

## **RESOLUTION NO. 2008-165**

Adopted by the Sacramento City Council

March 18, 2008

### **CERTIFYING THE ADDENDUM TO THE ENVIRONMENTAL IMPACT REPORT AND ADOPTING THE MITIGATION MONITORING PROGRAM FOR THE COPPERSTONE PROJECT (P07-124/125)**

#### **BACKGROUND**

- A. On February 28, 2008 the City Planning Commission conducted a public hearing on the project and approved all project entitlements except for the special permit for vehicular entrance gates which it denied. Within the time limits specified in the Zoning Code, the project entitlements approved by the Planning Commission were called-up by Councilmember Pannell.
- B. On March 18, 2008 the City Council conducted a public hearing, for which notice was given pursuant Sacramento City Code Sections 17.200.030(K), 17.200.040(B), and 17.200.010(C)(2)(d)(posting and mail 300') , and received and considered evidence concerning the project.

#### **BASED ON THE FACTS SET FORTH IN THE BACKGROUND, THE CITY COUNCIL RESOLVES AS FOLLOWS:**

Section 1. The City Council finds as follows:

- A. On December 11, 2003 pursuant to the California Environmental Quality Act (Public Resources Code §21000 *et seq.* ("CEQA"), the CEQA Guidelines (14 California Code of Regulations §15000 *et seq.*), and the City of Sacramento environmental guidelines, the City Council certified an environmental impact report (EIR) and, having reviewed and considered the information contained in the EIR, adopted findings of fact and findings of overriding consideration, adopted a mitigation monitoring program, and approved the College Square Planned Unit Development Project (P00-147).
- B. The Copperstone Village I, II and III Project (Project Modification) proposes to modify the previously approved Project as follows: the Project Modification proposes specific development for the project site consistent with the PUD designation.

- C. The proposed changes to the original Project do not require the preparation of a subsequent EIR. An addendum to the previously certified EIR was then prepared to address the modification to the Project.

Section 2. The City Council has reviewed and considered the information contained in the previously certified EIR for the Project, the previously adopted findings of fact and findings of overriding consideration, the addendum, and all oral and documentary evidence received during the hearing on the Project Modification. The City Council finds that the previously certified EIR and the addendum constitute an adequate, accurate, objective, and complete review of the proposed Project Modification and finds that no additional environmental review is required based on the reasons set forth below:

- A. No substantial changes are proposed by the Project Modification that will require major revisions of the previously certified EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- B. No substantial changes have occurred with respect to the circumstances under which the Project Modification will be undertaken which will require major revisions to the previously certified EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- C. No new information of substantial importance has been found that shows any of the following:
  - 1. The Project Modification will have one or more significant effects not discussed in the previously certified EIR;
  - 2. Significant effects previously examined will be substantially more severe than shown in the previously certified EIR;
  - 3. Mitigation measures previously found to be infeasible would in fact be feasible and would substantially reduce one or more significant effects of the Project Modification; or
  - 4. Mitigation measures which are considerably different from those analyzed in the previously certified EIR would substantially reduce one or more significant effects on the environment.

Section 3. Based on its review of the previously certified EIR for the Project, the previously adopted findings of fact and findings of overriding consideration, the addendum, and all oral and documentary evidence received during the hearing on the Project Modification, the City Council finds that the EIR and addendum reflect the City Council's independent

judgment and analysis, certifies the EIR and the addendum for the Project Modification, and readopts the findings of fact and findings of overriding consideration .

- Section 4. The mitigation monitoring program for the Project is adopted for the Project Modification, and the mitigation measures shall be implemented and monitored as set forth in the program, based on the following findings of fact:
- A. The mitigation monitoring program has been adopted and implemented as part of the Project;
  - B. The addendum to the EIR does not include any new mitigation measures, and has not eliminated or modified any of the mitigation measures included in the mitigation monitoring program;
  - C. The mitigation monitoring program meets the requirements of CEQA Section 21081.6 and the CEQA Guidelines section 15091.
- Section 5. Upon approval of the Project, the City's Environmental Planning Services shall file or cause to be filed a Notice of Determination with the Sacramento County Clerk and, if the project requires a discretionary approval from any state agency, with the State Office of Planning and Research, pursuant to section 21152(a) of the Public Resources Code and the State EIR Guidelines adopted pursuant thereto.
- Section 6. Pursuant to Guidelines section 15091(e), the documents and other materials that constitute the record of proceedings upon which the City Council has based its decision are located in and may be obtained from, the Office of the City Clerk at 915 I Street, Sacramento, California. The City Clerk is the custodian of records for all matters before the City Council.

**Table of Contents:**

- Exhibit 1A: Environmental Document
- Exhibit 1B: Resolution 2004-053 including CEQA Findings, Statement of Overriding Considerations and Mitigation Monitoring Plan

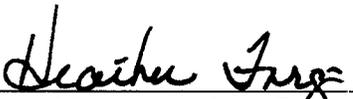
Adopted by the City of Sacramento City Council on March 18, 2008 by the following vote:

Ayes: Councilmembers Cohn, Fong, Hammond, McCarty, Pannell, Sheedy,  
Tretheway, Waters, and Mayor Fargo.

Noes: None.

Abstain: None.

Absent: None.

  
\_\_\_\_\_  
Mayor Heather Fargo

Attest:

  
\_\_\_\_\_  
Shirley Concolino, City Clerk



DEVELOPMENT SERVICES

CITY OF SACRAMENTO

ENVIRONMENTAL PLANNING  
300 RICHARDS BOULEVARD  
SACRAMENTO, CA 95811

ADDENDUM TO A CERTIFIED ENVIRONMENTAL IMPACT REPORT

Current Project: CopperStone Villages I, II and III (P07-124, P07-125)

College Square Planned Unit Development EIR (SCH #2002122088)

The City of Sacramento, a Municipal Corporation, does hereby prepare, and publish this Addendum to the previously certified College Square PUD Environmental Impact Report, State Clearinghouse # 2002122088 for the following described project:

College Square Planned Unit Development – CopperStone Village I, II, and III (P07-124, P07-125) The proposed CopperStone Villages I, II, and III project consists of entitlements to develop an apartment project within the College Square Planned Unit Development (PUD) on 14.74 acres. Village I will provide 101-units of affordable and inclusionary housing, Village II will consist of 200 units, and Village III will consist of 52 units. The project entitlements include a Special Permit; PUD Schematic Plan Amendment; and an Inclusionary Housing Plan Amendment.

The City of Sacramento, Development Services Department, has reviewed the proposed project and on the basis of the whole record before it, has determined that there is no substantial evidence that the project, as described in the attached Addendum, will have a significant effect on the environment beyond that which was evaluated in the College Square PUD Draft/Final Environmental Impact Report. A Subsequent EIR is not required pursuant to the California Environmental Quality Act of 1970 (Sections 21000, et seq. Public Resources Code of the State of California).

This Addendum to the certified Draft Environmental Impact Report has been prepared pursuant to Title 14, Section 15164 of the California Code of Regulations, the Sacramento Local Environmental Regulations (Resolution 91-892) adopted by the City of Sacramento. A copy of this document and all supportive documentation may be reviewed or obtained at the City of Sacramento, Development Services Department, Environmental Planning Division, 300 Richards Blvd., 2nd Floor, Sacramento, California 95811.

Environmental Services Manager, City of Sacramento,  
California, a Municipal Corporation

Date: January 22, 2007

By: \_\_\_\_\_

Tom Buford, Senior Planner

## I. PROJECT INFORMATION

**File Number/Project Name:** P07-124 and P07-125 CopperStone Villages I, II, and III; College Square PUD (P00-147)

### **Project Location:**

The College Square PUD is located within the southern part of the City of Sacramento. The project site is generally located between Bruceville Road and Highway 99, immediately south of Consumnes River Boulevard. CopperStone Village I is located at the south-east boundary of the College Square PUD at 8000 West Stockton Blvd (APN 117-1460-029) immediately west of Highway 99. CopperStone Village II and III are located west of, and adjacent to Village I at 7600, 7720, and 7640 West Stockton Boulevard (APN 117-1460-026, 030, 031).

### **Existing Plan Designations and Zoning:**

The project site is within the South Sacramento Community Plan Area. The Community Plan designation for CopperStone Village I is Residential (29+ du/na). The General Plan designation for Village I is Multifamily High Density Residential (30+ du/na) and is zoned Residential (R-3A-PUD)(36 du/na). The designation for Villages II and III are Residential (11-29 du/na). Village II and III are Multifamily Medium Density Residential (16-29 du/na) and are zoned R3-PUD, R-3A-PUD, and R-4-PUD.

### **Project Background:**

The Program EIR for the College Square PUD (SCH # 2002122088), was certified on December 11, 2003 by the Planning Commission and by City Council on January 20, 2004. The approved entitlements included:

- An Environmental Impact Report (EIR), a Mitigation Monitoring Plan, and a Statement of Overriding Considerations;
- A General Plan Amendment to redesignate 63.27 gross acres from Medium Density Residential (16-29 du/acre) to 37.62 gross acres of Community/Neighborhood Commercial and Offices, 12.59 gross acres of Medium Density Residential (16-29 du/na) and 13.06 gross acres of High Density Residential (30+ du/na);
- A Community Plan Amendment to redesignate 53.82 gross acres of Special Planning District (SPD) to 37.87 gross acres of General Commercial, 12.59 gross acres of High Density Residential (11-29 du/na) and 13.06 gross acres of High Density Residential (29+ du/na);
- A Rezone from 1.02 gross acres of OB, 2.18 gross acres of C-1, 6.94 gross acres of HC-R, 11.72 gross acres of R-2B and 41.41 gross acres of R-2B-R to 37.62 gross acres of C-2-PUD, 12.59 gross acres of R-3-PUD, 10.21 gross acres of R-3A-PUD and 2.85 gross acres of R-4-PUD;
- A Planned Unit Designation (PUD) establishing Guidelines and a Schematic Plan for construction of 252 senior and 472 multifamily residential units and 270,256+ sq. ft. of retail and office commercial space;
- A Tentative Map to abandon Kastanis Way and to subdivide 7 lots totaling 53.25 net acres into 35 parcels for residential and commercial use in the proposed C-2-PUD, R-4-PUD, R-3A-PUD, and R-3-PUD zones; and
- An Inclusionary Housing Plan.

**Project Components and Approvals Required:**

The Applicant is requesting to construct a single project that includes an Inclusionary Housing Plan and 101-unit affordable apartment projects in CopperStone I, a 200-unit apartment component in Village II, and 52 apartment units in Village III.

The requested entitlements are subject to Planning Commission approval. The CEQA determination consists of consideration of the Program EIR, the Mitigation Monitoring Plan, and this Addendum, along with any comments received prior to approving the proposed project.

**Environmental Effects:**

This College Square PUD EIR evaluated the College Square project, which included a Planned Unit Development schematic plan that called for development of the project site in multi-unit development. The purpose of the following analysis is to consider the prior environmental review in light of the proposed project and to provide a factual basis for determining whether the proposed project would have a significant effect on the environment beyond what has already been evaluated. The EIR evaluated the entitlements for the development of the Planned Unit Development (PUD). The current proposed project will not create significant impacts over and above those previously evaluated within the original College Square PUD EIR (P00-147).

**I. Discussion**

An Addendum to a certified EIR may be prepared if only minor technical changes or additions are necessary to the EIR (CEQA Guidelines Section 15164). The City has decided to prepare an Addendum based upon the following findings and determination that preparation of a Subsequent EIR is not required pursuant to CEQA Guidelines Section 15162.

**A. No substantial changes are proposed to the project which will require major revisions of the previous Environmental Impact Report.**

The EIR for the College Square PUD (P00-147) (SCH # 2002122088), was certified on December 11, 2003 by the Planning Commission and by City Council on January 20, 2004. The current entitlement request is consistent with the PUD designation for the project site, and would not create impacts that were not evaluated in the College Square EIR. The total gross density of the project is consistent with the PUD designation for the site. The project does not significantly alter the analysis in the previously certified EIR or the alternatives identified in the EIR. An Addendum is being prepared for the development of the proposed project. Although the Addendum provides additional information and evaluation, the new information will not require a subsequent EIR.

**B. No substantial changes have occurred with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or substantial increase in the severity of previously identified significant effects.**

The College Square PUD EIR evaluated the project-level effects of construction and operation where reasonably foreseeable projects were anticipated. The schematic plan and other plans (e.g., circulation plan, drainage plan, utilities plan, landscape plan) have been prepared and were evaluated in the College Square PUD EIR. The residential component is consistent with the PUD Schematic Plan and the PUD Guidelines, and the original EIR adequately considered the impacts of the proposed project. The specific components of the proposed project, which were not known at the time of the College Square EIR and evaluations, are considered to be minor technical changes and do not include any new impacts

Air Quality: In April 2005, the California Air Resources Board (CARB) issued a guidance document on air quality and land use. This document offered guidance on siting sensitive land uses in proximity to sources of air toxics. Sensitive land uses include residential communities and play grounds. One particular source of air toxics treated in the guidance is freeways and high traffic roadways, which are sources of diesel particulate matter (PM), which CARB has listed as a toxic air contaminant. The CARB recommended that sensitive land uses be sited no closer than 500 feet from a freeway or other high traffic roadway. This recommendation was based on traffic related studies that showed a 70 percent drop in PM concentrations at a distance of 500 feet from the roadway. In January of 2007, and after the certification of the College Square EIR, the Sacramento Metropolitan Air Quality Management District (SMAQMD) issued the Recommended Protocol for Evaluating the Location of Sensitive Land Uses Adjacent to Major Roadways

The SMAQMD protocol and methodology for evaluating cancer risks related to the location of sensitive land uses adjacent to major roadways is advisory in nature and does not create a regulatory threshold. The guidance suggests that project screening be performed to characterize the health risks of a given development project that is within 500 feet of a major roadway using project site specific characteristics to evaluate the potential cancer risk posed within the project and to determine whether a site specific health risk assessment (HRA) should be performed.

The College Square PUD (CopperStone Village I) contains residential land uses that are located within 500 feet of a highway. The screening is based on distance to the nearest receptor and the peak hourly traffic load. Based on a peak hour load of 9,600 vehicles per hour, rounded to the next highest index figure, the project would not be required to prepare a health risk assessment. See Report dated 06/26/07 by The Hoyt Company (See Attachment B).

Noise: The College Square EIR analyzed the long-term mobile source noise, compatibility of the proposed land uses with projected onsite noise levels, and cumulative noise impacts. The impacts were characterized as significant before mitigation and significant and unavoidable after mitigation. The adopted mitigation measures require applicant to perform a detailed analysis of noise reduction requirements which must be made by an acoustical engineer at time of submittal of the special permits for each individual project component, when the exact project design is known.

The applicant submitted an Environmental Noise Assessment (Attachment C) as required. The findings of the Noise Assessment are consistent with the prior findings in the DEIR. The project's interior residential noise level standards may be brought within the required limits through the use of building materials. Exterior noise levels will exceed the City's conditionally acceptable 70 dB Ldn noise standard. The proposed "tot lot" and pool area would comply with the City's conditionally acceptable 70 dB Ldn exterior noise level standard, without additional noise reduction measures. Exterior noise levels at the proposed patio areas adjacent to SR 99 would exceed the City's 60 dB exterior noise level standard. Additional feasible mitigation measures have not been identified and the impacts remain significant and unavoidable.

**C. There is not new, or substantially important information that demonstrates the following:**

- That the project will have one or more significant effects not discussed in the previous EIR;
- That the significant effects previously examined will be substantially more severe as a result of this proposed project than that shown in the previous EIR;
- That the mitigation measures previously found to be infeasible would in fact be feasible and would substantially reduce one or more significant effects of the proposed project; or mitigation measures which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment.

As discussed above, the proposed project is consistent with the PUD designation for the site, and would not generate impacts beyond those already considered in the College Square EIR.

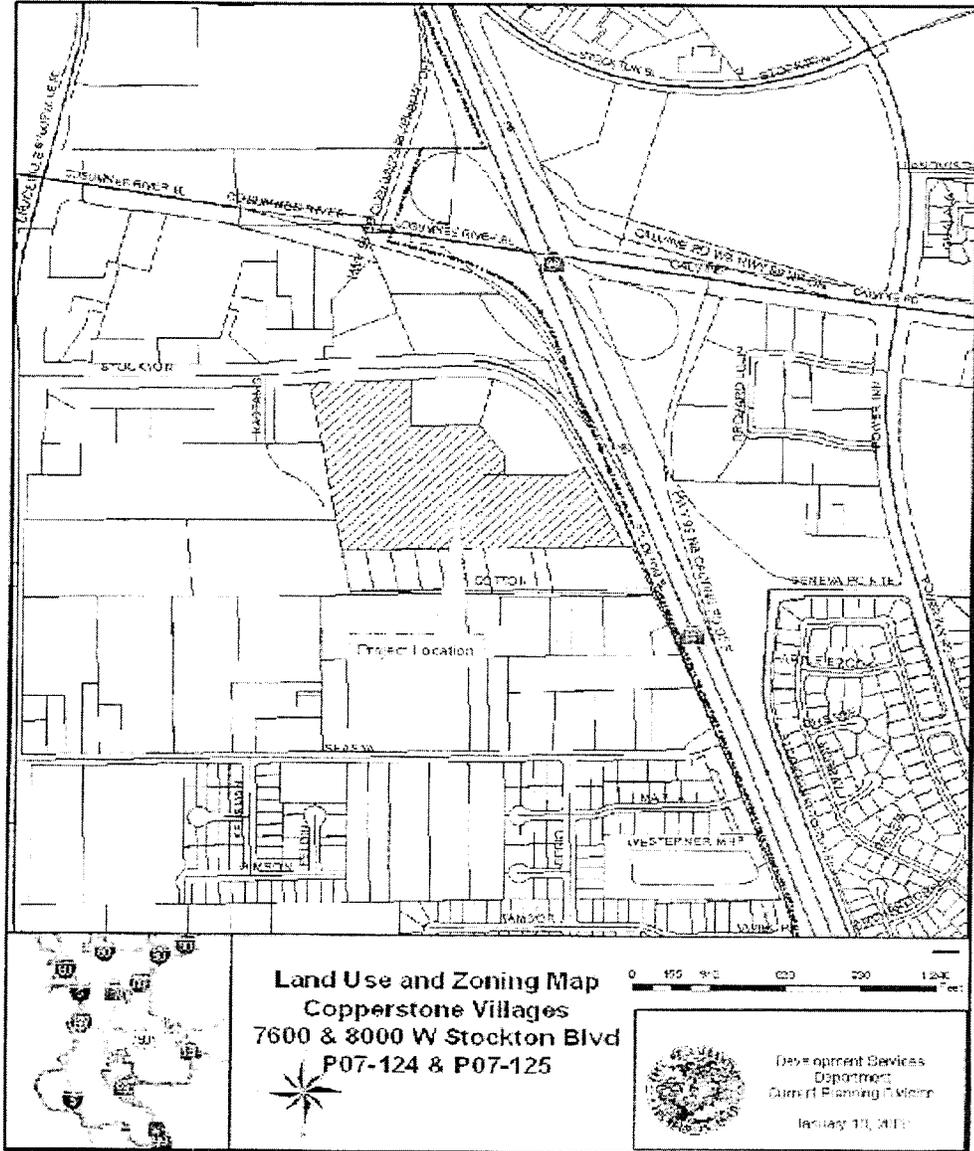
**II. CONCLUSION**

The proposed project would involve the construction of residential units previously identified in the PUD Schematic Plan and the PUD Guidelines; however the specifics of the residential units were not known at the time of the analysis. The project has been analyzed and it has been determined that the CopperStone Village I, II, and III project will not result in any new or greater effects than previously identified.

**Attachment A: Land Use and Zoning Map with Project Location**

**Attachment B: Air Quality Screening Report for Sensitive Land Uses Adjacent to Major Roadways**

**Attachment C: Environmental Noise Assessment dated August 9, 2007 prepared by j.c. brennan & associates, Inc.**



Attachment A



Sacramento Metropolitan Air Quality Management District  
 Draft Recommended Protocol for Evaluating the Location of Sensitive Land Uses  
 Adjacent to Major Roadways

**Table 1: Diesel PM Cancer Risk (Potential Incremental Cancer Cases per Million People) North and South of an East-West Roadway**

PROJECTS NORTH AND SOUTH OF AN EAST-WEST ROADWAY Version 1.0								
Peak Hour Traffic (vehicle/hr)	Receptor Distance from Edge of Nearest Travel Lane (feet)							
	10	25	50	100	200	300	400	500
Incremental Cancer Risk Per Million: North (downwind)								
4000	210	186	153	114	75	57	45	39
8000	420	372	309	228	150	114	90	75
12000	630	558	462	339	222	168	135	114
16000	837	741	615	453	297	225	180	153
20000	1047	927	768	567	372	279	228	192
24000	1257	1113	924	681	447	336	273	228
Incremental Cancer Risk Per Million: South (upwind)								
4000	117	96	75	54	36	27	21	18
8000	234	192	153	108	69	51	42	36
12000	351	291	228	165	105	78	63	54
16000	468	387	306	219	138	105	84	69
20000	582	486	381	273	177	132	105	87
24000	699	582	459	327	210	159	126	105

**Table 2: Diesel PM Cancer Risk (Potential Incremental Cancer Cases per Million People) East and West of a North-South Roadway**

PROJECTS EAST AND WEST OF A NORTH-SOUTH ROADWAY Version 1.0								
Peak Hour Traffic (vehicle/hr)	Receptor Distance from Edge of Nearest Travel Lane (feet)							
	10	25	50	100	200	300	400	500
Incremental Cancer Risk Per Million: East (downwind)								
4000	249	213	168	117	75	57	45	36
8000	495	423	336	237	150	111	90	72
12000	744	636	504	354	225	168	132	111
16000	990	849	672	474	303	222	177	147
20000	1239	1062	840	591	378	279	222	183
24000	1488	1272	1008	711	453	336	267	219
Incremental Cancer Risk Per Million: West (upwind)								
4000	159	123	93	63	39	27	21	18
8000	315	249	183	126	78	57	45	36
12000	474	375	276	189	117	87	69	54
16000	633	501	369	252	156	114	90	75
20000	792	627	459	315	198	144	114	93
24000	948	750	552	378	237	174	135	111

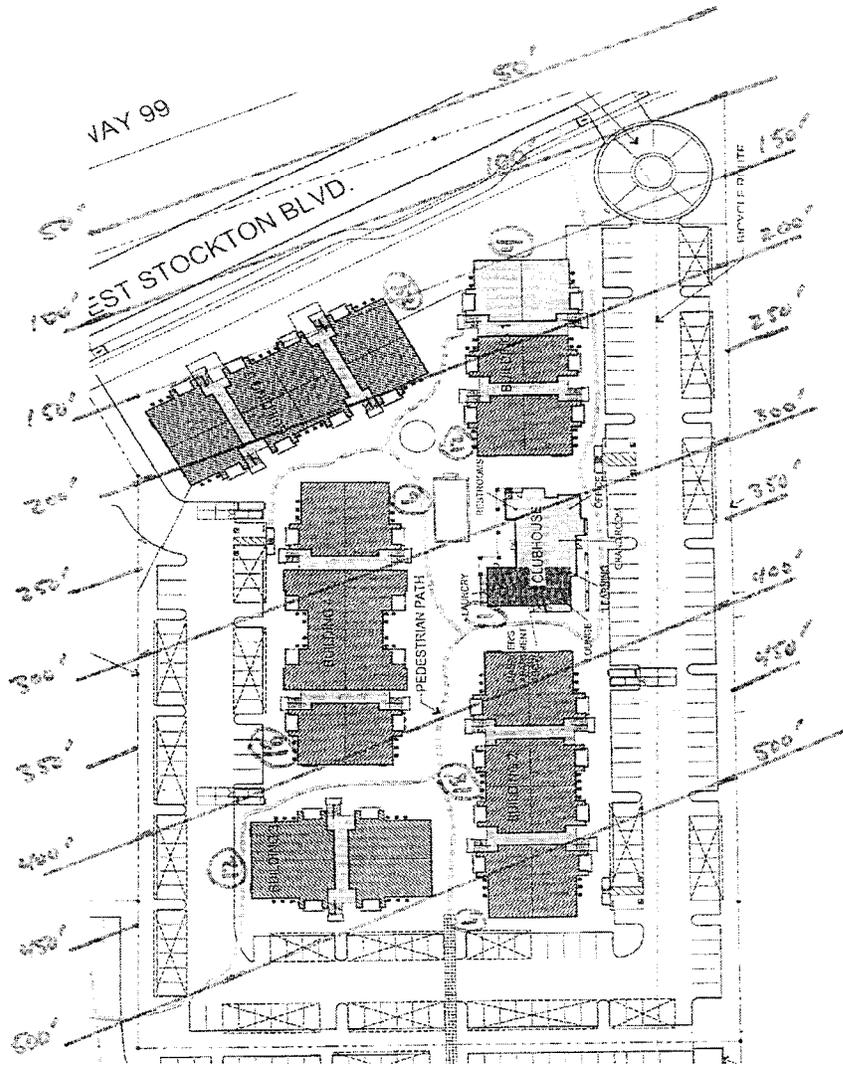
**Sacramento Metropolitan Air Quality Management District  
Draft Recommended Protocol for Evaluating the Location of Sensitive Land Uses  
Adjacent to Major Roadways  
January 2007 Version 1.0 Page 9**

**Table 2: Diesel PM Cancer Risk (Potential Incremental Cancer Cases per Million People)**

PROJECTS EAST AND WEST OF A NORTH-SOUTH ROADWAY								
Peak Hour Traffic (vehicle/hr)	Receptor Distance from Edge of Nearest Travel Lane (feet)							
	10	25	50	100	200	300	400	500
	Incremental Cancer Risk Per Million: East (downwind)							
4000	249	213	168	117	75	57	45	36
8000	495	423	336	237	150	111	90	72
12000	744	636	504	354	225	168	132	111
16000	990	849	672	474	303	222	177	147
20000	1239	1062	840	591	378	279	222	183
24000	1488	1272	1008	711	453	336	267	219
	Incremental Cancer Risk Per Million: West (upwind)							
4000	159	123	93	63	39	27	21	18
8000	315	249	183	126	78	57	45	36
12000	474	375	276	189	117	87	69	54
16000	633	501	369	252	156	114	90	75
20000	792	627	459	315	198	144	114	93
24000	948	750	552	378	237	174	135	111

If a project falls within the highlighted area, then a Health Risk Assessment is recommended.

