

Discussion of Environmental Evaluation and Mitigation Measures

The following substantiation of findings in the Environmental Checklist Form follows the same order of presentation as found under Section B of the Checklist. A short summary of the environmental setting for the resource is presented as background information for the substantiation discussion. References to the substantiating information are provided at the end of each topic.

1. Earth Resources

Environmental Setting

Topographically, the project site is essentially flat with a 1-2% slope to the south. The site is underlain by alluvial sediment deposited by runoff from the San Bernardino Mountains. Historically, the project site, located on the west side of "E" Street between Fourth and Fifth Streets, has been occupied by structures, but at present several vacant lots exist where structures have been demolished and removed. Parking areas cover about 20% of the existing project site and three buildings with approximately 20,000 square feet encompass the remainder. Based on a review of geologic literature, the City General Plan and other documents, the nearest known fault is the San Jacinto Fault located about ¼ to one mile west of the project site. No active faults are occur in the project area. The site is subject to ground shaking when an earthquake occurs in the region and more particularly on the three nearest faults: San Andreas, San Jacinto, and Cucamonga Faults. Figure 46 in the General Plan indicates the site may be exposed to maximum credible ground accelerations of between .6g and .8g based on the assumed maximum credible earthquakes on each of these three faults. The General Plan (Figures 48 and 51) indicates that the project site may be affected by two geologic hazards: liquefaction and subsidence. No other geologic hazards are known to affect the project site.

Potential Impact

- 1.a. The exact amount of earth movement on the project site has not yet been determined for the SBEC Project. However, given the type of structures, no extensive foundation work will be required to construct the four buildings and support facilities. It is probable that less than 500 cubic yards of cut and fill will occur as part of the grading and compaction of the site. Although a substantial amount of soil material may be disturbed on the project site as individual structure foundations are constructed, the final grade will be comparable to that which currently exists. At the completion of grading, the site will remain essentially flat with just enough slope to provide for continued adequate drainage of the property. No steep slopes will be created as a result of the proposed grading activities. Based on the existing slope of the property and lack of any potential for change in topography and creation of steep slopes on the property, the potential impact from project grading is considered a nonsignificant impact. Potential wind and water erosion are addressed in subsequent sections of this document. The information provided in this discussion was obtained from reviewing geologic literature cited below, from a review of the City General Plan and Technical Background Report, from a field inspection of the project site, and from discussions with the EDA and project developer. No mitigation is proposed or required.
- 1.b. The project site has been historically graded and compacted, and is essentially flat. Overall slope of the land in this area is approximately 1-2% to the south. No slopes greater than 15% exist at this site. The information provided in this discussion was obtained from the San Bernardino South, U.S.G.S. 7.5' Topographic Map and a field inspection of the project site.
- 1.c. The project site is not located within any Alquist-Priolo Earthquake Fault Zone (ERZ) as illustrated on Figure 47 of the General Plan. The nearest ERZ appears to be underlain by that for the San Jacinto Fault System, located approximately one mile west of the project site. The Glen Helen Fault, which is known to be active, is buried and may be located about ½ mile west of the project site. No potential for additional adverse impacts due to fault related ground rupture hazards is forecast to occur. No mitigation is proposed or required for the proposed activity. The information provided in this discussion was obtained from the City of San Bernardino General Plan, Technical Background Report and Final Environmental Impact Report.
- 1.d. No unique geologic or physical features are known to occur within the project boundaries. The project site has been historically disturbed and the proposed SBEC project will not alter any geologic feature not previously disturbed. Therefore, no potential for adverse impact to such features can occur. The information provided in this discussion was obtained from a field review of the project site and the City of San Bernardino General Plan, Technical Background Report and Final Environmental Impact Report.

1.e. The project site is not located in an area with defined high potential for wind or water erosion. A field review of the site indicates that it is essentially flat. The site and surrounding area are developed with structures and urban landscaping. Finally, the project site exhibits no signs of erosion. Therefore, no potential for significant erosion impact is forecast to occur. The information provided in this discussion was obtained from a field review of the project site and the City of San Bernardino General Plan, Technical Background Report and Final Environmental Impact Report.

1.f. Based on a site field survey, the project site does not contain any channels, creeks or rivers. A review of the topographic map for the project area shows that the nearest channels are Lytle Creek, about two miles west and south and Warm Creek, about one mile to the east. Therefore, no potential adverse impact to any channel, creek, or river will occur if the SBEC Project is implemented. The information provided in this discussion was obtained from a field review and the grading plan and a review of the San Bernardino South 7.5' Topographic Map.

1.g. Due to the shallow slope of the project site and surrounding area, no potential exists for landslides or mudslides to occur onsite or to affect the property from offsite. However, the project site is identified as being subject to potentially significant ground shaking from regional earthquakes and as shown on Figure 48 of the General Plan, it is also identified as being subject to subsidence related to either ground shaking or lowering of the water table. Based on the present depth to ground water at this location, more than 100 feet, the potential for subsidence is considered to be low. The City considers these types of seismic hazards to be subject to standard engineering mitigation and not a significant adverse environmental impact. However, to ensure the structural hazards related to ground shaking, subsidence, and liquefaction the following mitigation measure shall be implemented:

1.g.1 Pursuant to and in compliance with the City's Liquefaction Ordinance (MC-676), the applicant shall have a qualified geotechnical professional (Engineering Geologist or Professional Engineer) prepare a geotechnical study of the project site prior to completing the final design of the structures. As part of this geotechnical study, the potential for ground shaking, subsidence and liquefaction impacts shall be investigated for this site and, if required, measures to mitigate potential ground shaking and liquefaction hazards shall be identified. This investigation shall include an evaluation of historic water table levels and the role that a rising water table could play in potential for liquefaction. The applicant shall implement those measures required to protect the structures from significant ground shaking, subsidence, and liquefaction hazards. For this project, reduced below a significant impact shall be based on a design that protects life and minimizes damage to the structures.

The information provided in this discussion was obtained from the City General Plan documents and the San Bernardino Valley Water Conservation District Annual Report.

1.h. As noted in the previous discussion, the project site may be exposed to high liquefaction susceptibility. This is based on historically high ground water table and alluvial deposits which could be conducive to liquefaction. A review of current ground water data ("San Bernardino Valley Water Conservation District Annual Engineering Investigation and Report (7/92 - 6/93)") indicates that the current elevation of ground water in the project area is 940 feet. The project site is situated at approximately 1050 feet elevation. Based on the depth to ground water at this location, more than 100 feet, the potential for liquefaction is very low. Mitigation measure 1.g.1 will be implemented to ensure that human life and structures are protected from extreme hazards during a major seismic event. No additional mitigation is required.

The information provided in this discussion was obtained from the City General Plan documents and the San Bernardino Valley Water Conservation District Annual Report.

1.i No other Earth Resource issues have been identified that would be affected or would affect the project.

References

Bortugno, E.J. and Spittler, T.E.. 1986. Geologic Map of the San Bernardino Quadrangle. Map No. 3A (Geology), Scale 1:250,000

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United States Geological Survey. 1967, Photorevised 1980. San Bernardino South Quadrangle, California. 7.5 Minute Series (Topographic).

2. AIR RESOURCES

Environmental Setting

The City of San Bernardino is in the San Bernardino County portion of the South Coast Air Basin (SCAB), a 6,600-square-mile area encompassing Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. Bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto mountains to the north and east, its topography and climate make the SCAB particularly conducive to the formation and retention of air pollution.

Meteorology

The strength and location of a semipermanent, subtropical high pressure cell over the Pacific Ocean primarily controls the SCAB's climate. Climate is also affected by the moderating effects of differential heating between the land area of California and the adjacent Pacific Ocean. Warm summers, mild winter, infrequent rainfall, moderate daytime onshore breezes, and moderate humidities characterize local climatic conditions.

Because of topographic features and distance from the ocean, various microclimates exist within the overall climate of the SCAB. Since the moderating marine influence decreases with distance from the coast, monthly and annual spreads between temperatures are greatest inland. Precipitation is highly variable seasonally. Summers are often completely dry throughout the SCAB. There are frequent periods of four to five months with no rain. In winter, storm fronts (low pressure systems) periodically sweep across the Pacific Ocean bringing rain. Annual rainfall is lowest in the coastal plain and inland valleys, higher in the foothills, and highest in the surrounding mountains.

The climate of the proposed project site in downtown San Bernardino is less affected by the moderating effects of the Pacific Ocean than are coastal areas in Los Angeles and Orange counties. Therefore, differences between summer and winter temperatures are more extreme. Average temperatures in and near San Bernardino range from a minimum of 37 degrees F in January to an average maximum of 97 degrees F in July. During a 91-year reporting period ending in 1980, annual rainfall at San Bernardino averaged 16.57 inches, with a maximum annual rainfall of 21.69 inches and a minimum of 7.36 inches. The project area receives slightly higher volumes of rain due to the change in topography. About 20 inches of rain falls on the project area on the average.

Winds across the project area control both the initial dilution rate of locally generated air pollutant emissions and their regional trajectory. In general, average wind speeds are lower in the inland valleys than along the coast because seas breezes are weaker by the time they reach the project area. Wind speeds measured at Norton Air Force Base over a 26-year period averaged four miles per hour. Winds occur from all directions, with more than 43% coming from the west, west southwest, or southwest. Winds from this direction occur during the day. At night, the wind flow pattern reverses, with an offshore flow generally coming from the east or northeast. Night winds are slower than daytime breezes off the ocean. Onshore breezes are strongest in summer and nighttime drainage winds are stronger in winter than in summer.

