3,055	$295,504
Total	**$19,449**	**$1,880,989**	**$26,382**	**$2,551,499**

Sources: Claritas 2009; and CBRE Consulting.

(1) All figures are expressed in constant 2009 dollars. Reference area defined as California.
(2) Analysis assumes the average household income of households in affordable rentals is $45,975 in 2009. See Appendix H-1
(3) Building materials group includes hardware stores, plumbing and electrical supplies, paint and wallpaper products, glass stores, farm implement dealers, and lumber.
(4) Other retail stores includes packaged liquor stores, gifts, art goods and novelties, sporting goods, florists, photographic equipment and supplies, musical instruments, stationary and books, jewelry, office and school supplies, second-hand merchandise, farm and garden supply stores, mobile homes/trailers and campers, boat and motorcycle dealers, and miscellaneous other retail stores.

APPENDIX I: BENCHMARK CALCULATION OF DEMOGRAPHICS, TRADE AREA HOUSEHOLDS OF SELECT GROCERY STORES NEAR HUNTERS POINT SHIPYARD PHASE II MARKET AREA

Appendix I-1
Benchmark Calculation of Demographics
Trade Area Households of Select Grocery Stores
Near the Hunters Point Neighborhood Shipyard Phase II Retail Market Area (1)
2009

	Claritas Data			San Francisco Data (1)	
	San Francisco County	Grocery Store 3-Mile Radius Households	Ratio of Grocery Store Radius to Entire County	City of San Francisco (1)	Estimated Households within Grocery Store Trade Area Radius
	[A]	[B]	[C = B / A]	D	[E = D * C]
19. Whole Foods Market (399 4th St., San Francisco)	332,596	192,086	57.8%	346,618	200,184
25. Foods Co. (1800 Folsom St., San Francisco)	332,596	237,731	71.5%	346,618	247,754
27. Good Life Grocery (1524 20th St., San Francisco)	332,596	189,459	57.0%	346,618	197,446
29. Delano IGA Market (1245 S. Van Ness, San Francisco)	332,596	216,132	65.0%	346,618	225,244
33. Safeway (5290 Diamond Heights Blvd., San Francisco)	332,596	197,984	59.5%	346,618	206,331
37. Safeway (4950 Mission Street)	332,596	122,983	31.5%	346,618	109,216
43. Safeway (30 Chestnut Avenue, South San Francisco)	332,596	48,599	14.6%	346,618	50,648

Sources: Claritas Inc., 2009; San Francisco Urban Water Management Plan projections from email sent by PBS&J dated July 2, 2009; and CBRE Consulting, Inc.

(1) San Francisco Urban Water Management Plan data interpolated from 2005 and 2030 estimates and projections.

Appendix I-2
Benchmark Calculation of Demographics
Overlapping Trade Area Households of Select Grocery Stores
Near the Hunters Point Shipyard Phase II Neighborhood Retail Market Area (1)
2009

	Claritas Data			San Francisco Data (1)	
	San Francisco County	Grocery Store's Overlapping Portion with the Market Area (2)	Ratio of San Francisco's Portion to Entire County	City of San Francisco	Grocery Store's Overlapping Portion with the Market Area
	[A]	[B]	[C = B / A]	D	[E = D * C]
19. Whole Foods Market (399 4th St., San Francisco)	332,596	3,248	1.0%	346,618	3,385
25. Foods Co. (1800 Folsom St., San Francisco)	332,596	12,798	3.8%	346,618	13,338
27. Good Life Grocery (1524 20th St., San Francisco)	332,596	18,461	5.6%	346,618	19,239
29. Delano IGA Market (1245 S. Van Ness, San Francisco)	332,596	21,144	6.4%	346,618	22,035
33. Safeway (5290 Diamond Heights Blvd., San Francisco)	332,596	18,548	5.6%	346,618	19,330
37. Safeway (4950 Mission Street)	332,596	18,771	5.6%	346,618	19,562
43. Safeway (30 Chestnut Avenue, South San Francisco)	332,596	0	0.0%	346,618	0

Sources: Claritas Inc., 2009; San Francisco Urban Water Management Plan projections from email sent by PBS&J dated July 2, 2009; and CBRE Consulting, Inc.

(1) San Francisco Urban Water Management Plan data interpolated from 2005 and 2030 estimates and projections.
(2) Estimates of the portion of households within each grocery store's trade area that are also within the Hunters Point Shipyard Phase II Neighborhood Market Area.

Appendix I-3
Benchmark Calculation of Demographics
For Store 37. Safeway (4950 Mission Street)
Near the Hunters Point Shipyard Phase II Neighborhood Retail Market Area
2009

	Claritas Data			San Francisco & ABAG Data		Claritas Data			San Francisco and ABAG Data (1)	
	County or City Total	Store Total Radius	Ratio of Store Radius to Entire County or City	City or County	Store Total Radius	City or County	Grocery Store Overlapping Portion with the Market Area	Ratio of San Francisco's Portion to Entire County	City of San Francisco	Grocery Store's Overlapping Portion with the Market Area
	[A]	[B]	[C = B / A]	D	[E = D * C]	[A]	[B]	[C = B / A]	D	[E = D * C]
San Francisco	332,596	104,798	31.5%	346,618	109,216	332,596	18,771	5.6%	346,618	19,562
Brisbane	1,671	343	20.5%	1,777	365	1,671	0	0.0%	1,777	0
Colma	422	367	87.0%	472	410	422	0	0.0%	472	0
Broadmoor	1,295	527	40.7%	1,295 (1)	527 (1)	1,295	0	0.0%	1,295	0
Daly City	29,765	16,678	56.0%	31,689	17,756	29,765	150	0.5%	31,689	160
Total Households Store 37					**128,274**					**19,722**

Sources: Claritas Inc., 2009; San Francisco Urban Water Management Plan projections from email sent by PBS&J dated July 2, 2009; and CBRE Consulting, Inc.

(1) Broadmoor estimates were not available from ABAG so the analysis uses the Claritas figures as reasonable proxies for this geographic area.

APPENDIX J: BENCHMARK CALCULATION OF DEMOGRAPHICS FOR STORE 37. SAFEWAY

Appendix J
Benchmark Calculation of Demographics
For Store 37. Safeway (4950 Mission Street) Trade Area (1)
2009 and 2030

	2009 Store 37 Safeway Trade Area Households (2) [A]	Projected Annual Household Growth Rates (3) [B]	2030 Projected Store 37 Safeway Trade Area Households [C]
San Francisco	109,216	0.37%	118,024
Brisbane	365	1.74%	524
Colma	410	0.90%	495
Broadmoor	527	0.69%	609
Daly City	17,756	0.69%	20,522
Total Households Store 37	**128,274**	**0.42%**	**140,174**

Sources: Appendix I-3; San Francisco Urban Water Management Plan projections from email sent by PBS&J dated July 2, 2009; Association of Bay Area Governments (ABAG) "Projections 2007"; and CBRE Consulting, Inc.

(1) San Francisco Urban Water Management Plan data and ABAG data interpolated from 2005 and 2030 estimates and projections.

(2) See Appendix I-3.

(3) The San Francisco estimate is based on the figures from the San Francisco Urban Water Management Plan, excluding major planned development projects at Treasure Island, Park Merced, and Hunters Point / Candlestick Point. The remaining estimates are calculated from ABAG's "Projections 2007" publication. The Daly City figure is also used as a proxy for Broadmoor, which does not have specific estimates in the ABAG publication.

APPENDIX K: BENCHMARK CALCULATION OF DEMOGRAPHICS, WESTFIELD SHOPPING CENTRE, SHOPS AT TANFORAN, AND WESTLAKE SHOPPING CENTER

Appendix K-1
Benchmark Calculations of Household Data
Relevant to the Westfield San Francisco Centre
2009

	Claritas Data			San Francisco & ABAG Data (1)		Claritas Data			San Francisco and ABAG Data (1)	
	County or City Total	Shopping Center Total Radius	Ratio of SC Radius to Entire County or City	City or County	Shopping Center Total Radius	City or County	Shopping Center's Overlapping Portion with the Market Area	Ratio of San Francisco's Portion to Entire County	City of San Francisco	Shopping Center's Overlapping Portion with the Market Area
	[A]	[B]	[C = B / A]	D	[E = D * C]	[A]	[B]	[C = B / A]	D	[E = D * C]
San Francisco	332,596	285,598	85.9%	346,618 (1)	297,639	332,596	82,898	24.9%	346,618	86,393
Brisbane	1,671	779	46.6%	1,777	829	1,671	779	46.6%	1,777	829
S. San Francisco	20,216	723	3.6%	20,601	737	20,216	723	3.6%	20,601	737
Daly City	29,765	4,171	14.0%	31,689	4,441	29,765	1,062	3.6%	31,689	1,131
Total Households Westfield Shopping Centre					**303,645**					**89,089**

Sources: Claritas Inc., 2009; San Francisco Urban Water Management Plan projections from email sent by PBS&J dated July 2, 2009; and CBRE Consulting, Inc.

(1) San Francisco Urban Water Management Plan data interpolated from 2005 and 2030 estimates and projections. ABAG data interpolated from 2005 estimates and 2010 projections.

Appendix K-2
Benchmark Calculations of Household Data
Relevant to the Shops at Tanforan
2009

	Claritas Data			San Francisco & ABAG Data (1)		Claritas Data			San Francisco and ABAG Data (1)	
	County or City Total	Shopping Center Total Radius	Ratio of SC Radius to Entire County or City	City or County	Shopping Center Total Radius	City or County	Shopping Center Overlapping Portion with the Market Area	Ratio of San Francisco's Portion to Entire County	City of San Francisco	Shopping Center's Overlapping Portion with the Market Area
	[A]	[B]	[C = B / A]	D	[E = D * C]	[A]	[B]	[C = B / A]	D	[E = D * C]
Broadmoor	1,295	1,275	98.5%	N/A	N/A	1,295	0	0.0%	N/A	0
Burlingame	12,218	12,180	99.7%	12,794	12,754	12,218	0	0.0%	12,794	0
Colma	422	422	100.0%	472	472	422	0	0.0%	472	0
Millbrae	8,006	8,006	100.0%	20,601	20,601	8,006	0	0.0%	20,601	0
San Bruno	14,743	14,697	99.7%	15,704	15,655	14,743	0	0.0%	15,704	0
Brisbane	1,671	1,671	100.0%	1,777	1,777	1,671	1,432	85.7%	1,777	1,523
S. San Francisco	83,394	46,426	55.7%	20,601	11,469	83,394	6,307	7.6%	20,601	1,558
San Francisco	332,596	46,426	14.0%	346,618 (1)	48,383	332,596	34,384	10.3%	346,618	35,834
Daly City	29,765	29,814	100.2%	31,689	31,741	29,765	1,524	5.1%	31,689	1,623
Pacifica	13,804	7,814	56.6%	14,288	8,088	13,804	0	0.0%	14,288	0
San Mateo	37,060	12,758	34.4%	39,468	13,587	37,060	0	0.0%	39,468	0
Hillsborough	3,734	2,859	76.6%	3,814	2,920	3,734	0	0.0%	3,814	0
Highlands-Baywood Park	1,546	426	27.6%	N/A	N/A	1,546	0	0.0%	N/A	0
Unincorporated (2)	21,683	763	3.5%	21,683	N/A	21,683	9	0.0%	21,683	9
Total Households, Shops at Tanforan					**167,447**					**40,546**

Sources: Claritas Inc., 2009; San Francisco Urban Water Management Plan projections from email sent by PBS&J dated July 2, 2009; and CBRE Consulting, Inc.

(1) San Francisco Urban Water Management Plan data interpolated from 2005 and 2030 estimates and projections. ABAG data interpolated from 2005 estimates and 2010 projections.
(2) Total for Unincorporated is ABAG data, Claritas does not provide unincorporated data for an entire county.

Appendix K-3
Benchmark Calculations of Household Data
Relevant to Westlake Shopping Center
2009

	Claritas Data			San Francisco & ABAG Data (1)		Claritas Data			San Francisco and ABAG Data (1)	
	County or City Total	Shopping Center Total Radius	Ratio of SC Radius to Entire County or City	City or County	Shopping Center Total Radius	City or County	Shopping Center Overlapping Portion with the Market Area	Ratio of San Francisco's Portion to Entire County	City of San Francisco	Shopping Center's Overlapping Portion with the Market Area
	[A]	[B]	[C = B / A]	D	[E = D * C]	[A]	[B]	[C = B / A]	D	[E = D * C]
Broadmoor	1,295	1,275	98.5%	N/A	N/A	1,295	0	0.0%	N/A	0
Colma	422	422	100.0%	472	472	422	0	0.0%	472	0
Millbrae	8,006	74	0.9%	20,601	190	8,006	0	0.0%	20,601	0
San Bruno	14,743	10,452	70.9%	15,704	11,133	14,743	0	0.0%	15,704	0
S. San Francisco	83,394	18,772	22.5%	20,601	4,637	83,394	4,811	5.8%	20,601	1,188
San Francisco	332,596	123,946	37.3%	346,618 (1)	129,171	332,596	54,924	16.5%	346,618	57,240
Daly City	29,765	29,938	100.6%	31,689	31,873	29,765	1,524	5.1%	31,689	1,623
Pacifica	13,804	8,264	59.9%	14,288	8,554	13,804	0	0.0%	14,288	0
Unincorporated (2)	21,683	359	1.7%	21,683	N/A	21,683	9	0.0%	21,683	9
Total Households, Westlake Shopping Center					**186,031**					**60,060**

Sources: Claritas Inc., 2009; San Francisco Urban Water Management Plan projections from email sent by PBS&J dated July 2, 2009; and CBRE Consulting, Inc.

(1) San Francisco Urban Water Management Plan data interpolated from 2005 and 2030 estimates and projections. ABAG data interpolated from 2005 estimates and 2010 projections.
(2) Total for Unincorporated is ABAG data, Claritas does not provide unincorporated data for an entire county.

APPENDIX L: BENCHMARK CALCULATION OF DEMOGRAPHICS FOR THE WESTFIELD SHOPPING CENTRE, WESTLAKE SHOPPING CENTER, AND THE SHOPS AT TANFORAN

Appendix L
Benchmark Calculations of Household Data and Project Growth Rates
For the Westfield Centre, Westlake Shopping Center, and The Shops at Tanforan
2005, 2009 and 2030

City (1)	2005 [A]	2030 [B]	Average Annual Growth Rate [C]	Westfield SF Centre 2009 (2) [D]	Westfield SF Centre 2030 (3) [E]	Westlake Center 2009 (2) [F]	Westlake Center 2030 (3) [G]	Shops at Tanforan 2009 (2) [H]	Shops at Tanforan 2030 (3) [I]
San Francisco	82,767	109,624	0.67%	297,639	342,445	129,171	148,617	48,383	55,667
Brisbane	1,690	2,600	1.74%	829	1,190	N/A	N/A	1,777	2,552
Colma	440	550	0.90%	N/A	N/A	472	569	472	569
Daly City	31,210	37,080	0.69%	4,441	5,132	31,873	36,838	31,741	36,686
Millbrae	7,980	9,180	0.56%	N/A	N/A	190	214	20,601	23,173
Pacifica	14,160	15,450	0.35%	N/A	N/A	8,554	9,204	8,088	8,702
S. San Francisco	20,130	24,240	0.75%	737	861	4,637	5,420	11,469	13,406
Burlingame	12,610	13,790	0.36%	N/A	N/A	N/A	N/A	12,754	13,749
San Bruno	15,210	18,590	0.81%	N/A	N/A	11,133	13,177	15,655	18,529
San Mateo	38,400	46,770	0.79%	N/A	N/A	N/A	N/A	13,587	16,035
Hillsborough	3,750	4,030	0.29%	N/A	N/A	N/A	N/A	2,920	3,102
Totals				**303,645**	**349,628**	**186,031**	**214,040**	**167,447**	**192,170**
Weighted Average Annual Growth Rates by Trade Area, 2009-2030					**0.67%**		**0.67%**		**0.66%**

Sources: San Francisco Urban Water Management Plan projections from email sent by PBS&J dated July 2, 2009; Association of Bay Area Governments (ABAG) "Projections 2007"; Claritas Inc.; and CBRE Consulting Inc.

(1) San Francisco household data from the San Francisco Urban Water Management Plan, the remaining cities are from ABAG's "Projections 2007" publication.
(2) See Appendices K-1, K-2, and K-3 for details.
(3) Projections of the city level sections of the respective trade areas are based on the related growth rates in Column C.

Appendix V1 Page & Turnbull Hunters Point Shipyard Feasibility Study, Revised September 9, 2009

HUNTERS POINT SHIPYARD

San Francisco, California

FEASIBILITY STUDY

Prepared for
PBS&J

PAGE & TURNBULL
imagining change in historic environments through design, research, and technology.

JULY 1, 2009
REV'D: SEPTEMBER 9, 2009
09061

I. INTRODUCTION

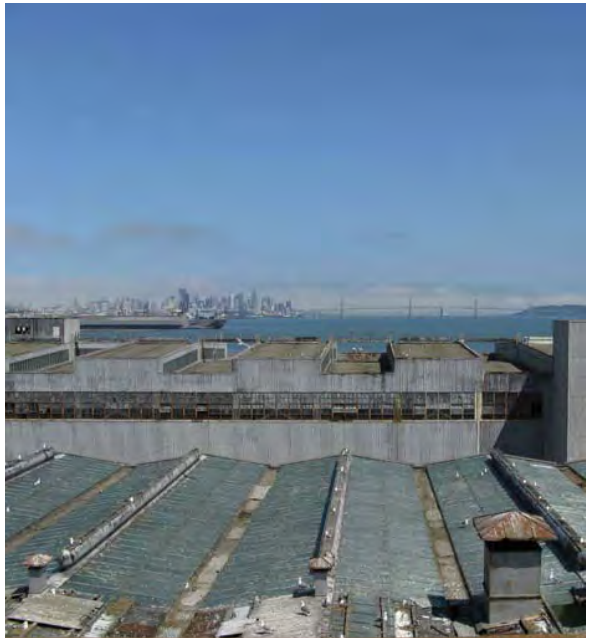


Figure 1. View from roof of Building 253, overlooking its atrium; Building 231 and Bay Bridge in the background.

I.1 Purpose

This Feasibility Study was prepared at the request of Lennar Urban for the Bayview Waterfront Project ("Project") as part of the alternatives analysis for the Bayview Waterfront Project Environmental Impact Report (EIR). This study examines the reuse of three buildings at the former Hunters Point Naval Shipyard: Buildings 211, 231 and 253. These three buildings are part of the potential Hunters Point Commercial Dry Dock and Naval Shipyard Historic District. All three buildings were constructed between 1942 and 1947, and were used as machine shops for the former shipyard. This study proposes a conceptual use for each building based on the current master plan for the project site. It examines the program/use, site and building constraints, code compliance issues, and rehabilitation requirements. Also included are structural analyses which highlight seismic concerns and/or visual deficiencies relative to the structural performance of each building. A conceptual cost estimate for each building is also provided. As potential historic resources [as identified in upcoming environmental impact report], each of the intended reuse options examines the rehabilitation of the buildings according to the Secretary of the Interior's *Standards for the Treatment of Historic Properties*.

I.2 Project Team

The rehabilitation alternatives proposed in this study were produced collaboratively by the project team consisting of:

- Page & Turnbull, Inc. (prime historic preservation/architectural consultant),
- CBRE Consulting | CB Richard Ellis, Inc. (economic consultant),
- JR Conkey & Associates (cost estimator), and
- Emergent Structures, Inc. (structural engineers).

I.3 Methodology

Page & Turnbull, along the with project team, completed the following tasks:

- Review of existing documentation, including:
  - *Circa: Historic Property Development, Hunters Point Commercial Dry Dock and Naval Shipyard Historic District DPR 523D form (draft, 31 October 2008)*
  - *Circa: Historic Property Development, DPR 523A Form, Building 211(draft, June 2008)*
  - *Circa: Historic Property Development, DPR 523A Form, Building 231 (draft, June 2008)*
  - *Circa: Historic Property Development, DPR 523A Form, Building 253 (draft, June 2008)*
  - *Selection of architectural drawings available at the Department of the Navy on Treasure Island (a complete set of architectural drawings was not available for all buildings under review)*
- Consultation with Lennar Urban regarding the intended program;
- Consultation with Project Team, including CBRE, JR Conkey and Emergent Structures. Discussions included overview of the existing conditions of the buildings, limitations associated with building operations and anticipated program of the Project;
- Site visits on May 19, 2009 and June 4, 2009 to visually assess each building, record current condition, and verify building measurements for the code and rehabilitation analysis;
- Code analysis of the three buildings based on 2007 California Building Code (CBC), California Historic Building Code (CHBC), and San Francisco Planning Code;
- Completed architectural diagrams and drawings exploring the conceptual use and layout for each building;
- A visual analysis, review of historic drawings, and basic structural calculations were part of the strategy;
- Review by JR Conkey & Associates of the project documents, including photographs, reports and proposed conceptual sketches; to assist in preparation of the Preliminary Cost Estimate.