College Square



Attachment B

Environmental Noise Assessment

**Brightwater Village Residential**

Renamed by USA Properties Fund, Inc. on 09/04/07

**CopperStone Village I**

City of Sacramento, California

Job # 2007-075

Prepared For:

**USA Properties Fund**

2440 Professional Drive  
Roseville, California 95661

Attn: Mr. Larry McElwain

Prepared By:

**j.c. brennan & associates, Inc.**

*Luke Saxelby*

Luke Saxelby  
Senior Consultant  
Member, Institute of Noise Control Engineering

August 9, 2007



P.O. Box 6748 - 263 Nevada Street - Auburn, California 95603 -p: (530) 823-0980 -f: (530) 823-0961

P07-124  
9/7/07

Attachment C

*7/2/07*

Environmental Noise Assessment

Brightwater Village Residential

City of Sacramento, California

Job # 2007-075

Prepared For:

**USA Properties Fund**

2440 Professional Drive  
Roseville, California 95661

Attn: Mr. Larry McElwain

Prepared By:

**j.c. brennan & associates, Inc.**

*Luke Saxelby*

Luke Saxelby  
Senior Consultant  
Member, Institute of Noise Control Engineering

August 9, 2007

 **j.c. brennan & associates**  
*consultants in acoustics*

P.O. Box 6748 - 263 Nevada Street - Auburn, California 95603 -p: (530) 823-0960 -f: (530) 823-0961

## INTRODUCTION

The proposed Brightwater Village project is located west of Highway 99 and West Stockton Boulevard, south of Consumnes River Boulevard, and east of Bruceville Road in the City of Sacramento, California. The project includes the construction of 100 multi-family residential apartments on approximately 4 acres of land. Figure 1 shows the project location and surrounding uses. Figure 2 shows the project site plan.

### Acoustic Terminology:

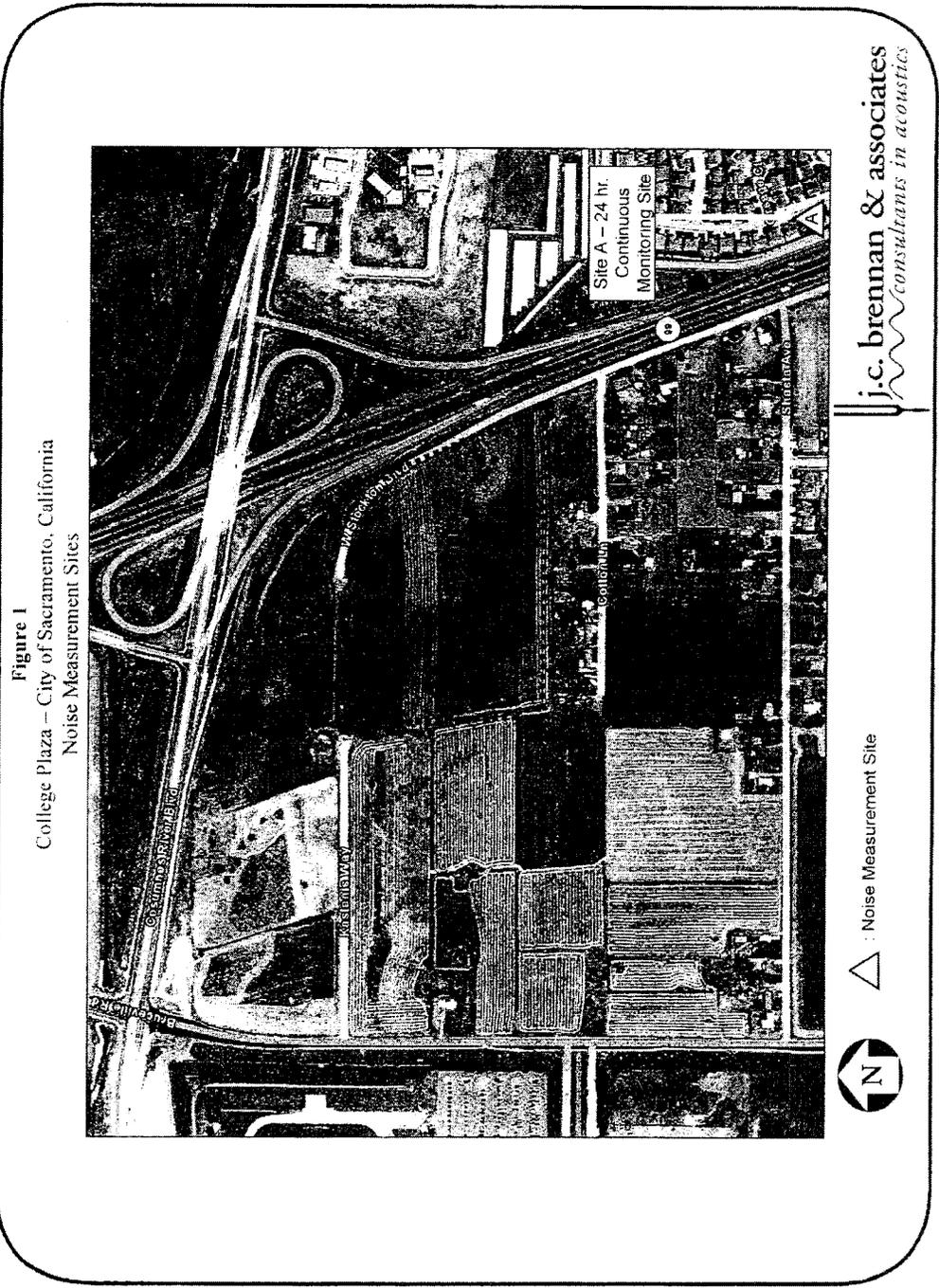
Noise is often defined simply as unwanted sound, and thus is a subjective reaction to characteristics of a physical phenomenon. Researchers have generally agreed that A-weighted sound pressure levels (sound levels) are very well correlated with community reaction to noise. The unit of sound level measurement is the decibel (dB)<sup>1</sup>, sometimes expressed as dBA. Variations in sound levels over time are represented by statistical descriptors, and by time-weighted composite noise metrics such as the Day-Night Average Level (Ldn), or the Community Noise Equivalent Level (CNEL). Throughout this analysis, A-weighted sound pressure levels will be used to describe community noise unless otherwise indicated. Table 1 provides examples of maximum sound levels associated with common noise sources.

The decibel notation used for sound levels describes a logarithmic relationship of acoustical energy, so that sound levels cannot be added or subtracted in the conventional arithmetic manner. For example, a doubling of acoustical energy results in a change of 3 decibels (dB), which is usually considered to be barely perceptible. A 10-fold increase in acoustical energy yields a 10 decibel change, which is subjectively like a doubling of loudness.

Community noise is commonly described in terms of the "ambient" noise level, which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent sound level (Leq), which corresponds to a steady-state sound level containing the same total energy as a time-varying signal over a given period (usually one hour). The Leq is the foundation of the composite noise descriptors such as Ldn and CNEL, and shows very good correlation with community response to noise.

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<sup>1</sup> For an explanation of terms used in this report, see Appendix A.



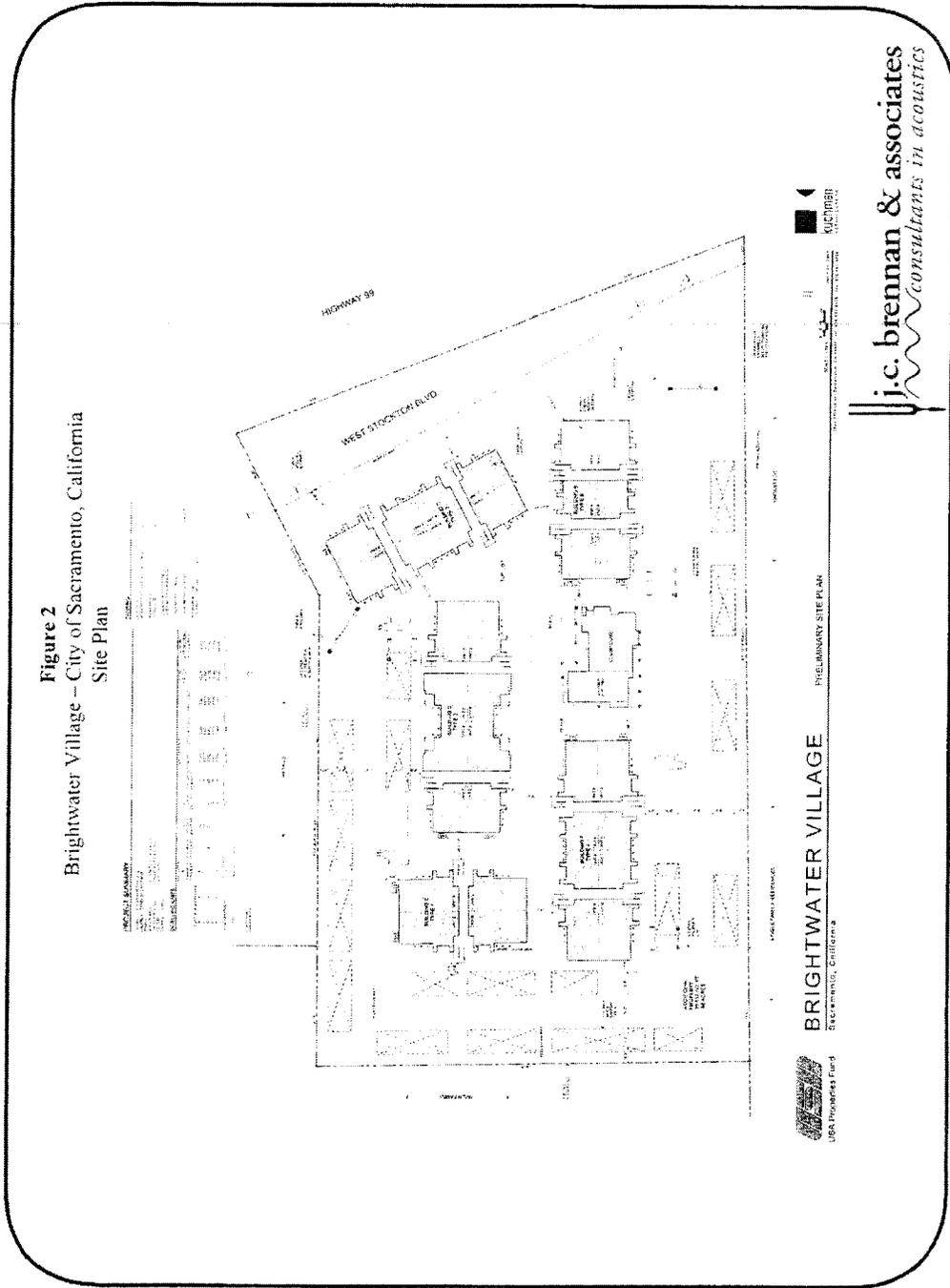


Table 1 Typical A-Weighted Maximum Sound Levels of Common Noise Sources	
Decibels	Description
130	Threshold of pain
120	Jet aircraft take-off at 100 feet
110	Riveting machine at operators position
100	Shot-gun at 200 feet
90	Bulldozer at 50 feet
80	Diesel locomotive at 300 feet
70	Commercial jet aircraft interior during flight
60	Normal conversation speech at 5-10 feet
50	Open office background level
40	Background level within a residence
30	soft whisper at 2 feet
20	Interior of recording studio

**CRITERIA FOR ACCEPTABLE NOISE EXPOSURE**

The City of Sacramento General Plan Noise Element establishes a 60 dB Ldn exterior noise level criterion as being acceptable for new residential uses affected by transportation noise sources. The City considers exterior noise environments up to 70 dB Ldn as conditionally acceptable for residential land uses. In addition, the City establishes 45 dB Ldn as an acceptable interior noise level standard for new residential uses.

**Issues:**

One of the issues relevant to this project, is where on the project site should the City apply the exterior noise level criteria. The 60 dB Ldn exterior noise level standard is generally applied at the outdoor activity areas of a project site. In the case of a single family residential development, the exterior noise level standard is applied at the backyard or patio areas of each residence.

In the case of multi-family residential developments, the standard could be applied at the individual patios, a property line, or at a common area which is designated for recreation or outdoor activities such as a recreation complex, swimming pool, or park. Generally, the intent is to allow for an outdoor area where individuals can relax and conduct outdoor activities, and then focus on maintaining interior noise levels consistent with the General Plan Noise Element for each of the individual units.

The proposed Brightwater Village project includes individual patios and designated common outdoor activity areas. Common outdoor activity areas include a swimming pool/clubhouse area and a tot lot recreation area. Figure 2 shows the locations of these areas. Because it is not feasible to mitigate noise levels at 2<sup>nd</sup> and 3<sup>rd</sup> floor patio areas through the use of sound walls, this analysis will focus on applying the exterior noise level criteria at the common outdoor areas.

## EVALUATION OF FUTURE EXTERIOR TRAFFIC NOISE LEVELS

### Traffic Noise Prediction Methodology:

j.c. brennan & associates, Inc., employs the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA RD-77-108) for the prediction of traffic noise levels. The model is based upon the CALVENO noise emission factors for automobiles, medium trucks and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site.

On July 2-3, 2007 j.c. brennan & associates, Inc. staff conducted continuous (24-hour) noise level measurements of SR 99 traffic noise. The continuous (24-hr) noise measurement data was used to determine the accuracy of the FHWA model in describing the existing noise environment on the project site, while accounting for shielding from existing intervening topography, actual travel speeds, and roadway geometry. Noise measurement results were compared to the FHWA model results by entering the existing SR 99 traffic volume, speeds, and distances as inputs to the FHWA model. The model was found to accurately predict traffic noise levels within 1 dB of measured noise levels. Figure 3 graphically shows the results of the continuous noise monitoring.

A complete listing of FHWA Model Calibration inputs are provided in Appendix B.

### Future Traffic Noise Levels:

The calibrated FHWA Model was employed to determine future traffic noise impacts upon the project site. Future (2027) traffic volumes were obtained from Caltrans. Table 2 shows the predicted future traffic noise levels at the project site. A complete listing of FHWA Model inputs and results is provided in Appendix B.

**Appendix B-3  
FHWA-RD-77-108 Highway Traffic Noise Prediction Model  
Noise Contour Output**

Project #: 2007-075  
Description: Future (2027) Conditions  
Ldn/CNEL: Ldn  
Hard/Soft: Soft

Segment	Roadway Name	Segment Description	Distances to Traffic Noise Contours -----				
			75	70	65	60	55
1	State Route 99	Bldg. C First Floor Patios/Facades	274	590	1272	2740	5903
2	State Route 99	Bldg. C 2nd/3rd Floor Patios/Facad	434	936	2016	4343	9356
3	State Route 99	Bldg. B Unit A 1st Floor Patios/Façad	274	590	1272	2740	5903
4	State Route 99	Bldg. B Unit A 2nd/3rd Floor Patios/F	434	936	2016	4343	9356
5	State Route 99	Bldg. B Unit C 1st Floor Patios/Façad	274	590	1272	2740	5903
6	State Route 99	Bldg. B Unit C 2nd Floor Patios/Façad	434	936	2016	4343	9356
7	State Route 99	Tot Lot	127	274	590	1272	2740
8	State Route 99	Pool	127	274	590	1272	2740
9	State Route 99	24-hr Box (Existing)	207	446	960	2068	4455



**Appendix C-1**  
**Building Facade Noise Reduction Worksheet**  
**Brightwater Village**

Plans Dated: Undated - AutoCAD

Analysis Date: 7/23/2007

Room Description: Building C - Unit A - Master Bedroom

Parallel Panel Size, ft<sup>2</sup>: 108 Perpendicular Panel Size, ft<sup>2</sup>:

Parallel Exterior Level, dB: 80 Perpendicular Exterior Level, dB: 76

Correction Factor, dB: 3

Material	Area(ft <sup>2</sup> )	One-Third Octave Band Center Frequency (Hz)															
		125	160	200	250	315	400	500	630	800	1K	1.25K	1.6K	2K	2.5K	3.15K	4K
Freeway Traffic		58	57	58	62	63	65	67	69	72	73	72	71	69	66	64	61
Freeway Traffic		54	53	54	58	59	61	63	65	68	69	68	67	65	62	60	57

**Noise Source Information:**

Material	Absorption	Parallel, dB	Perpendicular, dB	#NUM!													
Gyp Board	572	0.29	0.10	0.10	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.07	0.07	0.07	0.07	0.09	0.09
Glass	19	0.35	0.25	0.25	0.18	0.18	0.18	0.12	0.12	0.12	0.12	0.01	0.01	0.01	0.01	0.04	0.04
Carpet + Pad	150	0.08	0.24	0.24	0.57	0.57	0.57	0.69	0.69	0.69	0.69	0.71	0.71	0.71	0.73	0.73	0.73
Soft Furnishings	20	0.19	0.37	0.37	0.56	0.56	0.56	0.67	0.67	0.67	0.67	0.61	0.61	0.61	0.59	0.59	0.59
Absorption Parallel, dB:		-2	-2	0	0	-1	-1	-1	-1	-1	-1	-2	-2	-2	-2	-2	-2
Absorption Perpendicular, dB:		#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!

**Sound Absorption Data:**

Material	Absorption	Parallel, dB	Perpendicular, dB	#NUM!													
Wall - Hardiplank, Wood Studs, 1/2 Gyp	89	16	20	30	34	37	40	39	42	46	52	55	54	55	56	50	49
Glass - 1/8"-1/4"-1/8"(STC20)	19	21	23	23	26	21	19	24	27	30	33	36	40	44	46	39	34
Absorption Parallel, dB:		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Absorption Perpendicular, dB:		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Transmission Loss Information: Perpendicular Façade**

Material	TL	Parallel, dB	Perpendicular, dB	#NUM!													
Composite TL - Parallel, dB	16	20	28	31	28	26	31	34	37	40	43	47	50	52	45	41	
Composite TL - Perpendicular, dB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Absorption Parallel, dB	-2	-2	0	0	-1	-1	-1	-1	-1	-1	-1	-2	-2	-2	-2	-2	
Absorption Perpendicular, dB:		#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!
Safety Factor, dB:	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
Interior Level - Parallel, dB:	42	37	34	34	38	41	38	38	38	36	34	31	26	20	16	20	21
Interior Level - Perpendicular, dB:	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!

**Summary**

Parallel Outside Level, dB:	80	Perpendicular Outside Level, dB:	NA
Parallel Noise Reduction, dB:	32	Perpendicular Noise Reduction, dB:	NA
Parallel Interior Level, dB:	48	Perpendicular Interior Level, dB:	NA
<b>Total Interior Noise Level, dB:</b>	<b>48</b>		



**Appendix C-2**  
**Building Facade Noise Reduction Worksheet**  
**Brightwater Village**

Plans Dated: Undated - AutoCAD  
 Analysis Date: 7/23/2007  
 Room Description: Building C - Unit A - Living Room  
 Perpendicular Panel Size, ft<sup>2</sup>: 117  
 Perpendicular Exterior level, dB: 80  
 Parallel Panel Size, ft<sup>2</sup>: 117  
 Perpendicular Exterior level, dB: 80  
 Correction Factor, dB: 3

**Noise Source Information:**

Freeway Traffic	Parallel, dB	58	57	58	62	63	65	67	68	72	73	72	71	69	66	64	61
Freeway Traffic	Perpendicular, dB	-22	-23	-22	-19	-17	-15	-13	-11	-8	-7	-8	-9	-11	-14	-16	-19

**One-Third Octave Band Center Frequency (Hz)**

Material	Area(ft <sup>2</sup> )	125	160	200	250	315	400	500	630	800	1K	1.25K	1.6K	2K	2.5K	3.15K	4K
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**Sound Absorption Data:**

Gyp Board	702	0.29	0.29	0.10	0.10	0.10	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.07	0.07	0.07	0.09
Glass	44	0.35	0.35	0.25	0.25	0.18	0.16	0.18	0.17	0.12	0.12	0.12	0.01	0.01	0.01	0.04	0.04
Carpet + Pad	215	0.08	0.08	0.24	0.24	0.24	0.57	0.57	0.69	0.69	0.69	0.71	0.71	0.71	0.71	0.73	0.73
Soft Furnishings		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	0.00	0.00
Absorption Parallel, dB		-3	-3	-1	-1	-1	-1	-1	-1	-2	-2	-2	-2	-2	-2	-3	-3
Absorption Perpendicular, dB		#NUM!															