Predominant wind patterns are broken by occasional winter storms and episodes of Santa Ana winds. The latter are strong northerly or northeasterly dry winds that originate from the desert or the Great Basin, primarily during September through March following the passage of low pressure systems. Highest wind speeds in the project area occur at this time when the clockwise wind circulation in the system produces a north or northeast flow as the air is pushed southward over the San Bernardino Mountains and funneled through the passes. Over the 26-year monitoring period at Norton Air Force Base, the average of the highest gust recorded each year was 57 miles per hour. Santa Ana wind conditions occur about five to ten times per year, with each occurrence lasting for a few hours to a few days.

Localized meteorological conditions can create areas of high pollutant concentrations by hindering dispersal. Temperature inversions, which are temperatures that increase with altitude instead of decreasing, hamper dispersion by trapping air pollutants in a limited volume of airspace near the ground. For example, the highest concentrations of carbon monoxide occur during winter when temperature inversions are lower and stronger (more resistant to dissipation by ground heating).

Formation of high ozone concentrations requires adequate sunshine, early morning stagnation in source areas, high surface temperatures, strong and low morning inversions, greatly restricted vertical mixing during the day, and daytime subsidence that strengthens the inversion layer. Because of ozone's long formation time in the atmosphere, ozone concentrations are substantially affected by wind transport patterns.

High nitrogen dioxide levels usually occur during the autumn or winter on days with summer-like weather conditions, but when sunlight is not sufficiently intense to fuel the photochemical reactions between oxides of nitrogen and reactive organic compounds that form ozone. Particulate concentrations vary seasonally with the summer months having high concentrations of secondarily-formed particulates due to chemical interactions driven by intense sunlight, and winter inversions trapping primary emitted particulates. Violations of particulate ambient air quality standards occur during all seasons, with the highest concentrations in the summer.

Ambient Air Quality

Contaminant levels in air samples are compared to national and state standards, shown in Table 1, to determine ambient pollutant concentrations. Air quality standards are set by the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) at levels to protect public health and welfare with an adequate margin of safety. There are national and state standards for ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO₂), PM₁₀ (suspended particulate matter 10 microns or less in diameter), sulfur dioxide (SO₂), and lead (Pb). The South Coast Air Quality Management District (SCAQMD) also measures for compliance with two other state standards: sulfates and visibility. The federal EPA is presently in the process of reviewing new ozone and particulate (2.5 microns diameter) standards, but these standards are not likely to be approved and implemented during the review of this project so they will not be considered in this analysis.

Ozone (O₃), a colorless toxic gas which forms in the atmosphere through a photochemical reaction of reactive organic compounds and nitrogen oxide, irritates the lungs and damages formation of ozone. PM₁₀ is small particulate matter less than 10 micrometers in diameter. Carbon monoxide (CO) is a colorless gas which interferes with the transfer of oxygen to the brain. Nitrogen dioxide (NO₂) is a reddish-brown gas which can cause breathing difficulties at high concentrations and which also contributes to the small particles that causes a greater health risk than larger particulate matter since fine particles more easily penetrate the defenses of the human respiratory system and cause irritation by themselves and in combination with gases.

4.2.1.3 Regional Air Quality

The SCAQMD samples ambient air at monitoring stations in and around the South Coast and Southeast Desert Air Basins that are within its jurisdiction. National and state standards for ozone, carbon monoxide, nitrogen dioxide, and PM¹⁰ and state standards for visibility are regularly exceeded in the SCAB. In 1993, the peak ozone reading in the SCAB was almost three times the National Ambient Air Quality Standard (NAAQS). The Los Angeles urban area exceeds this standard more frequently than any other area in the United States, and also records the highest peak readings.

Standards for carbon monoxide are exceeded in more densely populated Los Angeles and Orange counties, but not in Riverside and San Bernardino counties. Los Angeles County was the only area in the nation which exceeded the national annual nitrogen dioxide standard, but the SCAB was determined to be in compliance with the federal nitrogen dioxide standard, i.e. attainment, in 1995. The state nitrogen dioxide one hour standard is exceeded in both Los Angeles and Orange counties. The number of readings over the state standard fluctuates from year to year, depending on weather patterns.

PM¹⁰ levels regularly exceed national and state standards in Los Angeles, Riverside, and San Bernardino counties, and state standards in Orange County. Sulfur dioxide and lead levels in all areas of the Basin are below national and state standard limits.

4.2.1.4 Attainment Areas

The CARB divides the state into air basins, based upon similar meteorological conditions. The SCAQMD maintains monitoring stations throughout the South Coast Air Basin and the portions of the Southeast Desert Air Basin that it administers to record ambient levels of regulated pollutants. If any monitoring station in an air basin records concentrations of an air pollutant which exceed state or federal air quality standards, the entire basin is generally determined to be a non-attainment area for that pollutant. As long as no violation of an ambient air quality standard occurs, a basin is determined to be in attainment. Carbon monoxide, a pollutant where highest ambient air concentrations occur in the immediate vicinity of the source of emissions, is now treated somewhat differently by the CARB: designation of attainment and non-attainment areas for carbon monoxide are by subarea, not air basin, in some cases. EPA and CARB have designated the entire South Coast Air Basin, which includes all of Orange County and the non-desert portions of Los Angeles, San Bernardino and Riverside counties, as federal and state non-attainment areas for ozone and fine particulate matter (PM₁₀). The SCAB is in attainment with the federal nitrogen oxide standard but continues to violate the state standard. Both ozone and nitrogen dioxide are regional pollutants in that they are created when pollutants combine in the atmosphere at some distance from where they are initially emitted. PM₁₀ also forms in the atmosphere through chemical reactions with other pollutants, as well as occurring naturally in very fine soil, man-made particles, and sea spray.

San Bernardino and Riverside counties are designated as attainment areas for both state and federal carbon monoxide standards. Only the Los Angeles and Orange County portions of the Basin are designated as federal and state non-attainment areas for CO. Weather-adjusted CO concentrations in the SCAB declined by 47% between 1976 and 1990, and are projected to decline further because of new CO standards on vehicles and use of oxygenated fuels in winter. The federal one-hour standard has not been exceeded anywhere in the Basin for more than five years, but the more stringent state-one hour standard is occasionally exceeded and the state and federal eight-hour standards are frequently exceeded throughout Los Angeles and Orange counties. Highest concentrations of CO and the most exceedances occurred in Lynwood in Los Angeles County over the past five years.

Local Air Quality

Ambient air quality in the project area is measured at the SCAQMD monitoring station located at 24302 San Bernardino Avenue, South #62 in the City of San Bernardino. The San Bernardino station monitors ozone, carbon monoxide, nitrogen dioxide, lead, sulfate, total suspended particulates, and PM₁₀. Table 2 lists the air quality readings at the station from 1989 through 1993 for pollutants for which the South Coast Air Basin has been designated a federal non-attainment area. State and national lead and sulfur dioxide standards were met throughout the monitoring period. There is no longer a state or federal standard for total suspended particulates (TSP), but the measured TSP concentration is shown for comparison to the PM₁₀ concentrations at the site.

Peak pollutant concentrations vary from year to year, depending on meteorological conditions. Ozone concentrations and numbers of exceedances have fluctuated at the San Bernardino station over the past five years, although the running average number of days over the state standard has decreased substantially over the five-year period. As in the rest of the Basin, CO concentrations have declined. Nitrogen dioxide levels have remained approximately the same, with some decline over 1989 levels. PM₁₀ concentrations show substantial decreases, but they have not been adjusted for weather patterns and such concentrations can vary substantially because of weather.

4.2.1.6 Regulatory Setting

The SCAQMD regulates stationary sources of pollution throughout the SCAB and has authority under the California Clean Air Act to manage transportation activities as indirect (nonstationary) sources, which are facilities that do not directly emit substantial amounts of pollution but attract large numbers of mobile sources of pollution. Direct emissions from motor vehicles are regulated by the California Air Resources Board.

TABLE 1
Ambient Air Quality Standards

Air Pollutant	California	Federal	
	Standard	Primary	Secondary
Ozone	> 0.09 ppm, 1-hr. avg	> 0.12 ppm, 1-hr. avg.	0.12 ppm, 1-hr. avg.
Carbon Monoxide	≥ 9.1 ppm, 8-hr. avg > 20 ppm, 1-hr. avg	≥ 9.5 ppm, 8-hr. avg > 35 ppm, 1-hr. avg	≥ 9.5 ppm, 8-hr. avg > 35 ppm, 1-hr. avg.
Nitrogen Dioxide avg.	> 0.25 ppm, 1-hr. avg	> 0.053 ppm, annual avg.	> 0.053 ppm, annual
Sulfur Dioxide	> .25 ppm 1-hr. avg ≥ 0.05 ppm, 24-hr. avg with ≥ 0.10 ozone or with 24-hr. TSP ≥ 100 ug/m ³	0.03 ppm, annual avg. > 0.14 ppm, 24-hr. avg.	> 0.50 ppm, 3-hr. avg.
Suspended avg; >50 ug/m ³ annual (PM ¹⁰)	> 50 ug/m ³ , 24-hr. avg Particulate Matter geometric mean	> 150 ug/m ³ , 24-hr. avg. > 30 ug/m ³ annual arithmetic mean	> 150 ug/m ³ , 24-hr. avg. > 30 ug/m ³ annual arithmetic mean
Sulfates	≥ 25 ug/m ³ , 24-hr. avg		
Lead	≥ 1.5 ug/m ³ , monthly avg.	> 1.5 ug/m ³ , calendar quarter	> 1.5 ug/m ³
Hydrogen Sulfide	≥ 0.03 ppm, 1-hr. avg.		
Vinyl Chloride	≥ 0.010 ppm, 24-hr. avg.		
Visibility-Reducing Particles	In sufficient amount to reduce prevailing visibility to less than 10 miles at relative humidity less than 70%, 1 observation.		
Note: ppm = parts per million by volume ug/m ³ = micrograms per cubic meter > = greater than ≥ = greater than or equal to Source: South Coast Air Quality Management District 1993			

Both the California and federal Clean Air Acts require designated agencies in the SCAB, which is the nation's only "extreme" ozone non-attainment area, to prepare plans documenting actions to meet air quality standards. The SCAQMD and the Southern California Association of Governments (SCAG) are the designated planning agencies. As required by the California Clean Air Act, the SCAQMD revised the Air Quality Management Plan (AQMP) in 1996 to address measures needed to attain federal and state standards. The 1997 AQMP also includes measures to reduce toxic emissions and compounds which contribute to global warming. Attainment of the federal ozone standard was projected for the year 2010, a three-year extension from the attainment date in the 1989 AQMP. CARB approved the 1997 AQMP in January 1997 with specific reservations regarding reliance on future, as yet undefined, technologies to reach emission reduction goals for ozone.

