

This section discusses the existing noise setting, identifies potential impacts and proposes mitigation measures related to noise for the Reynolds & Brown Plaza III project. This section is based on the Noise Impact Assessment prepared for the SR 99/Elk Grove Boulevard Interchange (AMBIENT, 2006), the Elk Grove General Plan EIR (2003) and the Bond Road Arco Car Wash Addition (j.c. brennan & associates, 2007).

4.5.1 EXISTING SETTING

NOISE BACKGROUND

Noise is often described as unwanted sound. Sound is defined as any pressure variation in air that the human ear can detect (**Table 4.5-1**).

**TABLE 4.5-1
ACOUSTICAL TERMINOLOGY**

Term	Definition
Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
Attenuation	The reduction of an acoustic signal.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
Decibel or dB	Fundamental unit of sound, defined as one-tenth of the logarithm of the ratio of the sound pressure squared over the reference pressure squared.
CNEL	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by a factor of three and nighttime hours weighted by a factor of 10 prior to averaging.
Frequency	The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz.
L_{dn}	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
L_{eq}	Equivalent or energy-averaged sound level.
L_{max}	The highest root-mean-square (RMS) sound level measured over a given period of time.
Loudness	A subjective term for the sensation of the magnitude of sound.
Masking	The amount (or the process) by which the threshold of audibility is for one sound is raised by the presence of another (masking) sound.
Noise	Unwanted sound.
Peak Noise	The level corresponding to the highest (not RMS) sound pressure measured over a given period of time. This term is often confused with the "Maximum" level, which is the highest RMS level.
RT₆₀	The time it takes reverberant sound to decay by 60 dB once the source has been removed.
Sabin	The unit of sound absorption. One square foot of material absorbing 100% of incident sound has an absorption of 1 sabin.

4.5 NOISE

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold as a point of reference, defined as 0 decibels (dB). A useful aspect of the decibel scale is that changes in decibels correspond closely to human perception of relative loudness. The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by weighing the frequency response of a sound level meter by means of the standardized A-weighting network. There is a strong correlation between A-weighted sound levels (expressed as dBA) and community response to noise. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment, and is used in this document.

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 (L_{eq}), which corresponds to a steady-state A-weighted sound level containing the same total energy as a time-varying signal over a given time period (usually one hour). The L_{eq} is the foundation of the composite noise descriptor, L_{dn} , and shows a strong correlation with community response to noise. Variations in sound levels over time are represented by statistical descriptors such as the Day-night Average Level (L_{dn}). The L_{dn} is based upon the average noise level over a 24-hour day, with a +10 decibel weighting applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures.

The effects of noise on people can be placed in three categories:

- Subjective effects of annoyance, nuisance, dissatisfaction;
- Interference with activities such as speech, sleep, learning; and,
- Physiological effects such as hearing loss or sudden startling.

There is no completely satisfactory way to measure the subjective effects of noise, or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists, and different tolerances to noise tend to develop based on an individual's past experiences with noise. Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it. With regard to increases in A-weighted noise levels, a 3 dBA change is considered a just-perceivable difference, a 5 dBA is required before any noticeable change in human response would be expected, and a 10 dBA change is subjectively heard as approximately a doubling in loudness, which can cause adverse response. Some land uses are considered more sensitive to ambient noise level changes than others, sensitivity being a function of noise exposure and the types of activities involved. Residential land uses are generally more sensitive to noise than commercial and industrial land uses.

Stationary point sources of noise, including stationary mobile sources such as idling vehicles, attenuate (lessen) at a rate of 6 to 9 dB per doubling of distance from the source, depending on environmental conditions (i.e., atmospheric conditions and noise barriers, either vegetative or manufactured, etc.). Widely distributed noises, such as a large industrial facility spread over

many acres or a street with moving vehicles (a “line” source), would typically attenuate at a lower rate, approximately 3 to 6 dB per doubling distance.