II. BACKGROUND

II.1 Project Background

This Feasibility Study has been completed as part of the Bayview Waterfront Project ("Project"), which includes new plans for the Candlestick Point, Hunters Point Shipyard (HPS) and India Basin Shoreline areas of San Francisco. The Project encompasses an approximately 764-acre area east of U.S. 101 in the southeast area of the City and occupies the waterfront area from India Basin to the approximate western edge of Candlestick Point. The Project is comprised of two primary components: (1) the Candlestick Point – Hunters Point Shipyard Phase II Development Plan ("CP-HPS Development Plan" or "Development Plan") and (2) the India Basin Shoreline Plan ("India Basin Plan").

The CP-HPS Development Plan is a project-level development being proposed by Lennar Urban. A wide range of uses are proposed: a mixed-use community with residential, retail, office, research and development, civic and community uses, and parks and recreational open space. A major component would be a new stadium for the San Francisco 49ers, a National Football League team. Additionally, new infrastructure would be provided to support the development. In the event that the stadium is not constructed, a development plan for an additional three million square feet of research and development space on the proposed stadium site will be explored.

The Project also includes new land use controls for the India Basin Shoreline portion of the BVHP, also known as the Bayview Hunters Point (BVHP) Redevelopment Survey Area C. The San Francisco Planning Department and the San Francisco Redevelopment Agency are the Project Sponsors for the India Basin Plan. Plans for the India Basin Shoreline would allow a largely industrial zoned area to support a mix of residential, commercial, and light industrial uses and would amend the BVHP Redevelopment Plan to include Area C. Project components could include an amendment to the existing BVHP Redevelopment Plan, amendments to the General Plan, and new zoning controls and design guidelines for the area. Taken together, these components constitute the India Basin Plan. The Plan assumes that the India Basin area would be developed over time by various private parties.

In 2008, Circa: Historic Property Development conducted an historic resource survey of the Bayview Waterfront Plan, as part of the environmental review process. This survey produced a historic context statement on the entire project area, and focused upon the history and development of specific areas within the plan, including India Basin, Hunters Point Shipyard, public housing, and Candlestick Point. As part of the survey, listed and potential historic resources were identified for the purposed of the California Environmental Quality Act (CEQA). Buildings 211, 231, and 253 were among the buildings that were identified as potential historic resources. These three properties were identified as part of a potential National Register-eligible historic district, the Hunters Point Commercial Dry Dock and Naval Shipyard Historic District. The significance of this district is based upon its history associated with the San Francisco Dry Dock Company (formerly the California Dry Dock Company) and the Navy. The boundaries of this district encompass Buildings 140, 204, 205, 207, 208, 211, 224, 231, and 253, which include some of the oldest properties remaining on the project site.

The Hunters Point Shipyard was previously studied by the Department of the Navy in 1997; these findings were later updated by Circa as part of the Project. Circa's findings have not been finalized and are in the process of being reviewed by the San Francisco Planning Department (the lead agency for CEQA determinations).

Additional information may be garnered from the Project Description of the Administrative Draft Environmental Impact Report.

Figure 2. Looking down at atrium roof of Building 253 with 211 (to the right) and 231 beyond.

Figure 3. Hunters Point Shipyard Historic Resource Survey and Proposed Historic District.

Figure 4. Building 231 on right, and Building 211 on left.

II.2 Historical Overview

The following section provides a brief historical overview of the project site.

> *The Hunters Point Commercial Dry Dock and Naval Shipyard Historic District is comprised of a collection of buildings, structures and objects associated with the area's transition from early commercial dry dock operation to high tech naval repair and Radiological research and waste treatment facility. Located across the San Francisco Bay from East Bay port facilities, Hunters Point Shipyard began as the California Dry Dock Company in 1867 when the first dry dock (Drydock #1) was cut from solid rock at the northeastern tip of Hunters Point. The dry dock facilities expanded in 1901-1903, when the newly formed San Francisco Drydock Company completed Buildings 204, 204 and Dry Dock 2, at the time was the most modern dry dock on the Bay. Dry Dock 3 replaced Dry Dock 1 in 1918. Buildings 140 (Pumphouse 3), 204 (Gatehouse), 205 (Pumphouse 2), 207 (Latrine building) and 208 (Tool Room and Shop Service building) were constructed in conjunction with these two drydocks. In preparation for WWII, the Navy purchased the dry docks and adjacent support buildings and undertook construction of a high tech shipyard to assist with the construction and repair of the Naval fleet. The Historic District encompasses the early dry dock facilities, the first building built by the Navy in preparation for WWII (Building 231), the Optical, Electronics and Ordnance Building (Building 253), the original Shipfitters Shop (Building 211), and an air raid shelter (Building 224). Site features include rail spurs, crane ways, light standards, bollards, drydock pumping equipment and other built-ins, fencing and wharves.*[1]

II. 3 Setting

The Hunters Point Shipyard is located at the southeastern corner of San Francisco, and is bounded by the San Francisco Bay to the east, India Basin to the north, Bayview Hill Park to the south, and the Hunters Point/Bayview community to the west. The project site is located in close proximity to Highway 101 (Bayshore Freeway) and is approximately eight miles from Downtown San Francisco. The surrounding Bayview neighborhood is predominantly residential and industrial in character, and features a diverse ethnic population. As a former naval shipyard, the area surrounding the project site is distinctly industrial in character, and is characterized by broad expanses of concrete paving, former railways, a concrete shoreline, and other industrial buildings of varying scales and sizes. Since much of the surrounding area is undergoing renovation or clean-up, the setting around the potential historic district is quickly changing with the removal of road networks and changes to the infrastructure.

Figure 5. Aerial photograph of Hunters Point Shipyard. Source: Google Earth, 2009.

1 Circa: Historic Property Development, Hunters Point Commercial Dry Dock and Naval Shipyard Historic District DPR 523D form (draft, 31 October 2008).

II.4 Secretary of the Interior's Standards for Rehabilitation

The Secretary of the Interior's Standards for the Treatment of Historic Properties (Standards) are the benchmark by which Federal agencies and many local government bodies evaluate rehabilitative work on historic properties. The Standards are a useful analytic tool for understanding and describing the potential impacts of substantial changes to historic resources. Compliance with the Standards does not determine whether a project would cause a substantial adverse change in the significance of an historic resource. Rather, projects that comply with the Standards benefit from a regulatory presumption that they would have a less-than-significant adverse impact on an historic resource.[2] Projects that do not comply with the Standards may or may not cause a substantial adverse change in the significance of an historic resource.

The Standards provide guidelines for four types of treatment that can be applied to historic properties: Preservation, Rehabilitation, Restoration, and Reconstruction. According to the *Secretary of the Interior's Standards for the Treatment of Historic Properties*, the treatments are defined as follows:

> **Preservation**: The *Standards for Preservation* "require retention of the greatest amount of historic fabric, along with the building's historic form, features, and detailing as they have evolved over time."
>
> **Rehabilitation**: The *Standards for Rehabilitation* "acknowledge the need to alter or add to a historic building to meet continuing new uses while retaining the building's historic character."
>
> **Restoration**: The *Standards for Restoration* "allow for the depiction of a building at a particular time in its history by preserving materials from the period of significance and removing materials from other periods."
>
> **Reconstruction**: The *Standards for Reconstruction* "establish a limited framework for re-creating a vanished or non-surviving building with new materials, primarily for interpretive purposes."[3]

The *Standards for Rehabilitation* are defined as follows:

Rehabilitation Standard 1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.

Rehabilitation Standard 2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.

Rehabilitation Standard 3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.

Rehabilitation Standard 4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.

Rehabilitation Standard 5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.

Rehabilitation Standard 6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

Rehabilitation Standard 7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

Rehabilitation Standard 8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

Rehabilitation Standard 9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

Rehabilitation Standard 10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.[4]

Character-Defining Features

To assist with the rehabilitation feasibility analysis, Page & Turnbull assessed the potential historic resources and determined the character-defining features for each building. A property's character-defining features are those physical elements that enable a property to convey its historic identity or significance. These distinctive character-defining features are the physical traits that convey significance relative to a property type and/or architectural style. A property must clearly contain enough of those characteristics to be considered a true representative of a particular type, period, or method of construction, and these features must also retain a sufficient degree of integrity. Characteristics can be expressed in terms such as form, proportion, structure, plan, style, or materials. The character-defining features for each property have been included in Section IV of this report.

2 CEQA Guidelines subsection 15064.5(b)(3).

3 Kay D. Weeks and Anne E. Grimmer, *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* (Washington, D.C.: U.S. Department of the Interior National Park Service, 1995), 2.

4 Ibid., 62.

III APPROACH

Figure 6. Proposed master plan for Area C; prepared by IBI Group for Lennar Urban.

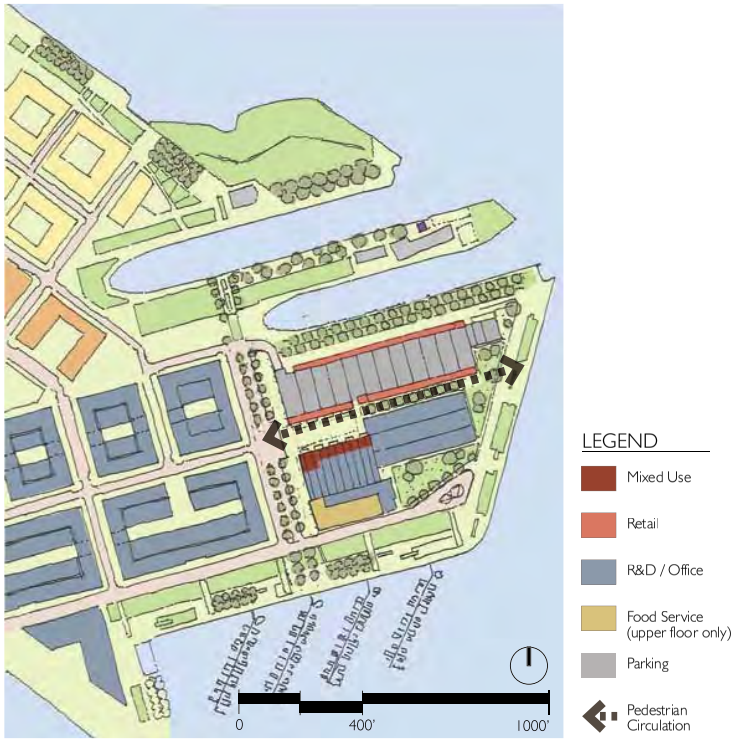


Figure 7. Proposed revised master plan, indicating rehabilitation of Buildings 211, 231 and 253; by Page & Turnbull.

III.1 Original Uses

According to available records, the three building under review were originally used as follows:

- Building 211 was used as an Electrical Machinery Repair Shop.
- Building 231 was used as a Ship and Machinery Repair Shop.
- Building 253 was used as the Optical, Electronic & Ordnance Shop.

III.2 Current Master Plan Proposal

The current master plan proposal calls for the demolition of all three buildings, and the new construction of new research and development buildings, see Figure 6.

While the adaptive reuse of the Buildings 211, 231 and 253 slightly alters the current master plan, the overall concept of Block C development is maintained, i.e., the existing buildings offer more than 250,000 square feet of research and development use (R&D). It accommodates approximately 1000 parking spaces within the footprint of Building 231, as well as offers mixed use public spaces, retail and food service. Additionally, Building 231 accommodates a solar energy generation plant that would provide green infrastructure to the entire site. The location of existing buildings on the site and their proximity to the waterfront enables to maintain vehicular and pedestrian circulation patterns similar to the ones proposed in the current master plan. Proximity of the three buildings to each other would allow access to waterfront through a pedestrian promenade. Figure 7 depicts a revised master plan scenario for this area.

While it may be possible to accommodate new structures on this site in addition to retaining historic buildings, this study was not focused on evaluating new development opportunities. A combination of retaining existing structures and a new development on this parcel should be considered to supplement this document and the EIR.

III.3 Reuse Possibilities

The simple construction and large scale of each of the three buildings allows them to be reused in a variety of ways. In order to be compatible with the proposed redevelopment plan, Page & Turnbull proposes the following uses for each of the buildings:

- Building 211 = Class B Office/Research & Development (R&D)
- Building 231 = Parking Facility with Retail Use at ground level, and Green Energy Plant at upper level*
- Building 253 = Mixed Use [Retail/Food Service] at lower level with Research & Development (R&D) at upper levels*

*Building uses were proposed taking into consideration layout and physical characteristics of the existing buildings and were determined to maximize the potential of existing building footprints, volumes and architectural character. The adaptive reuse study suggests a single new use for each of the buildings, however, alternative uses are also suggested; refer to individual building studies for more detail on alternative uses.

III.4 Structural Approach

The structural assessment was performed by Emergent Structures, Inc. in order to assist with the evaluation and feasibility of the re-use of buildings 211, 231, and 253 at Hunters Point Shipyard. An essential goal of the re-use of each building is to retain as much of the original structure as possible while allowing for its continued use. The existing structural components are character defining features that contribute to the architectural character of the buildings and thus should be preserved. These goals are achievable because the existing structural systems of all three buildings generally have capacity to accommodate new uses. Where required, the structural assessment suggested the introduction of new elements that would tie into and reinforce the existing structure by strengthening weak or inadequate members. Since the reuse proposal for all three buildings introduces new floor plates, these elements enhance the seismic performance by providing bracing and seismic connections to building walls. The new floors would be constructed of light weight steel framing and steel/ concrete slabs, and would have their own support system and footings. In general, the buildings' structural systems are in great shape, requiring only minor upgrades, mostly to resist lateral forces.

III.5 Approach to Rehabilitation Cost Assessment

JR Conkey & Associates prepared the Preliminary Cost Estimates included in this Feasibility Study. The approach to rehabilitation cost evaluation is based on the assessment of major costs associated with the CSI Components listed. Project information, including photos, preliminary re-use reports and sketches were used to identify relevant cost drivers; cost estimators used historical data gathered from years of experience and input from professionals in the design and construction industries. The Preliminary Feasibility Study will compare each CSI Component Division as less than, the same as, or more than the historical cost models of the past. This study also defines the exclusions so that the project team can assess the budgets that impact soft costs such as Pre-construction, A&E, Developer and Impact Fees.

IV. REUSE STUDIES

IV.1 Building 211

Building 211 is a rectangular plan, timber-frame building with a monitor roof that is attached to the east end of Building 253. The building is set on a concrete base and is clad with wood shiplap siding. It has two large freight door openings and a smaller rolling industrial door at the east end. The interior of Building 211 and Building 253 is contiguous. Asbestos shingles have been applied as secondary siding on the south elevation. A two-story shed addition clad in wood shiplap siding and glazed with one-over-one wood double-hung windows is located on the south side of Building 211. Also on the south elevation is a sliding wood industrial door with inset personnel doors (one infilled). The monitor is glazed with multi-pane wood windows.

The character-defining features of Building 211 include, but are not limited to:

- Simple exterior façade;
- Wood shiplap siding;
- Exposed timber-frame structural system consisting of timber columns, beams, and trusses;
- Exposed interior walls;
- Interior catwalks;
- Double-height interior volume;
- Raised volume of the central structural bay;
- Multi-pane roof monitor; and
- Large freight doors and openings.

Also notable within the interior of the building is the large crane, which is located on the track that runs the length of the center structural bay.

Pros:

- Minimal impact to existing historic structure
- Building is re-used in its original location
- Structural upgrades reinforce building for longevity
- Plan layout if flexible and can be re-configured in any number of ways
- Existing exterior wood cladding is easily modified to accept new window
- Existing building height allows for insertion of an additional floor plate, providing additional rental area
- Only minor demolition and upgrades required to existing building
- Floor to ceiling height allows maintaining double height volume, with circulation paths organized around the atrium, thus keeping the historic character of the building

Cons:

- Addition of new windows takes away from historic condition of exterior walls
- Addition of a floor plate alters the original open volume of the building
- Independent structure is required for new second floor plate
- Depending on configuration, not all offices have direct natural light

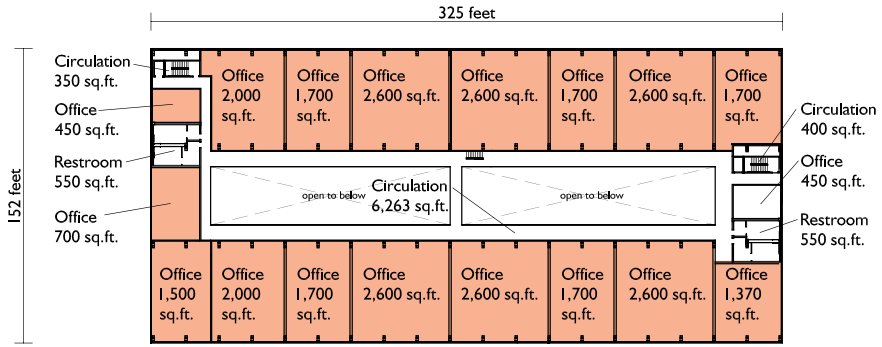
Figure 8. East elevation of Building 211.

Figure 9. Inside lower portion of 211. A second floor plate will be added in this area.

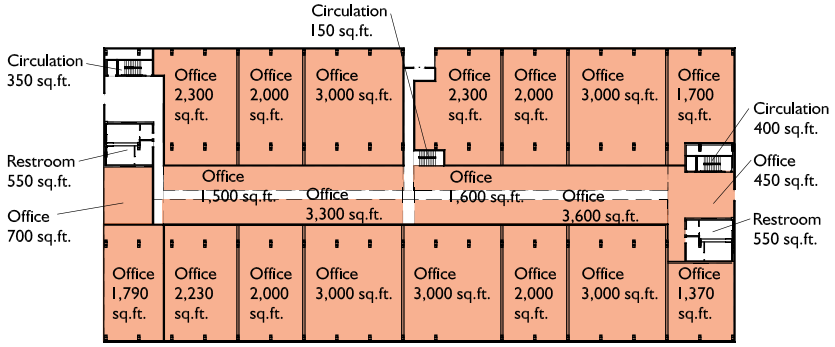
Figure 10. South elevation of Building 211. The lean-to will be demolished. Building 253 in background.

IV.1 Building 211: Reuse Approach

Building 211 is a wood-frame warehouse with a rectangular plan, which consists of three structural bays roughly 50 feet each in width. Existing height (27'-9" to the bottom of the lower truss cord) allows for insertion of a second floor plate, which maximizes square footage of the building. The proposed use for this building is B (offices/R&D). Both first and second floors will contain office spaces, support areas, and circulation (corridors and hallways). New windows will be provided on both the north and south side of the building to provide offices on the two lower floors with natural light. The second floor plate will have two large openings that will allow natural light from the roof monitors to reach the ground floor level, and allow the building to retain some of its large double-height volume. As part of this proposal, an existing deteriorated wooden addition on the south side will be removed, and existing siding and roofing will be replaced with compatible materials.



2nd Floor



Ground Floor

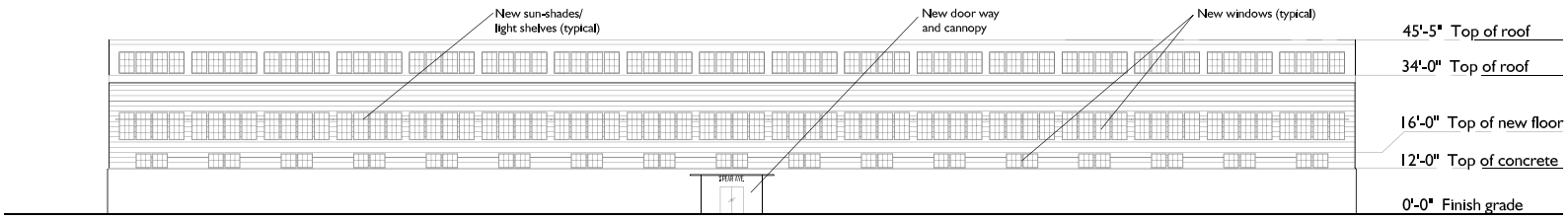
LEGEND

Office [80,520 sq.ft.]