The federal attainment deadlines in this region are 2010 for ozone, 2000 for carbon monoxide, and 2001 for PM₁₀. The most recently adopted plan that addressed federal requirements was adopted on March 17, 1989, and approved by the California Air Resources Board in August 1989, prior to adoption of the 1990 Clean Air Act Amendments. The 1997 AQMP was adopted in November 1996 and it addresses procedural requirements of the 1990 Amendments, as well as the three-year review requirements of the California Clean Air Act.

The data for this section of the document were abstracted from the SCAQMD CEQA Air Quality Handbook, the Santa Fe "A" Yard EIR and the District's Rules and Regulations.

Potential Impact

- 2.a. The District's new CEQA Handbook contains a list of daily thresholds of potential significance for emissions and for the size (square footage) of specific commercial uses. The first step in an air quality impact analysis is to compare the size of the proposed facilities with these square footage thresholds (refer to Table 6-2 of the SCAQMD Handbook). For restaurants and movie theaters, the thresholds are 23,000 square feet and 30,000 square feet, respectively. Although the square footage of restaurants in this project is below the threshold of significance, the combined square footage exceeds the initial threshold and shifts the evaluation into a detailed analysis of potential emissions. This analysis follows.

Demolition

Emissions associated with demolition are calculated using the emission factors in Table A9-9-H of the SCAQMD CEQA Handbook. The three structures consist of brick and wood frame structures that have a footprint of approximately 20,000 square feet. All the structures proposed for demolition are one storey in height. Assuming 200,000 cubic feet of building volume, three days of demolition, the following demolition equipment (Table A9-8-A, one dozer, one front loader), hauling of demolition wastes to a disposal site, and five employees, the total demolition emissions per day are forecast to be : 30 lbs/day PM₁₀, 14 lbs/day CO, 3 lb/day ROC, and 24 lbs/day NO_x. The Handbook emission thresholds for construction activities are: 550 lbs/day CO, 75 lbs/day ROC, 100 lbs/day NO_x, and 150 lbs/day PM₁₀. Calculated values for demolition emissions are provided in Appendix A to this document. All values fall below Handbook thresholds and air quality impacts from this phase of the project are not considered potentially significant.

Construction

Emissions associated with grading and construction of the retail and movie structures were forecast using the methodology outlined in the SCAQMD Handbook. The assumptions used in forecasting these emissions is outlined in Appendix A to this document. The daily emissions forecast to occur during construction of the proposed project are as follows. During grading the PM₁₀ emissions are forecast to be 106 lbs/day. Given the recent adoption of revisions to Rule 403 which requires best available control technology for reduction of fugitive dust, the actual emissions are likely to be below this volume. Regardless, the PM₁₀ emissions during grading fall below the Handbook threshold. Total daily construction emissions (other than fugitive dust during grading) are forecast to be: 47 lbs/day CO, 13 lbs/day ROC, 71 lbs/day NO_x, 3 lbs/day SO_x, and 5 lbs/day PM₁₀. These daily emissions are overstated because paving activities will not occur until structures are nearing completion. All construction emission values fall below the Handbook emission thresholds. Therefore, no significant air quality impacts are forecast to occur during the construction phase of the project.

TABLE 2

Summary of Air Quality Data
San Bernardino Air Monitoring Station

Pollutant Standards	1989	1990	1991	1992	1993
Ozone (O₃)					
State standard (1-hr.avg>0.09ppm)					
Federal standard (1-hr.avg>0.12ppm)					
Maximum concentration	.30	.29	.25	.28	.21
No. of days state standard exceeded	159	129	127	141	132
No. of days federal standard exceeded	115	78	79	85	65
Carbon Monoxide (CO)					
State standard (1-hr.avg>20ppm)					
Federal standard (1-hr.avg>0.12ppm)					
State standard (8-hr.avg≥9.1ppm)					
Federal standard (8-hr.avg≥9.5ppm)					
Maximum concentration 1-hr. period	11	9	8	7	7
Maximum concentration 8-hr. period	8.1	6.0	7.0	5.9	6.0
No. of days state 1-hr.standard exceeded	0	0	0	0	0
No. of days federal 1-hr.standard exceeded	0	0	0	0	0
No. of days state 8-hr.standard exceeded	0	0	0	0	0
No. of days federal 8-hr.standard exceeded	0	0	0	0	0
Nitrogen Dioxide (NO₂)					
State standard (1-hr.avg>0.25ppm)					
Federal standard (0.0534 AAM in ppm)					
Annual arithmetic mean	.0409	.0343	.0355	.0356	.0376
Maximum 1-hr. concentration	.18	.20	.16	.13	.15
No. of days state 1-hr. standard exceeded	0	0	0	0	0
% federal standard exceeded	0	0	0	0	0
Total Suspended Particulates (TSP)					
Maximum 24-hr. concentration	327	289	215	217	139 62.7 0
Suspended Particulates (PM₁₀)					
State standard (24-hr.avg>50 ug/m ³)					
Federal standard (24-hr.avg>150 ug/m ³)					
Maximum 24-hr. concentration	271	235	163	136	
Percent samples exceeding state standard	74.5	58.3	68.3	60	
Percent samples exceeding federal standard	5.1	3.3	1.7	0	
<p>AAM = Annual Arithmetic Mean NA = Not Applicable ppm = parts per million ug/m³ = micrograms per cubic meter</p>					
<p>Source: South Coast Air Quality Management District Air Quality Data - 1989 through 1993</p>					

Operations

Emissions associated with operations include mobile source emissions and energy use (electricity and natural gas) emissions. The emission calculations are shown in Appendix A. Mobile source emissions are based on traffic generation estimates provided in the "Traffic Impact Analysis Report San Bernardino Entertainment Center" authored by Linscott, Law & Greenspan, Engineers and subsequent information obtained regarding the mix of vehicles accessing the site. Total daily emissions are forecast as follows: 294 lbs/day CO, 21 lbs/day ROC, 50 lbs/day NO_x, and 15 lbs/day of PM₁₀. The only pollutant which approaches the daily emission thresholds in the Handbook is NO_x, where the threshold is 55 lbs/day versus the forecast of 50 lbs per of emissions per day.

The Handbook thresholds were established as guidelines, not fixed values that when exceeded mandate a finding of significant adverse impact and the necessity to prepare and Environmental Impact Report (EIR). There are three factors that further reduce the importance of NO_x emissions from the proposed project. First, attending a movie is a discretionary trip, not a required trip such as a work trip. For such trips, it is assumed that the trip will occur whether this movie theater is constructed or not. Thus, the 5,610 daily forecast trips for this project are not all assumed to be net trips within the SCAB. In this case, several new theater complexes have been or are in the process of being constructed within the Inland Empire (Riverside, Ontario, and Redlands). To the extent that the proposed project draws local residents to this site instead of these other theater complexes, then the project could actually result in a net emissions reduction within the SCAB relative to the existing situation. It is not possible to quantify the actual emissions reductions associated with this situation, but it is potentially substantial.

Second, the entertainment complex is located directly adjacent to the downtown's major bus transfer location. As outlined in the traffic study, almost all major bus routes converge at this location and provide a very good opportunity for local residents to travel to the entertainment complex on public transit. Although no specific emission reduction can be assigned to a program to attract movie goers on public transit, the following mitigation measure can contribute to overall emission reductions:

- 2.a.1 The theater operators shall work with Omnitrans to develop employee and attendance package(s) that provide some benefit to attendees that use public transit to travel to the site. Such packages could include reduced ticket prices, free goods, extended transfer hours for bus tickets, or free bus tickets.

The third rationale for considering project emissions as not significant is based on the urban redevelopment and jobs provided by this project in the context of the AQMP and Regional Comprehensive Plan and Guide (RCPG) and Regional Mobility Plan (RMP). The latter two documents were prepared by the Southern California Association of Governments and they are part of the air quality planning effort to reduce emissions sufficiently to bring the SCAB into compliance with federal and state ambient air quality standards. Although project NO_x emissions are below the Handbook threshold of significance, the City concludes that these air emissions should not be considered significant in the cumulative, long-term context because they were consistent with and furthered the implementation of the AQMP, RCPG and RMP. Fundamentally, the SCAQMD and SCAG have projected that ambient air quality standards will be met as long as future growth, including commercial development, occurs within the growth and development framework outlined in these plans. The proposed project redevelops land within the downtown portion of the City, provides an estimated 200 new jobs to enhance local jobs/housing balance, and provides good opportunities for public transit use by employees and movie attendees. The project also provides a high-quality, local entertainment venue that can capture leakage of movie patrons to new theater complexes that are located at substantially greater distances.