**Transmission Loss Information: Parallel Façade**

Wall - Hardiplank, Wood Studs, 1/2" Gyp	73	16	20	30	34	37	40	39	42	46	52	55	54	55	56	50	49
Glass - 1/8"1/4"-1/8"(STC28)	44	21	23	23	26	21	19	24	27	30	33	36	40	44	46	39	34
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Transmission Loss Information: Perpendicular Façade**

		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Summary**

Composite TL - Parallel, dB:	17	21	26	29	25	23	28	31	34	37	40	44	48	50	43	38
Composite TL - Perpendicular, dB:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Absorption Parallel, dB:	-3	-3	-1	-1	-1	-1	-1	-1	-1	-2	-2	-2	-2	-2	-2	-3
Absorption Perpendicular, dB:	#NUM!															
Safety Factor, dB:	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Interior Level - Parallel, dB:	41	36	35	35	40	43	41	40	39	37	33	28	22	17	22	23
Interior Level - Perpendicular, dB:	#NUM!															

Parallel Outside Level, dB: 80  
 Perpendicular Outside Level, dB: NA  
 Parallel Noise Reduction, dB: 30  
 Perpendicular Noise Reduction, dB: NA  
 Parallel Interior Level, dB: 50  
 Perpendicular Interior Level, dB: NA

**Total Interior Noise Level, dB: 50**



**Appendix C-3**

**Building Facade Noise Reduction Worksheet**  
Brightwater Village

Plans Dated: Undated - AutoCAD

Analysis Date: 7/23/2007

Room Description: Building C - Unit C - Master Bedroom

Perpendicular Panel Size, ft<sup>2</sup>: 99

Perpendicular Exterior Level, dB: 76

Parallel Panel Size, ft<sup>2</sup>: 117

Parallel Exterior Level, dB: 80

Correction Factor, dB: 3

**Noise Source Information:**

	58	57	58	62	63	65	67	69	72	73	72	71	68	64	61		
Freeway Traffic	Parallel, dB	54	53	54	58	59	61	63	65	68	69	68	67	65	62	60	57

**One-Third Octave Band Center Frequency (Hz)**

Material	Area(ft <sup>2</sup> )	125	160	200	250	315	400	500	630	800	1K	1.25K	1.6K	2K	2.5K	3.15K	4K
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**Sound Absorption Data:**

Gyp Board	558	0.29	0.29	0.10	0.10	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.07	0.07	0.07	0.09	0.09
Glass	19	0.35	0.35	0.25	0.25	0.18	0.18	0.18	0.18	0.12	0.12	0.12	0.01	0.01	0.01	0.04	0.04
Carpel + Pad	143	0.08	0.08	0.24	0.24	0.57	0.57	0.69	0.69	0.71	0.71	0.71	0.73	0.73	0.73	0.73	0.73
Soft Furnishings		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	0.00	0.00
Absorption Parallel, dB:		-2	-2	1	1	0	0	0	0	0	0	0	-1	-1	-1	-1	-1
Absorption Perpendicular, dB:		-3	-3	0	0	-1	-1	-1	-1	-1	-1	-1	-2	-2	-2	-2	-2

**Transmission Loss Information: Parallel Façade**

Wall - Hardplank, Wood Studs, 1/2" Gyp	98	16	20	30	34	37	40	39	42	46	52	55	54	55	56	50	49
Glass - 1/8" 1/4" 1/8" (STC28)	19	21	23	23	26	21	19	24	27	30	33	36	40	44	46	39	34
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Transmission Loss Information: Perpendicular Façade**

Wall - Hardplank, Wood Studs, 1/2" Gyp	99	16	20	33	34	37	40	39	42	46	52	55	54	55	56	50	49
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Summary**

Composite TL - Parallel, dB:	16	20	28	31	28	27	31	34	37	41	44	47	50	52	45	41
Composite TL - Perpendicular, dB:	16	20	30	34	37	40	39	42	46	52	55	54	55	56	50	49
Absorption Parallel, dB:	-2	-2	1	1	0	0	0	0	0	-1	-1	-1	-1	-1	-1	-1
Absorption Perpendicular, dB:	-3	-3	0	0	-1	-1	-1	-1	-1	-1	-1	-2	-2	-2	-2	-2
Safety Factor, dB:	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Interior Level - Parallel, dB:	43	38	34	34	38	42	39	36	37	35	31	26	21	17	20	22
Interior Level - Perpendicular, dB:	39	34	27	27	25	24	27	26	23	19	15	14	11	8	11	9
Parallel Outside Level, dB:	80															
Parallel Noise Reduction, dB:	31															
Parallel Interior Level, dB:	49															
<b>Total Interior Noise Level, dB:</b>	<b>50</b>															

j.c. brennan & associates  
consultants in acoustics

**Appendix C-4**

**Building Facade Noise Reduction Worksheet  
Brightwater Village**

Plans Dated: Undated - AutoCAD

Analysis Date: 7/23/2007

Room Description: Building C - Unit C - Bedroom 1

Parallel Panel Size, ft<sup>2</sup>: Perpendicular Panel Size, ft<sup>2</sup>: 99

Parallel Exterior Level, dB: 80

Perpendicular Exterior Level, dB: 76

Correction Factor, dB: 3

**Noise Source Information:**

	Parallel, dB	58	57	58	62	63	65	67	69	72	73	72	71	69	66	64	61
Freeway Traffic	Perpendicular, dB	54	53	54	58	59	61	63	65	68	69	68	67	65	62	60	57

**One-Third Octave Band Center Frequency (Hz)**

Material	Area(ft <sup>2</sup> )	125	160	200	250	315	400	500	630	800	1K	1.25K	1.6K	2K	2.5K	3.15K	4K
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**Sound Absorption Data:**

Gyp Board	556	0.29	0.10	0.10	0.10	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.07	0.07	0.07	0.08	0.08
Glass	19	0.35	0.25	0.25	0.25	0.18	0.18	0.18	0.18	0.12	0.12	0.12	0.01	0.01	0.01	0.04	0.04
Carpet - Pad	150	0.08	0.08	0.24	0.24	0.57	0.57	0.57	0.57	0.69	0.69	0.69	0.71	0.71	0.71	0.73	0.73
Soft Furnishings	20	0.19	0.19	0.37	0.37	0.56	0.56	0.56	0.56	0.67	0.67	0.67	0.61	0.61	0.61	0.59	0.59
Absorption Parallel, dB:	#NUM!																
Absorption Perpendicular, dB:	-3	-3	0	0	0	-1	-1	-1	-1	-2	-2	-2	-2	-2	-2	-2	-2

**Transmission Loss Information: Parallel Facade**

0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Transmission Loss Information: Perpendicular Facade**

Wall - Hardplank, Wood Studs, 1/2" Gyp	80	16	20	30	34	37	40	39	42	46	52	55	54	55	56	50	49
Glass - 1/8"1/4"1/8"(STC28)	20	21	23	23	26	21	19	24	27	30	33	36	40	44	46	39	34
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Summary**

Composite TL - Parallel, dB:	#DIV/0!																
Composite TL - Perpendicular, dB:	16	20	27	31	28	26	30	33	37	40	43	46	50	51	45	40	40
Absorption Parallel, dB:	#NUM!																
Absorption Perpendicular, dB:	-3	-3	0	0	0	-1	-1	-1	-1	-2	-2	-2	-2	-2	-2	-2	-2
Safety Factor, dB:	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Interior Level - Parallel, dB:	#DIV/0!																
Interior Level - Perpendicular, dB:	38	33	30	30	34	37	35	34	32	30	27	22	16	12	16	17	17
Parallel Outside Level, dB:	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
Parallel Noise Reduction, dB:	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
Parallel Interior Level, dB:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Interior Noise Level, dB:	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44



Perpendicular Outside Level, dB: 76  
Perpendicular Noise Reduction, dB: 32  
Perpendicular Interior Level, dB: 44

**Appendix C-5**  
**Building Façade Noise Reduction Worksheet**  
**Brightwater Village**

Plans Dated: Undated - AutoCAD  
 Analysis Date: 7/23/2007  
 Room Description: Building C - Unit C - Living Room  
 Parallel Panel Size, ft<sup>2</sup>: 117  
 Perpendicular Exterior Level, dB: 80  
 Correction Factor, dB: 3

**Noise Source Information:**

Freeway Traffic	Parallel, dB	58	57	58	62	63	65	67	69	72	73	72	71	69	66	64	61
Freeway Traffic	Perpendicular, dB	-22	-23	-22	-19	-17	-15	-13	-11	-8	-7	-8	-9	-11	-14	-16	-19

**One-Third Octave Band Center Frequency (Hz)**

Material	Area(ft <sup>2</sup> )	125	160	200	250	315	400	500	630	800	1K	1.25K	1.6K	2K	2.5K	3.15K	4K
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**Sound Absorption Data:**

Gyp Board	671	0.29	0.10	0.10	0.10	0.10	0.05	0.05	0.05	0.04	0.04	0.04	0.07	0.07	0.07	0.09	0.09
Glass	44	0.35	0.35	0.25	0.25	0.25	0.18	0.18	0.18	0.12	0.12	0.12	0.01	0.01	0.01	0.04	0.04
Carpet + Pad	202	0.08	0.08	0.24	0.24	0.24	0.57	0.57	0.57	0.69	0.69	0.69	0.71	0.71	0.71	0.73	0.73
Soft Furnishings	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	0.00	0.00	0.00
Absorption Parallel, dB:		-3	-3	0	0	0	-1	-1	-1	-2	-2	-2	-2	-2	-2	-3	-3
Absorption Perpendicular, dB:		#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	###	###	###	###	###	###	###	###	###	###	###

**Transmission Loss Information: Parallel Façade**

Wall - Hardplank, Wood Studs, 1/2" Gyp	73	16	20	30	34	37	40	39	42	46	52	55	54	55	56	50	49
Glass - 1/8"14"116"(STC28)	44	21	23	23	26	21	19	24	27	30	33	36	40	44	46	39	34
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Transmission Loss Information: Perpendicular Façade**

		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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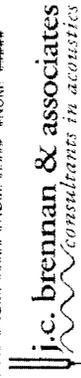
**Summary**

Composite TL - Parallel, dB:	17	21	26	29	25	23	28	31	34	37	40	44	48	50	43	38
Composite TL - Perpendicular, dB:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Absorption Parallel, dB:	-3	-3	0	0	0	-1	-1	-1	-1	-2	-2	-2	-2	-2	-2	-3
Absorption Perpendicular, dB:	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	###	###	###	###	###	###	###	###	###	###	###
Safety Factor, dB:	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Interior Level - Parallel, dB:	41	36	35	35	40	44	41	40	39	37	33	28	22	18	22	24
Interior Level - Perpendicular, dB:	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	###	###	###	###	###	###	###	###	###	###	###

Parallel Outside Level, dB: 80  
 Parallel Noise Reduction, dB: 30  
 Parallel Interior Level, dB: 50

Perpendicular Outside Level, dB: NA  
 Perpendicular Noise Reduction, dB: NA  
 Perpendicular Interior Level, dB: NA

**Total Interior Noise Level, dB: 50**



**Appendix C-6**  
**Building Facade Noise Reduction Worksheet**  
**Brightwater Village**

Plans Dated: Undated - AutoCAD  
 Analysis Date: 7/23/2007  
 Room Description: Building B - Unit A - Master Bedroom  
 Parallel Panel Size, ft<sup>2</sup>: 108  
 Perpendicular Panel Size, ft<sup>2</sup>: 108  
 Parallel Exterior Level, dB: 79  
 Perpendicular Exterior Level, dB: 79  
 Correction Factor, dB: 3

**Noise Source Information:**

	Parallel, dB	57	56	57	61	62	64	66	68	71	72	71	70	68	65	63	60
Freeway Traffic	Parallel, dB	57	56	57	61	62	64	66	68	71	72	71	70	68	65	63	60
Freeway Traffic	Perpendicular, dB	-22	-23	-22	-19	-17	-15	-13	-11	-8	-7	-8	-9	-11	-14	-16	-19

**One-Third Octave Band Center Frequency (Hz)**

Material	Area(ft <sup>2</sup> )	125	160	200	250	315	400	500	630	800	1K	1.25K	1.6K	2K	2.5K	3.15K	4K
Gyp Board	572	0.29	0.10	0.10	0.10	0.10	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.07	0.07	0.07	0.09
Glass	19	0.35	0.35	0.25	0.25	0.18	0.18	0.18	0.18	0.12	0.12	0.12	0.12	0.01	0.01	0.01	0.04
Carpet - Pad	150	0.08	0.08	0.24	0.24	0.24	0.57	0.57	0.57	0.69	0.69	0.69	0.69	0.71	0.71	0.71	0.73
Soft Furnishings		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	0.00	0.00
Absorption Parallel, dB:		-2	-2	0	0	0	0	0	0	-1	-1	-1	-1	-1	-1	-2	-2
Absorption Perpendicular, dB:		#NUM!															

**Transmission Loss Information: Parallel Façade**

Material	Area(ft <sup>2</sup> )	125	160	200	250	315	400	500	630	800	1K	1.25K	1.6K	2K	2.5K	3.15K	4K
Wall - Hardplank, Wood Studs, 1/2" Gyp	89	16	20	30	34	37	40	39	42	46	52	55	54	55	56	50	49
Glass - 1/8"1/4"1/8"(STC28)	19	21	23	23	26	21	19	24	27	30	33	36	40	44	46	39	34
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

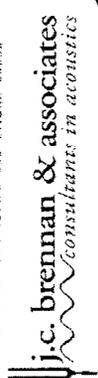
**Transmission Loss Information: Perpendicular Façade**

Material	Area(ft <sup>2</sup> )	125	160	200	250	315	400	500	630	800	1K	1.25K	1.6K	2K	2.5K	3.15K	4K
Wall - Hardplank, Wood Studs, 1/2" Gyp	89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Glass - 1/8"1/4"1/8"(STC28)	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Summary**

Material	Area(ft <sup>2</sup> )	125	160	200	250	315	400	500	630	800	1K	1.25K	1.6K	2K	2.5K	3.15K	4K
Composite TL - Parallel, dB:	16	20	26	31	28	26	31	34	37	40	43	47	50	52	45	41	
Composite TL - Perpendicular, dB:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Absorption Parallel, dB:	-2	-2	0	0	0	0	0	0	0	-1	-1	-1	-1	-1	-1	-2	-2
Absorption Perpendicular, dB:	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!
Safety Factor:	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Interior Level - Parallel, dB:	41	37	33	33	37	40	38	37	36	34	30	25	20	15	19	20	
Interior Level - Perpendicular, dB:	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!

Parallel Outside Level, dB: 79  
 Perpendicular Outside Level, dB: NA  
 Parallel Noise Reduction, dB: 31  
 Perpendicular Noise Reduction, dB: NA  
 Parallel Interior Level, dB: 48  
 Perpendicular Interior Level, dB: NA  
**Total Interior Noise Level, dB: 48**



**Appendix C-7**

**Building Facade Noise Reduction Worksheet**  
Brightwater Village

Plans Dated: Undated - AutoCAD  
 Analysis Date: 7/23/2007  
 Room Description: Building B - Unit A - Living Room  
 Parallel Panel Size, ft<sup>2</sup>: 266  
 Perpendicular Exterior level, dB: 79  
 Correction Factor, dB: 3

**Noise Source Information:**

Freeway Traffic	Parallel, dB	57	36	57	61	62	64	66	68	71	72	71	70	68	66	63	60
Freeway Traffic	Perpendicular, dB	-22	-23	-22	-19	-17	-15	-13	-11	-8	-7	-8	-9	-9	-11	-14	-19

**One-Third Octave Band Center Frequency (Hz)**

Material	Area(ft <sup>2</sup> )	125	160	200	250	315	400	500	630	800	1K	1.25K	1.6K	2K	2.5K	3.15K	4K
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**Sound Absorption Data:**

Gyp Board	762	0.29	0.29	0.10	0.10	0.10	0.05	0.05	0.05	0.04	0.04	0.04	0.07	0.07	0.07	0.03	0.09
Glass	44	0.35	0.35	0.25	0.25	0.18	0.18	0.18	0.18	0.12	0.12	0.12	0.01	0.01	0.01	0.04	0.04
Carpet + Pad	215	0.08	0.08	0.24	0.24	0.57	0.57	0.57	0.69	0.69	0.69	0.69	0.71	0.71	0.71	0.73	0.73
Soft Furnishings		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	0.00	0.00
Absorption Parallel, dB:		1	1	3	3	3	2	2	2	2	2	2	2	2	1	1	1
Absorption Perpendicular, dB:		#NUM!															

**Transmission Loss Information: Parallel Facade**

Wall - Hardplank, Wood Studs, 1/2" Gyp	222	16	20	30	34	37	40	38	42	46	52	55	54	55	56	50	49
Glass - 1/8"14*1/8(STC28)	44	21	23	23	26	21	19	24	27	30	33	36	40	44	46	39	34
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Transmission Loss Information: Perpendicular Facade**

Wall - Hardplank, Wood Studs, 1/2" Gyp	222	16	20	30	34	37	40	38	42	46	52	55	54	55	56	50	49
Glass - 1/8"14*1/8(STC28)	44	21	23	23	26	21	19	24	27	30	33	36	40	44	46	39	34
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Summary**

Composite TL - Parallel, dB:	16	20	28	31	28	27	31	34	37	41	44	47	50	52	45	41
Composite TL - Perpendicular, dB:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Absorption Parallel, dB:	1	1	3	3	3	2	2	2	2	2	2	2	2	1	1	1
Absorption Perpendicular, dB:	#NUM!															
Safety Factor, dB:	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Interior Level - Parallel, dB:	44	39	35	35	39	42	40	39	38	36	32	27	22	18	22	23
Interior Level - Perpendicular, dB:	#NUM!															

Parallel Outside Level, dB: 79  
 Perpendicular Outside Level, dB: NA  
 Parallel Noise Reduction, dB: 29  
 Perpendicular Noise Reduction, dB: NA  
 Parallel Interior Level, dB: 50  
 Perpendicular Interior Level, dB: NA  
**Total Interior Noise Level, dB: 50**



**Appendix C-8**  
**Building Facade Noise Reduction Worksheet**  
**Brightwater Village**

Plans Dated: Undated - AutoCAD  
 Analysis Date: 7/23/2007  
 Room Description: Building B - Unit C - Master Bedroom  
 Parallel Panel Size, ft<sup>2</sup>: 216  
 Perpendicular Exterior level, dB: 80  
 Correction Factor, dB: 3

**Noise Source Information:**

Freeway Traffic	Parallel, dB	-58	-57	-56	-52	-63	-65	-67	-69	-72	-73	-72	-71	-69	-66	-64	-61
Freeway Traffic	Perpendicular, dB	-22	-23	-22	-19	-17	-15	-13	-11	-8	-7	-8	-9	-11	-14	-16	-19

**One-Third Octave Band Center Frequency (Hz)**

Material	Area(ft <sup>2</sup> )	125	160	200	250	315	400	500	630	800	1K	1.25K	1.6K	2K	2.5K	3.15K	4K
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**Sound Absorption Data:**

Gyp Board	556	0.23	0.29	0.10	0.10	0.10	0.05	0.05	0.05	0.04	0.04	0.04	0.07	0.07	0.07	0.09	0.09
Glass	19	0.35	0.25	0.25	0.25	0.18	0.18	0.18	0.18	0.12	0.12	0.12	0.01	0.01	0.01	0.04	0.04
Carpet + Pad	143	0.08	0.08	0.24	0.24	0.24	0.57	0.57	0.57	0.69	0.69	0.71	0.71	0.71	0.73	0.73	0.73
Soft Furnishings	20	0.19	0.19	0.37	0.37	0.37	0.56	0.56	0.56	0.67	0.67	0.67	0.61	0.61	0.61	0.59	0.59
Absorption Parallel, dB:		1	1	3	3	3	2	2	2	2	2	2	2	2	2	1	1
Absorption Perpendicular, dB:		#NUM!															

**Transmission Loss Information: Parallel Façade**

Wall - Hardiplank, Wood Studs, 1/2" Gyp	197	16	20	30	34	37	40	39	42	46	52	55	54	55	56	50	49
Glass - 1/8"1/4"1/8"(STC28)	19	21	23	23	26	21	19	24	27	30	33	36	40	44	46	39	34
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Transmission Loss Information: Perpendicular Façade**

		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Summary**

Composite TL - Parallel, dB:	16	20	29	32	30	29	33	36	40	43	46	49	52	53	47	43	
Composite TL - Perpendicular, dB:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Absorption Parallel, dB:	1	1	3	3	3	2	2	2	2	2	2	2	2	2	2	1	1
Absorption Perpendicular, dB:	#NUM!																
Safety Factor, dB:	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Interior Level - Parallel, dB:	46	41	36	36	38	41	39	38	37	35	31	27	22	18	21	22	
Interior Level - Perpendicular, dB:	#NUM!																

Parallel Outside Level, dB: 80  
 Perpendicular Outside Level, dB: NA  
 Parallel Noise Reduction, dB: 30  
 Perpendicular Noise Reduction, dB: NA  
 Parallel Interior Level, dB: 50  
 Perpendicular Interior Level, dB: NA  
**Total Interior Noise Level, dB: 50**



**Appendix C-9**  
**Building Facade Noise Reduction Worksheet**  
**Brightwater Village**

Plans Dated: Undated - AutoCAD  
 Analysis Date: 7/23/2007  
 Room Description: Building B - Unit C - Bedroom 1  
 Parallel Panel Size, ft<sup>2</sup>: 99  
 Perpendicular Exterior level, dB: 80  
 Correction Factor, dB: 3

Perpendicular Panel Size, ft<sup>2</sup>:  
 Perpendicular Exterior level, dB:

**Noise Source Information:**

Freeway Traffic	Parallel, dB	58	57	58	62	63	65	67	69	72	73	72	71	69	66	64	51
Freeway Traffic	Perpendicular, dB	-22	-23	-22	-19	-17	-15	-13	-11	-8	-7	-8	-8	-11	-14	-16	-19

**One-Third Octave Band Center Frequency (Hz)**

Material	Area(ft <sup>2</sup> )	125	160	200	250	315	400	500	630	800	1K	1.25K	1.6K	2K	2.5K	3.15K	4K
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**Sound Absorption Data:**

Gyp Board	556	0.29	0.29	0.10	0.10	0.19	0.05	0.05	0.05	0.04	0.04	0.04	0.07	0.07	0.07	0.09	0.09
Glass	19	0.35	0.35	0.25	0.25	0.25	0.16	0.16	0.16	0.12	0.12	0.12	0.12	0.01	0.01	0.04	0.04
Carpet + Pad	143	0.08	0.08	0.24	0.24	0.24	0.57	0.57	0.69	0.69	0.69	0.71	0.71	0.71	0.71	0.73	0.73
Soft Furnishings	20	0.19	0.19	0.37	0.37	0.37	0.56	0.56	0.67	0.67	0.67	0.61	0.61	0.61	0.59	0.59	0.59
Absorption Parallel, dB		-3	-3	0	0	0	-1	-1	-1	-1	-1	-1	-1	-2	-2	-2	-2
Absorption Perpendicular, dB		#NUM!															