EXISTING NOISE ENVIRONMENT

The site and project vicinity is subjectively evaluated as currently being exposed to typical roadway and highway noise as it is located immediately adjacent to SR 99 and East Stockton Boulevard. The existing ambient noise environment in the project vicinity is defined primarily by highway noise as the project site is at-grade with SR 99 and is completely within the 60 dB noise contour as shown in **Figure 4.5-1**. Intermittent noise generated by nearby commercial uses also contribute to a lesser extent, to the existing noise environment. The project area is not affected by major industrial noise sources or railroad operations, as the Union Pacific Railroad (UPRR) mainline is located east of Franklin Boulevard, a considerable distance to the west of the project area.

Noise sensitive land uses in the vicinity of the project site generally consist of residential developments to the southeast and north across Elk Grove Boulevard. These uses are a quarter mile or more from the project site.

Noise measurements conducted in association with the SR 99/Elk Grove Boulevard Improvement project (which encompassed the project site), revealed predicted exterior traffic noise levels of 65.7 dBA Leq/Ldn on the northwestern portion of the site and 63.2 on the southeastern portion of the project site (AMBIENT, 2006).

4.5 NOISE

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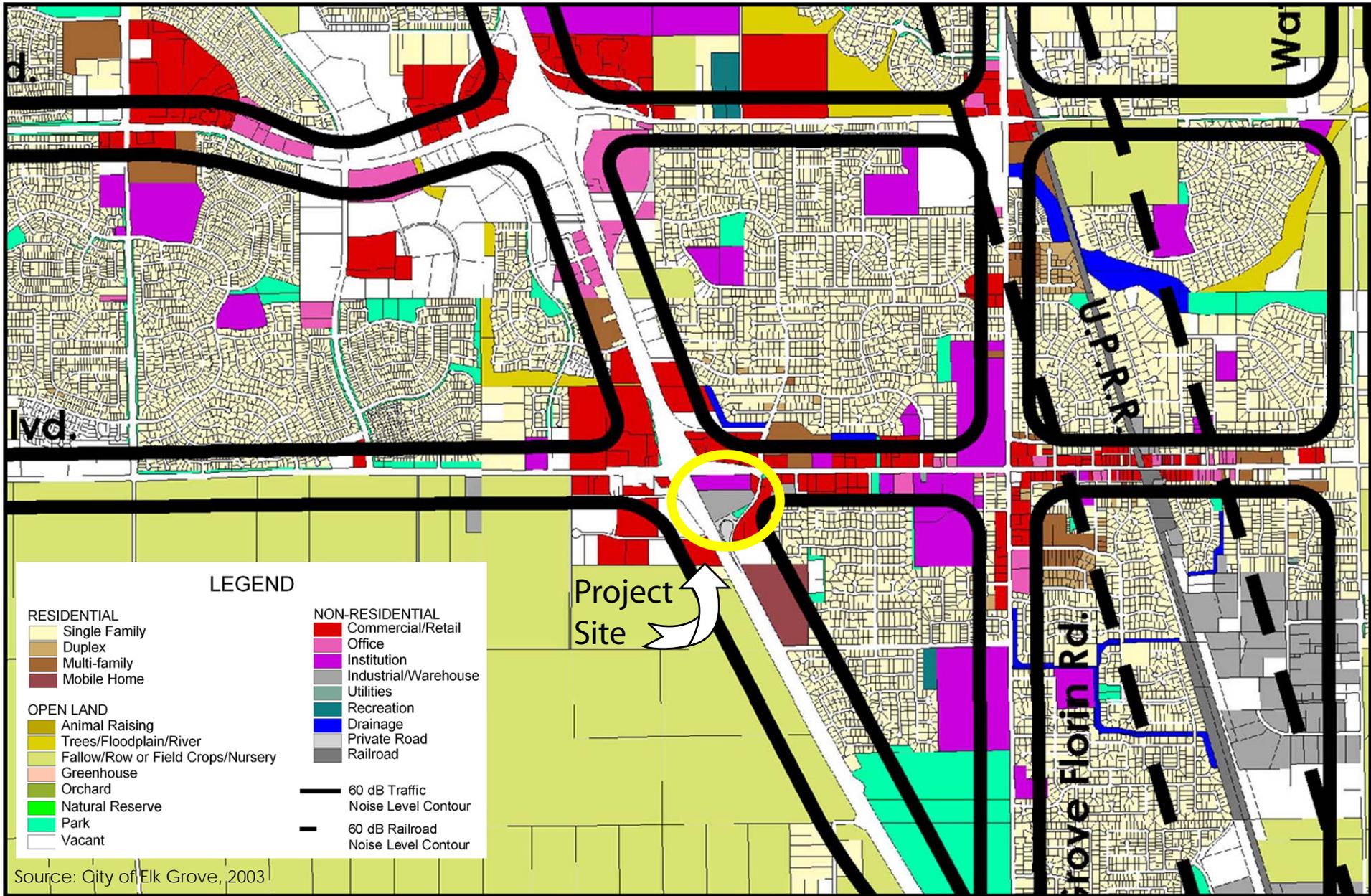