In summary, the proposed project will generate mobile source emissions that are not forecast to exceed SCAQMD CEQA Handbook thresholds of significance for daily emissions. Further, after reviewing these emissions in the context of regional planning guidelines, net potential emissions, and potential public transit utilization, the City concludes that these emissions will not cause or contribute to significant degradation of air quality in the South Coast Air Basin over the short- or long-term.

A review of several recent EIRs which included future potential for CO hotspot violations, indicates that the potential for such hotspots to occur is below a significant level. Given that CO emissions and violations are being reduced within the region, none of the intersections identified as being affected by the proposed project are forecast to exceed the one- and eight-hour CO standards. No mitigation is required to address this issue.

- 2.b. No activities, materials or chemicals with odors are proposed for use or implementation at this project site. Therefore, no potential exists for adverse odor impacts from this project. The information supporting this conclusion is based on a review of the activities that will be conducted in the movie and retail structures. No chemicals or other odor producing materials will be used or affected by the proposed uses in the project structures.
- 2.c. The project is not located within a high wind hazard area. No potential for adverse impact from exposure to high wind hazards exists. The information provided in this discussion was obtained from the City of San Bernardino General Plan.

References

- City of San Bernardino. 1996. Inland Center Mall Expansion Final Environmental Impact Report.
- City of San Bernardino. 1994. Superblock Final Environmental Impact Report.
- South Coast Air Quality Management District. 1994/1997. Air Quality Management Plan.
- South Coast Air Quality Management District. 1993. CEQA Air Quality Handbook.
- Southern California Association of Governments. 1994. Regional Comprehensive Plan and Guide

3. WATER RESOURCES

Environmental Setting/Project Impact

- 3.a. The project site is presently developed in urban uses and all areas are paved, compacted or covered with structures. Under existing circumstances the runoff coefficient for the project area is estimated to be between 95-100%. The proposed project will ultimately result in the whole site having a comparable runoff coefficient when the extensive landscaping is included. The potential change in impermeable surface is negligible within the 3.86 acre site. Runoff from the site in the future will remain essentially the same and the site runoff will be delivered to the downtown storm drainage system which carries flows from the site in the street sections and subsurface drainage pipes. The direct of drainage will remain the same with the surface runoff being delivered to the Lytle Creek Channel south of the Inland Center Mall. Just south of where this drainage intercepts the Lytle Creek Channel, Lytle Creek and the Santa Ana River merge just west of the I-10 and I-215 Interchange. No potential for significant impacts in site runoff are forecast to occur and no mitigation is required. The information in this discussion was obtained from a field review of the site and a review of the San Bernardino South 7.5' Topographic Map.
- 3.b. Storm runoff from the project site will be directed to the existing drainage systems located within the streets which bound the property. This is the same drainage pattern which presently exists. No potential to change the course or flow of flood waters has been identified and no mitigation is required. The information in this discussion was obtained from a field review of the site and a review of the San Bernardino South 7.5' Topographic Map.
- 3.c. The potential for altering discharges into surface water will exist only during construction. Otherwise, future surface runoff will be from comparable buildings and paved areas. The applicant will comply with the City's Stormwater Prevention Program (SWPP) for the grading component of the project as required by existing regulations. Implementation of an SWPP for the project site will ensure that runoff during construction does not cause significant water quality degradation. No mitigation measure is required to ensure that this Plan is submitted since it is a mandatory requirement by law. After the project is constructed, the runoff from the project site will be equivalent to that from the existing project site based on similar commercial and parking uses. No potential for degradation of water quality is forecast to occur if the project site is developed with the proposed retail and movie structures and uses. No mitigation is required. The information in this discussion was provided based on a review of the regulations requiring National Pollutant Discharge Elimination System construction general permits for storm water discharges and a review of the future uses of the project site as defined by the applicant.
- 3.d. The proposed project has no potential to directly change the quality or quantity of ground water. The issue of water consumption is discussed under the water supply subsection of the Utilities section of this Checklist (Section 11). The conclusion regarding no direct effects on quantity and quality of groundwater is based on the depth to ground water at the project site (estimated at more than 100 feet below the ground surface), the assumed 100% runoff of surface water from the site, and the lack of change

in uses and types of structures once the project is completed and in operation. In addition, no chemicals or other materials will be brought to or used at the site that could cause any contamination of groundwater. The information in this discussion was provided based on a review of the site design and a review of future uses at the project site as defined by the applicant.

- 3.e. A review of the site and the flood hazard map in the General Plan indicates that the project site is not subject to severe flooding. Therefore, no significant potential for exposure of people or property to flood hazards is identified for this project. No mitigation is required. The information provided in this discussion is based on a field review of the site and review of the General Plan, Technical Background Document and General Plan EIR.
- 3.f. No other water resource issues have been identified that would be affected by or would affect the proposed project.

References

- City of San Bernardino. 1989. Final Environmental Impact Report City of San Bernardino General Plan.
- City of San Bernardino. 1989. General Plan.
- City of San Bernardino. 1988. City of San Bernardino General Plan Update, Technical Background Report.
- Stormwater Quality Task Force. 1993. California Storm Water Best Management Practice Handbook.
- Thompson Publishing Group. 1992. Stormwater Permit Manual, Volumes 1 and 2.

4. BIOLOGICAL RESOURCES

Environmental Setting

The project site has been converted to urban uses and facilities and no native or natural ecosystems remain within or adjacent to the SBEC project site. Very limited non-native landscaping can be found on the project site.

Potential Impact

- 4.a-d. The project site does not contain any natural habitat and there is no potential for adversely impacting biological resources from implementing the proposed SBEC Project. No mitigation is required.
- 4.e. The project site does not contain any mature trees that will need to be removed. No potential for adverse impact exists and no mitigation is required.

The information for this discussion is obtained from a field survey and the General Plan Natural Resources Overlay, Figure 41.

References

- City of San Bernardino. 1989. Final Environmental Impact Report City of San Bernardino General Plan.
- City of San Bernardino. 1989. General Plan.
- City of San Bernardino. 1988. City of San Bernardino General Plan Update, Technical Background Report.

5. NOISE

Environmental Setting

The project site is located in the middle of downtown San Bernardino. It is a highly urban location with significant background or ambient noise levels. The primary source of the existing ambient noise environment is traffic. According to data contained in the General Plan Technical Background Report (Table 64) traffic noise at 100 feet from the centerline of 5th Street and E Street ranges from 66-68 dBA, L_{dn} . Based on traffic volumes identified in recent studies, this level of ambient noise is still considered adequate for the

current noise setting in the project area. Note that single noise events, such as trucks, demolition equipment, police and fire vehicle sirens, may exceed 90 dBA, but the composite (L_{dn}) background noise is still in the same general range, i.e. 65-70 dBA. Given the lack of residential uses in the immediate vicinity of the proposed project, the ambient noise environment is not considered significant at the project site.

Potential Impact

- 5.a. The proposed project does not contain any noise sensitive uses that would be exposed to the ambient background sound levels that could pose a significant constraint to their development. No potential for significant impact to new sensitive land uses exists and no mitigation is proposed. The information provided in this discussion is based on a review of the proposed project land uses and the background noise data contained in the General Plan, Background Technical Report, and the General Plan EIR.
- 5.b. The major access routes to the project site are expected to be the I-215 Freeway, 2nd Street, 4th Street, 5th Street, and 6th Street from the east and west, and E Street, F Street, D Street and Arrowhead Avenue from the north and south. Of these streets, only 5th Street (west of E Street), 6th Street, and Arrowhead have noise sensitive residential uses adjacent to them. Based the traffic distribution in the traffic study completed for the project, the potential exists to increase noise levels on the streets containing residential use by some amount less than 3 decibels (considered significant in most jurisdictions). Construction noise can create a nuisance for residents on 5th Street, between E and F Streets. This potential can be mitigated by implementing the following measures:
- 5.b.1 Exterior construction activities involving noise producing equipment shall be restricted to the hours between 7 a.m. and 6 p.m., except in the event of an emergency.
 - 5.b.2 The applicant shall ensure that all construction equipment be operated with mandated noise control equipment (mufflers or silencers).
 - 5.b.3 If noise complaints are received from residents, the applicant shall install portable noise reduction walls or barriers to attenuate sound levels to less than 3 dBA greater than background sound level.

Implementation of these measures can ensure that no significant noise impacts will result from constructing the proposed project.

Permanent operation noise levels will consist of those associated with retail commercial and movie patronage activities. These activities are consistent with the background sound levels and are not forecast to generate exterior noise levels that equal or exceed the existing background noise levels that are dominated by traffic. No mitigation is required.

- 5.c. No other noise impact issues have been identified that would be affected by or would affect the proposed project.

References

- City of San Bernardino. 1989. Final Environmental Impact Report City of San Bernardino General Plan.
- City of San Bernardino. 1989. General Plan.
- City of San Bernardino. 1988. City of San Bernardino General Plan Update, Technical Background Report.

6. LAND USE

Environmental Setting

The project site is located in the "Downtown" portion of the City of San Bernardino which has been given a Commercial Regional (CR-2) designation. The identified uses in the General Plan are government, professional, and corporate offices; hotel and convention facilities, entertainment; cultural/historic; supporting retail uses; restaurants; and residential (market-rate and senior/congregate care). The mandated FAR (Floor/Area Ratio) for commercial and office uses is 3.0. The existing land uses in the immediate area include retail commercial, government and professional office, and service uses.