**Transmission Loss Information: Parallel Façade**

Wall - Hardplank, Wood Studs, 1/2" Gyp	80	16	20	30	34	37	40	39	42	46	52	55	54	55	56	50	49
Glass - 1/8"1/4"1/8"(STC28)	20	21	23	23	26	21	19	24	27	30	33	36	40	44	46	39	34
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Transmission Loss Information: Perpendicular Façade**

		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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**Summary**

Composite TL - Parallel, dB	16	20	27	31	28	26	30	33	37	40	43	46	50	51	45	40
Composite TL - Perpendicular, dB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Absorption Parallel, dB	-3	-3	0	0	-1	-1	-1	-1	-1	-1	-1	-2	-2	-2	-2	-2
Absorption Perpendicular, dB	#NUM!															
Safety Factor, dB	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Interior Level - Parallel, dB	42	37	34	34	38	41	39	38	37	35	31	26	20	16	20	21
Interior Level - Perpendicular, dB	#NUM!															

Parallel Outside Level, dB: 80  
 Perpendicular Outside Level, dB: NA  
 Parallel Noise Reduction, dB: 32  
 Perpendicular Noise Reduction, dB: NA  
 Parallel Interior Level, dB: 48  
 Perpendicular Interior Level, dB: NA

**Total Interior Noise Level, dB: 48**



**Appendix C-10**  
**Building Façade Noise Reduction Worksheet**  
**Brightwater Village**

Plans Dated: Undated - AutoCAD  
 Analysis Date: 7/23/2007  
 Room Description: Building B - Unit C - Living Room  
 Parallel Panel Size, ft<sup>2</sup>: 99  
 Perpendicular Exterior level, dB: 80  
 Correction Factor, dB: 3

**Noise Source Information:**

Source	Parallel, dB	58	57	53	62	63	65	67	69	72	73	72	71	59	66	64	61
Freeway Traffic	Parallel, dB	58	57	53	62	63	65	67	69	72	73	72	71	59	66	64	61
Freeway Traffic	Perpendicular, dB	-22	-23	-22	-19	-17	-15	-13	-11	-8	-7	-8	-9	-11	-14	-16	-19

**One-Third Octave Band Center Frequency (Hz)**

Material	Area(ft <sup>2</sup> )	125	160	200	250	315	400	500	630	800	1K	1.25K	1.6K	2K	2.5K	3.15K	4K
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**Sound Absorption Data:**

Gyp Board	671	0.29	0.28	0.10	0.10	0.10	0.10	0.05	0.05	0.04	0.04	0.04	0.04	0.07	0.07	0.07	0.09
Glass	44	0.35	0.35	0.25	0.25	0.19	0.18	0.18	0.18	0.12	0.12	0.12	0.12	0.01	0.01	0.01	0.04
Carpet + Pad	202	0.08	0.38	0.24	0.24	0.24	0.57	0.57	0.69	0.69	0.71	0.71	0.71	0.71	0.71	0.73	0.73
Soft Furnishings	20	0.19	0.19	0.37	0.37	0.56	0.56	0.56	0.67	0.67	0.61	0.61	0.61	0.61	0.61	0.59	0.59
Absorption Parallel, dB:	-4	-4	-1	-1	-2	-2	-2	-2	-3	-3	-3	-3	-3	-3	-3	-3	-3
Absorption Perpendicular, dB:	#NUM!																

**Transmission Loss Information: Parallel Façade**

Wall - Hardplank, Wood Studs, 1/2" Gyp	80	16	20	30	34	37	40	39	42	46	52	55	54	55	50	50	49
Glass - 1/8"1/4"1/8"(STC28)	19	21	23	23	26	21	19	24	27	30	33	36	40	44	46	39	34
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Transmission Loss Information: Perpendicular Façade**

	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Summary**

Composite TL - Parallel, dB:	16	20	28	31	28	26	31	34	37	40	43	46	50	51	48	41
Composite TL - Perpendicular, dB:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Absorption Parallel, dB:	-4	-4	-1	-1	-2	-2	-2	-3	-3	-3	-3	-3	-3	-3	-3	-3
Absorption Perpendicular, dB:	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!
Safety Factor, dB:	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Interior Level - Parallel, dB:	41	36	32	32	37	40	37	36	35	33	30	25	19	15	19	20
Interior Level - Perpendicular, dB:	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!
Parallel Outside Level, dB:	80	Perpendicular Outside Level, dB: NA														
Parallel Noise Reduction, dB:	33	Perpendicular Noise Reduction, dB: NA														
Parallel Interior Level, dB:	47	Perpendicular Interior Level, dB: NA														
<b>Total Interior Noise Level, dB:</b>	<b>47</b>															



**Appendix D-1**  
**Building Facade Noise Reduction Worksheet**  
**Brightwater Village**

Plans Dated: Undated - AutoCAD  
 Analysis Date: 7/23/2007  
 Room Description: Building C - Unit A - Master Bedroom  
 Parallel Panel Size, ft<sup>2</sup>: 108  
 Perpendicular Panel Size, ft<sup>2</sup>: 108  
 Parallel Exterior level, dB: 80  
 Correction Factor, dB: 3  
 Perpendicular Exterior level, dB: 76

**Noise Source Information:**

Material	Area(ft <sup>2</sup> )	125	160	200	250	315	400	500	630	800	1K	1.25K	1.6K	2K	2.5K	3.15K	4K
Freeway Traffic		58	57	58	62	63	65	67	69	72	73	72	71	69	66	64	61
Freeway Traffic		54	53	54	58	59	61	63	65	68	69	68	67	65	62	60	57

**One-Third Octave Band Center Frequency (Hz)**

Material	Area(ft <sup>2</sup> )	125	160	200	250	315	400	500	630	800	1K	1.25K	1.6K	2K	2.5K	3.15K	4K
Gyp Board	572	0.29	0.10	0.10	0.10	0.05	0.05	0.05	0.04	0.04	0.04	0.07	0.07	0.07	0.07	0.09	0.09
Glass	19	0.35	0.25	0.25	0.25	0.18	0.18	0.18	0.12	0.12	0.12	0.01	0.01	0.01	0.01	0.04	0.04
Carpet + Pad	150	0.08	0.24	0.24	0.24	0.57	0.57	0.69	0.69	0.69	0.71	0.71	0.71	0.71	0.73	0.73	0.73
Soft Furnishings	20	0.19	0.19	0.37	0.37	0.56	0.56	0.56	0.67	0.67	0.67	0.61	0.61	0.61	0.59	0.59	0.59
Absorption Parallel, dB		-2	-2	0	0	-1	-1	-1	-1	-1	-1	-1	-2	-2	-2	-2	-2
Absorption Perpendicular, dB		#NUM!															

**Transmission Loss Information: Parallel Facade**

Wall - Hardplank, with RC	89	23	30	44	53	56	59	62	67	69	77	83	82	85	89	87	87
Glass - 1/4"1/2"-1/4" (STC 35)	20	22	26	18	25	25	31	32	34	36	38	40	39	35	36	46	52
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Transmission Loss Information: Perpendicular Facade**

		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Summary**

Composite TL - Parallel, dB	22	29	25	32	32	38	39	41	43	46	47	46	42	43	53	59
Composite TL - Perpendicular, dB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Absorption Parallel, dB	-2	-2	0	0	0	-1	-1	-1	-1	-1	-1	-1	-2	-2	-2	-2
Absorption Perpendicular, dB	#NUM!															
Safety Factor, dB	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Interior Level - Parallel, dB	36	29	36	32	34	29	30	30	30	30	28	27	26	28	24	12
Interior Level - Perpendicular, dB	#NUM!															

Parallel Outside Level, dB: 80  
 Parallel Noise Reduction, dB: 37  
 Parallel Interior Level, dB: 43  
 Total Interior Noise Level, dB: 43  
 Perpendicular Outside Level, dB: NA  
 Perpendicular Noise Reduction, dB: NA  
 Perpendicular Interior Level, dB: NA



**Appendix D-2**  
**Building Facade Noise Reduction Worksheet**  
**Brightwater Village**

Plans Dated: Undated - AutoCAD  
 Analysis Date: 7/23/2007  
 Room Description: Building C - Unit A - Living Room  
 Parallel Panel Size, ft<sup>2</sup>: 117  
 Perpendicular Panel Size, ft<sup>2</sup>: 80  
 Correction Factor, dB: 3  
 Parallel Exterior level, dB: 80  
 Perpendicular Exterior level, dB: 76

**Noise Source Information:**

Material	Area(ft <sup>2</sup> )	125	160	200	250	315	400	500	630	800	1K	1.25K	1.6K	2K	2.5K	3.15K	4K
Freeway Traffic		56	57	58	62	63	65	67	69	72	73	72	71	69	66	64	61
Freeway Traffic		54	53	54	56	59	61	63	65	68	69	68	67	65	62	60	57

**One-Third Octave Band Center Frequency (Hz)**

Material	Area(ft <sup>2</sup> )	125	160	200	250	315	400	500	630	800	1K	1.25K	1.6K	2K	2.5K	3.15K	4K
Gyp Board	702	0.29	0.29	0.10	0.10	0.10	0.05	0.05	0.05	0.04	0.04	0.04	0.07	0.07	0.07	0.09	0.09
Glass	44	0.35	0.25	0.25	0.25	0.18	0.18	0.18	0.18	0.12	0.12	0.12	0.12	0.12	0.12	0.04	0.04
Carpet + Pad	215	0.08	0.08	0.24	0.24	0.24	0.57	0.57	0.57	0.69	0.69	0.69	0.71	0.71	0.71	0.73	0.73
Soft Furnishings	20	0.19	0.19	0.37	0.37	0.37	0.56	0.56	0.56	0.67	0.67	0.67	0.61	0.61	0.61	0.59	0.59
Absorption Parallel, dB		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	0.00	0.00
Absorption Perpendicular, dB		-3	-3	-1	-1	-2	-2	-2	-2	-2	-2	-2	-3	-3	-3	-3	-3
Transmission Loss Information: Parallel Façade		#NUM!															
Wall - Hardplank with RC	73	23	30	44	53	56	59	62	67	69	77	83	82	85	89	87	87
Glass - 1/4"1/2"1/4 (STC 35)	44	22	26	18	25	25	31	32	34	36	39	40	39	35	36	46	52
Transmission Loss Information: Perpendicular Façade		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Sound Absorption Data:**

Material	Area(ft <sup>2</sup> )	125	160	200	250	315	400	500	630	800	1K	1.25K	1.6K	2K	2.5K	3.15K	4K
Composite TL - Parallel, dB	22	28	22	29	29	35	36	38	40	43	44	43	39	40	50	56	56
Composite TL - Perpendicular, dB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Absorption Parallel, dB	-3	-3	-1	-1	-1	-2	-2	-2	-2	-2	-2	-2	-3	-3	-3	-3	-3
Absorption Perpendicular, dB	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!
Safety Factor, dB	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Interior Level - Parallel, dB	35	29	38	34	36	31	32	32	32	30	29	28	30	26	30	26	14
Interior Level - Perpendicular, dB	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!
Parallel Outside Level, dB	80																
Parallel Noise Reduction, dB	36																
Parallel Interior Level, dB	44																
Total Interior Noise Level, dB	44																

**Transmission Loss Information: Perpendicular Façade**

Material	Area(ft <sup>2</sup> )	125	160	200	250	315	400	500	630	800	1K	1.25K	1.6K	2K	2.5K	3.15K	4K
Composite TL - Parallel, dB	22	28	22	29	29	35	36	38	40	43	44	43	39	40	50	56	56
Composite TL - Perpendicular, dB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Absorption Parallel, dB	-3	-3	-1	-1	-1	-2	-2	-2	-2	-2	-2	-2	-3	-3	-3	-3	-3
Absorption Perpendicular, dB	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!
Safety Factor, dB	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Interior Level - Parallel, dB	35	29	38	34	36	31	32	32	32	30	29	28	30	26	30	26	14
Interior Level - Perpendicular, dB	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!
Parallel Outside Level, dB	80																
Parallel Noise Reduction, dB	36																
Parallel Interior Level, dB	44																
Total Interior Noise Level, dB	44																

**Summary**

Material	Area(ft <sup>2</sup> )	125	160	200	250	315	400	500	630	800	1K	1.25K	1.6K	2K	2.5K	3.15K	4K
Composite TL - Parallel, dB	22	28	22	29	29	35	36	38	40	43	44	43	39	40	50	56	56
Composite TL - Perpendicular, dB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Absorption Parallel, dB	-3	-3	-1	-1	-1	-2	-2	-2	-2	-2	-2	-2	-3	-3	-3	-3	-3
Absorption Perpendicular, dB	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!
Safety Factor, dB	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Interior Level - Parallel, dB	35	29	38	34	36	31	32	32	32	30	29	28	30	26	30	26	14
Interior Level - Perpendicular, dB	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!
Parallel Outside Level, dB	80																
Parallel Noise Reduction, dB	36																
Parallel Interior Level, dB	44																
Total Interior Noise Level, dB	44																



Perpendicular Outside Level, dB: NA  
 Perpendicular Noise Reduction, dB: NA  
 Perpendicular Interior Level, dB: NA

**Appendix D-3**  
**Building Façade Noise Reduction Worksheet**  
**Brightwater Village**

Plans Dated: Undated - AutoCAD  
 Analysis Date: 7/23/2007  
 Room Description: Building C - Unit C - Master Bedroom  
 Perpendicular Panel Size, ft<sup>2</sup>: 59  
 Parallel Panel Size, ft<sup>2</sup>: 117  
 Perpendicular Exterior level, dB: 76  
 Parallel Exterior level, dB: 80  
 Correction Factor, dB: 3

**Noise Source Information:**

	Parallel, dB	58	57	58	62	63	65	67	69	72	73	72	71	69	66	64	61
Freeway Traffic	Perpendicular, dB	54	53	54	58	59	61	63	65	68	69	68	67	65	62	60	57

**One-Third Octave Band Center Frequency (Hz)**

Material	Area(ft <sup>2</sup> )	125	160	200	250	315	400	500	630	800	1K	1.25K	1.6K	2K	2.5K	3.15K	4K
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**Sound Absorption Data:**

Gyp Board	556	0.29	0.29	0.10	0.10	0.10	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.07	0.07	0.07	0.09
Glass	19	0.35	0.35	0.25	0.25	0.16	0.18	0.18	0.18	0.12	0.12	0.12	0.01	0.01	0.01	0.04	0.04
Carpet + Pad	143	0.08	0.08	0.24	0.24	0.24	0.57	0.57	0.57	0.69	0.69	0.69	0.71	0.71	0.71	0.73	0.73
Soft Furnishings	20	0.19	0.19	0.37	0.37	0.37	0.56	0.56	0.56	0.67	0.67	0.67	0.61	0.61	0.61	0.59	0.59
Absorption Parallel, dB		-2	-2	1	1	1	0	0	0	-1	-1	-1	-1	-1	-1	-2	-2
Absorption Perpendicular, dB		-3	-3	0	0	0	-1	-1	-1	-1	-1	-1	-2	-2	-2	-2	-2

**Transmission Loss Information: Parallel Façade**

Wall - Hardplank, with RC	96	23	30	44	53	56	59	62	67	69	77	83	82	85	89	87	87
Glass - 1/4"1/2"1/4 (STC 35)	20	22	26	18	25	25	31	32	34	36	39	40	39	35	36	46	52
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Transmission Loss Information: Perpendicular Façade**

Wall - Hardplank, Wood Studs, 1/2" Gyp	99	16	20	30	34	37	40	39	42	46	52	55	54	56	56	50	49
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Summary**

Composite TL - Parallel, dB:	22	29	26	33	33	39	40	42	44	47	48	47	43	44	54	60
Composite TL - Perpendicular, dB:	16	20	30	34	37	40	39	42	46	52	55	54	55	56	50	49
Absorption Parallel, dB:	-2	-2	1	1	1	0	0	0	-1	-1	-1	-1	-1	-1	-2	-2
Absorption Perpendicular, dB:	-3	-3	0	0	0	-1	-1	-1	-1	-1	-1	-2	-2	-2	-2	-2
Safety Factor, dB:	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Interior Level - Parallel, dB:	36	29	36	32	34	29	30	30	30	28	27	26	28	24	12	3
Interior Level - Perpendicular, dB:	39	34	27	27	25	23	26	25	23	19	15	14	11	8	11	9

Perpendicular Outside Level, dB: 76  
 Parallel Outside Level, dB: 80  
 Perpendicular Noise Reduction, dB: 37  
 Parallel Noise Reduction, dB: 43  
 Perpendicular Interior Level, dB: 41  
 Parallel Interior Level, dB: 45



**Appendix D-4**  
**Building Facade Noise Reduction Worksheet**  
**Brightwater Village**

Plans Dated: Undated - AutoCAD  
 Analysis Date: 7/23/2007  
 Room Description: Building C - Unit C - Bedroom 1  
 Parallel Panel Size, ft<sup>2</sup>: 98  
 Perpendicular Exterior level, dB: 76  
 Parallel Panel Size, ft<sup>2</sup>:  
 Parallel Exterior level, dB: 80  
 Correction Factor, dB: 3

**Noise Source Information:**

Source	125	160	200	250	315	400	500	630	800	1K	1.25K	1.6K	2K	2.5K	3.15K	4K
Freeway Traffic	58	57	58	62	63	65	67	69	72	73	72	71	69	66	64	61
Freeway Traffic	54	53	54	58	59	61	63	65	68	69	68	67	65	62	60	57

**One-Third Octave Band Center Frequency (Hz)**

Material	Area(ft <sup>2</sup> )	125	160	200	250	315	400	500	630	800	1K	1.25K	1.6K	2K	2.5K	3.15K	4K
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**Sound Absorption Data:**

Gyp Board	556	0.29	0.29	0.10	0.10	0.10	0.10	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.07	0.07	0.09
Glass	19	0.35	0.35	0.25	0.25	0.18	0.18	0.18	0.18	0.12	0.12	0.12	0.12	0.01	0.01	0.04	0.04
Carpet + Pad	150	0.08	0.08	0.24	0.24	0.57	0.57	0.69	0.69	0.69	0.69	0.71	0.71	0.71	0.73	0.73	0.73
Soft Furnishings	20	0.19	0.19	0.37	0.37	0.56	0.56	0.67	0.67	0.67	0.67	0.67	0.67	0.61	0.61	0.59	0.59
		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	0.00	0.00
		Absorption Parallel, dB:	#NUM!														
		Absorption Perpendicular, dB:	-3	-3	0	0	-1	-1	-1	-2	-2	-2	-2	-2	-2	-2	-2

**Transmission Loss Information: Parallel Façade**

	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Transmission Loss Information: Perpendicular Façade**

Wall - Hardplank Wood Studs 1/2" Gyp	80	16	20	30	34	37	40	39	42	46	52	55	54	55	56	50	49
Glass - 1/4"1/2"1/4 (STC 35)	20	22	26	18	25	25	31	32	34	38	39	40	39	35	36	46	52
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Summary**

Composite TL - Parallel, dB:	#DIV/0!																
Composite TL - Perpendicular, dB:	16	21	24	30	31	36	36	39	42	45	46	46	46	42	43	48	49
Absorption Parallel, dB:	#NUM!																
Absorption Perpendicular, dB:	-3	-3	0	0	0	-1	-1	-1	-1	-2	-2	-2	-2	-2	-2	-2	-2
Safety Factor, dB:	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Interior Level - Parallel, dB:	#DIV/0!																
Interior Level - Perpendicular, dB:	38	33	33	30	31	27	29	28	27	25	23	23	24	20	20	12	8

Parallel Outside Level, dB: 80  
 Perpendicular Outside Level, dB: 76  
 Parallel Noise Reduction, dB: 80  
 Perpendicular Noise Reduction, dB: 34  
 Parallel Interior Level, dB: 0  
 Perpendicular Interior Level, dB: 42  
**Total Interior Noise Level, dB: 42**



**Appendix D-5**  
**Building Facade Noise Reduction Worksheet**  
**Brightwater Village**

Plans Dated: Undated - AutoCAD  
 Analysis Date: 7/23/2007  
 Room Description: Building C - Unit C - Living  
 Parallel Panel Size, ft<sup>2</sup>: 117  
 Perpendicular Exterior level, dB: 76  
 Correction Factor, dB: 3

		Noise Source Information:																					
		56	57	58	59	60	61	62	63	65	67	69	71	72	73	74	75	76	77	78	79	80	81
		Parallel, dB	Perpendicular, dB	Parallel, dB	Perpendicular, dB	Parallel, dB	Perpendicular, dB	Parallel, dB	Perpendicular, dB	Parallel, dB	Perpendicular, dB	Parallel, dB	Perpendicular, dB	Parallel, dB	Perpendicular, dB	Parallel, dB	Perpendicular, dB	Parallel, dB	Perpendicular, dB	Parallel, dB	Perpendicular, dB	Parallel, dB	Perpendicular, dB
Freeway Traffic	Area(ft <sup>2</sup> )	56	57	58	59	60	61	62	63	65	67	69	71	72	73	74	75	76	77	78	79	80	81
Freeway Traffic	Area(ft <sup>2</sup> )	54	53	54	55	56	57	58	59	61	63	65	68	69	70	71	72	73	74	75	76	77	78

Material	Area(ft <sup>2</sup> )	One-Third Octave Band Center Frequency (Hz)																					
		125	160	200	250	315	400	500	630	800	1K	1.25K	1.6K	2K	2.5K	3.15K	4K						
Gyp Board	671	0.29	0.29	0.10	0.10	0.10	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Glass	44	0.35	0.35	0.25	0.25	0.25	0.18	0.18	0.18	0.12	0.12	0.12	0.12	0.12	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Carpet + Pad	202	0.08	0.08	0.24	0.24	0.24	0.57	0.57	0.57	0.69	0.69	0.69	0.69	0.69	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71
Soft Furnishings	20	0.19	0.19	0.37	0.37	0.37	0.56	0.56	0.56	0.67	0.67	0.67	0.67	0.67	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.61
		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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Absorption Parallel, dB:		-3	-3	-1	-1	-1	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-3
Absorption Perpendicular, dB:		-3	-3	-1	-1	-1	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-3

Material	Area(ft <sup>2</sup> )	Transmission Loss Information: Parallel Façade																					
		125	160	200	250	315	400	500	630	800	1K	1.25K	1.6K	2K	2.5K	3.15K	4K						
Wall - Hardiplank with RC	75	23	30	44	53	56	59	62	67	68	77	83	82	85	89	87	87	87	87	87	87	87	87
Glass - 1/4"1/2"1/4 (STC 35)	44	22	26	18	25	25	31	32	34	36	39	40	39	35	36	46	52	52	52	52	52	52	52
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Material	Area(ft <sup>2</sup> )	Transmission Loss Information: Perpendicular Façade																					
		125	160	200	250	315	400	500	630	800	1K	1.25K	1.6K	2K	2.5K	3.15K	4K						
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Summary																							
Composite TL - Parallel, dB:	22	28	22	29	29	35	36	38	40	43	44	43	39	40	50	56	56	56	56	56	56	56	56
Composite TL - Perpendicular, dB:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Absorption Parallel, dB:	-3	-3	-1	-1	-1	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-3
Absorption Perpendicular, dB:	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Safety Factor, dB:	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Interior Level - Parallel, dB:	36	29	38	35	36	31	32	32	32	32	30	29	29	31	27	14	5	5	5	5	5	5	5
Interior Level - Perpendicular, dB:	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80