Figure 4.5-1
Traffic Noise Contours in the Vicinity of the Project Site



4.5.2 REGULATORY FRAMEWORK

CITY OF ELK GROVE GENERAL PLAN

Table 4.5-2 identifies the City of Elk Grove General Plan policies regarding noise that are applicable to the proposed Reynolds & Brown Plaza III project, and presents an evaluation of the consistency of the project with these statements as required by CEQA Guidelines Section 15125(d). This assessment is based on City staff's interpretation of the General Plan policies and action items. The final authority for interpretation of these policy statements, and determination of the project's consistency with the City's General Plan rests with the Elk Grove City Council.

**TABLE 4.5-2
PROJECT CONSISTENCY WITH GENERAL PLAN NOISE POLICIES**

General Plan Policies	Project Consistency with the General Plan	Analysis
<p>Policy NO-1:</p> <p>New development of the uses listed in Table NO-C shall conform with the noise levels contained in that Table. All indoor and outdoor areas shall be located, constructed and/or shielded from noise sources in order to achieve compliance with the City's noise standards.</p>	<p>Yes, with mitigation</p>	<p>Development proposed on the project site would be required to demonstrate that the uses would not exceed the City standards for noise sensitive uses. Future development would be subject to the City's development plan review process. As part of this process, development proposals would be reviewed for conformance with the City's Design Guidelines, Zoning Code requirements and applicable General Plan policies. If noise standards would be exceeded as a result of proposed uses, noise attenuation measures would be required to lessen the impacts. Indoor allowable noise exposure for the proposed hotel would be 45 dB, Ldn/CNEL and 60 dB, Ldn/CNEL for outdoor areas. The entire project site is located within the City's 60 dB noise contour for Highway 99. Noise measurements taken on the project site indicated that existing noise levels are as high as 65.7 Ldn/CNEL. Noise attenuation measures, such as the use of noise barriers or soundwalls would be required as a part of project development and by mitigation measures identified in this section. These features would reduce noise impacts to the standards contained in Table NO-C (Tables 4.5-3 and 4.5-4 of this EIR), resulting in compliance with this policy.</p>
<p>Policy NO-2:</p> <p>Where noise-sensitive land uses are proposed in areas exposed to existing or projected exterior noise levels exceeding the levels specified in Table NO-C or the performance standards of Table NO-A, an acoustical analysis shall be required as part of the environmental review process so that noise mitigation may be included in the</p>	<p>Yes</p>	<p>The conceptual site plan for the project includes a hotel and car wash. The hotel would be exposed to existing ambient noise in excess of acceptable levels from SR 99. In addition, the proposed car wash would include equipment that generates noise in excess of 60 dB at a distance of 40 feet away. Mitigation included in this section requires use of design features that would ensure that the hotel is not exposed to noise levels in excess</p>