Potential Impact

- 6.a. The proposed SBEC Project would establish a 20-theater movie venue and retail commercial activities, including restaurants. These uses are consistent with the current General Plan designation. The project will conform with the existing FAR of 3.0. Based on the consistency of the proposed land uses with the existing land use designation, the SBEC Project will not cause a significant land use impact. No mitigation is required. The information provided in this discussion is based on a review of the proposed project land uses and the background land use data contained in the General Plan, Background Technical Report, and the General Plan EIR.
- 6.b. The project site is not located near any airport, nor is it located within an Airport District. No potential for conflicts with airport uses exists and no mitigation is required. The information provided in this discussion is based on a review of the background land use data contained in the General Plan, Background Technical Report, and the General Plan EIR and an area field survey.
- 6.c. The project site is not located within a Foothill Fire Zone nor is it located within the high wind hazard area of the City. No potential for conflicts with wildland fire hazards exists and no mitigation is required. The information provided in this discussion is based on a review of the background land use data contained in the General Plan, Background Technical Report, and the General Plan EIR and an area field survey.
- 6.d. No other land use impact issues have been identified that would be affected by or would affect the proposed project.

References

- City of San Bernardino. 1989. Final Environmental Impact Report City of San Bernardino General Plan.
- City of San Bernardino. 1989. General Plan.
- City of San Bernardino. 1988. City of San Bernardino General Plan Update, Technical Background Report.

7. MAN-MADE HAZARDS

Environmental Setting

Based on a review of existing uses on the project site, no man-made hazards related to hazardous materials or wastes was identified. This conclusion is based on a review of the Phase I Environmental Site Assessments for properties located within the project area. The site contains no known current or historic underground storage tanks, and although the properties have been in use since before 1900, none of the historic uses were identified as releasing hazardous materials onsite.

Potential Impact

- 7.a. During construction the project will use petroleum products for fuel and lubrication of construction equipment. Mitigation for any accidental spills is provided under issue 7.b., below. The project consists of occupying and utilizing retail commercial and movie space. Common household cleaners and other maintenance chemicals (such as ammonia, solvents, pesticides, etc.) will be used in these facilities, but it is not anticipated that large and/or continuous quantities of hazardous materials will be utilized

based on the proposed uses. Consequently, no large and/or continuous quantities of hazardous wastes will be generated that would pose a hazard to humans. Based on the type of uses, no potential for significant use, storage, transport or disposal of toxic or hazardous materials will occur. As noted above, mitigation is proposed below to address accidental spills during construction. The information in this discussion is obtained from a review of the allowable uses and activities that might cause significant man-made hazards in the future.

7.b. During construction one potential hazard may be created by construction activities. As part of construction activities, petroleum products will be delivered to the project site to supply construction equipment with fuel and lubricants. The potential for contamination caused by accidental release of such chemicals can be fully mitigated by implementing the following mitigation measure.

7.b.1 **The applicant shall require all contractors to control spills of petroleum products and, if such spills occur, the contaminated soil or other material shall be collected and/or treated and disposed of at a facility licensed for contaminated soil. Records of spills and clean-up efforts shall be retained by the developer or contractor and made available to the City upon request.**

The information for this discussion is obtained from review of the proposed project land uses and construction activities, and an evaluation of potential hazardous activities associated with the project.

7.c. The potential health and safety hazards associated with construction activities have been outlined under issue 7.b.. The proposed uses of the project site, retail commercial and movie theater activities, do not have any potential to cause health and safety hazards beyond those normally accompanying such uses. Programs are already in place to manage human safety without creating any significant health or safety hazards. No significant hazards are forecast from implementing these uses and no mitigation is required. The information for this discussion is obtained from review of the proposed project land uses and construction activities, and an evaluation of potential hazardous activities associated with the project.

7.d. No other man-made hazard issues have been identified that would be affected or would affect the proposed project.

References

- City of San Bernardino. 1989. Final Environmental Impact Report City of San Bernardino General Plan.
- City of San Bernardino. 1989. General Plan.
- City of San Bernardino. 1988. City of San Bernardino General Plan Update. Technical Background Report.
- Ecologies Lehr, Inc. 1997. Phase I Environmental Site Assessment Conducted at 452 N. "E" Street San Bernardino, California.
- Ecologies Lehr, Inc. 1997. Phase I Environmental Site Assessment Conducted at 470 N. "E" Street San Bernardino, California.
- Ecologies Lehr, Inc. 1997. Phase I Environmental Site Assessment Conducted at 530-550 4th Street San Bernardino, California.

8. HOUSING

Environmental Setting

According to recent housing data summarized in Inland Business magazine, home values continue to drop and real estate foreclosures are up 64% (12,000 units) compared to the first ten months in 1992. The overall trend in housing is for more homes on the market than can be absorbed by existing demand. Through October 1997 the trend in jobs for the Inland Empire (Riverside and San Bernardino County), when seasonally adjusted, is up, with unemployment now in the 7.5% range. Based on these data, the current housing inventory is assumed to exceed the demand and no improvement in demand is forecast to occur in the near term future.

Potential Impact

- 8.a. The proposed project will not remove existing housing or reduce available housing units within the City. It is arguable whether the project will increase demand for housing over the short-term. The proposed project will provide jobs for an estimated 200 persons. The net increase in home demand is forecast to be very low for these persons since it is anticipated that the majority of jobs will be low income entry level jobs and the projects will draw upon the existing available labor pool. No potential for significant impact to housing resources is forecast to occur. Regardless, given the substantial number of homes backlogged on the market, the potential demand for homes from full development of this project is not forecast to be significant. The information provided in this discussion was obtained from a review of the project size, General Plan, Technical Background Report, and the housing, commercial office space, and general business information provided in the Inland Business magazine, January 1996 edition.
- 8.b. No other housing issues have been identified that would be affected or would affect the proposed project.

References

- City of San Bernardino. 1989. General Plan.
- City of San Bernardino. 1988. City of San Bernardino General Plan Update, Technical Background Report.
- Vincour Publishing. January 1996. "Inland Business".

9. **TRANSPORTATION/CIRCULATION**

Environmental Setting

The traffic data used in preparing the General Plan and General Plan EIR (summarized in Table 12 of the EIR) demonstrated that the surrounding streets operate at an acceptable level of capacity. However, at buildout volumes the General Plan EIR forecast that levels of service and/or volume/capacity ratios on "E" Street and 5th Street would exceed the capacity of these streets. Regarding other transportation/circulation matters, adequate public transit capability, provided by Omnitrans, exists on the surrounding street system. Adequate public parking for existing businesses within the area currently exists on the project site on adjacent areas. The project site does not provide any air or rail traffic service.

As determined in the Linscott, Law & Greenspan traffic study, all nine of the affected intersections are currently operating at a Level of Service (LOS) that meets the City's standards. LOS D during peak hour. A copy of the text of this study is provided as Appendix B of this document. Exhibits 4 and 5 of Appendix B summarize the existing roadway conditions for roadways and intersections.

Potential Impact

9.a The traffic study forecasts that the proposed project will generate an estimated 5,610 trips. When combined with background traffic growth in 1999, the project will cause traffic flow during the PM peak hour to degrade, but with one exception, no significant impact will occur based on comparison with City impact criteria (LOS D during peak hour). The one exception, is the intersection of 5th and "E" Street where the PM peak hour traffic flow will be reduced to an unacceptable level of impact. Mitigation is identified below which can eliminate this significant impact. By the year 2002, the project and cumulative traffic impacts remain nonsignificant, including the 5th and "E" Street intersection with the assumed improvements. To mitigate impacts at this one intersection, the following improvements must be implemented:

- 9.a.1 Restripe the north and south legs of "E" Street to provide exclusive left-turn lanes and a shared through-right lane. To accommodate this improvement, some of the existing on-street angled parking along the east and west side of "E" Street will need to be eliminated or converted to parallel parking spaces.

Implementation of this measure can improve traffic flow at this intersection so that no significant delays, using City criteria, are experienced.

9.b. The project will eliminate 235 parking spaces, but proposes to rely upon shared use of the Superblock parking structure, immediately across the street, and other offsite parking lots and structures in the general vicinity of the project. A parking study has been completed for the project which demonstrates that its use of offsite parking resources, primarily during evening and weekend hours, will be adequate to meet the City Development Code requirements. A shared demand exists for 3,022 spaces and the area has a total of 3,108 spaces available. No significant adverse parking impacts are forecast to occur. The information provided in this discussion was obtained from a review of the project description, Development Code parking requirements outlined in Article 3, Chapter 19.24 of the Code, and the parking study which is attached as Appendix 3.

9.c. The public transportation system currently provides adequate service to the area, and if demand increases, it can expand to meet the demand for transit services to the project site. No potential for adverse impact is forecast to occur and no mitigation is required. The information in provided in this discussion was obtained from the General Plan Technical Background Report and EIR.

9.d. The proposed project will not alter any present patterns of circulation in the downtown area. It may result in shifting the location of movie patrons in the community, but the physical circulation patterns will not be altered. No significant impacts to existing circulation patterns is forecast to occur and no mitigation is required. The information provided for this discussion was obtained from a field review of the existing circulation pattern and a review of available access to the project site after it is developed.

9.e. The project site is not located on or near any rail or air transportation facilities. No adverse impact is forecast to such facilities if the SBEC Project is implemented. No mitigation is required. The information provided in this discussion was obtained from a field review of the area and a review of the General Plan and supporting documents.

9.f. The project may create road hazards as a result of construction activities. During construction, E Street, 5th Street and 4th Street would be affected by construction activities. This creates the potential for a short-term increase in traffic hazards on these roads which will be adjacent to construction activities. The following mitigation measures shall be implemented by the applicant to reduce such potential hazards below a significant level.