Parallel Outside Level, dB: 80  
 Perpendicular Outside Level, dB: NA  
 Parallel Noise Reduction, dB: 35  
 Perpendicular Noise Reduction, dB: NA  
 Parallel Interior Level, dB: 45  
 Perpendicular Interior Level, dB: NA  
**Total Interior Noise Level, dB: 45**



**Appendix D-6**  
**Building Facade Noise Reduction Worksheet**  
**Brightwater Village**

Plans Dated: Undated - AutoCAD  
 Analysis Date: 7/23/2007  
 Room Description: Building B - Unit A - Master Bedroom  
 Parallel Panel Size, ft<sup>2</sup>: 108  
 Perpendicular Exterior level, dB: 79  
 Correction Factor, dB: 3

**Noise Source Information:**

Material	Area(ft <sup>2</sup> )	125	160	200	250	315	400	500	630	800	1K	1.25K	1.6K	2K	2.5K	3.15K	4K
Freeway Traffic		57	56	57	61	62	64	66	68	71	72	71	70	68	65	63	60
Freeway Traffic		-22	-23	-22	-19	-17	-15	-13	-11	-8	-7	-8	-9	-11	-14	-16	-19

**One-Third Octave Band Center Frequency (Hz)**

Material	Area(ft <sup>2</sup> )	125	160	200	250	315	400	500	630	800	1K	1.25K	1.6K	2K	2.5K	3.15K	4K
Gyp Board	572	0.29	0.10	0.10	0.10	0.10	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.07	0.07	0.07	0.09
Glass	19	0.35	0.25	0.25	0.25	0.18	0.18	0.18	0.18	0.12	0.12	0.12	0.12	0.01	0.01	0.01	0.04
Carpet + Pad	150	0.08	0.08	0.24	0.24	0.24	0.57	0.57	0.69	0.69	0.69	0.71	0.71	0.71	0.71	0.73	0.73
Soft Furnishings	20	0.19	0.19	0.37	0.37	0.37	0.56	0.56	0.67	0.67	0.67	0.67	0.67	0.61	0.61	0.59	0.59
Absorption Parallel, dB:		-2	-2	0	0	0	-1	-1	-1	-1	-1	-1	-1	-2	-2	-2	-2
Absorption Perpendicular, dB:		-2	-2	0	0	0	-1	-1	-1	-1	-1	-1	-1	-2	-2	-2	-2

**Transmission Loss Information: Parallel Façade**

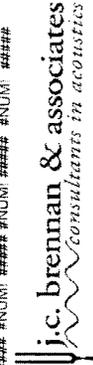
Wall - Hardplank, with RC	89	23	30	44	53	56	59	62	67	69	77	83	82	85	86	87	87
Glass - 1/4"1/2"1/4 (STC 55)	19	22	26	18	25	25	31	32	34	36	39	40	39	35	36	46	52
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Transmission Loss Information: Perpendicular Façade**

Wall - Hardplank, with RC	89	23	30	44	53	56	59	62	67	69	77	83	82	85	86	87	87
Glass - 1/4"1/2"1/4 (STC 55)	19	22	26	18	25	25	31	32	34	36	39	40	39	35	36	46	52
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Summary**

Composite TL - Parallel, dB	22	29	25	32	32	38	39	41	43	46	47	46	42	43	53	59
Composite TL - Perpendicular, dB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Absorption Parallel, dB:	-2	-2	0	0	0	-1	-1	-1	-1	-1	-1	-1	-2	-2	-2	-2
Absorption Perpendicular, dB:	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Safety Factor, dB	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Interior Level - Parallel, dB:	35	28	35	31	32	28	29	29	29	27	25	25	27	23	23	10
Interior Level - Perpendicular, dB:	35	28	35	31	32	28	29	29	29	27	25	25	27	23	23	10
Parallel Outside Level, dB:	79															
Perpendicular Outside Level, dB:	79															
Parallel Noise Reduction, dB:	37															
Perpendicular Noise Reduction, dB:	42															
Parallel Interior Level, dB:	42															
Perpendicular Interior Level, dB:	42															
<b>Total Interior Noise Level, dB:</b>	<b>42</b>															



**Appendix D-7**  
**Building Facade Noise Reduction Worksheet**  
**Brightwater Village**

Plans Dated: Undated - AutoCAD  
 Analysis Date: 7/23/2007  
 Room Description: Building B - Unit A - Living Room  
 Parallel Panel Size, ft<sup>2</sup>: 266  
 Perpendicular Exterior level, dB: 79  
 Correction Factor, dB: 3

Parallel Panel Size, ft<sup>2</sup>: 266  
 Perpendicular Exterior level, dB: 79

**Noise Source Information:**

Freeway Traffic	Parallel, dB	57	56	57	61	62	64	66	68	71	72	71	70	68	65	63	60
Freeway Traffic	Perpendicular, dB	-22	-23	-22	-19	-17	-15	-13	-11	-8	-7	-8	-9	-11	-14	-16	-19

**One-Third Octave Band Center Frequency (Hz)**

Material	Area(ft <sup>2</sup> )	125	160	200	250	315	400	500	630	800	1K	1.25K	1.6K	2K	2.5K	3.15K	4K
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**Sound Absorption Data:**

Gyp Board	702	0.29	0.29	0.10	0.10	0.10	0.05	0.05	0.05	0.04	0.04	0.04	0.07	0.07	0.07	0.09	0.09
Glass	44	0.35	0.35	0.25	0.25	0.18	0.18	0.18	0.18	0.12	0.12	0.12	0.12	0.01	0.01	0.01	0.04
Carpet + Pad	215	0.68	0.08	0.24	0.24	0.24	0.57	0.57	0.57	0.69	0.69	0.69	0.71	0.71	0.71	0.73	0.73
Soft Furnishings	20	0.19	0.19	0.37	0.37	0.37	0.56	0.56	0.56	0.67	0.67	0.67	0.61	0.61	0.61	0.59	0.59
Absorption Parallel, dB:		0	0	3	3	3	2	2	2	1	1	1	1	1	1	1	1
Absorption Perpendicular, dB:		0	0	3	3	3	2	2	2	1	1	1	1	1	1	1	1

**Transmission Loss Information: Parallel Façade**

Wall - Hardplank, with RC	222	23	30	44	53	56	59	62	67	69	77	83	82	85	89	87	87
Glass - 1/4"1/2"1/4 (STC 35)	44	22	26	18	25	25	31	32	34	36	39	40	39	35	36	46	52
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Transmission Loss Information: Perpendicular Façade**

		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Summary**

Composite TL - Parallel, dB:	22	29	26	33	33	39	40	42	44	47	48	47	43	44	44	54	60
Composite TL - Perpendicular, dB:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Absorption Parallel, dB:	0	0	3	3	3	2	2	2	2	1	1	1	1	1	1	1	1
Absorption Perpendicular, dB:	0	0	3	3	3	2	2	2	2	1	1	1	1	1	1	1	1
Safety Factor, dB:	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Interior Level - Parallel, dB:	38	31	37	34	35	30	31	31	31	29	28	27	29	25	15	4	4
Interior Level - Perpendicular, dB:	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79
Parallel Outside Level, dB:	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79
Parallel Noise Reduction, dB:	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
Parallel Interior Level, dB:	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
<b>Total Interior Noise Level, dB:</b>	<b>44</b>																



Perpendicular Outside Level, dB: NA  
 Perpendicular Noise Reduction, dB: NA  
 Perpendicular Interior Level, dB: NA

**Appendix D-8**  
**Building Facade Noise Reduction Worksheet**  
**Brightwater Village**

Plans Dated: Undated - AutoCAD  
 Analysis Date: 7/23/2007  
 Room Description: Building B - Unit C - Master Bedroom  
 Parallel Panel Size, ft<sup>2</sup>: 216  
 Parallel Exterior Level, dB: 80  
 Correction Factor, dB: 3  
 Perpendicular Panel Size, ft<sup>2</sup>:  
 Perpendicular Exterior Level, dB:

**Noise Source Information:**

Freeway Traffic	Parallel, dB	58	57	58	62	63	65	67	68	72	73	72	71	69	66	64	61
Freeway Traffic	Perpendicular, dB	-22	-23	-22	-19	-17	-15	-13	-11	-8	-7	-8	-9	-11	-14	-16	-19

**One-Third Octave Band Center Frequency (Hz)**

Material	Area(ft <sup>2</sup> )	125	160	200	250	315	400	500	630	800	1K	1.25K	1.6K	2K	2.5K	3.15K	4K
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**Sound Absorption Data:**

Gyp Board	536	0.29	0.29	0.10	0.10	0.10	0.05	0.05	0.05	0.04	0.04	0.04	0.07	0.07	0.07	0.09	0.09
Glass	19	0.35	0.35	0.25	0.25	0.18	0.18	0.18	0.18	0.12	0.12	0.12	0.01	0.01	0.01	0.04	0.04
Carpet + Pad	143	0.08	0.08	0.24	0.24	0.24	0.57	0.57	0.57	0.69	0.69	0.69	0.71	0.71	0.71	0.73	0.73
Soft Furnishings	20	0.19	0.19	0.37	0.37	0.37	0.56	0.56	0.56	0.67	0.67	0.67	0.61	0.61	0.61	0.59	0.59
Absorption Parallel, dB:	1	1	3	3	3	2	2	2	2	2	2	2	2	2	2	2	1
Absorption Perpendicular, dB:	#NUM!																

**Transmission Loss Information: Parallel Façade**

Wall - Hardj plank with RC	197	23	30	44	53	56	58	62	67	69	77	83	82	85	89	87	87
Glass - 1/4"12"1/4 (STC 35)	19	22	26	18	25	25	31	32	34	36	39	40	39	35	36	46	52
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Transmission Loss Information: Perpendicular Façade**

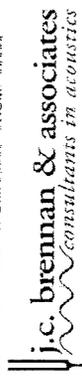
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
--	--	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

**Summary**

Composite TL - Parallel, dB:	23	29	23	35	35	41	42	44	46	49	50	49	45	46	36	62
Composite TL - Perpendicular, dB:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Absorption Parallel, dB:	1	1	3	3	3	2	2	2	2	2	2	2	2	2	2	1
Absorption Perpendicular, dB:	#NUM!															
Safety Factor:	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Interior Level - Parallel, dB:	39	32	36	32	34	29	30	30	36	30	28	27	26	28	24	12
Interior Level - Perpendicular, dB:	#NUM!															

**Parallel Outside Level, dB:** 80  
**Parallel Noise Reduction, dB:** 36  
**Parallel Interior Level, dB:** 44

**Total Interior Noise Level, dB:** 44



## RESOLUTION NO. 2004-053

ADOPTED BY THE SACRAMENTO CITY COUNCIL

ON DATE OF JAN 27 2004

**A RESOLUTION ADOPTING THE NOTICE OF DECISION AND FINDINGS OF FACT FOR NEGATIVE DECLARATION, MITIGATION MONITORING PLAN, AND THE INCLUSIONARY HOUSING PLAN FOR COLLEGE SQUARE, LOCATED AT THE SOUTHEAST CORNER OF BRUCEVILLE ROAD AND COSUMNES RIVER BOULEVARD, SACRAMENTO, CALIFORNIA.**

(P00-147)

(APN: 117-0182-001, 003, 024, 025, 028, 029, & 030)

WHEREAS, the City Council conducted a public hearing on the above date, concerning the above project and based on documentary and oral evidence submitted at the public hearing, the Council hereby adopts the Notice of Decision and Findings of Fact, as set forth herein.

### NOTICE OF DECISION

At the regular meeting on the above date, the City Council heard and considered evidence in the above-entitled matter. Based on verbal and documentary evidence at said hearing, the Council took the following actions for the location listed above:

- A. **Environmental Determination:** Environmental Impact Report;
- B. **Approved the Mitigation Monitoring Plan;**
- C. **Approved the Statement of Overriding Considerations;**
- D. **Approved the inclusionary housing plan**

These actions were made based upon the following findings of fact:

### FINDINGS OF FACT

- A. **Environmental Impact Report:** The City Council certifies the Environmental Impact

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Report (the Environmental Impact Report is certified), based upon the following findings:

1. See **Exhibit 1A** of this Resolution

**B. Mitigation Monitoring Plan:** The Mitigation Monitoring Plan is approved based upon the following findings of fact:

1. One or more mitigation measures have been added to the above-identified project;
2. A Mitigation Monitoring Plan has been prepared to ensure compliance and implementation of the mitigation measures for the above-identified project, a copy of which is attached as **(Exhibit 1B)**;
3. The Mitigation Monitoring Plan meets the requirements of Public Resources Code Sec. 21081.6.
4. The Mitigation Monitoring Plan is approved, and the mitigation measures shall be implemented and monitored as set forth in the Plan.

**C. Statement of Overriding Considerations:** The Statement of Overriding Considerations is approved based on the following findings of fact:

1. See **Exhibit 1A** of this Resolution

**D. Inclusionary Housing Plan:** The Inclusionary Housing Plan is approved based on the following findings of fact:

1. The plan implements the Housing Element of the General Plan and the Mixed Income Ordinance in that it provides for inclusion of housing affordable to low and very low income families.
2. The plan provides for on-site construction of ownership and rental units in the following quantities: 37 units (five percent of the project total) will be affordable to low income households, and 73 units (ten percent of the project total) will be affordable to very low income households.

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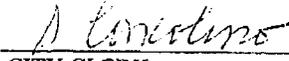
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3. The inclusionary units are proposed to be disbursed throughout the project site so as to avoid over-concentration of inclusionary units in compliance with Ordinance requirements.
4. The plan provides for an appropriate variety of unit sizes as required by the Ordinance in that the Planning Director, upon recommendation of the SHRA director, has determined that two and three bedroom units are appropriate for an ownership housing type in multi-family residential developments.
5. The conditions of approval provide that the exterior appearance of the inclusionary units be compatible with market rate units in that external building materials and finishes of the inclusionary units will be of the same type and quality as the market rate units.
6. The conditions of approval provide that the units shall comply with all applicable development standards.
7. The plan phases the construction of inclusionary units to ensure that each phase of market-rate units subject to the Mixed Income Ordinance will not be completed without the construction of the inclusionary units.
8. A condition has been placed on the Tentative Map to ensure recordation of the Inclusionary Housing Agreement prior to filing of the Final Map.

  
MAYOR

ATTEST:

  
CITY CLERK

P00-147

Attachments:

Exhibit 1A – CEQA Findings of Fact  
Exhibit 1B – Mitigation Monitoring Plan  
Exhibit 1C – Inclusionary Housing Plan

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Exhibit 1A – CEQA Findings of Fact

**CEQA FINDINGS OF FACT  
AND  
STATEMENT OF OVERRIDING INTERESTS**

**FOR**

**COLLEGE SQUARE PROJECT  
SACRAMENTO, CALIFORNIA**

**(State Clearinghouse Number 2002122088)**

**Prepared By:**

**Planning Division City of Sacramento  
City of Sacramento Planning and Building Department**

**December 2003**

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DATE ADOPTED: JAN 27 2004

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Exhibit 1B: Resolution 2004-053 including CEQA Findings,  
Statement of Overriding Considerations and Mitigation Monitoring Plan

had completed the Draft EIR and that copies were available at the City of Sacramento, 1231 I Street, Room 300, Sacramento, California 95814. The letter also indicated that the official forty-five day public review period for the Draft EIR would end on October 23, 2003.

6. A public notice was placed in the Daily Recorder on September 9, 2003 which stated that the College Square Draft EIR was available for public review and comment. A public notice was posted with the Sacramento County Clerk/Recorder's Office on September 9, 2003. A public notice was also posted at the Sacramento City Hall on September 9, 2003.
7. Following closure of the public comment period, the Draft EIR was supplemented to incorporate comments received and the City's responses to said comments. The modifications to the College Square Draft EIR do not significantly change the EIR or the analysis. Therefore, in accordance with CEQA Guidelines, Section 15088.5, recirculation of the EIR is not required.
8. Following notice duly and regularly given as required by law, and all interested parties expressing a desire to comment thereon or object thereto having been heard, the EIR and comments and responses thereto having been considered, the City Council makes the following determinations:
  - A. The EIR consists of the Draft EIR, and Final EIR (Responses to Comments) and appendices.
  - B. The EIR was prepared and completed in compliance with CEQA.
  - C. The EIR has been presented to the City Council which reviewed and considered the information therein prior to acting on the College Square project, and they find that the EIR reflects the independent judgment and analysis of the City of Sacramento.
9. The following information is incorporated by reference and made part of the record supporting these findings:
  - A. The Draft and Final EIR and all documents relied upon or incorporated by reference as listed in Chapter 12, References, of the College Square Draft EIR.
  - B. The Mitigation Monitoring Plan dated December 2003.
  - C. Testimony, documentary evidence and all correspondence submitted or delivered to the City in connection with the Planning Commission hearing on this project and associated EIR.
  - D. All staff reports, memoranda, maps, letters, minutes of meetings and other documents relied upon or prepared by City staff relating to the project (e.g. references contained in Chapter 12 of the DEIR), including but not limited to, City of Sacramento General Plan and the Draft and Final EIR for the City of Sacramento General Plan Update.

**III. FINDINGS OF FACT REGARDING THE ENVIRONMENTAL IMPACT REPORT FOR THE PROPOSED COLLEGE SQUARE PROJECT**

The Environmental Impact Report for the College Square project, prepared in compliance with the California Environmental Quality Act, evaluates the potentially significant and significant adverse environmental impacts that could result from adoption of the project or alternatives to the project.

The subject project is located in the southern part of the City of Sacramento, at the southeast corner of

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RESOLUTION NO.: 2004-053  
DATE ADOPTED: JAN 27 2004

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Exhibit 1B: Resolution 2004-053 including CEQA Findings,  
Statement of Overriding Considerations and Mitigation Monitoring Plan

had completed the Draft EIR and that copies were available at the City of Sacramento, 1231 I Street, Room 300, Sacramento, California 95814. The letter also indicated that the official forty-five day public review period for the Draft EIR would end on October 23, 2003.

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9. The following information is incorporated by reference and made part of the record supporting these findings:
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**III. FINDINGS OF FACT REGARDING THE ENVIRONMENTAL IMPACT REPORT FOR THE PROPOSED COLLEGE SQUARE PROJECT**

The Environmental Impact Report for the College Square project, prepared in compliance with the California Environmental Quality Act, evaluates the potentially significant and significant adverse environmental impacts that could result from adoption of the project or alternatives to the project.

The subject project is located in the southern part of the City of Sacramento, at the southeast corner of

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RESOLUTION NO.: 2004-053  
DATE ADOPTED: JAN 27 2004

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Exhibit 1B: Resolution 2004-053 including CEQA Findings,  
Statement of Overriding Considerations and Mitigation Monitoring Plan

Cosumnes Boulevard and Bruceville Road (APNs 117-0182 -001,003,0019,020,021,024,025,028,029, and 030; 117-0184-001 and 002). The project consists of mixed-use development including residential, commercial and office. This would include 724 multi-family units and approximately 270,300 square feet of commercial/office space. The project also includes extension of West Stockton Blvd. through the project site to Bruceville Road, including widening

Because the EIR indicates that implementation of the project (or project alternatives) would result in certain adverse impacts, the City is required under CEQA and the State to make certain findings with respect to these impacts. The required findings appear in the following sections of this document. This document lists all identified potentially significant and significant impacts of the project, as identified in the EIR. The following identifies the significant impacts that can be avoided due to implementation of mitigation measures and the significant impacts that cannot be avoided. These findings are supported by substantial evidence in the record of proceedings before the City as stated below.

1. **SIGNIFICANT IMPACTS WHICH CAN BE AVOIDED IN THE EIR**

As authorized by Public Resources Code Section 21081 and Title 14, California Administrative Code ' 15091(a)(1), the City finds that changes or alterations have been required in, or incorporated into, the Project which mitigate or avoid the significant environmental impacts listed above as identified in the EIR. The City further finds that this change or alteration in the project is within the jurisdiction of the City to require, and that this measure is appropriate and feasible.

In this section of the Findings of Fact for the proposed College Square, the City, as authorized by Public Resources Code Section 21081 and Title 14, California Administrative Code Sections 15091, 15092, and 15093, identifies the significant impacts that can be reduced through mitigation measures to a less-than-significant level. These mitigation measures are hereby incorporated into the description of the project and their implementation will be tracked through the College Square Mitigation Monitoring Program.

These findings are supported by substantial evidence in the record.

1. **Impact 6.2-1: Bruceville Road/Cosumnes River Boulevard – Base Year**

a. **Potentially Significant Impact**

The addition of the proposed project and Park-and-Ride Alternative would add more than 5 seconds of delay to a.m. and p.m. (LOS D) operations, resulting in a significant impact.

b. **Facts in Support of Finding**

The potentially significant impact listed above would be reduced to a less-than-significant level with the following mitigation measure provided in the College Square EIR:

6.2-1 Improve the northbound approach of Bruceville Road/Cosumnes River Boulevard intersection to provide an exclusive left-turn lane, two through lanes and an exclusive right turn lane.

2. **Impact 6.2-2: Bruceville Road/Cosumnes River College Driveway – Base Year**

a. **Potentially Significant Impact**

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The addition of the proposed project and Park-and-Ride Alternative would degrade intersection operations from LOS A to LOS F during the p.m. peak hour, resulting in a significant impact.

b. Facts in Support of Finding

The potentially significant impact listed above would be reduced to a less-than-significant level with the following mitigation measure provided in the College Square EIR:

- 6.2-2 Install a traffic signal at the intersection of Bruceville Road/Cosumnes River College Driveway and improve the southbound approach to provide a single through lane and exclusive right-turn lane.

3. **Impact 6.2-3: Bruceville Road/Timberlake Way/Alpine Frost Drive – Year 2025**

a. Potentially Significant Impact

The addition of the proposed project would degrade operations from LOS C to LOS D during the p.m. peak hour, resulting in a significant impact.

b. Facts in Support of Finding

The potentially significant impact listed above would be reduced to a less-than-significant level with the following mitigation measure provided in the College Square EIR:

- 6.2-3 Provide an exclusive right-turn lane on the northbound approach to the Bruceville Road/Timberlake Way/Alpine Frost Drive intersection if not built by others.

4. **Impact 6.2-4: Bruceville Road/Cosumnes River Boulevard – Year 2025**

a. Potentially Significant Impact

The addition of the proposed project and Park-and-Ride Alternative would add more than 5 seconds of delay to a.m. and p.m. (LOS F) operations, resulting in a significant impact

b. Facts in Support of Finding

The potentially significant impact listed above would be reduced to a less-than-significant level with the following mitigation measure provided in the College Square EIR:

- 6.2-4 Provide a third left-turn lane on the westbound approach to the Bruceville Road/Cosumnes River Boulevard intersection

5. **Impact 6.2-6: Driveway 7**

a. Potentially Significant Impact

The addition of the proposed project and Park-and-Ride Alternative would result in a maximum queue of 100 feet, which would exceed the provided storage of 50 feet, resulting in a significant impact.

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b. Facts in Support of Finding

The potentially significant impact listed above would be reduced to a less-than-significant level with the following mitigation measure provided in the College Square EIR:

- 6.2-6 In addition to relocating Driveway 7, as discussed in Section 6.2, reconfigure the drive aisle to provide 100-foot minimum of storage between West Stockton Boulevard and the internal circulation aisle.