4.5 NOISE

General Plan Policies	Project Consistency with the General Plan	Analysis
project design.		of standards.
<p>Policy NO-3:</p> <p>Noise created by new proposed non-transportation noise sources shall be mitigated so as not to exceed the noise level standards of Table NO-A as measured immediately within the property line of lands designated for noise-sensitive uses.</p> <p><i>Note: For the purposes of this Noise Element, transportation noise sources are defined as traffic on public roadways, railroad line operations and aircraft in flight. Control of noise from these sources is preempted by Federal and State regulations. Other noise sources are presumed to be subject to local regulations, such as a noise control ordinance. Non-transportation noise sources may include industrial operations, outdoor recreation facilities, HVAC units, loading docks, etc.</i></p>	<p>Yes, with mitigation</p>	<p>Noise from the proposed carwash would be considered an annoyance to occupants of the hotel if the noise exceeds the standards outlined in Table 4.5-3 in this EIR. The carwash included as part of the project is a noise-producing use. Mitigation measures identified in this section would reduce potential impacts associated with new non-transportation noise sources to acceptable levels. Therefore, the project would be consistent with this policy.</p>
<p>Policy NO-4:</p> <p>Where proposed non-residential land uses are likely to produce noise levels exceeding the performance standards of Table NO-A at existing or planned noise-sensitive uses, an acoustical analysis shall be required as part of the environmental review process so that noise mitigation may be included in the project design. The requirements for the content of an acoustical analysis are shown in Table NO-B.</p>	<p>Yes, with mitigation</p>	<p>The conceptual development envisioned for the project site includes both noise sensitive (hotel) and noise generating (car wash) land uses. Mitigation measures identified in this section would reduce potential noise impacts to hotel occupants to acceptable levels.</p>
<p>Policy NO-8:</p> <p>Where noise mitigation measures are required to achieve the standards of Tables NO-A and NO-C, the emphasis of such measures shall be placed upon site planning and project design. The use of noise barriers shall be considered a means of achieving the noise standards only after all other practical design-related noise mitigation measures – including the use of distance from noise sources - have been integrated into the project.</p>	<p>Yes</p>	<p>The conceptual site plan shows buildings along the southern portion of the project site. The car wash and hotel are separated by two buildings. Mitigation measures are provided which address exposure to noise generated internal to the site (i.e., the car wash) as well as for conceptual uses that may be proposed on the site that are exposed to noise generated by off-site sources (SR 99). Implementation of these measures would reduce noise impacts to the standards contained in Table NO-C (Tables 4.5-3 and 4.5-4 of this document), resulting in compliance with this policy.</p>

Note: Table NO-A is exhibited as Table 4.5-3 and Table NO-C is exhibited as Table 4.5-4 in this document.

TABLE 4.5-3
TABLE NO-A OF ELK GROVE GENERAL PLAN NOISE ELEMENT NOISE LEVEL PERFORMANCE STANDARDS FOR NEW PROJECTS AFFECTED BY OR INCLUDING NON-TRANSPORTATION NOISE SOURCES

The types of uses which may typically produce the noise sources addressed below include, but are not limited to: industrial facilities including pump stations, trucking operations, tire shops, auto maintenance shops, metal fabricating shops, shopping centers, drive-up windows, car washes, loading docks, public works projects, batch plants, bottling and canning plants, recycling centers, electric generating stations, race tracks, landfills, sand and gravel operations, and athletic fields.

PART 1: PERFORMANCE STANDARDS FOR TYPICAL STATIONARY NOISE SOURCES

Noise Level Descriptor	Daytime (7 a.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)
Hourly L_{eq} , dB	55	45

The standards above will apply generally to noise sources that are not tonal, impulsive, or repetitive in nature. Typical noise sources in this category would include HVAC systems, cooling towers, fans, blowers, etc.

PART 2: PERFORMANCE STANDARDS FOR STATIONARY NOISE SOURCES WHICH ARE TONAL, IMPULSIVE, REPETITIVE, OR CONSIST PRIMARILY OF SPEECH OR MUSIC

Noise Level Descriptor	Daytime (7 a.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)
Hourly L_{eq} , dB	50	40

The standards in Part 2 apply to noises which are tonal in nature, impulsive or repetitive, or which consist primarily of speech or music (e.g., humming sounds, outdoor speaker systems, etc.). Typical noise sources in this category include: pile drivers, drive-through speaker boxes, punch presses, steam valves, and transformer stations.

The noise level standards in Parts 1 and 2 above **do not** apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings).

The City may impose noise level standards, which are more or less restrictive than those specified above based upon determination of existing low or high ambient noise levels.