9.f.1 The construction contractor or applicant shall provide adequate traffic control resources (signing, protective devices, crossing devices, detours, flagpersons, etc.) to maintain safe traffic flows on all streets affected by construction activities. If construction beneath a road is not completed by the end of the days work, the contractor or applicant shall ensure that an adequate traffic access route exists to all areas where access exists at the time of construction.

9.f.2 Traffic hazards that may affect vehicles, bicycles, or pedestrians shall be identified and controlled by the contractor or applicant prior to construction and resources made available to prevent or minimize these hazards during construction.

The information provided in this discussion was obtained from a review of the project description and the local circulation system.

9.g. The proposed project will not alter the existing pattern of roads. No potential for adverse impact to road patterns is forecast to occur and no mitigation is required.

9.i. No other transportation/circulation issues have been identified that would be affected or would affect the proposed project.

References

City of San Bernardino. 1989. Final Environmental Impact Report City of San Bernardino General Plan.

City of San Bernardino. 1989. General Plan.

City of San Bernardino. 1988. City of San Bernardino General Plan Update, Technical Background Report.

10. PUBLIC SERVICES

Environmental Setting

a. Fire

The City Fire Department maintains 11 fire stations spread strategically throughout the City. In addition, three California Department of Forestry (CDF) and one Central Valley Fire District (CVFD) stations are located in close proximity to the City. City Fire Station #1 is located approximately ½ mile from the project site on 3rd Street, just east of Sierra Way. Adequate resources are available to respond to the project site in less than the three minute threshold of significance identified in the General Plan EIR. The Fire Department uses the Uniform Fire Code, the National Fire codes, and the California Code of Regulations as the basis for its enforcement programs. In addition, the City has adopted more stringent fire regulations in areas of building construction which requires automatic fire sprinklers in all new commercial buildings over 5,000 square feet in area.

b. Police

The General Plan ties future demand for police services to growth in population. The proposed project is not forecast to cause any direct increase in population as the project is expected to draw upon the existing labor pool for most of the 200 new jobs. The Department is striving to maintain a officer/population ratio of 1.7 officers per 1000 persons in order to ensure adequate protection. With the Police Department located two blocks north and the project area already on routine patrols, the response time to the project site should remain within one minute response time.

c. Schools

Educational facilities are provided by the San Bernardino City Unified School District whose boundaries encompass the project site. The General Plan identifies that the District facilities in 1988 will reach 99% capacity for elementary schools, 83% for intermediate schools, and 97% for high schools. The School District belongs to the State School Building Program which allocates monies for school construction. Assembly Bill 2926 was passed in September 1986 granting school districts the ability to levy developer fees on new construction at a rate of up to 25 cents per square foot for commercial development. This fee has since been adjusted by legislation in 1992. When AB 2926 was passed the legislature determined these fees provide adequate mitigation to lessen project impacts to a point that they are not environmentally significant. The City has established a mitigation fee levy is expected to be applied to the project.

d. Parks and Recreation

The project site does not contain any park or recreation facilities and does not provide any recreational services. The closest park to the project site, Pioneer Park, is located about one block north at the corner of 6th and E Streets. Seccombe Lake Park, a State urban recreation area is located three blocks east of the project site.

e. Medical Aid

Emergency Medical Services are provided by City Fire Department trained personnel through the EMT-Paramedic program (see fire above). The closest hospitals to the site are San Bernardino Community Hospital, County Hospital (until it is relocated) and St. Bernardine's Hospital. All hospitals are within a five to ten minute drive from the project site. Existing uses on the project site create a small, unquantifiable amount of demand for emergency medical aid.

f. Solid Waste

Solid waste collected from the project site is presently disposed at landfills in the east valley, either Colton, Mid-Valley or San Timoteo Landfills, that are operated by the County. A small, but unknown, volume of solid waste is generated from the project site at this time. The Colton Landfill is scheduled to closed within the next five years, but Mid-Valley and San Timoteo are being permitted for more than five-years, the current planning horizon established by the California Integrated Waste Management Board for operating landfills.

g. *Other*

No other public service issues have been identified where a potential environmental impact may occur.

Potential Impact

a. *Fire*

The proposed project will replace some existing structures with new and substantially larger structures. The potential increase in demand for fire protection services was addressed as part of the cumulative demand forecast in the General Plan, Technical Background Report, and General Plan EIR. The project's contribution to cumulative demand for fire protection services. To mitigate potential impacts upon fire protection services and the Fire Department's ability to provide adequate levels of service, the EDA shall implement the following measures:

- 10.a.1 **Require that the project construction meet the standards referenced above related to type of construction, materials and installation of sprinklers during the review of planning, building, and construction drawings.**
- 10.a.2 **The applicant shall ensure that adequate infrastructure and water supply are available onsite and per City standards to meet peak fire flow requirements and that they will be in place and operational prior to occupancy of the new facilities.**
- 10.a.3 **The Developer shall be responsible for the installation, maintenance and enforcement of adequate access to all facilities for fire equipment within structures and on the adjacent roadways.**

The information provided in this discussion was obtained from a review of the project description and the General Plan and supporting documents.

b. *Police*

The net effect on police services from developing the SBEC Project should be approximately the same as the current downtown demand because the uses are consistent (retail and entertainment) with existing or historic uses in the project area. Potential impacts on the site can be offset by implementing the following mitigation measure to minimize crime potential through design.

- 10.b.1 **The applicant shall confer with the City Police Department and jointly develop a set of recommendations for enhancing public safety within the structures and in courtyard areas. These recommendations should address both physical installation of crime prevention deterrents, as well as recommendations for patrolling schedules and the recommendations shall be implemented by the applicant prior to finalizing building plans.**

The information provided in this discussion was obtained from a review of the project description and the General Plan and supporting documents.

c. *Schools*

The proposed project is not forecast to cause any direct increase in school attendance. No indirect effect is forecast to occur because the project will represent an increase in jobs that can be filled by the existing labor pool. The information provided in this discussion was obtained from a review of the project description and the General Plan and supporting documents.

d. *Parks and Recreation*

The proposed project will create a location for recreation activities, entertainment, to occur. No new demand for downtown park and recreation services is forecast to occur from implementing the proposed project.

The City uses the State Quimby Act, as amended, the City Municipal Code for fees and land dedications, and the City Capital Improvement Program to establish standards and schedules for acquisition and development of new park or rehabilitation of existing parks and recreation and special facilities, i.e. tot lots, or water facilities such as fountains. Policy 9.1.14 of the General Plan requires that new commercial development provide open space facilities on-site for passive and active recreation or contribute fees for the public development of such facilities. The proposed project contains a courtyard that will provide for public gatherings and passive recreation. No mitigation is required. The information provided in this discussion was obtained from a review of the project description and the General Plan and supporting documents.

e. *Medical Aid*

The need for increased medical aid services at the project site can be correlated to increased population in the region, but not increased use of the project site. Based on a review of retail commercial and movie theater uses, only a few medical aid emergencies occur during office hours. Some unquantifiable, but small, increase in demand for emergency medical service may occur due to development of the proposed project. However, the impacts from a minor increase in demand as would be expected from the SBEC complex is not identified as causing a significant effect on medical aid levels of service. No potential for significant impact is forecast to affect this service. No mitigation is required. The information provided in this discussion was obtained from a review of the project description and the General Plan and supporting documents.

f. *Solid Waste*

San Bernardino County utilizes a per capita annual waste generation rate that does not apply to commercial or industrial projects. Riverside County has defined waste generation based upon developed square footage, and although the County of San Bernardino does not calculate waste generation in this manner, the use of the square footage forecast methodology seems best suited for this project. Given the proximity of the site to Riverside County and similar types of population, it was judged that use of Riverside County data would be appropriate for making a forecast.

Based upon a generation factor of 1 pound per day for each 100 square feet of building area, the proposed facility is forecast to generate 1,350 lbs of solid waste per day or about 210 tons of waste per year, or about 145 cubic yards of waste based on 1.2 tons per cubic yard when compacted in the landfill. Based on the County's recent reductions in waste generation (personal communication Jim Walsh, Norcal) and the availability of capacity for land disposal at County landfills over the next five years, no potential for significant impacts to the solid waste system are forecast to occur.

The demolition project will result in the one time disposal of an estimated 3,000 cubic yards of inert building material. This can be disposed of at any one of several inert waste disposal sites located in the Inland Empire or at the County landfills without exceeding the capacity of the existing landfills.

The City has developed a Source Reduction and Recycling Element in response to AB 939 which forecasts a 25% waste diversion by 1995 and a greater than 50% diversion by the year 2000. While development of the SBEC project will contribute to the ongoing increase in solid waste generation and therefore, contribute to the continued cumulative exhaustion of available landfill capacity, the participation by individual businesses in source reduction programs will actually reduce total waste delivered to landfills over the life of proposed development. To ensure effective participation of future development in these programs the following measure shall be implemented by facility operators.

- 10.f.1 The applicant/operators shall work with the City Public Services Department to integrate its waste management efforts with a program of recycling activities by relocated office activities consistent with City's adopted Source Reduction and Recycling Element. This program shall include the identification of methods to reduce wastes at the source and increase the volume of recyclable materials that can be delivered to markets for reuse. Specific types of programs include waste segregation (cardboard, plastic, metals, etc.), delivery of waste to the City's proposed Materials Recovery Facility, and delivery of compostable materials to the City's proposed composting facility.