6. **Impact 6.2-7: North-South Road/West Stockton Boulevard Storage Requirements**

a. Potentially Significant Impact

The addition of the proposed project would result in a 95th percentile queue of 360 feet for the eastbound left-turn movement during the p.m. peak hour, which would exceed the provided storage of 100 feet. In addition, the 95th percentile queue for the northbound left-turn movement (250 feet) during the p.m. peak hour would extend past the driveways on the west side of the North-South Road, which would restrict vehicles from exiting, resulting in a significant impact.

b. Facts in Support of Finding

The potentially significant impact listed above would be reduced to a less-than-significant level with the following mitigation measure provided in the College Square EIR:

- 6.2-7 Extend the eastbound left-turn pocket to provide 250 feet of storage and provide an additional 150-foot left-turn ingress lane at the driveway immediately west of the North-South Road (Driveway 4).

Provide a left-turn lane, a through lane, and an exclusive right-turn lane on the southbound approach.

Relocate the two driveways on the west side of the North-South Road 50 feet to the south, OR replace the driveways with one driveway opposite to the Child Care facility driveway.

7. **Impact 6.4-1: Short-Term Construction Noise**

a. Potentially Significant Impact

The simultaneous operation of onsite construction equipment could potentially result in combined intermittent noise levels of approximately 93 dBA at 50 feet from the project site. Based on these equipment noise levels and assuming a noise attenuation rate of 6 dBA per doubling of distance from the source to receptor, exterior noise levels at the sensitive receptors located within approximately 2,300 feet of the project site could potentially exceed 60 dBA without feasible noise control. Construction operations that occur between the hours of 7 a.m. and 6 p.m. Monday through Saturday and 9 a.m. and 6 p.m. on Sunday are exempt from the applicable standards. However, if construction operations were to occur during the noise-sensitive hours of 6 p.m. to 7 a.m. Monday through Saturday or 6 p.m. to 9 a.m. on Sunday, the applicable noise standards could potentially be exceeded at nearby noise-sensitive receptors (i.e., senior housing northwest of the project site, single-family residential units south of the project site). In addition, construction operations occurring during the evening and nighttime hours could result in annoyance and/or sleep disruption to occupants of the nearby residential dwellings. A significant impact could occur.

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b. Facts in Support of Finding

The potentially significant impact listed above would be reduced to a less-than-significant level with the following mitigation measure provided in the College Square EIR:

- 6.4-1 To the extent feasible, construction equipment shall be properly maintained and equipped with noise control, such as mufflers and shrouds, in accordance with manufacturers' specifications.

Construction operations involved with the proposed project shall be limited to the hours between 7 a.m. and 6 p.m. Monday through Saturday and 9 a.m. and 6 p.m. on Sunday. During such hours, these activities are exempt from the noise levels identified in the applicable standards

8. **Impact 6.4-2 Long-Term Area and Stationary Source Noise**

a. Potentially Significant Impact

Loading area noise from the commercial uses proposed within the northwest portion of the project site could exceed both the daytime and nighttime outdoor stationary source noise thresholds for stationary noise sources of 55 dBA daytime and 50 dBA nighttime at the senior housing. This would represent a significant impact.

b. Facts in Support of Finding

The potentially significant impact listed above would be reduced to a less-than-significant level with the following mitigation measure provided in the College Square EIR:

- 6.4-2 Loading activities (loading, unloading, truck movement and idling) at the proposed drug store shall occur on the southeast rather than the northwest side of the drug store building. Alternatively, the loading area for the proposed drug store shall be enclosed by a noise wall designed in conjunction with a noise consultant, and/or some other solution shall be identified by a noise consultant, to avoid significant loading activity noise impacts on the senior housing north of Cosumnes River Boulevard.

- Landscape maintenance (use of leaf blowers and lawn mowers) within the portion of the proposed commercial uses located north of the northernmost Bruceville driveway shall be limited to the use of electric- rather than fuel-powered equipment.
- At the time of submittal of the special permits for each of the individual project components, when the exact project design would be known, a detailed analysis of noise reduction requirements must be made by an acoustical engineer. Required noise reduction features included in the project design that would most effectively comply with the City of Sacramento and the State of California maximum acceptable interior and exterior noise levels for new development and the City's noise ordinance standards with respect to existing noise-sensitive receptors. Such noise reduction requirements may include, but are not necessarily limited to wall construction with resilient channels, staggered studs or double-stud walls, use of dual-glazed windows with laminated glass, limitation of the number and size of windows along walls located close to major noise sources, grouting or caulking to ensure exterior

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construction joint are air-tight, and the construction of soundwalls or berms.

9. **Impact 6.5-2 Drainage**

a. Potentially Significant Impact

The project applicant has proposed two alternatives for the proposed storm drain system. Alternative 1 would size the proposed storm drain facilities assuming detention within the 54-acre up-stream, off-site portion of watershed #1 (i.e., be designed with less capacity). Alternative 2 would size the proposed storm drain facilities assuming no upstream detention (i.e., be designed with greater capacity). Implementing Alternative 1 without the upstream detention could result in on-site or downstream flooding which would represent a significant impact.

b. Facts in Support of Finding

**6.5-2:** The project applicant shall size the proposed Bruceville Road trunk storm drain, West Stockton Boulevard storm drain, and the outfall to Union House Creek assuming no onsite detention within the parcels upstream of the project site within Watershed #1 (i.e., implement the larger pipes as called for under the Alternative 2 storm drain system).

10. **Impact 6.7-1 Light and Glare Impacts during Construction**

a. Potentially Significant Impact

If construction site security lighting were to be located close to the existing residences or along SR 99, it could result in a significant impact.

b. Facts in Support of Finding

The potentially significant impact listed above would be reduced to a less-than-significant level with the following mitigation measure provided in the College Square EIR:

**6.7-1:** To the degree possible, the project applicant and construction contractors shall locate lit construction sites and construction storage areas away from existing adjacent residential uses and the SR 99 frontage. All construction security lighting shall be shielded, focused downward, and focused away from residential areas and public streets.

11. **Impact 6.7-2 Light Impacts on Existing Sensitive Land Uses (Operation)**

a. Potentially Significant Impact

The lack of proposed vegetative or other visual screening along the southern boundary of the project site could result in a potentially significant light impact to the existing residences to the south.

b. Facts in Support of Finding

The potentially significant impact listed above would be reduced to a less-than-significant level with the following mitigation measure provided in the College Square EIR:

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6.7-2: The project applicant shall ensure that the landscaping concepts shown in the landscape plan are extended to the residential component of the project and that the southern boundary of the project receives the same landscape treatment as shown in the landscape plan along the eastern, northern, and western boundaries of the project site. The project applicant also shall ensure that all project lighting is shielded, focused downward, and focused away from residential areas and public streets. Finally, the project lighting shall comply with all other applicable requirements of the City's Zoning Ordinance and other light regulations

12. **Impact 6.9-1 Loss of Burrowing Owl**

a. Potentially Significant Impact

If burrowing owls are present in construction areas, occupied burrows could be destroyed under the proposed project and the development alternatives. This would represent a significant impact.

b. Facts in Support of Finding

The potentially significant impact listed above would be reduced to a less-than-significant level with the following mitigation measure provided in the College Square EIR:

6.9-1: The project applicant shall undertake the following:

1. Prior to construction activity, focused pre-construction surveys would be conducted by a qualified biologist for burrowing owls where suitable habitat is present within 250 feet of the proposed construction areas. Surveys would be conducted no less than 14 days and no more than 30 days prior to commencement of construction activities and surveys would be conducted in accordance with CDFG protocol.
2. If no occupied burrows are found on the project site, a letter report documenting survey methods and findings prepare by the qualified biologist would be submitted to CDFG for review and approval, and no further mitigation would be necessary.
3. If occupied burrows are found, impacts to them would be avoided by providing a construction buffer of 165 feet during the non-breeding season (September 1 through January 31) or 250 feet during the breeding season (February 1 through August 31). If construction occurs during the breeding season, the applicant would ensure that a minimum of 6.5 acres of contiguous foraging habitat is available surrounding the occupied burrowing owl nest burrow.
4. If adverse affects to occupied burrows (direct removal or construction within the buffer zone as defined in #3 above) are unavoidable, onsite passive relocation techniques approved by CDFG would be used to encourage owls to move to alternative burrows outside of the impact area. However, no occupied burrows would be disturbed during the nesting season unless a qualified biologist verifies through non-invasive methods that juveniles from the occupied burrows are foraging independently and are capable of independent survival. Mitigation for foraging habitat for relocated pairs would follow guidelines provided in the California Burrowing Owl Consortium Guidelines (1993) which range from 6.5 to

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19.5 acres per pair

13. **Impact 6.9-2 Removal of Swainson's Hawk Foraging and Nesting Habitat**

a. Potentially Significant Impact

Approximately 63 acres of grassland and seasonal wetland habitat that provide foraging habitat for Swainson's hawk would be removed as a result of the implementation of the proposed project or development alternatives. In addition, several trees which provide marginal Swainson's hawk nesting habitat would be removed under the proposed project and each of the development alternatives. While abundant foraging and nesting habitat still occur in the surrounding areas, habitat for this species is being removed at a rapid rate. A significant impact would occur.

b. Facts in Support of Finding

The potentially significant impact listed above would be reduced to a less-than-significant level with the following mitigation measure provided in the College Square EIR:

**6.9-2:** In order to reduce the impacts of the loss of foraging and nesting habitat for Swainson's hawk, the following mitigation measures shall be implemented by the project applicant.

For foraging impact: The following mitigation ratios were taken from the CDFG Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California, November 1994.

1. Preserve similar habitat within a 10-mile radius of the project site to be protected through fee title or conservation easement acceptable to CDFG through the payment of fees to a Swainson's hawk foraging habitat mitigation bank. Preservation ratios are as follows:
  - 0.5 acres preserved for every acre lost if project site is located between 5 and 10 miles from a nest.
  - 0.75 acres preserved for every acre lost if project site is located between 1 and 5 miles from a nest.
  - acres preserved for every acre lost if project site is located within 1 mile of a nest.

For nesting impact:

2. Pre-construction surveys shall be conducted by a qualified biologist to identify active nests within ½ mile of the project site. The surveys shall be conducted no less than 14 days and no more than 30 days prior to the beginning of construction of each phase of the proposed project. To the extent feasible, guidelines provided in the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in the Central Valley shall be followed.
  - If nests are not found, no further mitigation would be required.
  - If active nests are found, construction should not occur within 0.5 mile of the active nest during the breeding season (March 1 – September 15).

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- If construction must occur during these months, the nests would be protected by establishing appropriate buffers around each nest. CDFG guidelines recommend implementation of 0.25- or 0.5-mile buffers, but the size of the buffer may be adjusted if a qualified biologist and CDFG determine it would not be likely to adversely affect the nest. No project activity shall commence within the buffer area until a qualified biologist confirms that the nest is no longer active. Monitoring of the nest by a qualified biologist may be required if the activity could adversely affect the nesting Swainson's hawk.

14. **Impact 6.9-3: Loss of Jurisdictional Waters of the United States**

a. Potentially Significant Impact

Construction of the project would result in the removal of 4.9 acres of wetlands, including 2.5 acres of vernal pools and 2.4 acres of seasonal marsh/wetland, and would have indirect effects on 1.85 acres of constructed wetland and 0.29 acre of seasonal marsh that occur just offsite. The indirect effects would be associated with diversion of natural surface flow into the offsite wetlands which are known to contain federally listed invertebrates. The above would represent a significant impact.

These wetland areas also provide potential habitat for California linderiella and Midvalley fairy shrimp, both federal species of special concern. As a result of this project or the development alternatives, a total of 4.9 acres of habitat for special-status invertebrates would be removed/filled and 2.14 acres of wetlands (offsite) would be indirectly impacted. The onsite habitat would become unsuitable for invertebrates as a result of the proposed action and the offsite habitat would become less suitable. This loss of this habitat would be considered a significant impact.

b. Facts in Support of Finding

The potentially significant impact listed above would be reduced to a less-than-significant level with the following mitigation measure provided in the College Square EIR:

- 6.9-3 To mitigate direct and indirect impacts on wetlands, a minimum of 11.35 acres of wetlands shall be created and 16.28 acres of wetland shall be preserved by the project applicant.

An individual permit for discharge activities into jurisdictional waters of the United States, including wetlands, is required from the USACE under Section 404 of the Clean Water Act to fill onsite wetlands. In addition, Regional Water Quality Control Board Certification is required, pursuant to Section 401 of the Clean Water Act.

The applicant shall consult with the ACOE to determine if there are additional jurisdictional wetlands on the site. Any required permitting (individual permit, written authorization under a Nationwide permit or a written statement that no further action is required) shall be obtained prior to the development of the site. Implementation of any ACOE mitigation measures may be phased with the project in accordance with the ACOE permit conditions.

12. **Impact 6.9-7: Disturbance of Raptor Nests**

a. Potentially Significant Impact

Grassland and approximately 10 trees that could provide raptor nest habitat would be removed with the implementation of the proposed project and development alternatives. Disturbance to nesting raptors would be considered a significant impact.

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b. Facts in Support of Finding

The potentially significant impact listed above would be reduced to a less-than-significant level with the following mitigation measure provided in the College Square EIR:

**6.9-7:** The following measures shall be implemented by the project applicant to reduce potential impacts to active raptor nests to a less-than-significant level:

1. To the extent feasible, all grading and tree removal shall occur outside the raptor nesting season (September to January). If grading or tree removal is avoided during the raptor nesting season, no further mitigation shall be necessary. This measure applies to any heavy equipment activities that would occur within 500 feet of trees in or adjacent to the project site.
2. If grading or tree removal is proposed to take place during the raptor nesting season, a focused survey for raptor nests shall be conducted by a qualified biologist during the nesting season to identify active nests on the project site. The survey would be conducted no more than 30 days prior to the beginning of grading or tree removal. The results of the survey would be summarized in a written report to be submitted to CDFG and the City of Sacramento Planning Department prior to the beginning of grading.
3. If active nests are found, no remediation or other construction activity shall take place within 500 feet of the nest until the young have fledged (as determined by a qualified biologist). If no active nests are found during the focused survey, no further mitigation would be required.

**13. Impact 6.9-8 Loss of Heritage Trees**

a. Potentially Significant Impact

A tree survey shall be conducted on the project site to determine if heritage trees are present as defined by the City of Sacramento Heritage Tree Ordinance. If no heritage trees are present onsite, no further mitigation is required.

b. Facts in Support of Finding

The potentially significant impact listed above would be reduced to a less-than-significant level with the following mitigation measure provided in the College Square EIR:

**6.9-8** If heritage trees are present onsite, preserve the trees by installing temporary fencing 5 feet beyond the drip line of protected trees to minimize disturbance to the trees and their root zones in accordance with the Sacramento City Code, Chapter 12.64 Heritage Trees. Fences shall be maintained until all project activities are complete. No grading, trenching, or movement of heavy equipment shall occur within fenced areas.

If removal of the heritage trees or construction within 5 feet of the drip line cannot be avoided, a permit under Chapter 12.64.050 of the Heritage Tree Ordinance shall be obtained. All requirements of the permit shall be implemented.

**14. Impact 6.9-10 Cumulative Impacts on Biological Resources**

a. Potentially Significant Impact

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The proposed project would result in significant biological resources impacts before mitigation associated with loss of burrowing owl, removal of Swainson's hawk nesting and foraging habitat, loss of jurisdictional Waters of the U.S., loss of habitat for vernal pool invertebrates, disturbance of raptor nests, and loss of heritage trees. These impacts would be reduced to less-than-significant levels with implementation of the mitigation recommended in this section.

Given the presence of the above listed biological resources in the vicinity of the project site, the South Sacramento Community Plan (SSCP) area, and the greater City of Sacramento, it is anticipated that cumulative development within these areas would significantly impact the above listed biological resources before mitigation, but that on a project-by-project basis, some or all of these impacts could be avoided. Still, cumulative development within the vicinity of the project site, the SSCP area, and the greater City of Sacramento would result in a large net reduction in listed species, sensitive species, the habitats of listed species and sensitive species, wetlands, waters of the United States and the State, and heritage trees. A significant unavoidable cumulative impact could occur.

b. Facts in Support of Finding

Cumulative development should implement Mitigation Measures 6.9-1, 6.9-2, 6.9-3, 6.9-7 and 6.9-8, and should conduct rare plant surveys and implement required mitigation.

15. **Impact 6.10-2: Undiscovered Archaeological Resources**

a. Potentially Significant Impact

There exists the possibility for the presence of undiscovered archaeological resources on the project site. Development would require grading and excavation that could disturb or damage any as-yet-undiscovered cultural resource that may be present at the project site. A significant impact could occur. The degree of the impact would likely be similar between the proposed project and the development alternative because a similar area would be disturbed under each.

b. Facts in Support of Finding

The potentially significant impact listed above would be reduced to a less-than-significant level with the following mitigation measure provided in the College Square EIR:

Future development on the project site shall comply with the following measures:

- ▶ If subsurface prehistoric or historical archaeological remains are identified during construction, work in the affected areas shall immediately stop until the find can be evaluated by a qualified archaeologist. If the find is determined to be of significance, mitigation shall consist of avoidance, and/or mitigation through data recovery.

In accordance with §7050.5 of the Health and Safety Code and §5097.94 and §5097.98 of the Public Resources Code, if human remains are discovered at the project site during excavation, work shall immediately stop at the construction site, the county coroner shall be contacted, and the Native American Heritage Commission shall be contacted. If the remains are determined to be Native American in origin, they shall be left intact, and the most likely descendants shall be notified.

16. **Impact 6.11-1 Hazardous Materials – Soil Contamination**

a. Potentially Significant Impact

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The Phase I Environmental Site Assessment (ESA) conducted for the project indicates that there is no documented known or suspected soil contamination at the project site. However, there is the potential that as of yet undiscovered soil contamination may exist at the site which could be unearthed during construction-related earth-moving activities and potentially expose persons to contamination. Any exposure of people to contaminated soil during construction is considered a significant impact.

b. Facts in Support of Finding

The potentially significant impact listed above would be reduced to a less-than-significant level with the following mitigation measure provided in the College Square EIR:

6.11-1 If discolored soil, storage tanks or other evidence of potential soil contamination is unearthed during construction-related earth work, or if noxious odors are encountered during said earth work, construction activities shall immediately cease at the construction site. A qualified environmental consultant shall collect and analyze soil samples from the construction site. If contaminants are identified in the samples, the applicant shall coordinate with the Sacramento County EMD for direction on appropriate remediation measures and procedures prior to the commencement of construction activities.

**17. Impact 6.11-3 Hazardous Materials – Cumulative Impacts**

a. Potentially Significant Impact

Cumulative development in conjunction with the proposed project could increase the potential exposure hazard to unknown preexisting contaminants. If Phase I ESAs are not prepared for this cumulative development, and if any mitigation measures identified in these ESAs that are required to avoid potential exposure hazards to any preexisting hazardous contamination are not implemented, a potentially significant impact could occur.

b. Facts in Support of Finding

The potentially significant impact listed above would be reduced to a less-than-significant level with the following mitigation measure provided in the College Square EIR:

6.11-2 The applicants of the cumulative projects shall have prepared Phase I Environmental Site Assessments (ESAs) for their projects and shall implement any mitigation measures recommended in those ESAs to avoid potential exposure hazards to any preexisting hazardous materials contamination on the cumulative development sites.

**3. SIGNIFICANT IMPACTS WHICH CANNOT BE AVOIDED**

In this section of the Findings of Fact for the proposed College Square, the City identifies the significant impacts that cannot be reduced through mitigation measures to a less-than-significant level.

**1. Impact 6.2-5: SR 99 Southbound Off-Ramp/Cosumnes Boulevard – Year 2025**

a. Significant and Unavoidable Impact

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The addition of the proposed project and Park-and-Ride Alternative would add more than 5 seconds of delay to a.m. (LOS D) and p.m. (LOS E) operations, resulting in a significant impact.

b. Facts in Support of Finding

Provide an additional right-turn lane on the SR 99 southbound off-ramp to Cosumnes River Boulevard.

To implement this mitigation measure, Caltrans approval is required and additional right-of-way to construct a bridge may be needed. Because the applicant has no control over right-of-way, this measure is infeasible.

2. **Impact 6.3-1: Short-Term Construction Emissions of ROG, NO<sub>x</sub>, and PM<sub>10</sub>**

a. Significant and Unavoidable Impact

Construction of 724 residential units and 270,256 square feet of commercial and office space would temporarily generate emissions of ROG, NO<sub>x</sub>, and PM<sub>10</sub> due to site grading and excavation, paving, application of architectural coatings, motor vehicle exhaust associated with construction equipment and employee commute trips, material transport (especially on unpaved surfaces), and other construction operations.

The site preparation phase for the proposed project would result in unmitigated daily emissions of approximately 8.66 pounds per day (lbs/day) of ROG, 59.11 lbs/day of NO<sub>x</sub>, and 125.41 lbs/day of PM<sub>10</sub>. The actual construction of the proposed project would result in unmitigated daily emissions of approximately 203.60 lbs/day of ROG, 508.01 lbs/day of NO<sub>x</sub>, and 31.92 lbs/day of PM<sub>10</sub>.

Daily unmitigated emissions of NO<sub>x</sub> would exceed the SMAQMD's significance threshold of 85 lbs/day. In addition, because the Sacramento County portion of the SVAB is currently designated as non-attainment for the state and national ambient ozone and PM<sub>10</sub> standards, construction emissions of ozone precursors (ROG and NO<sub>x</sub>) and PM<sub>10</sub> would potentially contribute to a violation in the NAAQS and CAAQS. As a result, project construction-generated emissions, would be considered to have a significant, short-term air quality impact.

b. Facts in Support of Finding

In accordance with the recommendations of the SMAQMD, the applicant shall implement the following mitigation measures to reduce temporary construction emissions. In addition to the mitigation measures identified below, construction of the proposed project is required to comply with all applicable SMAQMD rules and regulations, specifically Rule 403 regarding fugitive dust, Rule 442 regarding architectural coatings, and Rule 453 regarding asphalt paving. The applicant shall also submit to the SMAQMD a Construction Emission/Dust Control Plan and receive approval prior to groundbreaking.

To reduce NO<sub>x</sub> and visible emissions from heavy-duty diesel equipment the following measures are recommended by the SMAQMD:

- ▶ The project shall provide a plan for approval by the City of Sacramento and SMAQMD demonstrating that the heavy-duty (>50 horsepower) off-road vehicles to be used in the construction project, including owned, leased, and subcontractor vehicles, would achieve a project wide fleet-average 20% NO<sub>x</sub> reduction and 45% particulate reduction compared to the most recent California ARB fleet average at the time of construction; and the project representative shall submit a comprehensive inventory of all off-road construction equipment, equal to or greater

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than 50 horsepower, that would be used an aggregate of 40 or more hours during any portion of the construction project. The inventory shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction operations occur. At least 48 hours prior to the use of subject heavy-duty off-road equipment, the project representative shall provide the City of Sacramento and SMAQMD with the anticipated construction timeline including start date, and name and phone number of the project manager and onsite foreman. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, particulate matter traps, engine retrofit technology, after-treatment products, and/or other options as they become available.