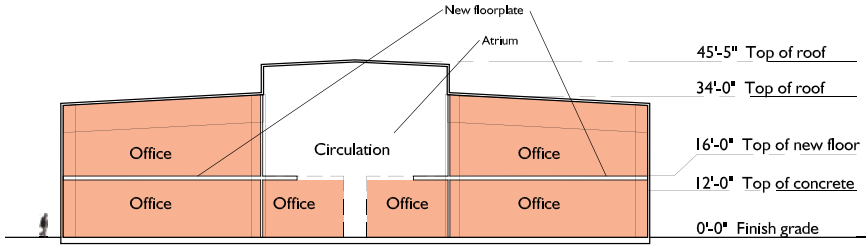
Circulation, Support [10,663 sq.ft.]

0' 18' 48' 96'
Graphic Scale: 1/64" = 1'-0"

IV.1 Building 211: Reuse Approach continued



South Elevation



North-South Section

East Elevation

LEGEND

Office
[80,520 sq.ft.]

Circulation, Support
[10,663 sq.ft.]

0' 9' 24' 48'
Graphic Scale: 1/32" = 1'-0"

REUSE STUDIES

IV.1 Building 211: Code Requirements

With a few accommodations, Building 211 can easily conform to the requirements of the California Building code. The change in occupancy and the addition of a second floor will require a sprinkler system. As a heavy timber frame construction, the floor plate is limited to 49,000 square feet. With the addition of sprinklers and the retention of wide open areas that surround the building (with the exception where it adjoins building 253) the allowable floor area can be increased and still meet regular code. The California Historic Building code allows some flexibility on building size, however, it too requires that the building be sprinklered when the occupancy type changes.

The length of the existing floor plate (325 feet) creates a need for additional exits (three in total), and three new stairs from the second floor. New restroom fixtures will be needed in order to meet code and occupancy requirements.

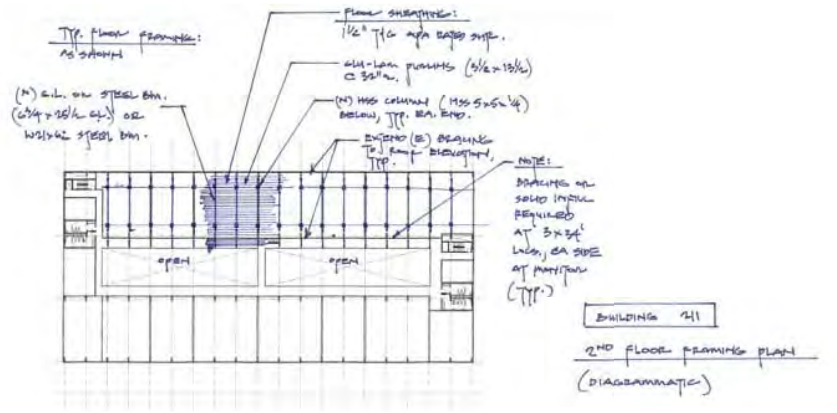
The width of spaces that surround the building also allow for un-protected and un-limited openings. The only exception is where Building 211 adjoins building 253. For the first 30 feet, the openings must be protected and limited in size. Any existing openings in this area are allowed to be sprinklered to meet this requirement per California Historic Building Code.

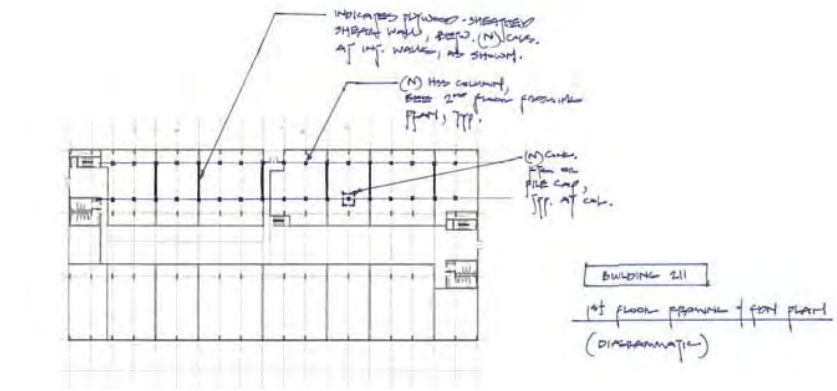
		Code Section (CBC 2007)	Notes
Address	211 Hunters Point Shipyard, Parcel C, San Francisco, 94124		
APN	4591A001		
Construction Date	1942		
Construction Type	Heavy Timber, Type IV	602.4	
Proposed Use	Core and shell for offices and research labs		
Occupancy type	Group B, Laboratories: testing/research	302.1	
Building Height	73 feet		
Maximum allowable height	65 feet	504.1	Can use existing building code to make compliant since no addition in height is proposed.
Current number of stories	1		
Proposed number of stories	2		
Maximum allowable stories	5	504.1	
Sprinklers	Yes	903.2	Not currently present, not required by code for occupancy type. Used for allowable area and story increase.
Current Area	49,336 square feet		Gross
Proposed Area	91,183 square feet		Gross
Maximum allowable area per story	36,000 square feet	504.1	
Area increase required	Yes		
Allowable area per story with increase	187,200 square feet	504.2	
Occupant load	774 occupants	1004.1	100 square feet per occupant
Percent of unprotected openings allowed	Unlimited, no building within 30 feet	704.8	North exterior wall
	Unlimited, no building within 30 feet	704.8	East exterior wall
	Unlimited, no building within 30 feet	704.8	South exterior wall, portions of existing opening may need to be protected
	None, attached to B253, must have 1 hr. separation	704.8	West exterior wall, portions of opening may need to be protected
Interior travel distance limitations	300'	1016.1	
Minimum number of exits	3 at first floor, 2 at second floor	1019.1	
Minimum number of toilet fixtures required	33	CPC, 412.1	table 4-1, total
Women's W/C	13		
Men's W/C	12		
Urinals	8		
Minimum number of lavatories required	20	CPC, 412.1	table 4-1, total
Women's	10		
Men's	10		
Minimum number of drinking fountains	0	CPC, 412.1	Table 4-1
Atrium considerations	1 hour separation from occupied spaces to atrium	404.5	

Existing Building Code		CBC Chapter 34	
Additions alterations or repairs to existing building	New work needs to comply with regular code for new construction	3403.1	Existing building code, CBC Chapter 34
Additions alterations or repairs to existing building impact to structure	Additions and alterations cannot increase the force by more than 5% unless new forces are still in compliance with the regular code. New elements need to meet regular code for structures.	3403.2	Existing building code, CBC Chapter 34
Fire escapes	This section does not apply since building exiting is served by stairs	3404.1	Existing building code, CBC Chapter 34
Change of Occupancy	No change is allowed that places the building in a different use/occupancy type, unless that new type can be made to meet with the regular code.	3406.1	Existing building code, CBC Chapter 34 Building meets regular code for requirements of new occupancy.
Change of Occupancy impact to structure	Structure must comply with the new occupancy's requirement for structure under the regular building code.	3406.4	Existing building code, CBC Chapter 34
Compliance	Use this section if building cannot be made compliant under regular code or historic building code	3410.0	Not required since re-use of buildings can be made compliant under the regular code and a few elements from the historic building code.
Historic Building Code		CBC Title 24 Part 8	(CHBC)
Application	This building is a qualified historic structure and can use the Historic Building Code	8-301.2	Based on contribution to historic district
Change in occupancy	Change in occupancy is permitted,	8-302.2	Change in occupancy does not necessarily require total conformance with regular code, per provisions in CHBC
Required separations	One hour maximum separations required where regular code specifies greater if a sprinkler system is installed	8-302.2	Sprinkler utilized in regular code for area increase
Maximum Floor Area	Multi story buildings must meet regular code requirement, except when a sprinkler is provided, there is no limit on floor area in the historic structure	8-302.4	Floor area made to work under regular code with the use of sprinklers.
Maximum Height	Historic building height is not limited provided it does not exceed that of the historical design	8-302.5	
Exterior wall protection	sprinklers may be used to satisfy requirement for existing openings	8-402.1	Portions of west and south walls will need separation where building 253 and 211 are connected.
Non-conformance with regular code	Where the building cannot meet the requirements of the regular code, sprinklers may be used	8-410.1	applies to occupancy, fire separation, exiting distances.
High-rise (buildings greater than 75 feet)	Building must meet all regular codes unless amended by CHBC	8-412	
Exiting width	Existing openings are permitted to be used even if they are less than the required minimum	8-502.2	
Exit stairs	Existing stairs that do not meet regular code are permitted to be used for exiting provided that they do not pose a hazard	8-502.3	
Accessibility	Regular code applies to accessibility, unless there is a threat to significant character defining features.	8-602.1	
Structural engineer review of historic structure	A qualified structural engineer should evaluate the building and assess condition	8-703.1	
New additions and alterations	Structures must conform to regular code	8-704.1	
Evaluation of structure	Structural Engineer should evaluate the building and propose upgrades as required. Consideration should be given to minimize loss and impact to historic fabric	8-705	
Lateral loads	Forces in the historic building need not exceed 0.75 times the seismic forces prescribed by 1995 CBC	8-706.1	
Mechanical, electrical, and plumbing systems	Systems shall comply with the regular code, unless amended by CHBC, existing system can be used if deemed safe	8-902	No existing systems in the building can be used. Will need all new mechanical, electrical and plumbing systems.

IV.1 Building 211: Structural Assessment

Building 211 is easily adaptable from a manufacturing/warehouse building into an office building. The large spans and open areas can be configured in a number of different ways, allowing for total flexibility in dividing space to create offices. Overall, the building as it stands today is in fairly good condition structurally. Some structural repairs are required to the roof diaphragm, and some additional lateral strengthening is needed to support the new use. Lateral strengthening can be in the form of 4 cross braces or sheer walls below the monitor windows for two bays each. New columns and beams will have to be added to support the second floor as well as the existing structure. These new columns will require new foundations since the integrity of the existing foundation's condition cannot be evaluated at this time.





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Paul B. Hofland, SE
Principal

Bldg. 211 – Exterior, East Elevation

Building 211

Existing Building – Bldg. 211

General

Building 211 at Hunter's Point Shipyards is a wood-framed building, rectangular in plan, with overall dimensions of approximately 323 feet x 150 feet. The main portion of the building comprises a high, nominally flat-roofed center bay measuring approximately 50 feet wide x 323 feet in length. This center bay is flanked by a pair of lower bays, each of which also measure 50 feet x 323 feet. A continuous clerestory, or monitor, window occurs along the length of the building at each side of the center bay, between the lower flanking roofs and the high bay roof. The continuous monitor is glazed with multi-pane wood windows. There is a low shed roof structure addition on the southwest side of the building, measuring approximately 25 feet wide x 187 feet long. This long rectangular addition is in relatively poor condition.

The exterior walls are of reinforced concrete to approximately 10 to 12 feet above the first floor. Above this height, exterior walls are wood framed and diagonally board-sheathed. The building adjoins the east end of Building 253.

Gravity System

Exterior and interior columns occur on a 17 foot grid (one exterior each side of the building, and two interior, each side of the center high-bay), throughout the entire length of the building. Each of the bays is otherwise column free for 50 feet. Built-up wood roof trusses spanning 50 feet occur on each of the column grids at 17 foot o.c. , typically at both of the low flanking bays, and also at the high-bay space. A series of regularly spaced 2x roof rafters span longitudinally between the roof trusses. The wood roof rafters are sheathed with what appears to be 1x diagonal board sheathing.

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IV.1 Building 211: Structural Assessment continued

Building 211 (cont.)

Existing Building – Bldg. 211 (cont.)

Lateral System

The existing lateral system, supporting the existing walls and roof only, appears to be a wood braced-frame system in the East-West direction, and a vertically offset three-bay truss-frame in the North-South direction. Both of these systems appear to be somewhat incomplete, irregular or both. In the East-West direction at the exterior North and South walls, for example, there are double-diagonal braces in alternate bays, which extend only to the bottom plane of the roof trusses. Since the bracing does not extend to the roof plane, the columns must act in bending above the bottom of the trusses to deliver seismic loads from the roof diaphragm.

Foundations

Existing structural foundation plans for Building 211 were not provided, and were not reviewed. Thus we have not determined conclusively either what the existing foundation system is, or what it's allowable capacity may be at this time. We would recommend that further efforts be made to obtain these drawings, so that a determination of foundation type and capacity can be made. We would also recommend that any significant new loads (either gravity or seismic) be supported on new foundation elements, so as not to overload the existing ones. The choice of new column arrangement or of vertical lateral load resisting element locations can and should be made to facilitate the installation of new foundation elements for their support, and to minimize the introduction of new loads onto existing foundations. It should be noted that we did not observe any evidence of building damage that we could attribute directly to foundation movement. Existing foundations appear to be performing satisfactorily in supporting the loads they have been subjected to.

Visual Condition Assessment

Based on our cursory visual assessment, Building 211 appears to be in relatively good overall condition. The long rectangular low-roofed addition is in relatively poor condition, with evidence of water damage and moisture intrusion.

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Building 211 (cont.)

Planned Additions / Revisions

Building 211 comprises approximately 53,300 square feet on a single main floor slab. A proposed addition would add a structured second floor of approximately 42,000 square feet, bringing the total building square footage to approximately 95,300. The new second floor would comprise approximately 32,500 square feet of new office space, approximately 6,300 square feet of circulation space, and approximately 4,300 square feet for toilets, mechanical space and miscellaneous walls. The office space would be located primarily in the two flanking side bays, while the circulation would be principally around the perimeter of the central high-bay space. With this arrangement, natural light from the center bay monitor roof can reach the ground floor through the open-to-below areas left at the high bay.

The proposed redevelopment of Building 211 also anticipates the removal of the long, low rectangular shed-roofed addition mentioned above. As this element was determined to be in a deteriorated state, this will preclude the need to invest significant monies in its refurbishment.

Based on our field observations and some limited study, we believe that it is structurally feasible to create the planned additions and revisions, provided existing structural systems are not overloaded, and new ones are employed to handle any significant new loads, whether seismic or gravity.

Gravity Systems for Proposed Addition

The existing column grid spacing in the longitudinal direction is 17 feet on center. We would suggest that the second floor be framed of either wood framing or a combination of wood and structural steel beam framing. To accomplish this framing system, either glu-lam or steel beams could be placed on the the column grids, with at least a single interior column at the mid-span of the side bay. Assuming a nominal office unit live loading of 100 psf, purlins spanning 17 feet could be 3 1/8 x 13½ glu-lams spaced at 32" o.c. Plywood sheathing could be 1-1/8" APA rated sheathing, T&G, Exposure 1. Beams on the column lines could be approximately 6 ¾ x 25½ glu-lams, with AITC (American Institute of Timber Construction) combination symbol 24F-V8, if wood, or W21x68, ASTM 992 (Gr. 50), continuous. The beam sizes given assume the introduction of two new column lines, located 10 feet inside each end of the beams. New columns would be on the order of HSS5x5x1/4. New footings for the new columns may be assumed to be 5'-0 x 5'-0 x 1'-8, typical. All of the above information is preliminary and to be used for estimating purposes only; actual required sheathing, member and foundation sizes may vary.

Lateral Systems for Proposed Addition

We believe the new 2nd floor structure can be supported laterally in the East-West direction by the existing exterior concrete walls which extend to this level. Attachment details between the new 2nd floor framing and the exterior concrete wall would need to be developed, but might include wood ledgers with expansion bolts or steel plates, expansion bolts and thru bolts. For lateral loads in this same direction, new plywood-sheathed shear walls or steel diagonal bracing extending to the 2nd floor will be required along grid lines B and C, flanking the central high-bay. For estimating purposes, four 34-foot bays should be assumed to be required for this purpose along each of the primary interior longitudinal grid lines, B and C.

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IV.1 Building 211: Structural Assessment continued

Building 211 (cont.)

In the North-South direction, the new second floor system will require lateral bracing in the form of either new plywood-sheathed shear walls or steel diagonal braced frames located at walls oriented in the north-south direction. For estimating purposes, assume that each side bay will require four interior shear walls (or braces) x 30 feet long, between new columns. This should occur at each side of the high center bay.

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IV.1 Building 211: Cost Estimate

The Preliminary Cost Estimate (below) is provided to predict rehabilitation and reuse of Building 211 based on the conceptual reuse diagrams, pages 10-11.

ESTIMATE WORKSHEET

HUNTER'S POINT REHABILITATION BUILDING: 211

PROJECT: **HUNTER'S POINT SHIPYARD, PARCEL C, SAN FRANCISCO, CA 94124** (E) BUILDING GSF: 49,336

PHASE: **FEASIBILITY STUDY (PRELIMINARY)** TOTAL BUILDING GSF: 91,183

ESTIMATE DATE **AUGUST 28, 2009** 2 of 4 8/28/2009 5:20 PM

BID DATE: **UNKNOWN** Copy of Hunters Point Concept 08_28_09

PREPARED BY: J.R. CONKEY & ASSOCIATES

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL COST
1000	ABATEMENT ALLOWANCE	49,336	SF	$10.00	$493,360
2000	DEMOLITION	49,336	SF	$3.75	$185,010
3000	NEW SECOND FLOOR STRUCTURE	41,847	SF	$35.00	$1,464,645
3000	FULL SEISMIC UPGRADE	91,183	SF	$12.50	$1,139,788
5000	STAIRS/HANDRAILS	2	FLTS	$25,000.00	$50,000
6000	MISC FINISH CARPENTRY	91,183	SF	$0.50	$45,592
7000	ROOF REPLACEMENT	49,336	SF	$12.00	$592,032
7000	WATERPROOFING (ALLOWANCE)	49,336	SF	$0.50	$24,668
8000	EXTERIOR SKIN / WINDOW REPLACEMENT (ALLOWANCE)	47,300	SF	$75.00	$3,547,500
9000	CORE FINISHES (RESTROOMS, CORRIDORS)	10,675	SF	$175.00	$1,868,125
9000	TENANT IMPROVEMENT FINISHES	80,508	SF	$125.00	$10,063,500
10000	SPECIALTIES	91,183	SF	$0.50	$45,592
14000	ELEVATORS	4	STOPS	$50,000.00	$200,000
15000	FIRE PROTECTION SYSTEM	91,183	SF	$6.00	$547,098
15000	HVAC	91,183	SF	$25.00	$2,279,575
15000	PLUMBING (CORE)	28	FIXT	$4,000.00	$112,000
15000	LAB PLUMBING (TENANT IMPROVEMENT)	91,183	SF	$8.00	$729,464
16000	ELECTRICAL - POWER	91,183	SF	$25.00	$2,279,575
16000	LIGHTING (CORE)	10,675	SF	$6.50	$69,388
16000	LIGHTING (TENANT IMPROVEMENT)	80,508	SF	$7.50	$603,810
16000	FIRE ALARM	91,183	SF	$6.00	$547,098
	EXCLUDES: SITEWORK, SITE UTILITIES, UTILITY COMPANY CHARGES, DEVELOPMENT FEES,				
	DEVELOPER FEES, FF&E COSTS, DESIGN FEES, CONSTRUCTION MANAGEMENT FEES,				
	HAZARDOUS MATERIALS ABATEMENT (EXCEPT FOR ALLOWANCE NOTED) AND CHANGE ORDER CONTINGENCY				
	SUBTOTAL HARD COSTS				**$26,887,818**
	CONTINGENCY				
	ESTIMATING CONTINGENCY	20.00%			**$5,377,564**
	SUBTOTAL CONSTRUCTION COSTS				**$32,265,382**
	MARK-UPS				
	GENERAL CONDITIONS	10.00%			$3,226,538
	OVERHEAD & PROFIT	10.00%			$3,549,192
	INSURANCE & BONDS	2.25%			$878,425
	SUBTOTAL MARK-UPS				**$7,654,155**
	SUBTOTAL CONSTRUCTION COSTS & MARK-UPS				**$39,919,537**
	ESCALATION				
	ESCALATION (FIGURED BY OTHERS)	0.00%			**$0**
	TOTAL CONSTRUCTION ESTIMATE:				**$39,919,537**

IV.2 Building 231

Building 231 is a steel-frame industrial building, located just south of Dry Dock #2 in the Ship Repair area of the former shipyard. The eastern half of the building was constructed in 1942, while the remainder was constructed between 1944 and 1945. The original building and addition are indistinguishable from one another. The basic building has a rectangular plan (over 193,000 sq.ft.) and is capped by a flat roof with roof monitors running the width of the building. Freight elevator shafts are located at the east and west ends of the north elevation, as well as at the center of the south elevation. The freight elevator columns and the spandrel areas of the side walls are clad in thick corrugated sheet iron siding. Elsewhere the curtain wall is enclosed with operable corrugated safety glass panels, reinforced with chicken wire. A band of industrial steel windows with central awning sash wraps around the upper level of the building. Two-story shed additions project from both the north and south elevations and two rolling metal freight doors with concrete door surrounds are located at the building's west end. The interior is characterized by a long, unobstructed three-story space.