Implementation of the above measure will minimize solid waste generation and further reduce the proposed project's effects on the solid waste management system. The information provided in this discussion was obtained from a review of the project

description and the General Plan, Background Technical Report, General Plan EIR, City of San Bernardino Source Reduction and Recycling Element, Final Draft, County of Riverside County Solid Waste Management Plan and County of San Bernardino San Bernardino County Solid Waste Management Plan 1989-1990 Update, Preliminary Draft.

g. *Other*

No other public service infrastructure is forecast to be impacted and no mitigation is required.

References

City of San Bernardino. 1989. Final Environmental Impact Report.

City of San Bernardino. 1989. General Plan.

City of San Bernardino. 1991. Source Reduction and Recycling Element, Final Draft

City of San Bernardino. 1988. Technical Background Report

County of Riverside. 1989. Riverside County Solid Waste Management Plan.

County of San Bernardino. 1989. San Bernardino County Solid Waste Management Plan 1989-1990 Update, Preliminary Draft.

11. UTILITIES

Environmental Setting

a.1. *Natural Gas*

Natural gas is supplied to the project site by The Gas Company. The existing buildings on the project site consume small quantities of natural gas for space and water heating. No information is available regarding the specific volume of gas used on the project site.

a.2. *Electricity*

Electricity is supplied to the project site by Southern California Edison Company. The existing buildings on the project site consume small quantities of electricity for indoor and outdoor lighting. No information is available regarding the specific amount of electricity used on the project site.

a.3. *Water*

Water service to the project is provided by the City of San Bernardino Water Department. It is the responsibility of the City to provide water to development within its service area if adequate water supplies are available. No estimate is available on the current water usage at the project site.

a.4. *Sewer*

Sewer service to this project is provided by the City of San Bernardino Water Department. It is the responsibility of the City to provide sewer service to development within its service area if adequate sewage treatment capacity is available. No information is available on the current volume of sewage generated at the project site. Major sewage trunk mains are located adjacent to the project site to carry wastewater to the water reclamation plant located at the southern end of the City adjacent to the Santa Ana River.

a.5. *Other*

No other utility issues have been identified that would be affected or would affect the proposed project.

Potential Impact

a.1. Natural Gas

Based on data provided by the project architect, the proposed structures will consume an estimated 2,168,000 million BTU per year. The City General Plan and policies address reducing consumption of energy resources through policy statements contained in Chapter 11. The project site is situated over a geothermal resource which is available for use in structures at this location and which provides a unique opportunity to the applicant to utilize this resource for space heating. The vast majority of the natural gas consumption at the site is used to provide space heating, and the potential exists to offset the consumption of natural gas resources, which are considered to be nonsignificant (as discussed below), through use of the geothermal resources. A mitigation measure is proposed below which is not mandatory since the natural gas consumption is not considered significant.

11.a.1 The developer shall confer with the City Municipal Water Department regarding the ability to utilize local geothermal resources for space heating and cooling. If judged feasible by the City and developer, the geothermal resource shall be developed and used at the site as an energy source.

The California Energy Commission (CEC 1995) has reviewed energy resource availability for California and determined that natural gas resources are available over the next ten years when the project will be developed. Based on adequacy of commercially available natural gas resources, the proposed project will not cause a significant adverse impact on the environment. No mitigation is required.

a.2. Electricity

Based on data provided for retail structure use of electricity, the proposed structures are forecast to consume an estimated 2,000,000 kilowatt hours per year. The California Energy Commission (CEC 1995) has reviewed energy resource availability for California and determined that adequate electricity resources are available over the next ten years when the project will be developed. Based on adequacy of commercially available electricity resources, the proposed project will not cause a significant adverse impact on the environment. No mitigation is required.

a.3. Water

The proposed project is forecast to consume approximately 13,500 gallons per day, or about 12.5 acre-feet per year, based on 313 operating days. The General Plan EIR projected cumulative water consumption within the City at build-out would raise total water consumption from about 43,000 acre-feet to 59,000 acre-feet. Adequate water supplies were identified in the General Plan EIR to easily meet this increased consumption of 16,582 acre feet through build-out of the City. To verify that the forecasts within the EIR are still adequate, the volume of production for the whole Bunker Hill Basin was reviewed from 1988 through 1992. The data shows that consumption over this period declined each year from about 256,774 acre-feet in 1988. In 1992 approximately 229,400 acre-feet of water were produced from the Basin. Based on current data, the approximate increase in water consumption by 12.5 acre-feet per year will not cause a significant impact on water resources or water supply to the project site. Mitigation identified under the Fire issue above requires that water mains be sized to provide adequate fire flows to the project site. No additional mitigation is required. The information provided in this discussion was obtained from a review of the project description, the General Plan and supporting documents, and the Water Conservation Districts Annual Engineering Investigation.

a.4. Sewer

The proposed project is forecast to generate approximately 11,000 gallons of sewage per day requiring treatment. The General Plan EIR projected cumulative sewage flows at City build-out of 14.1 MGD. This cumulative demand required the construction of new and/or upgraded wastewater treatment and collection facilities which has been completed. New connections to the sewer system are required to pay a fee which funds future expansion of the regional wastewater reclamation system. Adequate fees are being provided by development to fund the required expansions in a timely manner according to the City Staff. Adequate trunk lines are available adjacent to the project site as a result of the Superblock development to deliver the project's sewage to the water reclamation plant. No mitigation is required. An estimated 9.5 million gallons of excess treatment capacity currently

exists at the Reclamation Plant. The payment of connection fees is a standard requirement for new development and does not need to be made a mitigation requirement. The information provided in this discussion was obtained from a review of the project description, the General Plan and supporting documents, and discussion with the City Public Works and Water Department Staff.

- b. All utilities are available at the project site and no extensions will be necessary to serve the proposed project. No potential exists to create a "disjointed" pattern of utility extensions. No mitigation is required. The information provided in this discussion was obtained from a review of the project description and the General Plan and supporting documents.

References

- California Energy Commission. 1995. Electricity
- City of San Bernardino. 1989. Final Environmental Impact Report.
- City of San Bernardino. 1989. General Plan.
- City of San Bernardino. 1988. Technical Background Report
- San Bernardino Valley Water Conservation District. 1993. Annual Engineering Investigation and Report (7/92-6/93).

12. AESTHETICS

Environmental Setting

The project site is part of the "Downtown" District as defined in the City General Plan. This area contains government, cultural, retail commercial, office and a wide range of residential uses. According to the evaluation in the General Plan, the design styles in the Downtown District vary substantially, " as does the scale, landscaping quality, and site coverage from block to block. The General Plan notes that the large office buildings in the Central City/Civic Center area are a major landmark because of the concentration of large structures in this area. The City has identified the Downtown District as subject to urban design guidelines contained in the General Plan and the Main Street Guidelines. Because of the large scale of structures in the Downtown District, no major views to the north and east, the primary scenic views, are available from street level.

Project Impact

- 12.a The proposed project will result in an intensification of the Downtown District as a major retail center and as a major gathering place for entertainment. The main structure will be only two storeys in height which is comparable to the adjacent structures, and small relative to nearby civic buildings and the Superblock, Caltrans structure. The General Plan EIR recognized that this intensification would occur in the Downtown District (See Visual discussion in Chapter 4.3.3) and concluded that this would be a beneficial impact to the project area. No scenic views from ground level will be adversely impacted by the proposed project. Views from the existing high rise buildings to the north and west not be altered. No significant obstruction of scenic views is forecast to occur and no mitigation is required. The information provided in this discussion was obtained from a review of the project description and the General Plan and supporting documents.
- 12.b The City General Plan and Main Street design guidelines prescribe specific design guidelines for structures and adjacent streetscapes constructed within the Downtown District. The project area has been in transition for the past several years and about one-third of the project site is presently used for downtown parking space. The proposed project has the potential to contribute to positive changes in the aesthetic character of the downtown area by converting low intensity use parking areas to high quality buildings and interior courts. No mitigation is required. The information provided in this discussion was obtained from a review of the project description, and the General Plan and supporting documents.
- 12.c No other aesthetic issues have been identified that would be affected or would affect the proposed project.

References

City of San Bernardino. 1989. Final Environmental Impact Report.

City of San Bernardino. 1989. General Plan.

City of San Bernardino. 1988. Technical Background Report.

13. CULTURAL RESOURCES

Environmental Setting

A review of the City historic records indicates that the Lier Music building and the Bible retail store are not identified as being historic structures. The remainder of the project site has been extensively graded and developed over the past 100 years. However, due to known fill across the street (as much as 10 feet deep) and more current development activities, including paving parking areas, no potential cultural resources are known to occur on the project site. The California Theater, a recognized historic monument, is located adjacent to the proposed project.

Potential Impact

13.a-c. Construction of the proposed SBEC buildings has a low potential to cause significant impact to possible prehistoric resources and historic resources. The reason for this is the past disturbance of the ground surface, including extensive fill, over the past hundred years. The type of structures proposed, maximum of two storeys and normal construction, means that foundations are not expected to extend into areas where potential resource recovery can produce any meaningful data. However, it is possible that during installation of building foundations, undisturbed resources may be encountered. To address this issue, measures will be implemented to mitigate this potential adverse impacts. The following measures shall be implemented.

13.a.1 The applicant shall retain a qualified archaeologist/historian who shall be onsite when any subsurface disturbance activities are undertaken.

13.b.2 If any resources are encountered in an undisturbed condition as determined by the archaeologist/historian, construction in that area shall be halted until test pits can be installed. Any cultural resources encountered as a result of the test pits shall be properly mitigated through testing, collection, documentation and curation.