- ▶ The project shall ensure that emissions from off-road diesel powered equipment used on the project site do not exceed 40% opacity for more than three minutes in any one hour. Any equipment found to exceed 40% opacity (or Ringlemann 2.0) shall be repaired immediately, and the City of Sacramento and SMAQMD shall be notified within 48 hours of identification of non-compliant equipment. A visual survey of all in-operation equipment shall be made at least weekly, and a monthly summary of visual survey results shall be submitted throughout the duration of the project, except that the monthly summary shall not be required for any 30-day period in which no construction operations occur. The monthly summary shall include the quantity and type of vehicles surveyed as well as the dates of each survey. The City of Sacramento and SMAQMD and/or other officials may conduct periodic site inspections to determine compliance. The above recommendations shall not supercede other SMAQMD or state rules and regulations.
- ▶ The primary contractor shall be responsible to ensure that all heavy-duty equipment is properly tuned and maintained, in accordance with manufacturers' specifications.

To reduce fugitive dust emissions, in compliance with Rule 403, the following mitigation measures are recommended by the SMAQMD:

- ▶ All disturbed areas, including storage piles that are not being actively used for construction purposes shall be effectively stabilized of dust emissions using water, a chemical stabilizer or suppressant, or vegetative ground cover.
- ▶ All onsite unpaved roads and offsite unpaved access roads shall be effectively stabilized of dust emissions using water or a chemical stabilizer or suppressant.
- ▶ When materials are transported offsite, all material shall be covered, effectively wetted to limit visible dust emissions, or maintained with at least 6 inches of freeboard space from the top of the container.
- ▶ All operations shall limit or expeditiously remove the accumulation of project-generated mud or dirt from adjacent public streets at least once every 24 hours when operations are occurring.
- ▶ Following the addition of materials to, or the removal of materials from, the surfaces of outdoor storage piles, the storage piles shall be effectively stabilized of fugitive dust emissions using sufficient water or a chemical stabilizer/suppressant.
- ▶ Onsite vehicle speeds on unpaved roads shall be limited to 15 mph.
- ▶ Wheel washers shall be installed for all trucks and equipment exiting from unpaved areas or wheels shall be washed manually to remove accumulated dirt prior to leaving the site.
- ▶ Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from adjacent project areas with a slope greater than 1%.

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- ▶ Excavation and grading activities shall be suspended when winds exceed 20 mph.
- ▶ The extent of areas simultaneously subject to excavation and grading shall be limited, wherever possible, to the minimum area feasible.

Implementation of the above recommended mitigation measures would result in a 20% reduction in NO<sub>x</sub> emissions and a 45% reduction visible emissions from heavy-duty diesel equipment. In addition, compliance with Rule 403 would result in a 75% reduction in fugitive dust emissions. However, daily construction emissions associated with the proposed project and each of the development alternatives would still exceed the SMAQMD's significance threshold of 85 lbs/day for NO<sub>x</sub> and thus would potentially contribute to a violation in the NAAQS and CAAQS.

**3. Impact 6.3-2: Long-Term Regional (Operational) Emissions of ROG, NO<sub>x</sub>, and PM<sub>10</sub>**

a. Significant and Unavoidable Impact

The operation of the proposed project would result in unmitigated long-term regional emissions of approximately 197.88 lbs/day of ROG, 165.61 lbs/day of NO<sub>x</sub>, and 82.42 lbs/day of PM<sub>10</sub>.

Implementation of the proposed project would require General Plan Amendments and Rezoning to permit the proposed land uses. According to the transportation analysis, the operation of the proposed project would result in more vehicle trips and VMT than if the project site was developed under the current designation. Thus, an increase in VMT, which would lead to an increase in mobile source emissions, may conflict with the SMAQMD's air quality planning efforts. Consequently, an increase in VMT beyond projections in local plans could potentially result in a significant adverse incremental effect on the region's ability to attain and/or maintain state and national ambient air quality standards.

Daily unmitigated emissions of ROG and NO<sub>x</sub> would exceed the SMAQMD's significance threshold of 65 lbs/day. Thus, because the Sacramento County portion of the SVAB is currently designated as non-attainment for the state and national ambient ozone and PM<sub>10</sub> standards, regional emissions of ozone precursors (ROG and NO<sub>x</sub>) and PM<sub>10</sub> would potentially contribute to a violation in the NAAQS and CAAQS. In addition, implementation of the proposed project may conflict with applicable air quality plans. A significant impact would occur.

b. Facts in Support of Finding

In accordance with the recommendations of the SMAQMD, the applicant shall implement the following mitigation measures to reduce long-term regional area- and mobile-source emissions of ROG, NO<sub>x</sub>, and PM<sub>10</sub>.

- ▶ Orient buildings north/south
- ▶ All electric landscape maintenance equipment
- ▶ Central water heaters
- ▶ Increase insulation beyond Title 24
- ▶ Provide street artwork and furniture
- ▶ Provide transit shelters, benches, etc.

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- ▶ Provide route signs and displays
- ▶ Provide pedestrian signalization and signage
- ▶ Provide articulated storefronts (display windows for visual interest)
- ▶ Do not place long uninterrupted walls along pedestrian access routes
- ▶ Provide secure bike parking
- ▶ Provide employee lockers and showers
- ▶ Provide compressed work schedule (e.g. 9/80)

Implementation of the above recommended mitigation measures would reduce long-term regional emissions. However, daily mitigated emissions of ROG and NO<sub>x</sub> would still exceed the SMAQMD's significance threshold of 65 lbs/day and thus would potentially contribute to a violation in the NAAQS and CAAQS under the proposed project.

**4. Impact 6.3-3: Local Mobile Source Carbon Monoxide Concentration Emissions**

a. Significant and Unavoidable Impact

Implementation of the proposed project would result in maximum 1-hour and 8-hour CO concentrations of 60.4 ppm and 36.2 ppm at the Bruceville Road/Cosumnes River Boulevard intersection. This would exceed the state 1-hour or 8-hour CO ambient air quality standards of 20 parts per million (ppm) or 9 ppm, respectively. A significant impact would occur.

b. Facts in Support of Finding

Implementation of the recommended mitigation measures identified in the traffic section of the EIR (Section 6.2) would reduce local mobile source emissions. However, local mobile source CO would still be anticipated to result in or contribute to CO concentrations that exceed the state 1-hour or 8-hour CO ambient air quality standards of 20 parts per million (ppm) or 9 ppm, respectively.

**5. Impact 6.3-7: Cumulative Air Quality Impacts**

a. Significant and Unavoidable Impact

Implementing the proposed project would result in significant air quality impacts before mitigation associated with short-term construction emissions, long-term regional emissions, and local mobile source carbon monoxide concentration emissions. These would be reduced but would remain significant after mitigation.

b. Facts in Support of Finding

The project should implement Mitigation Measures 6.3-1, 6.3-2, and 6.3-3. These mitigation measures would reduce cumulative air quality impacts, but not to less-than-significant levels

**6. Impact 6.4-3: Long Term Mobile Source Noise**

a. Significant and Unavoidable Impact

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The project would result in a noticeable increase in traffic noise along (1) West Stockton Boulevard between the project site and Shasta Avenue; and (2) West Stockton Boulevard between Shasta Avenue and Jacinto Road. In addition, truck traffic from delivery to and from the nonresidential land uses on the local roadways (West Stockton Boulevard) could result in noise levels that exceed the applicable threshold due to tire/pavement contact, brake application, engine and exhaust noise. These increases in traffic noise along segments of West Stockton Boulevard would adversely impact the existing residences along West Stockton Boulevard from the southern boundary of the project site to Jacinto Road, and the proposed residential units along Stockton Boulevard and adjacent to the commercial, office and child care uses proposed along the south side of West Stockton Boulevard. A significant impact would occur.

b. Facts in Support of Finding

Onsite truck traffic and associated loading area operations shall be limited to the less noise-sensitive daytime hours of 6:00 a.m. to 8:00 p.m. Monday through Friday or 7:00 a.m. to 8:00 p.m. on Saturday and Sunday.

At the time of submittal of the special permits for each of the individual project components, when the exact project design would be known, a detailed analysis of noise reduction requirements must be made by an acoustical engineer. Required noise reduction features included in the project design that would most effectively comply with the City of Sacramento and the State of California maximum acceptable interior and exterior noise levels for new development and the City's noise ordinance standards with respect to existing noise-sensitive receptors. Such noise reduction requirements may include, but are not necessarily limited to wall construction with resilient channels, staggered studs or double-stud walls, use of dual-glazed windows with laminated glass, limitation of the number and size of windows along walls located close to major noise sources, grouting or caulking to ensure exterior construction joist are air-tight, and the construction of soundwalls or berms.

Because the project applicant does not have control of offsite parcels, the development of a noise wall along the west side of West Stockton Boulevard from the southern boundary of the project site to Jacinto Road, which would be required to avoid significant project traffic noise impacts on the existing residences along this segment of West Stockton Boulevard, is not possible.

7. **Impact 6.4-4: Compatibility of the Proposed Land Uses with Projected Onsite Noise Levels**

a. Significant and Unavoidable Impact

The nearest proposed onsite sensitive noise receptors to SR 99 would be the proposed senior housing to be located in the southeast corner of the project site. This housing would be located within approximately 60 feet, and well within the 70 dBA noise contour of SR 99 (which would extend approximately 500 feet into the eastern portion of the project site). The maximum interior and exterior noise levels for new multifamily land uses are 45 dB and 60 dB in common outdoor use areas. Based on the above, noise from SR 99 would exceed the City's acceptable noise exposure standards. This would represent a significant impact.

The nearest proposed onsite sensitive noise receptors to Bruceville Road would be the proposed multifamily housing to be located in the southwest portion of the project site. This housing would be located within approximately 20 feet, and well within the 70 dBA noise contour of Bruceville Road (which would extend approximately 102 feet into the western portion of the project site). The maximum acceptable interior and exterior noise levels for new multifamily land uses are

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45 dB and 60 dB in common outdoor use areas. Based on the above, noise from Bruceville Road would exceed the City's normally acceptable noise exposure standard. This would represent a significant impact.

b. Facts in Support of Finding

At the time of submission of the special permits for each of the individual project components, when the exact project design would be known, a detailed analysis of noise reduction requirements must be made by an acoustical engineer. Required noise reduction features included in the project design that would most effectively comply with the City of Sacramento and the State of California maximum acceptable interior and exterior noise levels for new development. Such noise reduction requirements measures could include, but are not necessarily limited to wall construction with resilient channels, staggered studs or double-stud walls, use of dual-glazed windows with laminated glass, limitation of the number and size of windows along wall located close to major noise sources, grouting or caulking to ensure exterior construction joist are air-tight, and the construction of soundwalls or berms.

Even with implementation of the above mitigation, exterior noise levels at the proposed on-site senior housing and multifamily residential uses, especially along SR 99, would still likely exceed City noise compatibility standards, especially at the upper stories.

8. **6.4-5 Noise Impacts (Cumulative)**

a. Significant and Unavoidable Impact

The anticipated cumulative increases in short-term construction noise and long-term area and stationary sources noise is more problematic in that feasible mitigation is usually available to mitigate this type of noise given the low rise and nonindustrial nature of the type of cumulative development that would occur in the area. Without appropriate mitigation, cumulative development in the area could potentially result in significant short-term construction noise and long-term area and stationary sources noise. However, it is anticipated that adequate mitigation would be provided during the CEQA review of these cumulative projects to result in an overall less-than-significant cumulative impact.

Because of the proximity of the local area to major long-term mobile noise sources (i.e., SR 99, Cosumnes River Boulevard, Bruceville Road), and because cumulative development would result in an increase in traffic volumes and associated traffic noise from these sources, it is anticipated the cumulative long-term mobile source noise and noise compatibility impacts on existing and proposed future noise-sensitive land uses in the area would represent a significant and unavoidable cumulative impact. The proposed project would contribute to this impact.

b. Facts in Support of Finding

Cumulative development should implement Mitigation Measures 6.4-1 through 6.4-4 to the extent that these measures are applicable.

Implementation of the above mitigation would reduce cumulative construction and long-term area/stationary source noise to less-than-significant levels. This mitigation would also reduce long-term mobile source noise and noise compatibility issues, but not to less-than-significant levels.

9. **6.9-10 Cumulative Impacts on Biological Resources**

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a. Significant and Unavoidable Impact

Cumulative development within the vicinity of the project site, the SSCP area, and the greater City of Sacramento would result in a large net reduction in listed species, sensitive species, the habitats of listed species and sensitive species, wetlands, waters of the United States and the State, and heritage trees. A significant unavoidable cumulative impact could occur. Although on a project basis, the proposed project and the development alternatives (Alternatives AB and AC) would not result in any significant impacts to biological resources after mitigation, they would contribute to this cumulative impact.

b. Facts in Support of Finding

Cumulative development should implement Mitigation Measures 6.9-1, 6.9-2, 6.9-3, 6.9-7 and 6.9-8, and should conduct rare plant surveys and implement required mitigation (similar to the proposed project and the development alternatives

4. REJECTION OF ALTERNATIVES

CEQA mandates that every EIR evaluate a no-project alternative, plus a range of alternatives to the project or its location. Alternatives provide a basis of comparison to the project in terms of beneficial, significant, and unavoidable impacts. This comparative analysis is used to consider reasonable feasible options for minimizing environmental consequences of a project. For the reasons documented in the EIR and summarized below, the City finds that approval and implementation of the project as approved is appropriate, and rejects each one and any combination of project alternatives. The evidence supporting these findings is presented in Sections 4 and 6.2 through 6.11 of the Draft EIR.

A. Alternative A: No Project Alternative

Under the No Project Alternative, the City of Sacramento would not approve the development plans for the proposed College Square project. The property would remain in its current state and would not be available for construction.

Finding

*Specific economic, social, or other considerations make infeasible the No Project Alternative identified in the EIR and described above.*

**Facts in Support of Finding**

1. Alternative A would not meet any of the goals and objectives of the proposed project.
2. The No Project Alternative would not achieve the basic goals and objectives of the proposed project and would leave the site underutilized.
3. The No Project Alternative would not achieve the basic goals and objectives of the developer to develop an economically feasible project that meets the highest and best use of the property.
4. Significant effects of the proposed project are acceptable when balanced against this Alternative and the facts set forth in the Statement of Overriding Considerations.

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**STATEMENT OF OVERRIDING CONSIDERATIONS**

Notwithstanding disclosure of the significant impacts and the accompanying mitigation, the City has determined pursuant to Section 15093 of the CEQA Guidelines that the benefits of the project outweigh the adverse impacts, and the proposed project shall be approved.

With reference to the above findings and in recognition of those facts which are included in the record, the City has determined that the proposed project would contribute to the environmental impacts which are considered significant and adverse, as disclosed in the EIR prepared for the proposed project.

Under CEQA, the City must balance the benefits of the Project against its unavoidable environmental risks in determining whether to approve the Project. If the benefits of a Project outweigh the unavoidable adverse effects, those effects may be considered "acceptable" (CEQA Guidelines Section 15093[a]). However, CEQA requires the City to support, in writing, the specific reasons for considering a Project acceptable when significant impacts are unavoidable. Such reasons must be based on substantial evidence in the EIR or elsewhere in the administrative record (CEQA Guidelines Section 15093[b]). Those reasons are provided below as the "Statement of Overriding Considerations."

The City finds that the economic, social, or other benefits of the Project outweigh the unavoidable environmental impacts and that the Alternatives are rejected based upon the following legal, environmental, social, technological and other considerations.

The City specifically finds, and therefore makes this Statement of Overriding Considerations, that as a part of the process of obtaining project approval, all significant effects on the environment with implementation of the Proposed Project have been eliminated or substantially lessened where feasible. Furthermore, the City has determined that any remaining significant effects on the environment found to be unavoidable are acceptable due to the overriding considerations described below:

1. The College Square project is designed to encourage non-vehicular modes of travel (i.e., transit, walk and bike). It is anticipated that the vehicle trip generation of the project would be lower than in a typical suburban area. The General Plan goal to promote a well designed and heavily patronized light rail system (Section 5-22, Goal A), which is accomplished by the plan through increases housing and employment opportunities within walking distance of the bus transfer facility and light rail transit station.
2. The College Square project will result in a balanced circulation system for vehicles, pedestrians and bicyclists to create attractive, convenient and safe movement to, from, and throughout the project area. The creation of a balanced transportation system is consistent with the General Plan goal to increase the commute vehicle occupancy rate by fifty percent (Section 5-18, Goal A) and the supporting policy (Policy 1) to support actions/ordinance/development/agreements that reduce peak hour trips. The increased congestion and travel times will further encourage use of alternative modes of transportation including walking, biking and transit.
3. The public has made a \$200 million investment in the LRT system and intensive mixed uses are necessary to support transit rider ship and reduce congestion. The General Plan, Section 2-15, Goal C, Policy 1, provided directions to identify areas where increased densities, land uses changes

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or mixed uses would help support existing services, transportation facilities, transit and light rail. This policy encourages development, such as this project, that provides a combination of transit oriented development and transit supportive programs because such development can help achieve per household reductions in vehicle miles traveled, air quality emissions, transit ridership and improve regional mobility. This project will capture a significant amount of work trips by rail by constructing a mixture of residential land uses and workplaces near the proposed College Square light rail station. This project will place both residents and workers near light rail and thereby create a critical mass of potential light rail riders.

4. The College Square project will result in a balanced circulation system for vehicles, pedestrians and bicyclists to create attractive, convenient and safe movement to, from, and throughout the transit village area. Improvements to pedestrian and bikeway infrastructure to provide for a balanced circulation system may result in reduced convenience in vehicle movement. These improvements will result in increased use of walking, bicycling and transit modes of transportation, placing them more in balance with use of the single occupant vehicle.
5. Many traffic mitigation measures are infeasible due to unavailability of right-of-way or prohibitive costs of the improvements. The creation of a balanced transportation system is consistent with the General Plan goal to increase the commute vehicle occupancy rate. The increased congestion and travel times will further encourage use of alternative modes of transportation including walking, biking and transit and at the same time result in reduced per household vehicle miles traveled and air quality emissions.
6. The College Square project provides an alternative to the consequences of low-density suburban sprawl and automobile dominated land use patterns and implements the City of Sacramento's General Plan Smart Growth Principles (Resolution 2001-805) including the following:
  - Mix land uses and support vibrant city centers giving preference to transit oriented development within existing transportation corridors by supporting increased densities, intensities and mixes of commercial and residential uses proximate to existing transit facilities;
  - foster walkable, close knit neighborhoods through a system of fully connected activity centers, streets, pedestrian paths and bike routes by providing plans and policies to support increased infrastructure and supporting land uses;
  - concentrate new development and target infrastructure investments within the urban core of the region to allow for efficient use of existing facilities, infill and reuse areas by creating an implementation plan that identifies investment measures to support transit oriented development within the proposed transit village;
  - create a range of housing opportunities and choices with a diversity of affordable housing near employment centers by providing opportunities for a range of housing types and densities, as well as supportive uses and infrastructure.
7. Existing policies in the General Plan encourage transit oriented development through the following goals and policies:
  - a. **Provide the opportunity for mixture of housing with other uses in the same building or site at selected locations to capitalize on advantages of close-in living.** The Plan provides new opportunities for housing and mixed use development and provides flexibility for both vertical and horizontal integration

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Exhibit 1B – Mitigation Monitoring Plan

**CITY OF SACRAMENTO  
MITIGATION MONITORING PLAN**

This Mitigation Monitoring Plan (MMP) has been required by and prepared by the City of Sacramento Planning and Building Department, 1231 I Street, Room 300, Sacramento, CA 95814, pursuant to CEQA Guidelines section 15097.

**Project Description**

Project Name/File Number: College Square /P00-147  
City of Sacramento Contact Person: City of Sacramento, Planning and Building Department  
1231 I Street, Room 300  
Sacramento, California 95814  
(916) 264-7601  
Applicant: Richard Sambucetti, Borges Architectural Group, Inc.  
Address: 1512 Eureka Road, Suite 240  
Roseville, CA 95661

**Project Site**

Southern part of the City of Sacramento, at the southeast corner of Cosumnes Boulevard and Bruceville Road, APNs 117-0182-001,003,0019,020,021,024,025,028,029, and 030; 117-0184-001 and 002

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**Mitigation Monitoring Plan**

**Introduction**

The California Environmental Quality Act (CEQA) requires review of any project that could have significant adverse effects on the environment. In 1988, CEQA was amended to require reporting on and monitoring of mitigation measures adopted as part of the environmental review process. This Mitigation Monitoring Plan (MMP) is designed to aid the City of Sacramento in its implementation and monitoring of measures adopted from the

**Mitigation Measures**

The mitigation measures are taken from the College Square Draft Environmental Impact Report. The MMP describes the actions that must take place to implement each mitigation measure, the timing of those actions, and the entities responsible for implementing and monitoring the actions.

**MMP Components**

The components of each monitoring form are addressed briefly, below.

**Mitigation Measure:** All mitigation measures that were identified in the College Square Draft Environmental Impact Report are presented, and numbered accordingly.

**Monitoring:** For every mitigation measure, one or more action is described. These are the center of the MMP, as they delineate the means by which College Square Draft Environmental Impact Report measures will be implemented, and, in some instances, the criteria for determining whether a measure has been successfully implemented. Where mitigation measures are particularly detailed, the action may refer back to the measure.

**Timing:** Each action must take place prior to the time at which a threshold could be exceeded. Implementation of the action must occur prior to or during some part of approval, project design or construction or on an ongoing basis. The timing for each measure is identified.

**Parties Responsible for Implementing Measure:** This item identifies the entity that will undertake the required action.

**Entity Responsible for Ensuring Compliance:** The City of Sacramento is responsible for ensuring that most mitigation measures are successfully implemented. Within the City, a number of departments and divisions will have responsibility for monitoring some aspect of the overall project. Occasionally, monitoring parties outside the City are identified. These parties are referred to as "Responsible Agencies" by CEQA.

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**Mitigation Measure: Transportation**

**6.2-1 Bruceville Road/Cosumnes River Boulevard – Base Year**

Improve the northbound approach of Bruceville Road/Cosumnes River Boulevard intersection to provide an exclusive left-turn lane, two through lanes and an exclusive right turn lane.

**6.2-2 Bruceville Road/Cosumnes River College Driveway – Base Year**

Install a traffic signal at the intersection of Bruceville Road/Cosumnes River College Driveway and improve the southbound approach to provide a single through lane and exclusive right-turn lane.

**6.2-6 Driveway 7**

In addition to relocating Driveway 7, as discussed in Section 6.2, reconfigure the drive aisle to provide 100-foot minimum of storage between West Stockton Boulevard and the internal circulation aisle.

**6.2-7 North-South Road/West Stockton Boulevard Storage Requirements**

Extend the eastbound left-turn pocket to provide 250 feet of storage and provide an additional 150-foot left-turn ingress lane at the driveway immediately west of the North-South Road (Driveway 4).

Provide a left-turn lane, a through lane, and an exclusive right-turn lane on the southbound approach.

Relocate the two driveways on the west side of the North-South Road 50 feet to the south, OR replace the driveways with one driveway opposite to the Child Care facility driveway.

**6.2-3 Bruceville Road/Timberlake Way/Alpine Frost Drive – Year 2025**

Provide an exclusive right-turn lane on the northbound approach to the Bruceville Road/Timberlake Way/Alpine Frost Drive intersection if not built by others.

**6.2-4 Bruceville Road/Cosumnes River Boulevard – Year 2025**

Provide a third left-turn lane on the westbound approach to the Bruceville Road/Cosumnes River Boulevard intersection. The improvement shall be in place prior to the completion of the Park & Ride lot.