The character-defining features of Building 231 include, but are not limited to:

- Rectilinear massing;
- Large and unobstructed interior volume;
- Exposed steel-frame structural system consisting of steel trusses, columns, and bracing;
- Corrugated metal siding;
- Corrugated safety glass siding;
- Monitor windows at the upper level;
- Industrial steel sash windows at the upper level;
- Enlarged ground floor freight openings; and
- External stair and elevator shafts.

Pros

- Existing building is re-used in its original location
- New program makes relatively minor impact on the original structure
- Minor upgrades and demolition required to existing structure to accommodate program
- Additional floor plates help brace the existing structure
- Parking levels and/or Mechanical floor can be exchanged for office space if desired (building as configured would still meet code)
- Retail use at lower level "activates" long edges of building, engaging pedestrians and creating a lively streetscape
- Large number of cars can be accommodated without any addition of height or density
- Large roof area conducive to alternative energy production, i.e. solar.
- Excellent views from upper floor

Cons

- Addition of a floor plate alters original open plan and volume
- Independent structure is required for new floor plates
- Cost per parking spot is relatively high
- Much of the glass at the upper level would need to be replaced due to breakage
- If alternative (office) use is preferred, not all offices would have direct access to natural light (based on the wide floor plate)

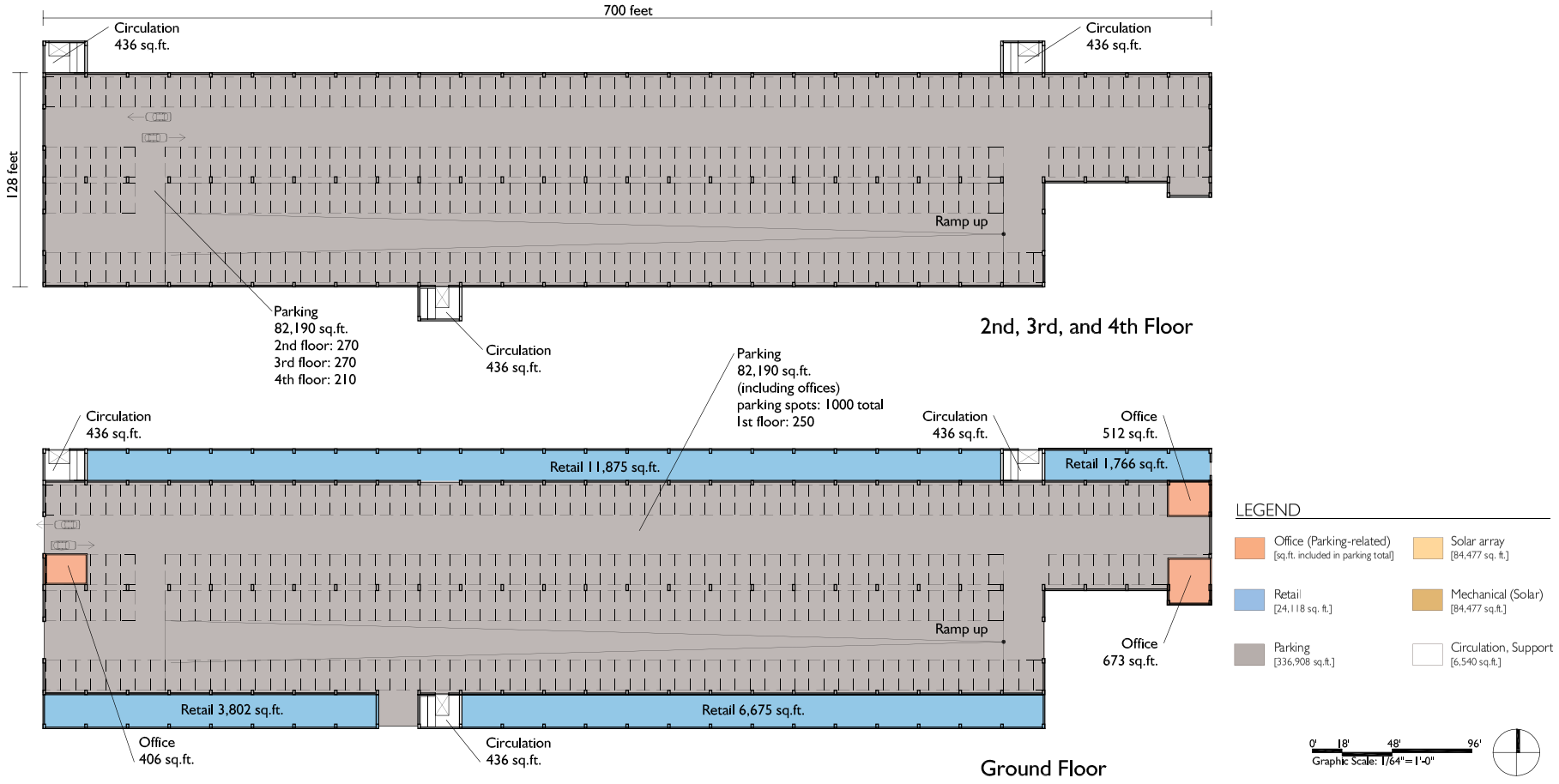
Figure 11. South elevation of Building 231.

Figure 12. Interior view of parking area; half of the width is hidden behind the columns.

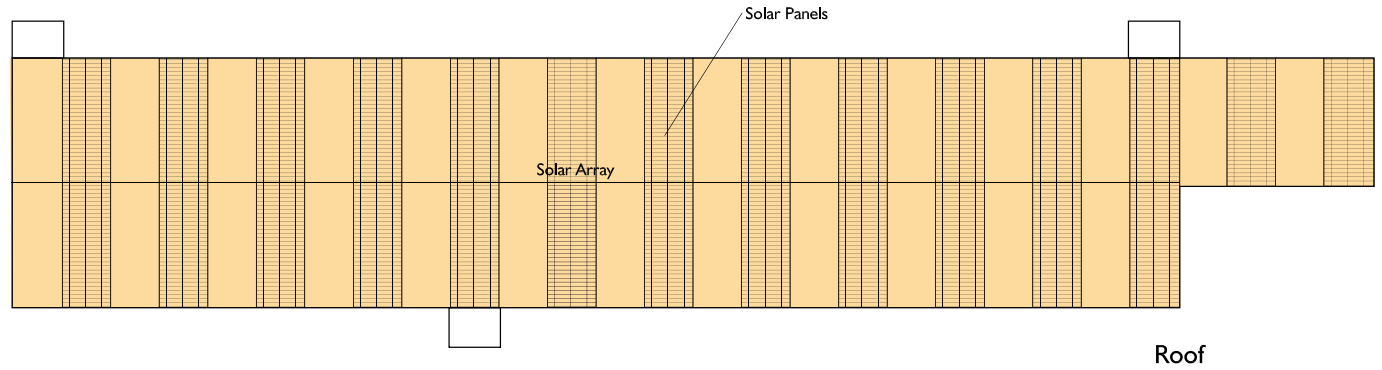
Figure 13. East elevation of Building 231.

IV.2 Building 231: Reuse Approach

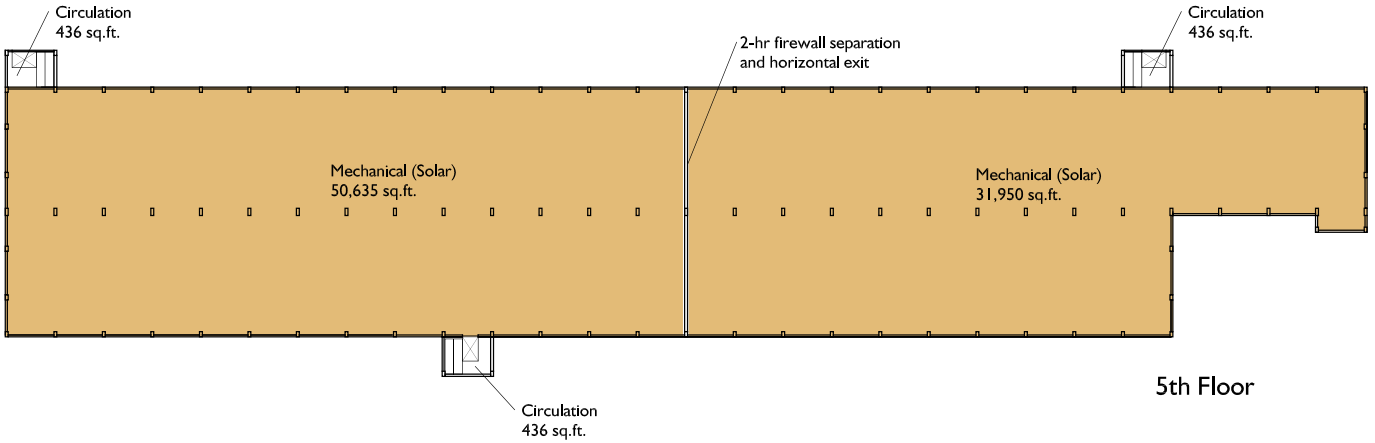
The existing configuration of the building and its oversized volume makes it a good candidate for use as a parking structure. The height of the main building volume (45 feet to the bottom of structure) allows for the insertion of up to three new floor plates. We have proposed that a total of four floors be used to accommodate parking, and the existing upper floor be used as a mechanical facility or an energy plant. The existing roof volume will be clad in new solar panels to provide power to several buildings on the site. To accommodate additional a new steel framed structure be inserted to support it. Existing glazing will remain where in good condition, while deteriorated sections will be removed. The existing siding will be replaced with new siding material to imitate the character of the original material. Additionally, two-story shed additions along the north and south sides of the main building volume are proposed to be used as retail spaces.



IV.2 Building 231: Reuse Approach continued



Roof



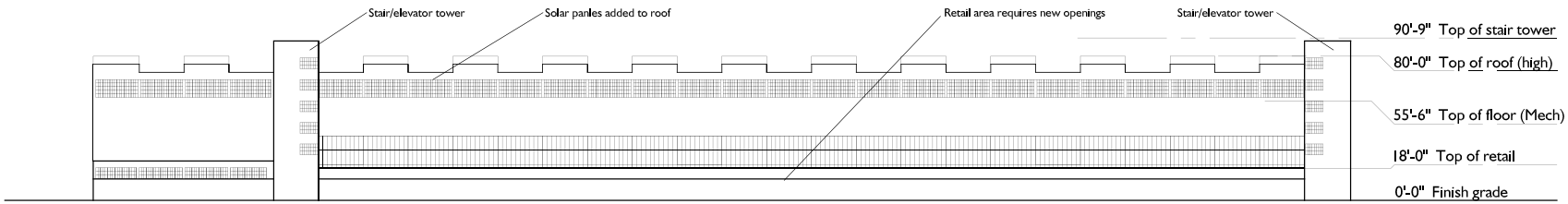
5th Floor

LEGEND

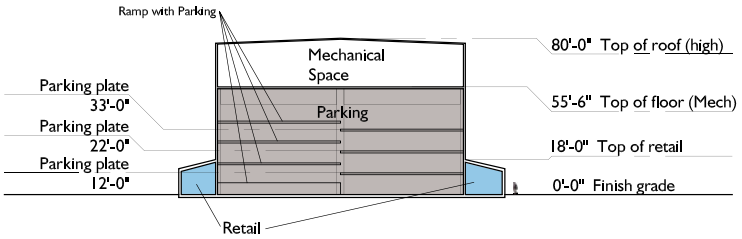
- Office (Parking-related) [sq.ft. included in parking total]
- Solar array [84,477 sq.ft.]
- Retail [24,118 sq.ft.]
- Mechanical (Solar) [84,477 sq.ft.]
- Parking [336,908 sq.ft.]
- Circulation, Support [6,540 sq.ft.]

0' 18' 48' 96'
Graphic Scale: 1/64"=1'-0"

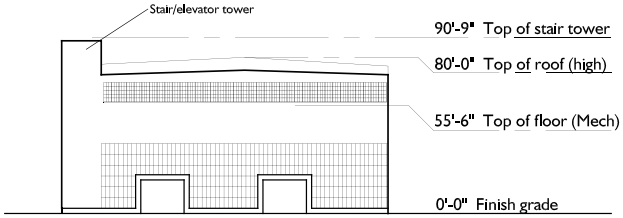
IV.2 Building 231: Reuse Approach continued



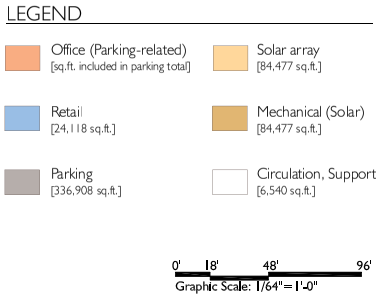
South Elevation



North-South Section



East Elevation



IV.2 Building 231: Code Requirements

Converting building 231 into a parking garage, solar electrical plant, and ground level retail requires a few accommodations to be made. The change in occupancy type generally requires the addition of sprinklers where none were present before. In this case sprinklers are required to make the building's story count work with regular code. Historic code cannot be employed here since the additional stories are new. As it currently stands, there are two stories. The parking garage adds an additional three stories for a total of five, however in type IIB construction only four are allowed. Sprinklers allow for one additional story to be added above the four-floor allowance. Restrooms are not required for electrical/mechanical rooms (on the fifth floor) and parking. The retail occupancy will require these facilities; numbers depend on type of business (restaurant, food service, mercantile, etc). An assumption of mercantile is utilized for the code review.

Under the regular code, the building is too tall at 80 feet; a maximum height of 50 feet is allowed. To address this situation, the California Historical Building Code can be utilized, since there is no new increase in height proposed; the building can remain at its originally designed height. However, this building qualifies as a high-rise under the historic code (buildings greater than 75 feet), and therefore needs to meet all the requirements of such buildings under the regular code. This has the greatest impact on exits, sprinklers, paths of travel, and fire ratings of stair shafts, to name a few.

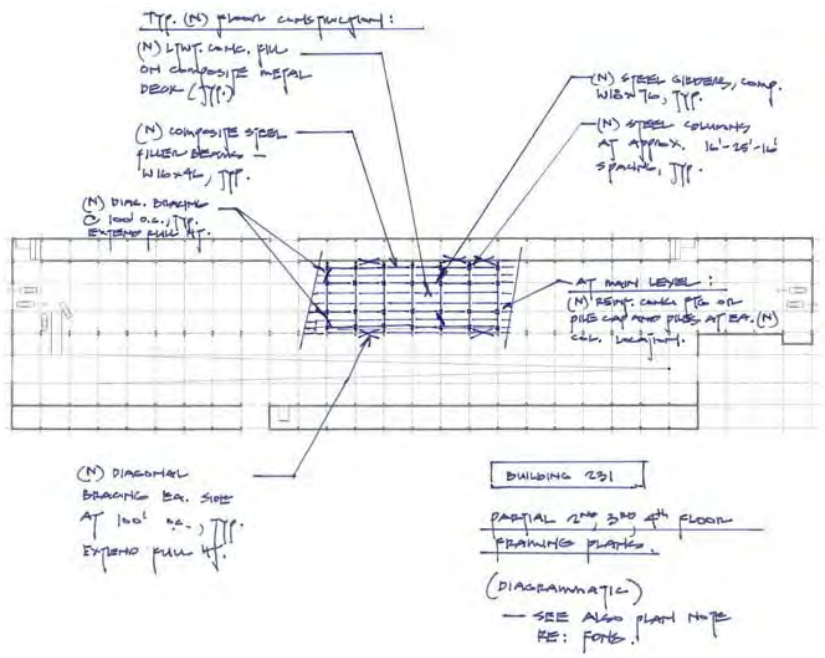
Existing openings pose no problem and do not need to be protected. The open space around Building 231 is clear of other buildings by at least 30 feet, and in some cases more than 80 feet. There are currently three exits, which works with the new proposed occupancy. A fire wall with a two hour rating will need to be installed on the top floor where the solar electric facility is located, because the occupancy type requires a shorter distance to an exit than that of the parking structure.

		Code Section (CBC 2007)	Notes
Address	231 Hunters Point Shipyard, Parcel C, San Francisco, 94124		
APN	4591A001		
Construction Date	1945		
Construction Type	Steel Frame, Type IIB	602.2	
Proposed Use	Parking structure, solar electrical plant, retail at perimeter		
Occupancy type	Parking: Group S-2,	302.1	
	Electrical plant: Group S-2,	302.1	
	Retail: Group M	302.1	
Building Height	80 feet		
Maximum allowable height	55 feet	504.1	Can use existing building code to make compliant since no addition in height is proposed.
Current number of stories	2		
Proposed number of stories	5		4 stories of parking, 1 story of mechanical
Maximum allowable stories	4	504.1	
Sprinklers	Yes	903.2	Not currently present, not required by code for occupancy type. Used for allowable area and story increase.
Current Area	195,370 square feet		Gross
Proposed Area	452,050 square feet		Gross
Maximum allowable area per story	26,000 square feet	504.1	
Area increase required	Yes		
Allowable area per story with increase	122,850 square feet	504.2, 506.1	Largest floor plate is 109,810 square feet (first floor)
Occupant load	Parking: 1623 occupants	1004.1	Square foot per occupant: Parking: 200; 324,452 square feet
	Electrical: 824 occupants	1004.1	Square foot per occupant: Mechanical: 100; 82,390 square feet.
	Retail: 804 occupants	1004.1	Square foot per occupant: Retail: 30; 24,118 square feet
Percent of unprotected openings allowed	Unlimited, no building within 30 feet	704.8	North exterior wall
	Unlimited, no building within 30 feet	704.8	East exterior wall
	Unlimited, no building within 30 feet	704.8	South exterior wall
	Unlimited, no building within 30 feet	704.8	West exterior wall
Interior travel distance limitations	300'	1016.1	Mechanical floor requires a horizontal exit to achieve 300 foot requirement
Minimum number of exits	3	1019.1	2 required per code, 3 provided because of travel distance limitations
Minimum number of toilet fixtures required	17	CPC, 412.1	Total. Retail only, none required for parking
Women's W/C	9		
Men's W/C	4		
Urinals	4		
Minimum number of lavatories required	9	CPC, 412.1	Total. Retail only, none required for parking
Women's	5		
Men's	4		
Minimum number of drinking fountains	None	CPC, 412.1	Retail

Existing Building Code		CBC Chapter 34	
Additions alterations or repairs to existing building	New work needs to comply with regular code for new construction	3403.1	Existing building code, CBC Chapter 34
Additions alterations or repairs to existing building impact to structure	Additions and alterations cannot increase the force by more than 5% unless new forces are still in compliance with the regular code. New elements need to meet regular code for structures.	3403.2	Existing building code, CBC Chapter 34
Fire escapes	This section does not apply since building exiting is served by stairs	3404.1	Existing building code, CBC Chapter 34
Change of Occupancy	No change is allowed that places the building in a different use/occupancy type, unless that new type can be made to meet with the regular code.	3406.1	Existing building code, CBC Chapter 34 Building meets regular code for requirements of new occupancy.
Change of Occupancy impact to structure	Structure must comply with the new occupancy's requirement for structure under the regular building code.	3406.4	Existing building code, CBC Chapter 34
Compliance	Use this section if building cannot be made compliant under regular code or historic building code	3410.0	Not required since re-use of buildings can be made compliant under the regular code and a few elements from the historic building code.
Historic Building Code		CBC Title 24 Part 8	(CHBC)
Application	This building is a qualified historic structure and can use the Historic Building Code	8-301.2	Based on contribution to historic district
Change in occupancy	Change in occupancy is permitted	8-302.2	Change in occupancy does not necessarily require total conformance with regular code, per provisions in CHBC
Required separations	One hour maximum separations required where regular code specifies greater if a sprinkler system is installed	8-302.2	Sprinkler utilized in regular code for area increase
Maximum Floor Area	Multi story buildings must meet regular code requirement, except when a sprinkler is provided, there is no limit on floor area in the historic structure	8-302.4	Floor area made to work under regular code with the use of sprinklers.
Maximum Height	Historic building height is not limited provided it does not exceed that of the historical design	8-302.5	
Exterior wall protection	sprinklers may be used to satisfy requirement for existing openings	8-402.1	Not required for this building
Non-conformance with regular code	Where the building cannot meet the requirements of the regular code, sprinklers may be used	8-410.1	applies to occupancy, fire separation, exiting distances.
High-rise (buildings greater than 75 feet)	Building must meet all regular codes unless amended by CHBC	8-412	
Exiting width	Existing openings are permitted to be used even if they are less than the required minimum	8-502.2	
Exit stairs	Existing stairs that do not meet regular code are permitted to be used for exiting provided that they do not pose a hazard	8-502.3	
Accessibility	Regular code applies to accessibility, unless there is a threat to significant character defining features.	8-602.1	
Structural engineer review of historic structure	A qualified structural engineer should evaluate the building and assess condition	8-703.1	
New additions and alterations	Structures must conform to regular code	8-704.1	
Evaluation of structure	Structural Engineer should evaluate the building and propose upgrades as required. Consideration should be given to minimize loss and impact to historic fabric	8-705	
Lateral loads	Forces in the historic building need not exceed 0.75 times the seismic forces prescribed by 1995 CBC	8-706.1	
Mechanical, electrical, and plumbing systems	Systems shall comply with the regular code, unless amended by CHBC, existing system can be used if	8-902	No existing systems in the building can be used. Will need all new mechanical, electrical and plumbing

IV.2 Building 231: Structural Assessment

Converting building 231 into a parking structure requires the addition of three floors to accommodate 1000 spaces. The existing structure, although visually in good condition, will not support the extra floors on its own. A new system of columns, shear walls, bracing, and metal decking will need to be introduced to take the additional load of the new floor plates. There was not enough information to review the foundations, but most likely new footings will be required for the added columns.



emergent
structures, inc.