Based on the implementation of these measures, the potential cultural resource impacts can be mitigated below a significant level. The information provided in this discussion was obtained from a review of the project description, the General Plan and supporting documents, and the Phase I Archaeological Investigation Report prepared by Archaeological Consulting Services for the Superblock building across the street.

References

Archaeological Consulting Services. 1993. Historic Preservation Investigations of Block 29, City of San Bernardino, County of San Bernardino, California: The Archival Research Program.

City of San Bernardino. 1989. Final Environmental Impact Report.

City of San Bernardino. 1989. General Plan.

City of San Bernardino. 1988. Technical Background Report.

14. MANDATORY FINDINGS OF SIGNIFICANCE

The proposed SBEC Project consists of the redevelopment of a large portion of one block in the City of San Bernardino's Downtown District. Because this site has been utilized for urban activities and facilities for more than 100 years, the potential natural resource impacts are considered nonsignificant. The site has potential cultural resource values that may require a substantial effort to mitigate below a significant level, and a monitoring program will be implemented to ensure that no cultural resources that remain within an appropriate context will be damaged or lost. The measures to accomplish this mitigation are included as a requirement of this Initial Study. Certain urban services, such as fire, police and school services will require some mitigation to reduce impacts below a significant level. These measures have also been made a requirement in this Initial Study. Traffic impacts were determined to be mitigable to a nonsignificant level based on improvements at E and 5th Streets. Air emissions associated with operation of the project were determined to be below a significant threshold level and based on consistency with regional plans no short- or long-term significant air quality impacts are forecast to occur. Based on the data contained in this Initial Study, the proposed San Bernardino Entertainment Center is not forecast to cause any significant adverse impacts, and the City proposes to adopt a Negative Declaration with mitigation measures.

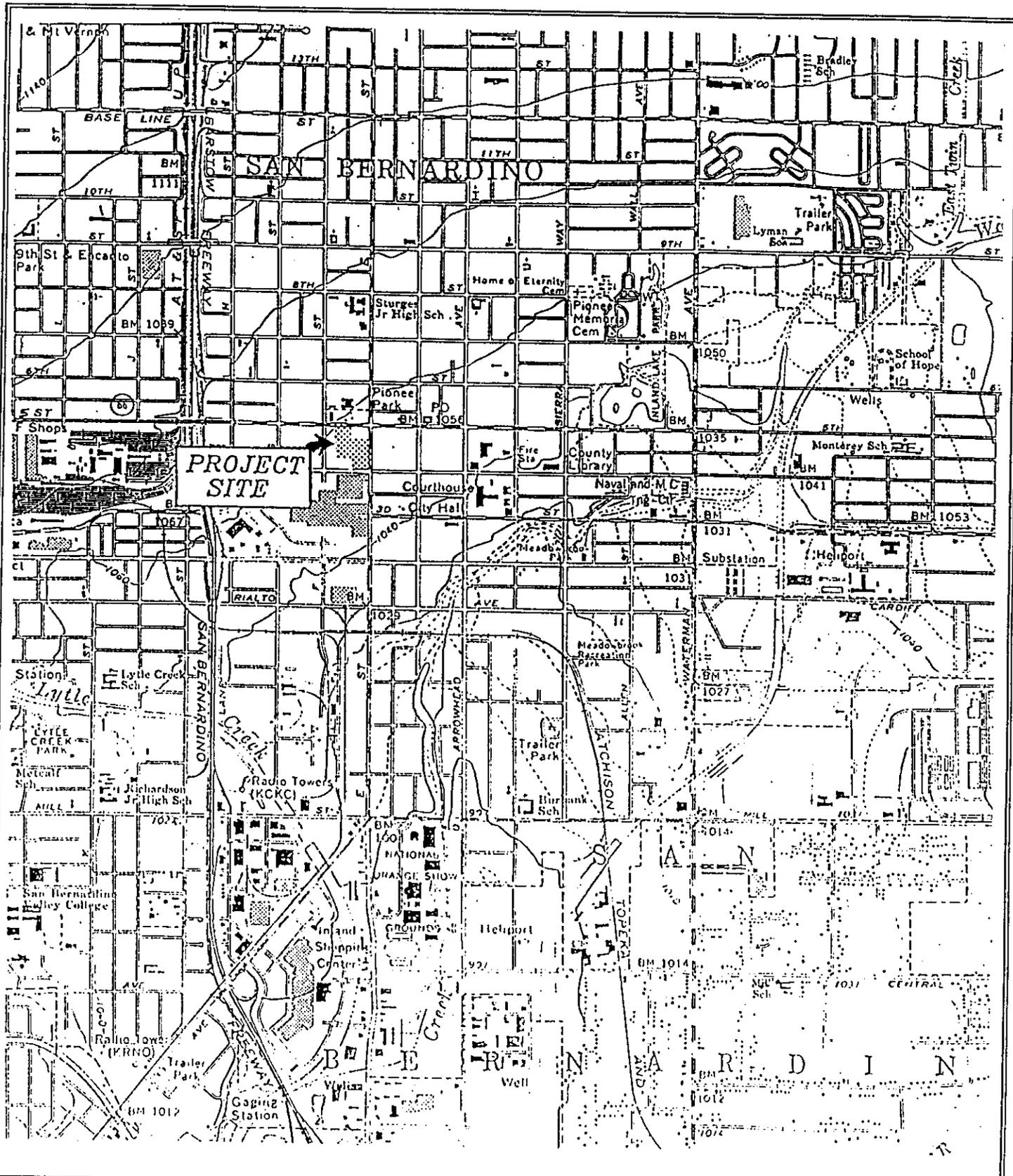


Figure 1: REGIONAL LOCATION

Tom Dodson & Associates
Environmental Consultants

Source: USGS 7.5' Series Topo, San Bernardino South Quadrangle

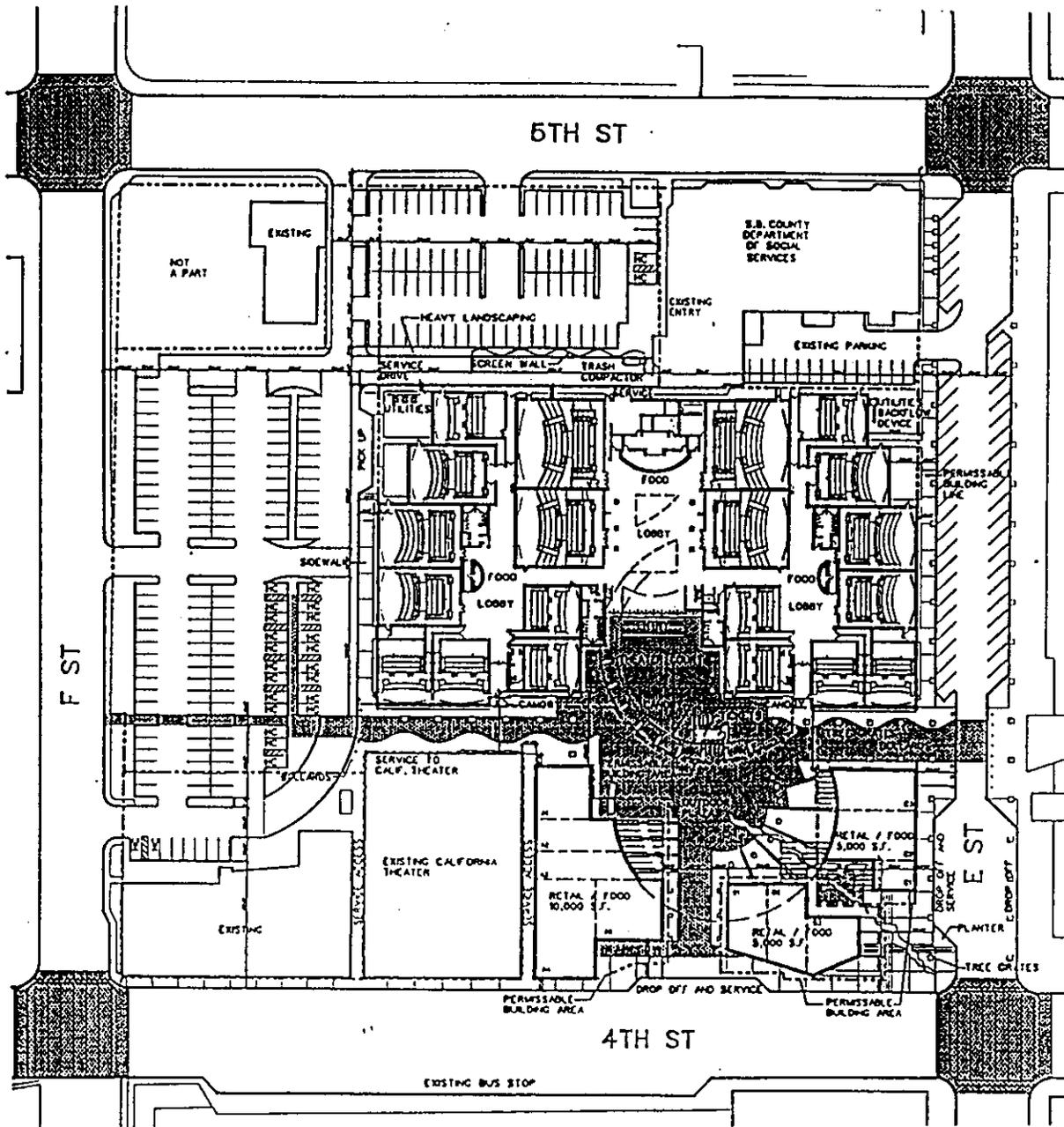


Figure 3: PROPOSED SITE PLAN

Tom Dodson & Associates
Environmental Consultants

Source: Stoutenborough, Inc.