**Monitoring Program:**

All improvements shall be shown on the public improvement plans.

**Timing:**

Prior to issuance of the first building permit, except as otherwise noted.

**Parties Responsible for Implementing Measure:**

Project developer/contractor.

**Entities Responsible for Ensuring Compliance:**

City of Sacramento, Department of Public Works.

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**6.4-1 Short-Term Construction Noise**

To the extent feasible, construction equipment shall be properly maintained and equipped with noise control, such as mufflers and shrouds, in accordance with manufacturers' specifications.

Construction operations involved with the proposed project shall be limited to the hours between 7 a.m. and 6 p.m. Monday through Saturday and 9 a.m. and 6 p.m. on Sunday

**6.4-2 Long-Term Area and Stationary Source Noise**

Loading activities (loading, unloading, truck movement and idling) at the proposed drug store shall occur on the southeast rather than the northwest side of the drug store building. Alternatively, the loading area for the proposed drug store shall be enclosed by a noise wall designed in conjunction with a noise consultant, and/or some other solution shall be identified by a noise consultant, to avoid significant loading activity noise impacts on the senior housing north of Cosumnes River Boulevard.

Landscape maintenance (use of leaf blowers and lawn mowers) within the portion of the proposed commercial uses located north of the northernmost Bruceville driveway shall be limited to the use of electric- rather than fuel-powered equipment.

**Monitoring:** At the time of submittal of the special permits for each of the individual project components, when the exact project design would be known, a detailed analysis of noise reduction requirements must be made by an acoustical engineer. Required noise reduction features included in the project design that would most effectively comply with the City of Sacramento and the State of California maximum acceptable interior and exterior noise levels for new development and the City's noise ordinance standards with respect to existing noise-sensitive receptors. Such noise reduction requirements may include, but are not necessarily limited to wall construction with resilient channels, staggered studs or double-stud walls, use of dual-glazed windows with laminated glass, limitation of the number and size of windows along walls located close to major noise sources, grouting or caulking to ensure exterior construction joints are air-tight, and the construction of soundwalls or berms.

**Timing:**  
Prior to issuance of a Special Permit.

**Parties Responsible for Implementing Measure:**  
Project developer/contractor.

**Entities Responsible for Ensuring Compliance:**  
City of Sacramento, Planning and Building Department.

**6.4-1 Short-Term Construction Noise**

To the extent feasible, construction equipment shall be properly maintained and equipped with noise control, such as mufflers and shrouds, in accordance with manufacturers' specifications.

Construction operations involved with the proposed project shall be limited to the hours between 7 a.m. and 6 p.m. Monday through Saturday and 9 a.m. and 6 p.m. on Sunday

**6.4-2 Long-Term Area and Stationary Source Noise**

Loading activities (loading, unloading, truck movement and idling) at the proposed drug store shall occur on the southeast rather than the northwest side of the drug store building. Alternatively, the loading area for the proposed drug store shall be enclosed by a noise wall designed in conjunction with a noise consultant, and/or some other solution shall be identified by a noise consultant, to avoid significant

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loading activity noise impacts on the senior housing north of Cosumnes River Boulevard.

Landscape maintenance (use of leaf blowers and lawn mowers) within the portion of the proposed commercial uses located north of the northernmost Bruceville driveway shall be limited to the use of electric- rather than fuel-powered equipment.

**Monitoring:**

At the time of submittal of the special permits for each of the individual project components, when the exact project design would be known, a detailed analysis of noise reduction requirements must be made by an acoustical engineer.

**Timing:**

Prior to issuance of a Special Permit

**Parties Responsible for Implementing Measure:**

Project developer/contractor.

**Entities Responsible for Ensuring Compliance:**

City of Sacramento, Planning and Building Department.

**6.5-2 Drainage**

The project applicant shall size the proposed Bruceville Road trunk storm drain, West Stockton Boulevard storm drain, and the outfall to Union House Creek assuming no onsite detention within the parcels upstream of the project site within Watershed #1 (i.e., implement the larger pipes as called for under the Alternative 2 storm drain system).

**Monitoring :**

All required drainage improvements shall be shown on the Final Drainage Plan.

**Timing:**

Prior to recordation of the Final Map.

**Parties Responsible for Implementing Measure:**

Project developer/contractor.

**Entities Responsible for Ensuring Compliance:**

City of Sacramento, Utilities Department

**6.7-1 Light and Glare Impacts during Construction**

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To the degree possible, the project applicant and construction contractors shall locate lit construction sites and construction storage areas away from existing adjacent residential uses and the SR 99 frontage. All construction security lighting shall be shielded, focused downward, and focused away from residential areas and public streets.

**Monitoring:**

Provide verification of location of lighted construction and storage areas.

**Timing:**

Prior to issuance of grading permit.

**Parties Responsible for Implementing Measure:**

Project developer/contractor.

**Entities Responsible for Ensuring Compliance:**

City of Sacramento, Planning and Building Department

**6.7-2 Light Impacts on Existing Sensitive Land Uses (Operation)**

The project applicant shall ensure that the landscaping concepts shown in the landscape plan are extended to the residential component of the project and that the southern boundary of the project receives the same landscape treatment as shown in the landscape plan along the eastern, northern, and western boundaries of the project site. The project applicant also shall ensure that all project lighting is shielded, focused downward, and focused away from residential areas and public streets. Finally, the project lighting shall comply with all other applicable requirements of the City's Zoning Ordinance and other light regulations.

**Monitoring:**

Measure shall be included in the approved PUD Guidelines.

**Timing:**

Prior to issuance of Special Permits..

**Parties Responsible for Implementing Measure:**

Project developer/contractor.

**Entities Responsible for Ensuring Compliance:**

City of Sacramento, Planning and Building Department

**6.9-1 Loss of Burrowing Owl**

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1. Prior to construction activity, focused pre-construction surveys would be conducted by a qualified biologist for burrowing owls where suitable habitat is present within 250 feet of the proposed construction areas. Surveys would be conducted no less than 14 days and no more than 30 days prior to commencement of construction activities and surveys would be conducted in accordance with CDFG protocol.
2. If no occupied burrows are found on the project site, a letter report documenting survey methods and findings prepared by the qualified biologist would be submitted to CDFG for review and approval, and no further mitigation would be necessary.
3. If occupied burrows are found, impacts to them would be avoided by providing a construction buffer of 165 feet during the non-breeding season (September 1 through January 31) or 250 feet during the breeding season (February 1 through August 31). If construction occurs during the breeding season, the applicant would ensure that a minimum of 6.5 acres of contiguous foraging habitat is available surrounding the occupied burrowing owl nest burrow.
4. If adverse effects to occupied burrows (direct removal or construction within the buffer zone as defined in #3 above) are unavoidable, onsite passive relocation techniques approved by CDFG would be used to encourage owls to move to alternative burrows outside of the impact area. However, no occupied burrows would be disturbed during the nesting season unless a qualified biologist verifies through non-invasive methods that juveniles from the occupied burrows are foraging independently and are capable of independent survival. Mitigation for foraging habitat for relocated pairs would follow guidelines provided in the California Burrowing Owl Consortium Guidelines (1993) which range from 6.5 to 19.5 acres per pair.

**Monitoring:** A letter from a certified biologist shall be submitted verifying compliance.

**Timing:** Prior to the issuance of grading permit.

**Parties Responsible for Implementing Measure:**

Project developer/contractor.

**Entities Responsible for Ensuring Compliance:**

City of Sacramento, Planning and Building Department

**5.9-2 Removal of Swainson's Hawk Foraging and Nesting Habitat**

In order to reduce the impacts of the loss of foraging and nesting habitat for Swainson's hawk, the following mitigation measures shall be implemented by the project applicant.

For foraging impact: The following mitigation ratios were taken from the CDFG Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California, November 1994.

- Preserve similar habitat within a 10-mile radius of the project site to be protected through fee title or conservation easement acceptable to CDFG through the payment of fees to a Swainson's hawk foraging habitat mitigation bank. Preservation ratios are as follows:
- 0.5 acres preserved for every acre lost if project site is located between 5 and 10 miles from a nest.

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- 0.75 acres preserved for every acre lost if project site is located between 1 and 5 miles from a nest.
- acres preserved for every acre lost if project site is located within 1 mile of a nest.

**For nesting impact:**

- pre-construction surveys shall be conducted by a qualified biologist to identify active nests within ¼ mile of the project site. The surveys shall be conducted no less than 14 days and no more than 30 days prior to the beginning of construction of each phase of the proposed project. To the extent feasible, guidelines provided in the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in the Central Valley shall be followed.
- If nests are not found, no further mitigation would be required.
- If active nests are found, construction should not occur within 0.5 mile of the active nest during the breeding season (March 1 – September 16).

If construction must occur during these months, the nests would be protected by establishing appropriate buffers around each nest. CDFG guidelines recommend implementation of 0.25- or 0.5-mile buffers, but the size of the buffer may be adjusted if a qualified biologist and CDFG determine it would not be likely to adversely affect the nest. No project activity shall commence within the buffer area until a qualified biologist confirms that the nest is no longer active. Monitoring of the nest by a qualified biologist may be required if the activity could adversely affect the nesting Swainson's hawk.

**Monitoring:** A letter from a certified biologist shall be submitted verifying compliance.

**Timing:** Prior to the issuance of grading permit.

**Parties Responsible for Implementing Measure:**

Project developer/contractor.

**Entities Responsible for Ensuring Compliance:**

City of Sacramento, Planning and Building Department

**6.9-3: Loss of Jurisdictional Waters of the United States**

To mitigate direct and indirect impacts on wetlands, a minimum of 11.35 acres of wetlands shall be created and 16.28 acres of wetland shall be preserved by the project applicant.

An individual permit for discharge activities into jurisdictional waters of the United States, including wetlands, is required from the USACE under Section 404 of the Clean Water Act to fill onsite wetlands.

The applicant shall consult with the ACOE to determine if there are additional jurisdictional wetlands on the site. Any required permitting (individual permit, written authorization under a Nationwide permit or a written statement that no further action is required) shall be obtained prior

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to the development of the site. Implementation of any ACOE mitigation measures may be phased with the project in accordance with the ACOE permit conditions.

**Monitoring Program:**

Applicant shall submit a copy of the individual permit for discharge activities into jurisdictional waters of the United States, including wetlands, from the USACE under Section 404 of the Clean Water Act to fill onsite wetlands

**Timing:**

Prior to the issuance of grading permit.

**Parties Responsible for Implementing Measure:**

Project developer/contractor.

**Entities Responsible for Ensuring Compliance:**

City of Sacramento, Planning and Building Department

**6.9-7: Disturbance of Raptor Nests**

The following measures shall be implemented by the project applicant to reduce potential impacts to active raptor nests to a less-than-significant level:

1. To the extent feasible, all grading and tree removal shall occur outside the raptor nesting season (September to January). If grading or tree removal is avoided during the raptor nesting season, no further mitigation shall be necessary. This measure applies to any heavy equipment activities that would occur within 500 feet of trees in or adjacent to the project site.
2. If grading or tree removal is proposed to take place during the raptor nesting season, a focused survey for raptor nests shall be conducted by a qualified biologist during the nesting season to identify active nests on the project site. The survey would be conducted no more than 30 days prior to the beginning of grading or tree removal. The results of the survey would be summarized in a written report to be submitted to CDFG and the City of Sacramento Planning Department prior to the beginning of grading.
3. If active nests are found, no remediation or other construction activity shall take place within 500 feet of the nest until the young have fledged (as determined by a qualified biologist). If no active nests are found during the focused survey, no further mitigation would be required.

**Monitoring:** A letter from a certified biologist shall be submitted verifying compliance.

**Timing:** Prior to the issuance of grading permit.

**Parties Responsible for implementing Measure:**

Project developer/contractor.

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**Entities Responsible for Ensuring Compliance:**

City of Sacramento, Planning and Building Department

**6.9-8 Loss of Heritage Trees**

If heritage trees are present onsite, preserve the trees by installing temporary fencing 5 feet beyond the drip line of protected trees to minimize disturbance to the trees and their root zones in accordance with the Sacramento City Code, Chapter 12.64 Heritage Trees. Fences shall be maintained until all project activities are complete. No grading, trenching, or movement of heavy equipment shall occur within fenced areas.

If removal of the heritage trees or construction within 5 feet of the drip line cannot be avoided, a permit under Chapter 12.64.050 of the Heritage Tree Ordinance shall be obtained. All requirements of the permit shall be implemented.

**Monitoring:**

**Timing:**

Prior to the issuance of grading permit.

**Parties Responsible for Implementing Measure:**

Project developer/contractor.

**Entities Responsible for Ensuring Compliance:**

City of Sacramento, Planning and Building Department

**6.10-2: Undiscovered Archaeological Resources**

Future development on the project site shall comply with the following measures:

- If subsurface prehistoric or historical archaeological remains are identified during construction, work in the affected areas shall immediately stop until the find can be evaluated by a qualified archaeologist. If the find is determined to be of significance, mitigation shall consist of avoidance, and/or mitigation through data recovery.

In accordance with §7050.5 of the Health and Safety Code and §5097.94 and §5097.98 of the Public Resources Code, if human remains are discovered at the project site during excavation, work shall immediately stop at the construction site, the county coroner shall be contacted, and the Native American Heritage Commission shall be contacted. If the remains are determined to be Native American in origin, they shall be left intact, and the most likely descendants shall be notified.

**Timing:**

Prior to the issuance of grading permit.

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**Parties Responsible for Implementing Measure:**

Project developer/contractor.

**Entities Responsible for Ensuring Compliance:**

City of Sacramento, Planning and Building Department

**6.11-1 Hazardous Materials - Soil Contamination**

If discolored soil, storage tanks or other evidence of potential soil contamination is unearthed during construction-related earth work, or if noxious odors are encountered during said earth work, construction activities shall immediately cease at the construction site. A qualified environmental consultant shall collect and analyze soil samples from the construction site. If contaminants are identified in the samples, the applicant shall coordinate with the Sacramento County EMD for direction on appropriate remediation measures and procedures prior to the commencement of construction activities.

**Timing:**

Prior to the issuance of Special Permits

**Parties Responsible for Implementing Measure:**

Project developer/contractor.

**Entities Responsible for Ensuring Compliance:**

City of Sacramento, Planning and Building Department

**6.11-2 Hazardous Materials - Cumulative Impacts**

The applicants of the cumulative projects shall have prepared Phase I Environmental Site Assessments (ESAs) for their projects and shall implement any mitigation measures recommended in those ESAs to avoid potential exposure hazards to any preexisting hazardous materials contamination on the cumulative development sites.

**Timing:**

Prior to the issuance of grading permit.

**Parties Responsible for Implementing Measure:**

Project developer/contractor.

**Entities Responsible for Ensuring Compliance:**

City of Sacramento, Planning and Building Department

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**Exhibit 1C – Inclusionary Housing Plan**

**Inclusionary Housing Plan  
College Square**

**November 26, 2003**

**Proposed Project**

College Marketplace LLC is the owner and developer (Developer) of certain real property in the City of Sacramento on which it proposes to develop and construct the College Square residential community (Project). The 64+ acre (gross) project is located south of Cosumnes River Blvd, between Highway 99 and Bruceville Rd. The Project consists of 724 residential units, and 270,000 square feet of retail commercial and office space. Of the 724 units, 252 units will be senior housing (including 120 assisted living units and 132 independent living units) and 472 units will be multi-family units, townhouses and/or condominiums.

**Mixed Income Housing Policy**

The Project site is subject to the City's Mixed Income Housing Policy. The Mixed Income Housing Policy adopted in the City of Sacramento Housing Element and required by the City's Mixed-Income Housing Ordinance, City of Sacramento City Code Chapter 17.190 requires that ten percent (10%) of the units in a Residential Project be affordable to very low income households and five percent (5%) to low income households (the "Inclusionary Requirement" and "Inclusionary Units").

Pursuant to the City Code section 17.190.110 (B), an Inclusionary Housing Plan ("Plan") must be approved prior to or concurrent with the approval of legislative entitlements for the Project. City code section 17.190.110(A) sets forth the number, unit mix, location, structure type, affordability and phasing of the inclusionary Units in the Project. This document constitutes the Plan, and, as supplemented and amended from time to time, is intended to begin implementation of the Inclusionary Requirement for the Project. All future approvals for the Project shall be consistent with this Inclusionary Housing Plan.

The Inclusionary Requirement for the Project will be set forth in more detail in the Inclusionary Housing Agreement executed by Developer and the Sacramento Housing and Redevelopment Agency ("SHRA") and recorded against all the residential lots. The Inclusionary Housing Agreement shall be executed and recorded no later than the approval of the first final map for the residential area subdivision or residential construction phase. The Inclusionary Housing Agreement will describe with particularity the site and building schematics and financial arrangements for the construction and financing of the Inclusionary Units, pursuant Section 17.190.110 (C). The Inclusionary Housing Agreement shall be consistent with this Plan.

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**Number of Inclusionary Units**

The Developer, or its successors and assignees, shall construct or cause to be constructed a number of dwelling units affordable to Very Low Income Households ("Very Low Income Units") and Low Income Households ("Low Income Units") as defined in the Sacramento City Code section 17.190.020, equal to ten percent (10%) and five percent (5%) of the total number of housing units approved for the Residential Project, respectively.

Based on the current Project proposal of 724 residential units, the Inclusionary Requirement for the Project is 73 Very Low Income Units (10%) and 37 Low Income Units (5%).

Total Number of residential Units within Project		724 Units
Very Low Income Units	10%	73 Units
Low Income Units	5%	37 Units
Total Number of Inclusionary Units		110 Units

If the Project approvals are amended to Increase the number of units in the Project, this Plan will be amended to reflect a number of equal to ten percent (10%) of the increased total residential units in the amended entitlements for Very Low Income units and five percent (5%) for Low Income units. If the Project approvals are amended to decrease the number of residential units in the Project, this Plan will be amended to reflect a number equal to ten percent (10%) of the decreased total residential units in the amended entitlements for Very Low Income units and five percent (5%) for Low Income units. However, after a building permit has been issued for a structure to contain Inclusionary Units, those Units will be constructed and maintained as Inclusionary Units pursuant to the terms of Chapter 17.190 of the City Code regardless of any subsequent reduction in the number of approved total residential units.

**Units by Type and Tenure**

The Inclusionary Housing Units shall consist of 110 total units of types consisting of rental and ownership units. At least 24 units shall be sold as ownership units (5% of the 472 non-senior units). A portion of the senior units shall be affordable to low and/or very low income households.

**Size and Bedroom Count**

To provide housing affordable to families, seniors and students, there shall be a mix of 1, 2 and 3

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bedroom units, based on the mix of units within the project. At least 20 units shall have 3 bedrooms. A portion of the 3 bedroom units shall be ownership units and a portion shall be rental. Studio units may also be provided.

**Location of Inclusionary Units within Project**

Inclusionary units shall be located on-site within the proposed development area of the College Square Project as part of the multi-family and townhouse single-family residential development.

Inclusionary Units will be dispersed throughout the project. The inclusionary units are to be geographically distributed throughout the Project and located so that the ratio of inclusionary units to market rate units is consistent among phases of the Project.

A schematic plan amendment will be required to add the residential site plan(s) to the PUD. At the time of the schematic plan amendment, this plan shall be amended to designate specific locations for inclusionary unit types.

The location of the inclusionary units within the Project is subject to Amendment, consistent with Section 17.190.110 B (1) of the Mixed Income Ordinance.

**Affordability requirements**

The inclusionary housing units will be both leased and owned. The leased units will meet the requirements of Section 17.190.030 regarding number and affordability of units, their location, timing of development, unit sizes, exterior appearance and development standards. The leased units will be available to low and very low income households. Monthly Affordable Rents (including utility allowances) of the Inclusionary Units shall be restricted to Low Income Households and Very Low Income Households. A unit whose occupancy is restricted to a Low Income Household has a monthly rent that does not exceed one-twelfth of thirty percent (30%) of eighty percent (80%) of the Sacramento area median income, adjusted for family size. A unit whose occupancy is restricted to a Very Low Income Household has a monthly rent that does not exceed one-twelfth of thirty percent (30%) of fifty percent (50%) of the Sacramento area median income, adjusted for family size. Median income figures are those published annually by the United States Department of Housing and Urban Development. With respect to each Inclusionary Unit, the affordability requirements of this Section shall continue for no less than thirty (30) years from the recordation of the Inclusionary Housing Agreement.

Sale and occupancy of the for-sale Inclusionary Units shall be restricted to households with incomes, at the time of initial occupancy, that do not exceed eighty percent (80%) of the median income for Sacramento County, adjusted for actual household size for Low Income households. Median income figures are those published annually by the United States Department of Housing

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and Urban Development.

The sales price of the units will be set so that low income households can qualify for the purchase of the units. The sales price will be set such that no more than thirty percent (30%) of the gross annual household income of the given income group will be allocated to housing costs. As part of the Inclusionary Housing Agreement, SHRA will provide the Developer with a schedule of maximum sales prices affordable to income ranges.

Sales prices of units will be outlined in the Inclusionary Housing Agreement. The units will be sold initially at an affordable housing price to a low income household with a first-time homebuyer. An SHRA 30-year note will govern the home's resale, allowing SHRA ninety days to refer an income-eligible buyer after notification of the owner's intent to sell. If an income-eligible purchaser is not found, the home may be resold at market price to a household that is not low income, provided that SHRA recaptures the difference between the home's market value and its affordable housing price, a portion of the appreciation of the home as well as other City or SHRA contributions. The owner-occupant will receive his or her initial equity in the home and a portion of the home's appreciated value. The terms of this arrangement are outlined in the SHRA Guidelines for the sale of Inclusionary Housing.

The developer or builder may seek incentives, assistance, or subsidies pursuant to Section 17.190.040. One such incentive is the allowance for fee waivers and/or deferrals for those units fulfilling the Inclusionary Requirement. The developers will work with the City to determine the fee reductions and other incentives available.

#### **Phasing of Development of the Inclusionary Units**

The Inclusionary Units shall be developed concurrently with the development of the remaining units in the Project and at any time at developer's election related to the development of the commercial retail, as may be further defined in Sacramento City Code section 17.190.020. The nature of the concurrency is defined by a series of linkages between approvals of the market rate units and the development of the Inclusionary Units.

#### **Market Rate Housing/Inclusionary Unit Linkages**

The following describes the relationship of market rate development activity to the activity of inclusionary unit development activity. These milestones are outlined to ensure that the development of affordable units occurs concurrent with development of market rate units:

- The Inclusionary Housing Plan shall be approved concurrent with the approval of the Project's tentative map.
- The Inclusionary Housing Agreement shall be executed and recorded prior to recordation of the Project's first final map for the residential component of the

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project.

- Rental inclusionary units shall be built concurrently with the market-rate units within the residential project.
- Up to 65% of the building permits for for-sale residential units in any phase of the Project with inclusionary units may be issued prior to issuance of building permits for all for-sale inclusionary units in that same phase. The remaining 35% of for-sale residential units in any phase with inclusionary units may be issued after issuance of all building permits for the for-sale inclusionary units in that same phase.
- Marketing of inclusionary units within the Project shall occur concurrently with the marketing of market rate units.

**Amendment and administration of the Inclusionary Housing Plan**

The Planning Director, with the advice of the Executive Director of SHRA, shall administer this Inclusionary Housing Plan. The Planning Director may make minor administrative amendments to the text of this Plan as provided in Sacramento City Code section 17.190.110B (1).

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