Paul B. Hofland, SE
Principal

Building 231 – Exterior View Looking SE

Building 231

Existing Building – Bldg. 231

General

Building 231 at Hunter's Point Shipyards is a long, narrow steel-framed structure, rectangular in plan, with overall dimensions of approximately 700 feet x 165 feet at the main floor level. An end notch measuring approximately 100 feet x 82 ½ feet at the southeast end of the building occurs in what would otherwise be a regular rectangular plan. The building is comprised of two levels at present: a very tall main floor level industrial-type space, and a structured upper level with a unique alternating high-low roof framing system which admits plenty of natural light. The building has a pair of 20 foot wide continuous longitudinal low-roofed spaces at the main floor, which flank the main portion of the building.

Gravity System

The main portion of the building comprises a high-bay main floor space, flanked by columns and with a single row of columns running down the center of the 125 foot wide space. Steel Rolled steel columns occur on a 25 foot grid spacing along the length of the building. At the top of this main floor space is a concrete floor/ceiling, supported on steel framing. The upper level concrete floor slab appears to be supported on concrete-encased steel beams spanning between steel trusses located typically on the 25 foot column grid. The trusses have a classical web arrangement, with 9 interior panel points over a 56 ½ foot span.

The roof framing above the upper level floor is remarkable in that it has been designed to create alternating low and high roof planes, with clerestories at 25 foot centers to admit natural light. Transverse open-web steel roof trusses span across the space on 25 foot centers. At the high roof areas, steel beams span between the top chords of the trusses to support the high roof. At alternating low roof areas, steel beams

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IV.2 Building 231: Structural Assessment continued

Building 231 (cont.)

Existing Building – Bldg. 231(cont.)

Gravity System (cont.)

span between the roof truss bottom chords to support the lower roof areas. Roof truss vertical and diagonal webs run between the roof truss top and bottom chords.

The longitudinal exterior walls appear to be constructed of reinforced concrete to approximately 10 feet to 12 feet above the first finished floor. Above this height, exterior walls are clad in a steel-supported system of glazing and industrial metal panels.

Lateral System

Double diagonal steel lattice bracing occurs between alternate pairs of building columns both above and below the existing upper level floor. At the main floor level there are typically three tiers of diagonal lattice bracing occurring between the main floor and the underside of the upper floor. Above the upper floor, a single tier is provided between the upper floor and the intermittent plane of the lower portion of the roof.

There is a system of horizontal bracing which occurs at the bottom chord of the trusses; this effectively braces the bottom chords at roughly ¼ points from each end. The horizontal bracing is continuous along the end bays of the trusses, and is continuous over the interior portion at every 4th bay. This bracing essentially creates a lightweight diaphragm in the plane of the bottom chord of the trusses.

Foundations

Existing structural foundation plans for Building 231 were not provided, and were not reviewed. Thus we have not determined conclusively either what the existing foundation system is, or what it's allowable capacity may be at this time. We would recommend that further efforts be made to obtain these drawings, so that a determination of foundation type and capacity can be made. We would also recommend that any significant new loads (either gravity or seismic) be supported on new foundation elements, so as not to overload the existing ones. The choice of new column arrangement or of vertical lateral load resisting element locations can and should be made to facilitate the installation of new foundation elements for their support, and to minimize the introduction of new loads onto existing foundations. It should be noted that we did not observe any evidence of structural damage in Building 231 that we could attribute directly to foundation movement. Existing foundations appear to be performing satisfactorily in supporting the loads that they have been subjected to.

Visual Condition Assessment

Based on our cursory visual assessment, Building 231 appears to be in relatively good overall condition.

Planned Additions / Revisions

The proposed additions to Building 231 consist of three new floors of elevated framing inside the main floor high-bay space. The interior main floor slab and the new elevated floor slabs are programmed for parking, with approximately 1200 spaces provided in a double-loaded arrangement with a two-way central drive aisle and single corkscrew ramp.

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Building 231 (cont.)

Planned Additions / Revisions (cont.)

We understand that the current proposal is to use the existing low bay spaces flanking the main building volume for retail and/or miscellaneous coffee/food service. The existing upper floor is envisioned as mechanical / support space for clean energy production.

Gravity System for Proposed Addition

We recommend that the new elevated floors be constructed as composite concrete-filled metal deck on composite steel beams supported on new steel columns. New columns should be located to respect the drive aisles and parking layout. We recommend that new columns be provided not only along the drive aisle, but also near the exterior walls and existing central column line, to effectively support the new floors without increasing loads on the existing structure or foundations. To facilitate this, we suggest that columns could be placed at approximately 50 feet o.c. in the longitudinal direction, and perhaps at a spacing of approximately 16' – 25' – 16' in the transverse direction, centered on the drive aisle. With an assumed design live load of 50 psf for passenger car parking, and with filler beams spaced at approximately 8 foot on center, spanning 25 feet, a typical filler beam could be a W16x46, and typical girders could be W18x76. Column gravity loads would be on the order of 415 kips for interior columns, and 225 kips for exterior columns. A typical exterior column would be on the order of a W10x49, and a typical interior column would be on the order of a W10x76. New spread footing sizes might be on the order of 12 foot square x 3 foot thick for interior columns, and 8 foot square x 2.5 foot thick for exterior columns. All sizes noted above are preliminary, are provided for preliminary estimating purposes only, and are subject to change.

Lateral System for Proposed Addition

For Building 231 and its proposed addition, we would recommend the introduction of a new steel braced frame or concrete shear wall lateral system, extending at least to the existing upper level floor, integrating the planned new floor levels with the existing upper floor. It will likely be most efficient to plan for relatively few, well-dispersed locations for the new braced frames or shear walls, rather than to replace the existing system of lattice diagonal bracing with new lateral load resisting elements on a one-for-one basis. Once this is done, the braced frames or shear walls should be extended to the roof above the upper level floor. New steel collectors will be required to effectively deliver seismic loads generated at the roof into the new vertical lateral elements.

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IV.2 Building 231: Cost Estimate

The Preliminary Cost Estimate (below) is provided to predict rehabilitation and reuse of Building 231 based on the conceptual reuse diagrams, pages 17-19.

ESTIMATE WORKSHEET

HUNTER'S POINT REHABILITATION

BUILDING: 231

PROJECT: **HUNTER'S POINT SHIPYARD, PARCEL C, SAN FRANCISCO, CA 94124**

(E) BUILDING GSF: 195,370

PHASE: **FEASIBILITY STUDY (PRELIMINARY)**

TOTAL BUILDING GSF: 452,050

3 of 4

ESTIMATE DATE **JUNE 26, 2009**

6/26/2009
2:50 PM

BID DATE: **UNKNOWN**

Hunters Point Concept 6_26_09

PREPARED BY: J.R. CONKEY & ASSOCIATES

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL COST
1000	ABATEMENT ALLOWANCE	195,370	SF	$10.00	$1,953,700
2000	DEMOLITION	195,370	SF	$3.75	$732,638
3000	NEW PARKING STRUCTURE	337,152	SF	$55.00	$18,543,360
3000	FULL SEISMIC UPGRADE	452,050	SF	$7.50	$3,390,375
5000	STAIRS/HANDRAILS	12	FLTS	$25,000.00	$300,000
6000	MISC FINISH CARPENTRY	452,050	SF	$0.50	$226,025
7000	ROOF REPLACEMENT	116,000	SF	$12.00	$1,392,000
7000	WATERPROOFING (ALLOWANCE)	452,050	SF	$0.50	$226,025
8000	EXTERIOR SKIN / WINDOW REPLACEMENT (ALLOWANCE)	112,450	SF	$85.00	$9,558,250
9000	CORE FINISHES (RESTROOMS, CORRIDORS)	26,390	SF	$175.00	$4,618,250
9000	TENANT IMPROVEMENT FINISHES	2,948	SF	$120.00	$353,760
10000	SPECIALTIES	452,050	SF	$0.50	$226,025
14000	ELEVATORS	12	STOPS	$50,000.00	$600,000
15000	FIRE PROTECTION SYSTEM	452,050	SF	$6.00	$2,712,300
15000	HVAC	29,338	SF	$35.00	$1,026,830
15000	PLUMBING	50	FIXT	$4,000.00	$200,000
16000	ELECTRICAL - POWER	452,050	SF	$17.50	$7,910,875
16000	LIGHTING	452,050	SF	$5.50	$2,486,275
16000	FIRE ALARM	452,050	SF	$6.00	$2,712,300
16000	PHOTOVOLTAIC	1,302,467	WATTS	$5.90	$7,684,553
	EXCLUDES: SITEWORK, SITE UTILITIES, UTILITY COMPANY CHARGES, DEVELOPMENT FEES,				
	DEVELOPER FEES, FF&E COSTS, DESIGN FEES, CONSTRUCTION MANAGEMENT FEES,				
	HAZARDOUS MATERIALS ABATEMENT (EXCEPT FOR ALLOWANCE NOTED,)				
	SUBTOTAL HARD COSTS				**$66,853,541**
	CONTINGENCY				
	ESTIMATING CONTINGENCY	20.00%			**$13,370,708**
	SUBTOTAL CONSTRUCTION COSTS				**$80,224,249**
	MARK-UPS				
	GENERAL CONDITIONS	10.00%			$8,022,425
	OVERHEAD & PROFIT	10.00%			$8,824,667
	INSURANCE & BONDS	2.25%			$2,184,105
	SUBTOTAL MARK-UPS				**$19,031,197**
	SUBTOTAL CONSTRUCTION COSTS & MARK-UPS				**$99,255,446**
	ESCALATION				
	ESCALATION (FIGURED BY OTHERS)	0.00%			**$0**
	TOTAL CONSTRUCTION ESTIMATE:				**$99,255,446**

IV.3 Building 253

Building 253 is a concrete-frame, glass curtain wall industrial building with two distinct segments: a six-story tall factory/office area, and a three-story tall industrial plant. Building 253 is connected to the west end of Building 211, and the two buildings are contiguous with one another. The six-story portion of Building 253 features a reinforced concrete-frame and floors, with bands of metal, fixed and awning sash windows at each level. Full height, concrete stairwell/freight elevator towers are located at the northwest and southeast corners and a gantry attaches to the south elevation for external hoisting. This gantry appears to be mounted on a track that wraps around the top of the building. The three-story portion of Building 253 also features a concrete frame and is almost entirely glazed with operable, steel frame, corrugated wire glass panels (awning windows). The roof of this segment is also covered with corrugated glass. Two, concrete frame, rolling metal industrial doors punctuate the west facade of the three-story building.

The character-defining features of Building 253 include, but are not limited to:

- Rectilinear massing;
- Open plan;
- Unobstructed interior volume;
- Corrugated safety glass siding panels;
- Corrugated safety glass roofing panels;
- Transparency of the exterior siding and roof monitors;
- Exposed concrete structural system;
- Glazed tower; and
- Wide structural bays.

Pros

- Existing building is re-used in its original location
- Rehabilitated building would offer Class A office and lab spaces based on the available floor to ceiling heights, sun exposure and views, vibration-proof floor plates, layout flexibility and new infrastructure.
- Minor upgrades and demolition required to existing structure to accommodate program (see cons as well)
- Large volumes allow for additional rental space by inserting three new floor plates
- Current structure is very adaptable to almost any configuration (see cons as well)
- Several different types of programs can be accommodated in the same building on different levels
- Existing stairs and elevator locations work with proposed occupancy
- Glazed exterior walls provide plenty of natural light
- Upper floors have great views
- Top floor is capable of accommodating alternative uses (office, fitness facility, etc.), not only food service

Cons

- Addition of floor plates alters large atrium space, affecting the industrial character of the building
- Requires additional sheer walls, may have an impact on how space can be configured
- Much of the exterior glass is damaged and will require replacement in-kind.

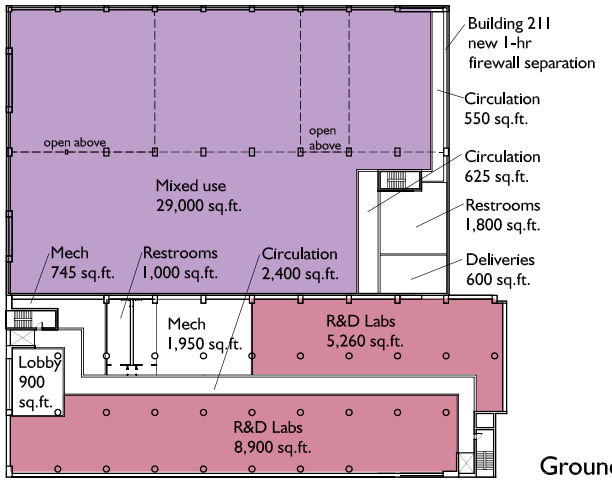
Figure 14. West elevation of Building 253. Tower portion on right and Atrium portion on left.

Figure 15. South and west elevations of Building 253. Windows are in poor condition.

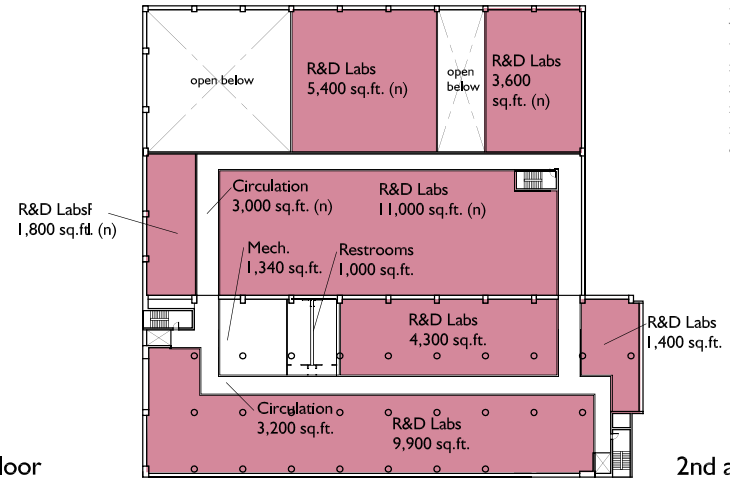
Figure 16. Interior view of 6th floor.

Figure 17. Overall view of atrium.

IV.3 Building 253: Reuse Approach

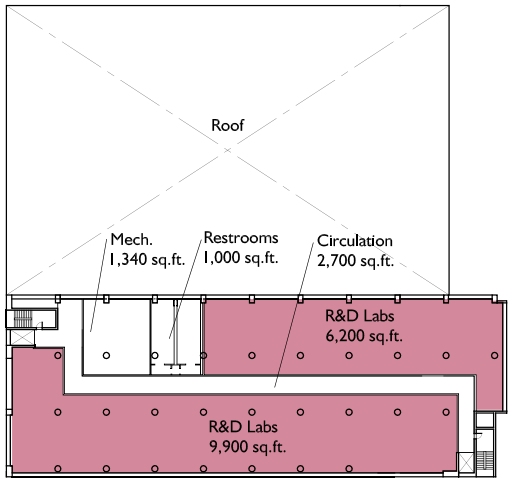


Ground Floor

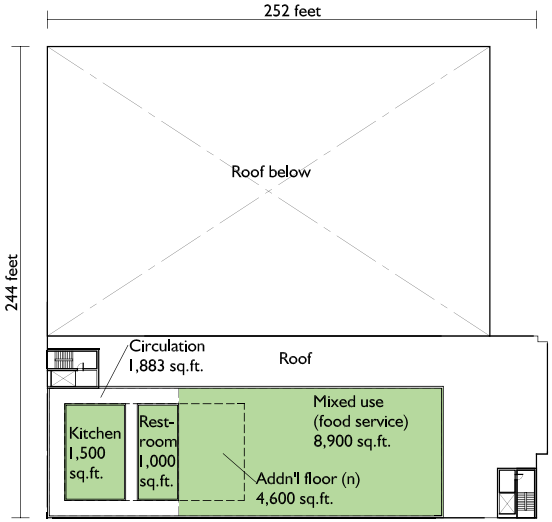


2nd and 3rd Floor

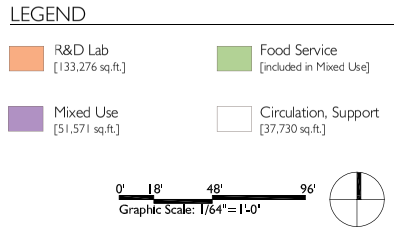
Building 253 features an unobstructed, multi-level floor plate, which allows for a wide variety of new uses. The proposed use for Building 253 is a combination of offices, R&D, and mixed use including retail and restaurant. The six-story tower is proposed to accommodate R&D and office spaces, while the main building volumes on the lower level will accommodate retail. The lower level of the tower will have a restaurant with outdoor seating on the roof deck.



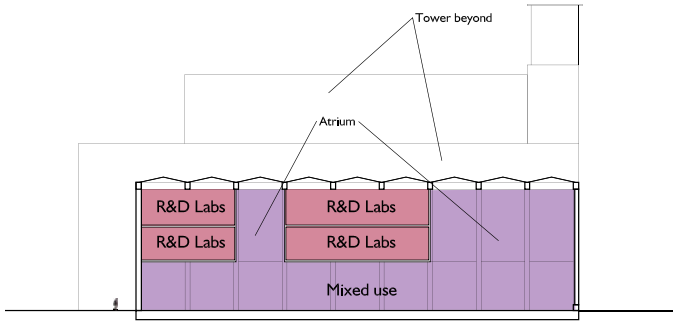
4th and 5th Floor



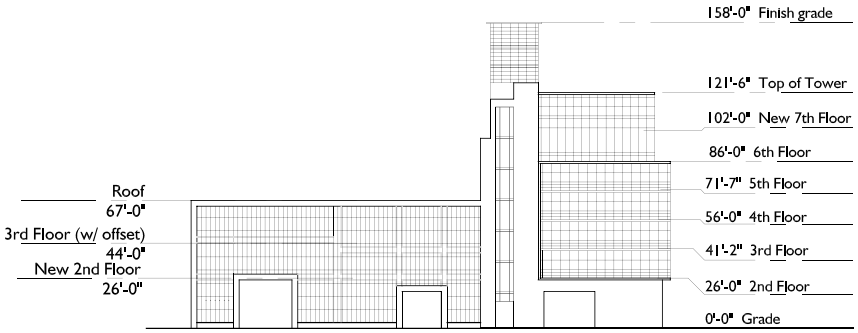
6th Floor (7th Floor)



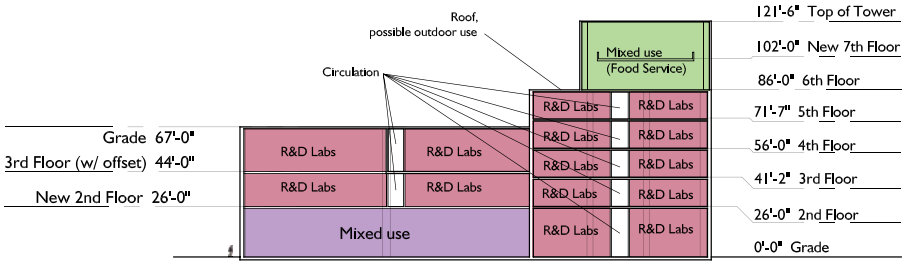
IV.3 Building 253: Reuse Approach continued



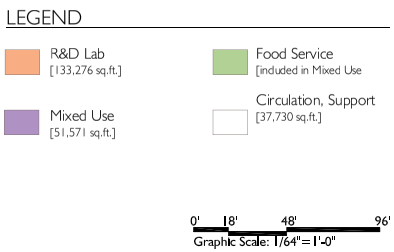
East West Section
(not through tower)



West Elevation



North South Section



IV.3 Building 253: Code Requirements

Building 253 most easily accommodates a new occupancy type. As a type IA construction (non combustible, concrete) there are no limits on height or area. The size of the floor plates is such that no additional exits are required in the tower. Egress can be served by the current stair shafts, and the current stair configuration. A third exit is required where new floor plates are introduced in the former assembly area because of the long travel distances. The California Historical Building Code allows for the use of existing exiting paths, provided that they are not a danger to occupants. The current stairs are a little steep, but seem safe enough.

The actual occupancy type has the largest code impact. Any building used for laboratories needs to have a fire wall with exits and elevators on either side. Fortunately, Building 253 is already served by two freight elevators at the opposing corners, therefore, introducing a fire separation provides the required safety level and meets the code. Sprinklers will be installed for laboratory uses as part of fire and life safety requirement.

The existing openings do not need to be protected and are not limited (with the exception of the area adjacent to building 211). There are no buildings within 30 feet, and in many cases there is greater than 80 feet clear. With no requirement for opening protection, the tower's spaces can maintain their character with three glazed walls (the fifth floor has four glazed walls); and the lower assembly area, now proposed as labs and mixed use, can remain as an all glazed space, thus preserving these important character defining features of the building.

Regular accommodation will have to be made for restroom facilities; however existing facilities seem adequate to meet the needs of occupants in the laboratory portions of the building. Extra facilities are required for the mixed use space at the first floor.

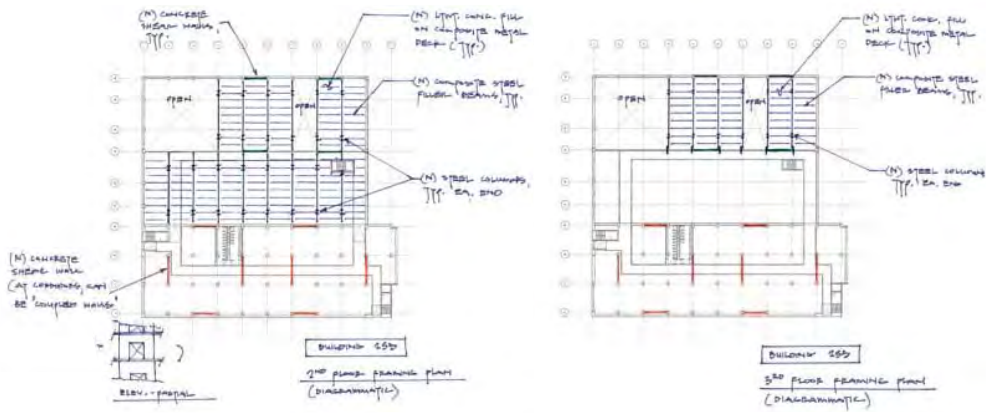
		Code Section (CBC 2007)	Notes
Address	253 Hunters Point Shipyard, Parcel C, San Francisco, 94124		
APN	4591A001		
Construction Date	--		
Construction Type	Concrete, Type I A	602.2	General
	Steel Frame, Type IIA	602.2	6th floor
Proposed Use	Mixed use at lower portion of building, offices and research labs in tower portion, mixed use food service at top of building		
Occupancy type	Research Laboratories, Group L (Treat as Group B)	302.1, 443	Section 443 details more specific requirements for the division of space, treatment of floors, walls, and exiting from labs, ventilation, sprinklers. Per section 443, other than specifics, this occupancy should be treated as Group B
	Mixed use: Group M	302.1	
	Assembly use, food service: A-2	302.1	6th floor
Building Height	150 feet		
Maximum allowable height	Unlimited	504.1	
Current number of stories	6		Does not include small tower
Proposed number of stories	7		High ceiling in 6th floor allows for extra story within existing volume
Maximum allowable stories	Unlimited	504.1	
Sprinklers	Yes	903.2	Good idea for occupancy and insurance type
Current Area	177,800 square feet		
Proposed Area	222,577 square feet		
Maximum allowable area per story	Unlimited	504.1	
Area increase required	No		
Allowable area per story with increase	N/A		
Occupant load			
Labs/offices	1,212 occupants	1004.1	Square foot per occupant: 100; 121,160 square feet
Mixed use	967 occupants	1004.1	Square foot per occupant: 30; 29,000 square feet
Assembly use, food service:	900 occupants	1004.1	Square foot per occupant: 15; 13,500 square feet
Commercial kitchen:	8 occupants	1004.1	Square foot per occupant: 200; 1,500 square feet, kitchen associated with food service
Percent of unprotected openings allowed	Unlimited, no building within 30 feet	704.8	North exterior wall, portions of existing windows may need protection
	None at building 211, unlimited at tower	704.8	East exterior wall, 1 hour separation required at B 211, portions of existing windows may need protection
	Unlimited, no building within 30 feet	704.8	South exterior wall
	Unlimited, no building within 30 feet	704.8	West exterior wall
Interior travel distance limitations	300'	1016.1	
Minimum number of exits	2	1019.1	2 required per code, 3 provided because of travel distance limitations on floors 1, 2, 3.
Minimum number of toilet fixtures required	82	CPC, 412.1	table 4-1, total
Labs/offices: Women's W/C	18		
Labs/offices: Men's W/C	17		
Labs/offices: Urinals	13		
Mixed use: Women's W/C	9		
Mixed use: Men's W/C	4		
Mixed use: Urinals	4		
Food Service: Women's W/C	5		
Food Service: Men's W/C	4		
Food Service: Urinals	3		
Minimum number of lavatories required	49	CPC, 412.1	table 4-1, total
Labs/offices: Women's	16		
Labs/offices: Men's	16		
Mixed use: Women's	5		
Mixed use: Men's	4		
Food Service: Women's	4		
Food Service: Men's	4		
Minimum number of drinking fountains	3	CPC, 412.1	table 4-1, total
Labs/offices	0		
Mixed Use	3		
Food Service	0		

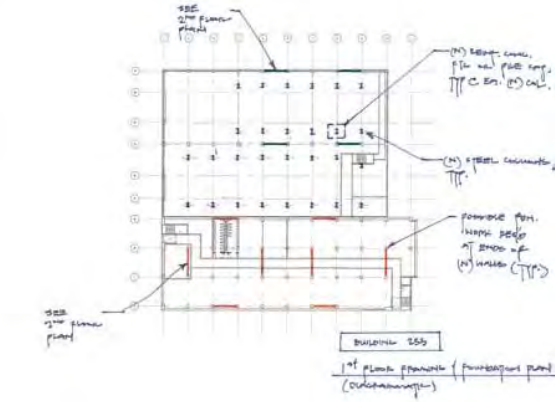
IV.3 Building 253: Code Requirements continued

Minimum number of drinking fountains	3	CPC, 412.1	table 4-1, total
Labs/offices	0		
Mixed Use	3		
Food Service	0		
Atrium considerations	1 hour separation from occupied spaces to atrium	404.5	
Laboratory considerations: Emergency power	Emergency power system is required	443.2.4	
Laboratory considerations: Construction type	Must be type I or IIA	443.2.5	Type is acceptable for use
Laboratory considerations: Fire separations	1 hour separation is required to corridors	443.2.7	
Laboratory considerations: Spill response	Building requires an area for emergency spill response	443.2.9	Would be handled by each tenant in build-out
Laboratory considerations: Hazardous materials	Restrictions vary on materials that are acceptable depending on the floor	443.3	Tennant should review with CBC for compliance
Laboratory considerations: Ventilation	Exhaust fumes cannot mix with supply air	443.4	A separate system is required for supply air, and lab exhaust from vent hoods, etc.
Laboratory considerations: Means of egress	Portions that have a floor area of 200 square feet or more, require two separate exits	443.6.1	Each large room will require 2 exits when used as a lab
Laboratory considerations: Means of egress	Any portion of the room must be within 100 feet of an exit	443.6.2	Exit includes rated corridor.
Laboratory considerations: Means of egress	Buildings greater than 4 floors require at least one 2 hour horizontal exit per floor. Each side needs to be provided with an elevator and exit stair	443.6.5	Identified on plans.
Existing Building Code		CBC Chapter 34	
Additions alterations or repairs to existing building	New work needs to comply with regular code for new construction	3403.1	Existing building code, CBC Chapter 34
Additions alterations or repairs to existing building impact to structure	Additions and alterations cannot increase the force by more than 5% unless new forces are still in compliance with the regular code. New elements need to meet regular code for structures.	3403.2	Existing building code, CBC Chapter 34
Fire escapes	This section does not apply since building exiting is served by stairs	3404.1	Existing building code, CBC Chapter 34
Change of Occupancy	No change is allowed that places the building in a different use/occupancy type, unless that new type can be made to meet with the regular code.	3406.1	Existing building code, CBC Chapter 34 Building meets regular code for requirements of new occupancy.
Change of Occupancy impact to structure	Structure must comply with the new occupancy's requirement for structure under the regular building code.	3406.4	Existing building code, CBC Chapter 34
Compliance	Use this section if building cannot be made compliant under regular code or historic building code	3410.0	Not required since re-use of buildings can be made compliant under the regular code and a few elements from the historic building code.
Historic Building Code		CBC Title 24 Part 8	(CHBC)
Application	This building is a qualified historic structure and can use the Historic Building Code	8-301.2	Based on contribution to historic district
Change in occupancy	Change in occupancy is permitted,	8-302.2	Change in occupancy does not necessarily require total conformance with regular code, per provisions in CHBC
Required separations	One hour maximum separations required where regular code specifies greater if a sprinkler system is installed	8-302.2	Sprinkler utilized in regular code for area increase
Maximum Floor Area	Multi story buildings must meet regular code requirement, except when a sprinkler is provided, there is no limit on floor area in the historic structure	8-302.4	Floor area made to work under regular code with the use of sprinklers.
Maximum Height	Historic building height is not limited provided it does not exceed that of the historical design	8-302.5	
Exterior wall protection	sprinklers may be used to satisfy requirement for existing openings	8-402.1	Portions of east wall will need separation where building 253 and 211 are connected.
Non-conformance with regular code	Where the building cannot meet the requirements of the regular code, sprinklers may be used	8-410.1	applies to occupancy, fire separation, exiting distances.
High-rise (buildings greater than 75 feet)	Building must meet all regular codes unless amended by CHBC	8-412	
Exiting width	Existing openings are permitted to be used even if they are less than the required minimum	8-502.2	
Exit stairs	Existing stairs that do not meet regular code are permitted to be used for exiting provided that they do not pose a hazard	8-502.3	
Accessibility	Regular code applies to accessibility, unless there is a threat to significant character defining features.	8-602.1	
Structural engineer review of historic structure	A qualified structural engineer should evaluate the building and assess condition	8-703.1	
New additions and alterations	Structures must conform to regular code	8-704.1	
Evaluation of structure	Structural Engineer should evaluate the building and propose upgrades as required. Consideration should be given to minimize loss and impact to historic fabric	8-705	
Lateral loads	Forces in the historic building need not exceed 0.75 times the seismic forces prescribed by 1995 CBC	8-706.1	
Mechanical, electrical, and plumbing systems	Systems shall comply with the regular code, unless amended by CHBC, existing system can be used if deemed safe	8-902	No existing systems in the building can be used. Will need all new mechanical, electrical and plumbing systems.

IV.3 Building 253: Structural Assessment

As a type IA construction (non-combustable) the building lends itself naturally for use as a research lab. It also has a structural system that can take a vertical load of 250 pounds per square foot, far in excess of what would be required for such a use. On the other hand, there are a number of upgrades required to the structure to cope with lateral forces. The significant weight of the concrete structure places a great deal of horizontal force on the inadequate shear walls; which currently include the stair towers alone. Additional sheer walls running the height of the building will have to be places at various locations on the floor plate. In the "atrium" type space, additional reinforcement will be required at the connections of concrete beams to columns. Most likely, the overlap of re-bar is inadequate.





emergent
structures, inc.

Paul B. Hofland, SE
Principal

Building 253 - North Atrium in Foreground, South Concrete-Framed Column/Slab Building in Background, w/ Penthouse and Observation Tower – view looking SE

Building 253

Existing Building – Bldg. 253

General

Building 253 at Hunter's Point Shipyards is comprised of two rectangular volumes, one alongside the other, framed in reinforced concrete. The shorter volume is approximately 150 feet wide x 200 feet long. The northernmost bay, approximately 75 feet wide, is open from the main floor to the fully glazed roof. The adjacent 75 foot wide bay has an upper floor framed below the roof level. The upper floor framing appears to be a formed concrete slab supported by concrete-encased filler beams, which are in turn supported by steel girders located on column lines at 25 feet on center, which span the clear width of the space.

The second of the two rectangular volumes which make up Building 253 is approximately 87½ feet wide x 250 feet long. This portion of the building is comprised of 3 bays across, each measuring 29'-2". Column bay spacing in the longitudinal direction is 25 feet, thus the tributary area to each interior column is approximately 730 square feet per floor, while tributary area per floor at exterior columns is 365 square feet. Elevated floor slabs are of conventional reinforced concrete with a slab-beam system supported by round concrete columns tapering conical capitals. The floors are believed to have been designed to support a superimposed live load of 250 psf, typically, as indicated by the signage evident throughout this part of the building.

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IV.3 Building 253: Structural Assessment continued

Building 253 (cont.)

General (cont.)

The main roof framing is again of reinforced concrete construction, with a slab-beam system supported on round concrete columns with tapering conical capitals.

A large steel-framed penthouse, measuring 60 feet x 200 feet, extends above the main high roof. The penthouse is framed with steel columns at 25 foot centers joined by deep steel girders. The penthouse is connected by a concrete "bridge" link at the level of the penthouse roof to the southeast stair tower which extends above the roof. At the northwest end, the penthouse is connected to a concrete framed stair tower which also has an observation tower element which extends above the roof and is the highest part of the structure.

Gravity Systems

The gravity systems for this building are as described in the above section.

Lateral Systems

Lateral systems for this building appear to be of four main types, depending on the location within the building. The north Atrium portion appears to be a concrete moment frame structure, with multiple beams and columns apparent in each elevation. The south concrete slab-beam structure appears to be supported laterally primarily by the concrete stair towers acting as shear walls or cores in the diagonally opposite NW and SE corners of the building. There is diagonal steel bracing which evidently provides both vertical and lateral support for the roof over the portion of elevated 3rd level floor between grids D and G. Finally, the penthouse structure is comprised of a series of single-bay portal frames, and appears to be additionally braced by the extension of the NW stair core, and a bridge connection from the roof slab to the SE stair core.

At the penthouse, the connection of the bridge slab to the stair core appears tenuous at best, and as there does not appear to be an alternative east-west bracing system at the north and south sides of the penthouse, the lateral system for this element should be thoroughly studied and remedial work completed as necessary.

The concrete moment frame which comprises the lateral system for the north Atrium component of the building will almost certainly have non-complying confinement reinforcing for beams and columns, as well as inadequate longitudinal reinforcing lap splice lengths. This will need to be addressed; it is possible that the provision of FRP or steel or reinforced concrete jacketing would sufficiently address this issue. Access to these elements is quite good inside the vaulted Atrium space. Alternatively, a new concrete shear wall system could be employed in select bays.

It is likely that the NW and SE stair cores are not adequate to brace the relatively heavy column and beam-slab system alone. We believe that additional interior or exterior shear walls are likely to be required. One should assume that at least two walls x 25 feet in each direction will be required, full height of the building, with new foundations.

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Building 253 (cont.)

Foundations

We were not provided with structural foundation drawings for the existing Building 253, and therefore did not have an opportunity to determine their type or allowable capacity.

Visual Condition Assessment

There is significant concrete cracking and spalling that has occurred around the Observation Tower element, probably as a result of its extreme exposure. This deterioration will need to be assessed and repaired.

Planned Additions / Revisions – Bldg. 253

It is our understanding that the proposal to repurpose Building 253 involves the addition of approximately 36,000 square feet total, on two levels. The second level would see the addition of 26,400 square feet, with 9,000 of that to be added at the north atrium, and the balance to be added between grids D and G. The third level would have an additional 9,000 square feet added at the north atrium space. Otherwise, the proposed redevelopment doesn't involve the addition of any substantial square footage to the building.

Existing floor posted live load capacities of 250 lbs/sf are well in excess of what we would normally anticipate would be required for the proposed R&D / office uses. The existing floor of the penthouse is intended to be employed as Mixed Use, with a Kitchen, Restrooms and a Dining Area. The normally required live load capacity for these activities is no more than 100 lbs/sf; the existing steel columns in this area are posted with a floor load capacity of 230 lbs/sf. Thus the building's existing gravity system appears to be quite substantial with respect to its allowable live load capacity.

Based on our field observations and some limited study, again we believe that it is structurally feasible to create the planned additions and revisions, provided existing structural systems are not overloaded, and new ones are employed to handle any significant new loads, whether seismic or gravity.

Gravity Systems for Proposed Additions

We recommend that the floor framing for the new additions be constructed of lightweight concrete fill on composite metal deck, supported on composite steel filler beams. The beams, in turn, would be supported by composite steel girders on new steel columns. At the north atrium space, at both the 2nd and 3rd levels, as well as between grids D and G, we believe new floors could be created by spanning filler beams at approximately 8 foot spacing between girders spanning north-south, located on the existing column grids. New steel columns supporting the girders could be introduced at approximately 10 feet from each girder end, allowing the new floor loads to be supported independently of the existing columns and foundations. New foundations would then be provided at each of these columns.

Lateral Systems for Proposed Additions

See discussion above for remarks on the lateral system for this building.

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The Preliminary Cost Estimate (below) is provided to predict rehabilitation and reuse of Building 253 based on the conceptual reuse diagrams, pages 25-26.

ESTIMATE WORKSHEET

HUNTER'S POINT REHABILITATION

BUILDING: 253

PROJECT: **HUNTER'S POINT SHIPYARD, PARCEL C, SAN FRANCISCO, CA 94124**

(E) BUILDING GSF: 177,800

PHASE: **FEASIBILITY STUDY (PRELIMINARY)**

TOTAL BUILDING GSF: 222,577

4 of 4
8/28/2009
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ESTIMATE DATE **UNKNOWN**

BID DATE: **AUGUST 28, 2009**

PREPARED BY: J.R. CONKEY & ASSOCIATES

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL COST
1000	ABATEMENT ALLOWANCE	177,800	SF	$10.00	$1,778,000
2000	DEMOLITION	177,800	SF	$3.75	$666,750
3000	FULL SEISMIC UPGRADE	177,800	SF	$12.50	$2,222,500
3000	NEW BUILDING STRUCTURE	44,777	SF	$200.00	$8,955,400
5000	STAIRS/HANDRAILS (REFURBISH)	18	FLTS	$15,000.00	$270,000
6000	MISC FINISH CARPENTRY	194,670	SF	$0.50	$97,335
7000	ROOF REPLACEMENT	57,971	SF	$12.00	$695,652
7000	WATERPROOFING (ALLOWANCE)	194,970	SF	$0.50	$97,485
8000	EXTERIOR SKIN / WINDOW REPLACEMENT (ALLOWANCE)	79,536	SF	$85.00	$6,760,560
9000	CORE FINISHES (RESTROOMS, CORRIDORS)	18,855	SF	$175.00	$3,299,625
9000	TENANT IMPROVEMENT FINISHES	203,722	SF	$95.00	$19,353,590
10000	SPECIALTIES	222,577	SF	$0.50	$111,289
14000	ELEVATORS	12	STOPS	$50,000.00	$600,000
15000	FIRE PROTECTION SYSTEM	222,577	SF	$6.00	$1,335,462
15000	HVAC	222,577	SF	$35.00	$7,790,195
15000	PLUMBING	180	FIXT	$4,000.00	$720,000
16000	ELECTRICAL - POWER	222,577	SF	$17.50	$3,895,098
16000	LIGHTING	222,577	SF	$5.50	$1,224,174
16000	FIRE ALARM	222,577	SF	$6.00	$1,335,462
	EXCLUDES: SITEWORK, SITE UTILITIES, UTILITY COMPANY CHARGES, DEVELOPMENT FEES,				
	DEVELOPER FEES, FF&E COSTS, DESIGN FEES, CONSTRUCTION MANAGEMENT FEES,				
	HAZARDOUS MATERIALS ABATEMENT (EXCEPT FOR ALLOWANCE NOTED,)				
	SUBTOTAL HARD COSTS				**$61,208,576**
	CONTINGENCY				
	ESTIMATING CONTINGENCY	20.00%			**$12,241,715**
	SUBTOTAL CONSTRUCTION COSTS				**$73,450,291**
	MARK-UPS				
	GENERAL CONDITIONS	10.00%			$7,345,029
	OVERHEAD & PROFIT	10.00%			$8,079,532
	INSURANCE & BONDS	2.25%			$1,999,684
	SUBTOTAL MARK-UPS				**$17,424,245**
	SUBTOTAL CONSTRUCTION COSTS & MARK-UPS				**$90,874,536**
	ESCALATION				
	ESCALATION (FIGURED BY OTHERS)	0.00%			**$0**
	TOTAL CONSTRUCTION ESTIMATE:				**$90,874,536**

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Appendix V2 CBRE Proposed Hunters Point Shipyard Phase II Redevelopment—Parcel C Financial Feasibility Analysis of Historic Reuse Options, October 30, 2009

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MEMORANDUM

To: Wells Lawson, City of San Francisco

From: Mary Smitheram-Sheldon and Courtney Pash, CBRE Consulting

Date: October 30, 2009

Subject: Proposed Hunters Point Shipyard Phase II Redevelopment - Parcel C
Financial Feasibility Analysis of Historic Reuse Options

INTRODUCTION

As requested, CBRE Consulting has analyzed the financial feasibility of two potential Historic Reuse Options for a portion of Parcel C of the Hunters Point Shipyard Phase II Redevelopment Project. Parcel C is planned as an employment center with 2.0 million square feet of research and development (R&D) and office space in eight distinct blocks to accommodate a variety of technology, biotechnology, and/or clean technology companies.[1]

The proposed plan includes the demolition of three buildings that have been identified as potential Historic District Contributors: Buildings 211, 231, and 253. These three buildings were constructed between 1942 and 1947 and used as machine shops for the former shipyard. If these three buildings are retained, the two planned R&D/office buildings at Blocks 5 and 6 within Parcel C will not be constructed. As part of the environmental impact report, CBRE Consulting has been asked to assess the financial feasibility of retaining these three buildings. CBRE Consulting's analysis compares the baseline project, comprising the planned Blocks 5 and 6, with two Historic Reuse Options: A) retain all three buildings, with a modest amount of new construction; and B) retain Building 253 only, with two new large R&D/office buildings.

As discussed in this memorandum, CBRE Consulting finds that retaining these three buildings as part of the Hunters Point Shipyard Phase II - Parcel C project is not financially feasible. The rehabilitation costs under the Historic Reuse Option A significantly exceed the estimated stabilized value. As a result, if this option were adopted without a significant amount of additional public subsidy, these three buildings would not be reused and would remain in their vacant, dilapidated states. This conclusion of infeasibility is partially informed by physical constraints that make the retention of these three buildings more difficult and expensive, as more fully described later in this memorandum.

Additionally, the option wherein only Building 253 is retained and two new buildings are constructed is not financially feasible. Again, the issue is that the rehabilitation cost for Building 253 is so significant that it more than offsets the combined positive residual land value associated with the new-construction buildings.

[1] Some of the blocks adjacent to the Hunters Point Shipyard Village Center include mixed use buildings – ground floor retail with residential above. These blocks, or portions of blocks, are specifically excluded from this analysis.

BACKGROUND

Methodology

CBRE Consulting prepared three static financial pro formas for this analysis: the Baseline Analysis; Historic Reuse Option A (all three buildings); and Historic Reuse Option B (only Building 253). All three pro formas compare anticipated project value upon completion to total project development cost. The Baseline Analysis examines Blocks 5 and 6 as those would be the only two blocks affected should the potential historic district contributor buildings be retained. The proposed development of this portion of Parcel C includes Block 5, with 643,000 square feet of office space and a 1,403-space parking garage, and Block 6, with 239,000 square feet of R&D space. The total new development in this portion of Parcel C is 882,000 gross square feet. On a net rentable basis, there is an estimated total of 837,900 square feet of space.

Historic Reuse Option A analyzes a hypothetical development program assuming that the three potential historic district contributor buildings are retained. These buildings could be rehabilitated to include 262,000 square feet of R&D/office space, 76,000 square feet of mixed-use/retail/restaurant space, and 1,000 off-street parking spaces. Based on a site planning study performed by IBI Group, there could be sufficient land area in two locations, west of Building 253 and south of Building 211, that each could accommodate a small office building. These buildings would have relatively small floor plates (23,000 and 17, 000 square feet), be seven stories high, with a total of 280,000 gross square feet of space. In addition, a small surface parking area for 55 autos could be placed west of Building 231.

Historic Reuse Option B studies a potential development program that includes the retention of only Building 253, plus the new development of two R&D/office buildings totaling 416,000 square feet of space. For purposes of the analysis, CBRE Consulting assumed that the larger building (230,000 square feet) would be predominantly office and the smaller building (186,000 square feet) would be predominantly R&D. A total of 1,029 parking spaces would be provided in these two buildings in above-grade structures. It should be noted that in this option, IBI Group indicates that the two proposed new buildings exceed the maximum height for overall Parcel C as presented in the EIR, but are the same height as Building 253. Therefore, this option may also have some view corridor impacts on surrounding areas.

Presentation

Exhibit 1 presents the Baseline Analysis, Exhibit 2 presents Historic Reuse Option A, and Exhibit 3 presents Historic Reuse Option B. The first page of each exhibit presents general assumptions, such as uses, building areas, and parking spaces. Page two of each exhibit presents inputs related to the operations of the project – rents, vacancy rates, and capitalization rates. Pages three and four of each exhibit outline development costs. Page five of each exhibit presents the static pro forma analysis, whereby net operating income is calculated (revenues less vacancy) and a capitalization rate is used to convert the estimated net operating income into indicated value at stabilization. From the indicated value, development costs are deducted to arrive at an estimated residual land value.

Data Sources

Information for the Baseline Analysis including project details such as use, net square feet, efficiency, market rents, development costs, and parking ratios, was provided by Lennar and its design firm, IBI Group. Certain market-based inputs were adjusted for reasonableness by CBRE Consulting based on available market data.

The main source of data pertaining to the Historic Reuse Option A is a report titled Hunters Point Shipyard Feasibility Study prepared by Page & Turnbull, an architecture firm that specializes in historic preservation. The Page & Turnbull report, prepared in conjunction with JR Conkey and Associates and Emergent Structures, Inc., provides a number of key inputs such as gross and net building areas, building uses (in collaboration with CBRE Consulting), and rehabilitation costs. CBRE Consulting, Lennar, and MacTec provided refinements related to certain inputs. Treadwell & Rollo also provided information on remediation issues. The information developed by Page & Turnbull for Building 253 was also used in the Historic Reuse Option B analysis. IBI Group provided locations, sizes, heights, and number of parking spaces for the potential new construction in both Historic Reuse Options A and B.

FEASIBILITY ANALYSIS

Assumptions

From a financial standpoint, there are a number of key differences between the Baseline Analysis and Historic Reuse Options, as detailed in the attached exhibits.

Amount of R&D/Office Development

The amount of R&D/office space developed is one of the key drivers in supporting residual land value. The following table compares the amount of R&D/office space in the three analyses. As shown, the net square feet of R&D/office space in Blocks 5 and 6 would be reduced from 837,900 net square feet in the Baseline Analysis to 500,915 net square feet in the Historic Reuse Option A. In Historic Reuse Option B, there is 549,595 net square feet of R&D/office space.

Proposed Parcel C Project – Blocks 5 and 6
Office/R&D Summary

	Baseline Analysis	Historic Reuse Option A	Historic Reuse Option B
R&D Net Square Feet	227,050	154,395	331,095
Office Net Square Feet	610,850	346,520	218,500
Total R&D/Office Net Square Feet	837,900	500,915	549,595

Source: Exhibits 1, 2, and 3.

Given this significant reduction in R&D/office space in the two Historic Reuse Options, the development program for the entirety of Parcel C would result in less than the currently proposed (baseline) 2.0 million square feet of R&D/office space. This would limit the City's ability to attain a community goal of turning Hunters Point into an employment center for local residents. It would also reduce the direct and indirect local and regional economic benefits resulting from fewer jobs created.

Amount of Retail Space

Historic Reuse Option A would include 75,689 square feet of retail space (there is no retail space in the Baseline Analysis). This would be split between a restaurant on the top floor of Building 253, large open space on the ground floor of Building 253 (assumed to be leased as a fitness center), and retail wrapping the parking on the ground floor of Building 231. Historic Reuse Option B similarly includes 51,571 square feet of retail space in Building 253 (the aforementioned rooftop restaurant and ground floor space).

Market Rent

For Building 253, Page & Turnbull concludes that the existing structure can be rehabilitated to provide space that is competitive with new R&D buildings. Therefore, CBRE Consulting has included in its analysis a market rent for this building that is consistent with the assumption used for the new

R&D building in the Baseline Analysis. However, the rehabilitated space in Building 211 would not be competitive with new Class A office space; rather this space would be considered Class B at best, with a lower average achievable rent as a result of the following factors:

- Space inefficiencies – often in rehabilitated buildings, incorporating modern access and life safety components is not as efficient as when built new;

- Less desirable/functional space – these buildings have functional issues that cannot be corrected through rehabilitation and as a result would not be suitable for biotech related R&D in the case of Building 211 (or Building 231 if it were not devoted to a parking garage);

- Different tenant types – these rehabilitated buildings would likely attract smaller non-corporate users and more eclectic users that enjoy open trusswork and exposed systems. These users typically pay rent at the lower end of the market rate range.

Additionally, market rent for the retail space in the rehabilitated structures is lower due to the more remote location of the retail space (including the rooftop restaurant) with limited visibility and the shallow retail bays in Building 231 (20 feet or less).

Hard Development Costs

Hard development costs under the Historic Reuse Option are significantly higher than those in the Baseline Analysis, due to the fact that the existing systems will have to be removed and new systems installed. New floors need to be installed with new and updated ingress/egress, including both elevators and stairwells. The buildings will also need to be seismically strengthened and brought up to current building code. Additionally, in order to address the potential for sea level increase, MacTec has estimated costs needed to raise the foundations of the buildings; these costs have been included in the analysis. The hard costs for rehabilitation are over $705 per net square foot, compared to hard costs of $270 per net square foot for new construction in the Baseline Analysis.

In addition, for Historic Reuse Option B, parking to accommodate the users of building 253 needs to be incorporated into the development of the new buildings, thus increasing the hard construction costs of the new buildings to nearly $300 per net square foot. The hard costs for building 253 are $450 per net square foot. This results in average hard development costs across all buildings of $350 per square foot, significantly higher than that of the Baseline Analysis.

Parking

The parking ratio for the entirety of parcel C in the Baseline Analysis is 1.3 structured parking spaces per 1,000 gross square feet of building area. Since Block 5 contains a large parking garage, which serves Block 6 as well as other nearby blocks, the parking ratio for those two blocks alone is 1.59 spaces per 1,000 gross square feet of building area. Historic Reuse Options A and B provide parking ratios of 1.71 and 1.61 spaces per 1,000 gross square feet, respectively. For the entirety of Parcel C, the overall ratios are 1.30 and 1.27 spaces per 1,000 gross square feet. Given the relatively minor change in parking ratios between the three different development scenarios CBRE Consulting concludes that, with respect to parking, the analyses represent even comparisons.

CBRE Consulting also prepared a sensitivity analysis for Historic Reuse Option B addressing the possibility of building underground parking, which would allow an increase in the amount of R&D/office space that could be developed. The high cost of building underground parking in this location results in significant negative residual land values for the new-construction buildings, despite the additional rentable area. Thus, current market rents do not support underground parking;

however, this situation could change in the future whereby market rents increase to the point that justifies the added cost of underground parking.

Conclusions

The summary presented below illustrates that the Baseline Analysis is feasible, with an indicated project value greater than total project development cost. Historic Reuse Option A is infeasible, with estimated total project development costs exceeding indicated project value by nearly $200 million, while the estimated deficit for Historic Reuse Option B is under $50 million.

Proposed Parcel C Project – Blocks 5 and 6
Pro Forma Analyses

	Baseline Analysis		Historic Reuse Option A		Historic Reuse Option B	
	Total	Per GSF	Total	Per GSF	Total	Per GSF
Indicated Value	$398,779,536	$476	$245,426,813	$426	$291,413,372	$485
Development Costs	$366,295,841	$437	$429,603,134	$745	$333,266,863	$554
Difference	$32,483,694	$39	-$184,176,321	-$319	-$41,853,491	-$70
Result	**Feasible**		**Infeasible**		**Infeasible**	

Sources: Exhibits 1, 2, and 3.

Therefore, if the Historic Reuse Option A was required, it is highly likely that the rehabilitation would not occur and these buildings would remain in their current vacant and dilapidated condition, which could negatively impact the desirability, absorption, and value potential of the remainder of Parcel C. Both vertical developers and lenders or other financial partners would not pursue this project, but instead would invest in other feasible development projects. A similar conclusion would be reached with regard to Historic Reuse Option B. The modest positive residual land value associated with the new construction would more than be offset by the deficit associated with rehabilitation of Building 253.

Physical Constraints

CBRE Consulting's conclusions of infeasibility are also informed by physical constraints that increase the difficulty and cost of retaining these three buildings. The first constraint relates to the contamination of the site. According to the U.S. Navy's proposed plan for cleanup of Parcel C, there is significant soil and groundwater contamination under and around all three buildings, as well as radiological contamination in Building 253 (and, to a lesser extent, Building 211). The proposed remediation plan calls for a variety of techniques to address the contamination, including soil removal, soil vapor extraction, installation of soil covers, injection of chemicals or biological nutrients, and decontamination of Buildings 253 and 211. A discussion with Treadwell & Rollo indicates that the proposed soil and groundwater remediation activities can still take place if the buildings remain; however the remediation will be more complicated and costly as the existing foundations will have to be drilled and/or excavated for installation of vapor walls, ventilation ducts, monitoring equipment, etc.

It should be noted that the proposed remediation alternative associated with radiological issues in the U.S. Navy plan includes the possibility of building demolition, if deemed necessary by the U.S. Navy. Therefore, it is possible that the final result of the U.S. Navy's more detailed radiological study of Building 253 may conclude that demolition of this building is the best approach to remediate the radiological contamination.

While the U.S. Navy is tasked with the remediation of the Hunters Point area, it is unclear if it will pay for the incremental costs associated with retaining the three buildings. Thus, if the buildings are

retained, the additional remediation costs will need to be negotiated with the U.S. Navy. One possible outcome is that the incremental remediation cost could be added to the rehabilitation cost, thus increasing the financial deficit of Historic Reuse Option A, in particular. This cannot be quantified until the U.S. Navy conducts additional investigations and characterizations.

The second constraint is associated with the anticipated rise in sea level due to global warming. The overall project site will need to be raised by 2.5 to 3 feet to account for projected sea level change. For the rest of the project, the costs associated with raising the site are considered infrastructure (i.e., horizontal development costs). However, if the three potentially historic district contributor buildings are retained, their foundations will need to be raised, the costs for which are considered building costs (i.e., vertical development costs). These costs have been estimated by MacTec and are included in the financial analysis presented in this memorandum. Addressing this issue increases direct construction costs by 3 to 6 percent.

The contents of this memorandum are subject to the attached Assumptions and General Limiting Conditions.

ASSUMPTIONS AND GENERAL LIMITING CONDITIONS

CBRE Consulting has made extensive efforts to confirm the accuracy and timeliness of the information contained in this study. Such information was compiled from a variety of sources, including interviews with government officials, review of City and County documents, and other third parties deemed to be reliable. Although CBRE Consulting believes all information in this study is correct, it does not warrant the accuracy of such information and assumes no responsibility for inaccuracies in the information by third parties. We have no responsibility to update this report for events and circumstances occurring after the date of this report. Further, no guarantee is made as to the possible effect on development of present or future federal, state or local legislation, including any regarding environmental or ecological matters.

The accompanying projections and analyses are based on estimates and assumptions developed in connection with the study. In turn, these assumptions, and their relation to the projections, were developed using currently available economic data and other relevant information. It is the nature of forecasting, however, that some assumptions may not materialize, and unanticipated events and circumstances may occur. Therefore, actual results achieved during the projection period will likely vary from the projections, and some of the variations may be material to the conclusions of the analysis.

Contractual obligations do not include access to or ownership transfer of any electronic data processing files, programs or models completed directly for or as by-products of this research effort, unless explicitly so agreed as part of the contract.

This report may not be used for any purpose other than that for which it is prepared. Neither all nor any part of the contents of this study shall be disseminated to the public through publication advertising media, public relations, news media, sales media, or any other public means of communication without prior written consent and approval of CBRE Consulting.

EXHIBIT 1
GENERAL ASSUMPTIONS
HUNTERS POINT SHIPYARD PHASE II BLOCKS 5 AND 6 OF PARCEL C
BASELINE ANALYSIS (PROPOSED PROJECT)
OCTOBER 2009

	BLOCK 5	BLOCK 6	SUBTOTAL/ AVERAGE
Site Assumptions			
Site Area (Square Feet)	312,323	101,644	413,967
Site Area (Net Acres)	7.17	2.33	9.50
Existing Structure (Square Feet) (1)	373,170	49,336	422,506
Building Assumptions			
Predominant Use	Office	R&D	
Gross Square Feet	643,000	239,000	882,000
Estimated Efficiency	95%	95%	95%
Net Square Feet	610,850	227,050	837,900
FAR	2.06	2.35	2.13
Parking Assumptions			
Parking Ratio (per Gross 1,000 sf)	2.18	0.00	1.59
Total Garage Parking Spaces	1,403	0	1,403

Sources: Lennar; IBI Group; MacTec.; City of San Francisco; and CBRE Consulting.

(1) The existing structures include only those buildings that are being considered for rehabilitation under the historic resources option and have been divided between Block 5 and 6 based on approximate location. This does not impact the residual land value before demolition and infrastructure.

OCTOBER 2009

EXHIBIT 1
INCOME / EXPENSE ASSUMPTIONS
HUNTERS POINT SHIPYARD PHASE II BLOCKS 5 AND 6 OF PARCEL C
BASELINE ANALYSIS (PROPOSED PROJECT)
OCTOBER 2009

	BLOCK 5	BLOCK 6
GENERAL ASSUMPTIONS		
Vacancy Percent	7.50%	7.50%
CFD Percent	0.75%	0.75%
Capitalization Rate	6.50%	6.50%
INCOME ASSUMPTIONS		
NOI Per Square Foot	$35.00	$42.00
Expenses (1)	NNN	NNN
Annual CFD Payment	$3.39	$4.07

Sources: Lennar; IBI Group; MacTec.; City of San Francisco; and CBRE Consulting.

(1) Triple net rent covers all landlord expenses, thus Effective Gross Rent is equal to Net Operating Income (NOI).

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EXHIBIT 1
DEVELOPMENT COST ASSUMPTIONS
HUNTERS POINT SHIPYARD PHASE II BLOCKS 5 AND 6 OF PARCEL C
BASELINE ANALYSIS (PROPOSED PROJECT)
OCTOBER 2009

	BLOCK 5	BLOCK 6
Hard Development Costs		
Shell Construction Costs per Gross Square Foot	$165	$165
TI Costs per Net Square Foot	$50	$100
Parking Garage Cost per Space	$20,000	$20,000
Soft Development Costs		
Soft Costs as percentage of Hard Costs	20%	20%
Financing Costs as percentage of Hard Costs	8%	8%
Leasing Costs as percentage of NOI	7.5%	7.5%
Time for Leasing Subsidy (Months)	9	9
Closing Costs as percentage of Value	1%	1%
Developer profit as percentage of Hard and Soft Costs	15%	15%
Demolition Costs		
Demolition Costs per Gross Square Foot (old buildings)	$15	$15

Sources: Lennar; IBI Group; MacTec.; City of San Francisco; and CBRE Consulting.

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EXHIBIT 1
DEVELOPMENT COST SUMMARY (2009 $s)
HUNTERS POINT SHIPYARD PHASE II BLOCKS 5 AND 6 OF PARCEL C
BASELINE ANALYSIS (PROPOSED PROJECT)
OCTOBER 2009

	BLOCK 5	BLOCK 6	SUBTOTAL/ AVERAGE
Hard Development Costs			
Shell Construction Costs	$106,095,000	$39,435,000	$145,530,000
TI Costs	30,542,500	22,705,000	53,247,500
Parking	28,060,000	0	28,060,000
Total Hard Costs	$164,697,500	$62,140,000	$226,837,500
Total Hard Costs per Net Square Foot	$270	$274	*$271*
Soft Development Costs			
Soft Costs	$32,939,500	$12,428,000	$45,367,500
Financing Costs	13,175,800	4,971,200	18,147,000
Leasing Costs	1,603,481	715,208	2,318,689
Lease Subsidy (1)	14,832,202	6,615,669	21,447,871
Closing Costs	3,042,503	1,357,060	4,399,563
Developer Profit	34,543,648	13,234,071	47,777,718
Total Soft Costs	$100,137,134	$39,321,208	$139,458,341
Soft Costs as Percentage of Hard Costs (Exc. Profit)	*40%*	*42%*	*40%*
TOTAL DEVELOPMENT COSTS	**$264,834,634**	**$101,461,208**	**$366,295,841**
TOTAL DEVELOPMENT COSTS PER SQUARE FOOT	***$434***	***$447***	***$437***
Demolition Costs	$5,597,550	$740,040	$6,337,590
Total Development Costs including Demolition	**$270,432,184**	**$102,201,248**	**$372,633,431**

Sources: Lennar; IBI Group; MacTec.; City of San Francisco; and CBRE Consulting.

(1) Assumes nine months NOI loss to absorption/concessions.

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EXHIBIT 1
STATIC PRO FORMA
HUNTERS POINT SHIPYARD PHASE II BLOCKS 5 AND 6 OF PARCEL C
BASELINE ANALYSIS (PROPOSED PROJECT)
ASSUMES STABILIZED OCCUPANCY
OCTOBER 2009

	BLOCK 5	BLOCK 6	SUBTOTAL/ AVERAGE
Stabilized Operating Statement (2009 $s)			
Net Operating Income (NOI)	$21,379,750	$9,536,100	$30,915,850
Vacancy	($1,603,481)	($715,208)	($2,318,689)
NOI Adjusted for Vacancy	$19,776,269	$8,820,893	$28,597,161
Capitalized Value	$304,250,288	$135,706,038	$439,956,327
Value per Net Square Foot of Building Area	*$498*	*$598*	*$525*
Less: CFD Bond Payoff	($28,472,427)	($12,704,364)	($41,176,791)
Net Proceeds	$275,777,862	$123,001,674	$398,779,536
Less: Development Costs	$264,834,634	$101,461,208	$366,295,841
Residual Land Value	**$10,943,228**	**$21,540,466**	**$32,483,694**
Residual Land Value per FAR Square Foot	***$18***	***$95***	***$39***
Less: Estimated Demolition Costs	$5,597,550	$740,040	$6,337,590
Residual Land Value less Demolition Costs	$5,345,678	$20,800,426	$26,146,104
Residual Land Value less Demolition Costs per FAR Square Foot	*$9*	*$92*	*$31*

Sources: Lennar; IBI Group; MacTec.; City of San Francisco; and CBRE Consulting.

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EXHIBIT 2
GENERAL ASSUMPTIONS
HUNTERS POINT SHIPYARD PHASE II, BLOCKS 5 & 6 OF PARCEL C
HISTORIC REUSE OPTION A
OCTOBER 2009

	BUILDING 211	BUILDING 231	BUILDING 253	NEW BUILDINGS	SUBTOTAL/ AVERAGE
EXISTING BUILDING SIZES					
Gross Building Area (Square Feet)	49,336	195,370	177,800		422,506
NEW USE					
Office					
Gross Building Square Feet (1)	91,183			280,000	371,183
Net Building Square Feet	80,520			266,000	346,520
Estimated Efficiency	88%			95%	93%
R&D					
Gross Building Square Feet (1)			171,006		171,006
Net Building Square Feet			154,395		154,395
Estimated Efficiency			90%		90%
Retail / Restaurant					
Net Building Square Feet		24,118	17,883		42,001
Mixed Use (Fitness Center)					
Net Building Square Feet			33,688		33,688
Parking Assumptions					
Gross Square Feet (2)		427,925		18,975 (3)	446,900
Parking Spaces		1,000		55	1,055
Parking Ratio (per Gross 1,000 sf)					1.71
Square Feet per Parking Space		345		345	345
TOTAL					
Gross	**91,183**	**452,043**	**222,577**	**280,000**	**1,045,803**
Net Rentable	**80,520**	**24,118**	**205,966**	**266,000**	**576,604**
Efficiency	***88%***	***N/A***	***93%***	***95%***	***N/A***

Sources: Page & Turnbull; Lennar; IBI Group; MacTec.; City of San Francisco; and CBRE Consulting.

(1) Gross Office/R&D space includes total rentable building area and circulation.
(2) Includes space dedicated to parking related office space
(3) Separate, surface parking lot.

OCTOBER 2009

EXHIBIT 2
INCOME / EXPENSE ASSUMPTIONS
HUNTERS POINT SHIPYARD PHASE II, BLOCKS 5 & 6 OF PARCEL C
HISTORIC REUSE OPTION A
OCTOBER 2009

	Office - New	Office - Rehab	R&D	Retail / Restaurant	Mixed Use (Fitness Center)
GENERAL ASSUMPTIONS					
Vacancy Percent	7.50%	7.50%	7.50%	10.00%	5.00%
CFD Percent	0.75%	0.75%	0.75%	0.75%	0.75%
Capitalization Rate	6.50%	6.50%	6.50%	6.50%	6.50%
INCOME ASSUMPTIONS					
NOI Per Square Foot	$35.00	$22.00	$42.00	$18.00	$21.00
Expenses (1)	NNN	NNN	NNN	NNN	NNN
Annual CFD Payment	$3.39	$2.13	$4.07	$1.70	$2.09

Sources: Page & Turnbull; Lennar; IBI Group; MacTec.; City of San Francisco; and CBRE Consulting.

(1) Triple net rent covers all landlord expenses, thus Effective Gross Rent is equal to Net Operating Income (NOI).

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EXHIBIT 2
DEVELOPMENT COST ASSUMPTIONS
HUNTERS POINT SHIPYARD PHASE II, BLOCKS 5 & 6 OF PARCEL C
HISTORIC REUSE OPTION A
OCTOBER 2009

	BUILDING 211	BUILDING 231	BUILDING 253	NEW BUILDINGS
Hard Development Costs				
Shell Construction Costs per Gross Square Foot	$308		$330	$165
TI Costs per Net Square Foot	$71	$15	$94	$50
Parking Garage Cost per Space (1)		$92,389		$2,100
Soft Development Costs				
Soft Costs as percentage of Hard Costs	20%	20%	20%	20%
Financing Costs as percentage of Hard Costs	8%	8%	8%	8%
Leasing Costs as percentage of NOI	7.5%	7.5%	7.5%	7.5%
Time for Leasing Subsidy (Months)	9	9	9	9
Closing Costs as percentage of Value	1%	1%	1%	1%
Developer profit as percentage of Hard and Soft costs	15%	15%	15%	15%

Sources: Page & Turnbull; Lennar; IBI Group; MacTec.; City of San Francisco; and CBRE Consulting.

(1) New parking west of Building 231 represents a surface parking lot.

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EXHIBIT 2
DEVELOPMENT COST SUMMARY (2009 $s)
HUNTERS POINT SHIPYARD PHASE II, BLOCKS 5 & 6 OF PARCEL C
HISTORIC REUSE OPTION A
OCTOBER 2009

	BUILDING 211	BUILDING 231	BUILDING 253	NEW BUILDINGS	SUBTOTAL/ AVERAGE
Hard Development Costs					
Shell Construction Costs	28,101,494		73,390,283	$46,200,000	147,691,777
TI Costs	5,698,387	$353,760	19,353,590	14,000,000	39,405,737
Parking		92,388,932		115,500	92,504,432
Total Hard Costs	$33,799,881	$92,742,692	$92,743,873	$60,315,500	$279,601,946
Total Hard Costs per Net Square Foot	*$420*	*$3,845*	*$450*	*$227*	*$485*
Soft Development Costs					
Soft Costs	$6,759,976	$18,548,538	$18,548,775	$12,063,100	$55,920,389
Financing Costs	2,703,991	7,419,415	7,419,510	4,825,240	$22,368,156
Leasing Costs	132,858	32,559	563,545	438,900	$1,167,862
Lease Subsidy (1)	1,228,937	293,034	5,220,019	4,059,825	$10,801,815
Closing Costs	228,482	54,482	970,542	2,454,268	$3,707,775
Developer Profit	6,728,119	17,863,608	18,819,940	12,623,525	$56,035,191
Total Soft Costs	$17,782,362	$44,211,638	$51,542,331	$36,464,858	$150,001,188
Soft Costs as Percentage of Hard Costs (Exc. Profit)	*33%*	*28%*	*35%*	*40%*	*34%*
TOTAL DEVELOPMENT COSTS	**$51,582,243**	**$136,954,330**	**$144,286,203**	**$96,780,358**	**$429,603,134**
TOTAL DEVELOPMENT COSTS PER NET SQUARE FOOT	**$641**	**$5,679**	**$701**	**$364**	**$745**

Sources: Page & Turnbull; Lennar; IBI Group; MacTec.; City of San Francisco; and CBRE Consulting.

(1) Assumes nine months NOI loss to absorption/concessions.

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EXHIBIT 2
STATIC PRO FORMA
HUNTERS POINT SHIPYARD PHASE II, BLOCKS 5 & 6 OF PARCEL C
HISTORIC REUSE OPTION A
ASSUMES STABILIZED OCCUPANCY
OCTOBER 2009

	BUILDING 211	BUILDING 231	BUILDING 253	NEW BUILDINGS	SUBTOTAL/ AVERAGE
Stabilized Operating Statement (2009 $s)					
Office - Rehab					
Net Operating Income (NOI)	$1,771,440			$9,310,000	$11,081,440
Vacancy	($132,858)			($698,250)	($831,108)
NOI Adjusted for Vacancy	$1,638,582			$8,611,750	$10,250,332
Capitalized Value	$25,208,954			$132,488,462	$157,697,415
Capitalized Value per Net Square Foot of Building Area	*$313*			*$498*	*$455*
Less: CFD Bond Payoff	($2,360,773)			($12,412,299)	($14,773,072)
Net Proceeds	$22,848,181			$120,076,163	$142,924,343
R&D					
Net Operating Income (NOI)			$6,484,590		$6,484,590
Vacancy			($486,344)		($486,344)
NOI Adjusted for Vacancy			$5,998,246		$5,998,246
Capitalized Value			$92,280,704		$92,280,704
Capitalized Value per Net Square Foot of Building Area			*$598*		$598
Less: CFD Bond Payoff			($8,639,024)		($8,639,024)
Net Proceeds			$83,641,680		$83,641,680
Retail / Restaurant					
Net Operating Income (NOI)		$434,124	$321,894		$756,018
Vacancy		($43,412)	($32,189)		($75,602)
NOI Adjusted for Vacancy		$390,712	$289,705		$680,416
Capitalized Value		$6,010,948	$4,456,994		$10,467,942
Capitalized Value per Net Square Foot of Building Area		*$249*	*$249*		*$249*
Less: CFD Bond Payoff		($562,706)	($417,235)		($979,942)
Net Proceeds		$5,448,241	$4,039,759		$9,488,000
Mixed Use (Fitness Center)					
Net Operating Income (NOI)			$707,448		$707,448
Vacancy			($35,372)		($35,372)
NOI Adjusted for Vacancy			$672,076		$672,076
Capitalized Value			$10,339,625		$10,339,625
Capitalized Value per Net Square Foot of Building Area			*$307*		*$307*
Less: CFD Bond Payoff			($966,835)		($966,835)
Net Proceeds			$9,372,790		$9,372,790
TOTAL CAPITALIZED VALUE	$22,848,181	$5,448,241	$97,054,229	$120,076,163	$245,426,813
CAPITALIZED VALUE PER SQUARE FOOT OF BUILDING AREA	$284	$226	$471	$451	$426
Less: Development Costs	$51,582,243	$136,954,330	$144,286,203	$96,780,358	$429,603,134
Residual Land Value	**($28,734,063)**	**($131,506,089)**	**($47,231,974)**	**$23,295,805**	**($184,176,321)**
Residual Land Value per FAR Square Foot	**($357)**	**($5,453)**	**($229)**	**$88**	**($319)**

Sources: Page & Turnbull; Lennar; IBI Group; MacTec.; City of San Francisco; and CBRE Consulting.

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EXHIBIT 3
GENERAL ASSUMPTIONS
HUNTERS POINT SHIPYARD PHASE II, BLOCKS 5 & 6 OF PARCEL C
HISTORIC REUSE OPTION B
OCTOBER 2009

	NEW OFFICE	NEW R&D	BUILDING 253	SUBTOTAL/ AVERAGE
EXISTING BUILDING SIZES				
Gross Building Area (Square Feet)	244,706		177,800	422,506
NEW USE				
Office				
Gross Building Square Feet (1)	230,000			230,000
Net Building Square Feet	218,500			218,500
Estimated Efficiency	95%			95%
R&D				
Gross Building Square Feet (1)		186,000	171,006	357,006
Net Building Square Feet		176,700	154,395	331,095
Estimated Efficiency		95%	90%	93%
Restaurant				
Net Building Square Feet			17,883	17,883
Mixed Use (Fitness Center)				
Net Building Square Feet			33,688	33,688
Parking Assumptions				
Gross Square Feet	230,805	124,200	0	355,005
Parking Spaces	669	360	0	1,029
Parking Ratio (per Gross 1,000 sf)	2.91	1.94	0	1.61
Square Feet per Parking Space	345	345		345
TOTAL				
Gross	**230,000**	**186,000**	**222,577**	**638,577**
Net Rentable	**218,500**	**176,700**	**205,966**	**601,166**
Efficiency	***95%***	***95%***	***93%***	***94%***

Sources: Page & Turnbull; Lennar; IBI Group; MacTec.; City of San Francisco; and CBRE Consulting.

(1) Gross Office/R&D space includes total rentable building area and circulation.

OCTOBER 2009

EXHIBIT 3
INCOME / EXPENSE ASSUMPTIONS
HUNTERS POINT SHIPYARD PHASE II, BLOCKS 5 & 6 OF PARCEL C
HISTORIC REUSE OPTION B
OCTOBER 2009

	Office	R&D	Restaurant	Mixed Use (Fitness Center)
GENERAL ASSUMPTIONS				
Vacancy Percent	7.50%	7.50%	10.00%	5.00%
CFD Percent	0.75%	0.75%	0.75%	0.75%
Capitalization Rate	6.50%	6.50%	6.50%	6.50%
INCOME ASSUMPTIONS				
NOI Per Square Foot	$35.00	$42.00	$18.00	$21.00
Expenses (1)	NNN	NNN	NNN	NNN
Annual CFD Payment	$3.39	$4.07	$1.70	$2.09

Sources: Page & Turnbull; Lennar; IBI Group; MacTec.; City of San Francisco; and CBRE Consulting.

(1) Triple net rent covers all landlord expenses, thus Effective Gross Rent is equal to Net Operating Income (NOI).

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EXHIBIT 3
DEVELOPMENT COST ASSUMPTIONS
HUNTERS POINT SHIPYARD PHASE II, BLOCKS 5 & 6 OF PARCEL C
HISTORIC REUSE OPTION B
OCTOBER 2009

	NEW OFFICE	NEW R&D	BUILDING 253
Hard Development Costs			
Shell Construction Costs per Gross Square Foot	$165	$165	$330
TI Costs per Net Square Foot	$50	$100	$94
Parking Garage Cost per Space	$20,000	$20,000	
Soft Development Costs			
Soft Costs as percentage of Hard Costs	20%	20%	20%
Financing Costs as percentage of Hard Costs	8%	8%	8%
Leasing Costs as percentage of NOI	7.5%	7.5%	7.5%
Time for Leasing Subsidy (Months)	9	9	9
Closing Costs as percentage of Value	1%	1%	1%
Developer profit as percentage of Hard and Soft costs	15%	15%	15%
Demolition Costs			
Demolition Costs per Gross Square Foot (old Buildings	$15	$15	N/A

Sources: Page & Turnbull; Lennar; IBI Group; MacTec.; City of San Francisco; and CBRE Consulting.

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EXHIBIT 3
DEVELOPMENT COST SUMMARY (2009 $s)
HUNTERS POINT SHIPYARD PHASE II, BLOCKS 5 & 6 OF PARCEL C
HISTORIC REUSE OPTION B
OCTOBER 2009

	NEW OFFICE	NEW R&D	BUILDING 253	SUBTOTAL/ AVERAGE
Hard Development Costs				
Shell Construction Costs	37,950,000	$30,690,000	73,390,283	142,030,283
TI Costs	10,925,000	$17,670,000	19,353,590	47,948,590
Parking	13,380,000	7,200,000		20,580,000
Total Hard Costs	62,255,000	$55,560,000	$92,743,873	$210,558,873
Total Hard Costs per Net Square Foot	*$285*	*$314*	*$450*	*$350*
Soft Development Costs				
Soft Costs	$12,451,000	$11,112,000	$18,548,775	$42,111,775
Financing Costs	4,980,400	4,444,800	7,419,510	$16,844,710
Leasing Costs	573,563	556,605	563,545	$1,693,712
Lease Subsidy (1)	5,305,453	5,148,596	5,220,019	$15,674,069
Closing Costs	986,340	957,252	970,542	$2,914,134
Developer Profit	12,982,763	11,666,888	18,819,940	$43,469,591
Total Soft Costs	$37,279,519	$33,886,141	$51,542,331	$122,707,990
Soft Costs as Percentage of Hard Costs (Exc. Profit)	*39%*	*40%*	*35%*	*38%*
TOTAL DEVELOPMENT COSTS	**$99,534,519**	**$89,446,141**	**$144,286,203**	**$333,266,863**
TOTAL DEVELOPMENT COSTS PER NET SQUARE FOOT	**$456**	**$506**	**$701**	**$554**
Demolition Costs	$3,670,590		$0	$3,670,590
Total Development Costs including Demolition	**$192,651,250**		**$144,286,203**	**$336,937,453**

Sources: Page & Turnbull; Lennar; IBI Group; MacTec.; City of San Francisco; and CBRE Consulting.

(1) Assumes nine months NOI loss to absorption/concessions.

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EXHIBIT 3
STATIC PRO FORMA
HUNTERS POINT SHIPYARD PHASE II, BLOCKS 5 & 6 OF PARCEL C
HISTORIC REUSE OPTION B
ASSUMES STABILIZED OCCUPANCY
OCTOBER 2009

	NEW OFFICE	NEW R&D	BUILDING 253	SUBTOTAL/ AVERAGE
Stabilized Operating Statement (2009 $s)				
Office				
Net Operating Income (NOI)	$7,647,500			$7,647,500
Vacancy	($573,563)			($1,059,907)
NOI Adjusted for Vacancy	$7,073,938			$7,073,938
Capitalized Value	$108,829,808			$108,829,808
Capitalized Value per Net Square Foot of Building Area	*$498*			*$498*
Less: CFD Bond Payoff	($10,195,817)			($10,195,817)
Net Proceeds	$98,633,991			$98,633,991
R&D				
Net Operating Income (NOI)		$7,421,400	$6,484,590	$13,905,990
Vacancy		($556,605)	($486,344)	($1,042,949)
NOI Adjusted for Vacancy		$6,864,795	$5,998,246	$12,863,041
Capitalized Value		$105,612,231	$92,280,704	$197,892,935
Capitalized Value per Net Square Foot of Building Area		*$598*	*$598*	$598
Less: CFD Bond Payoff		($9,887,079)	($8,639,024)	($18,526,102)
Net Proceeds		*$95,725,152*	$83,641,680	$179,366,832
Restaurant				
Net Operating Income (NOI)			$321,894	$321,894
Vacancy			($32,189)	($32,189)
NOI Adjusted for Vacancy			$289,705	$289,705
Capitalized Value			$4,456,994	$4,456,994
Capitalized Value per Net Square Foot of Building Area			*$249*	*$249*
Less: CFD Bond Payoff			($417,235)	($417,235)
Net Proceeds			$4,039,759	$4,039,759
Mixed Use (Fitness Center)				
Net Operating Income (NOI)			$707,448	$707,448
Vacancy			($35,372)	($35,372)
NOI Adjusted for Vacancy			$672,076	$672,076
Capitalized Value			$10,339,625	$10,339,625
Capitalized Value per Net Square Foot of Building Area			*$307*	*$307*
Less: CFD Bond Payoff			($966,835)	($966,835)
Net Proceeds			$9,372,790	$9,372,790
TOTAL CAPITALIZED VALUE	$98,633,991	$95,725,152	$97,054,229	$291,413,372
CAPITALIZED VALUE PER SQUARE FOOT OF BUILDING AREA	$451	$542	$471	$485
Less: Development Costs	$99,534,519	$89,446,141	$144,286,203	$333,266,863
Residual Land Value	**($900,528)**	**$6,279,011**	**($47,231,974)**	**($41,853,491)**
Residual Land Value per FAR Square Foot	**($4)**	**$36**	**($229)**	**($70)**
Less: Estimated Demolition Costs	$3,670,590		$0	$3,670,590
Residual Land Value less Demolition Costs	$1,707,893		($47,231,974)	($45,524,081)
Residual Land Value less Demolitions Costs per FAR Square Foot	$4		($229)	($76)

Sources: Page & Turnbull; Lennar; IBI Group; MacTec.; City of San Francisco; and CBRE Consulting.

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