Source: City of Elk Grove General Plan Noise Element, Amended January 2005.

Policies NO-1, NO-2, NO-3, and NO-5 of the Noise Element of the General Plan establish exterior noise performance standards for proposed projects (City of Elk Grove, 2005). These standards are to apply to both transportation and non-transportation noise sources.

Table 4.5-4 below depicts noise level standards for transportation noise sources as established in the Noise Element of the General Plan.

TABLE 4.5-4
TABLE NO-C OF ELK GROVE GENERAL PLAN NOISE ELEMENT
MAXIMUM ALLOWABLE NOISE EXPOSURE TRANSPORTATION NOISE SOURCES

Land Use	Outdoor Activity Areas ¹ $L_{dn}/CNEL$, dB	Interior Spaces	
		$L_{dn}/CNEL$, dB	L_{eq} , dB ²
Residential	60 ³	45	--
Residential subject to noise from railroad tracks, aircraft overflights, or similar "single event" noise sources	60 ³	40 ⁵	--
Transient Lodging	60 ⁴	45	--

4.5 NOISE

Land Use	Outdoor Activity Areas ¹ L _{dn} /CNEL, dB	Interior Spaces	
		L _{dn} /CNEL, dB	Leq, dB ²
Hospitals, Nursing Homes	60 ³	45	--
Theaters, Auditoriums, Music Halls	--	--	35
Churches, Meeting Halls	60 ³	--	40
Office Buildings	--	--	45
Schools, Libraries, Museums	--	--	45
Playgrounds, Neighborhood Parks	70	--	--

Source: City of Elk Grove General Plan Noise Element, Amended January 2005.

Notes:

- ¹ Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use.
- ² Where it is not practical to mitigate exterior noise levels at patio or balconies of apartment complexes, a common area such as a pool or recreation area may be designated as the outdoor activity area.
- ³ As determined for a typical worst-case hour during periods of use.
- ⁴ Where it is not possible to reduce noise in outdoor activity areas to 60 dB L_{dn}/CNEL or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB L_{dn}/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.
- ⁵ In the case of hotel/motel facilities or other transient lodging, outdoor activity areas such as pool areas may not be included in the project design. In these cases, only the interior noise level criterion will apply.
- ⁶ The intent of this noise standard is to provide increased protection against sleep disturbance for residences located near railroad tracks.

CITY OF ELK GROVE NOISE ORDINANCE

The City of Elk Grove Noise Ordinance provides an exterior noise level standard of 55 dB for daytime (7 a.m. to 10 p.m.) and an exterior noise level standard of 45 dB for nighttime (10 p.m. to 7 a.m.) for residential areas. The Noise Ordinance also provides a guideline for the allowable interior and exterior noise levels over a cumulative duration. These levels are shown in **Table 4.5-5**. If the ambient noise level exceeds the permitted noise level in any of the noise level categories specified in the subdivision, the allowable noise limit shall be increased by 5 dB increments in each category to encompass the ambient noise level.

**TABLE 4.5-5
DURATION OF INDOOR INTRUSIVE NOISE LEVELS**

Cumulative Duration of the Intrusive Noise	Exterior Noise Level, dB		Interior Noise Level, dB
	Daytime	Nighttime	Nighttime
30 minute per hour	55	50	N/A
15 minutes per hour	60	55	N/A
5 minutes per hour	65	60	45
1 minute per hour	70	65	50
Level not to exceed for any time per hour	75	70	55

Source: City of Elk Grove Noise Ordinance.

Section 6.68.090 of the Ordinance restricts construction activities to the less noise-sensitive daytime hours. In accordance with the City's noise control ordinance, construction activities are typically limited to between the hours of 6 a.m. and 8 p.m., Monday through Friday, and between the hours of 7 a.m. and 8 p.m. on Saturday and Sunday.

4.5.3 PROJECT IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the following State CEQA Guidelines Appendix G thresholds of significance. A noise impact is considered significant if the project would result in any of the following:

- 1) Exposure of persons to or generation of noise levels in excess of standards established in the City of Elk Grove General Plan, or applicable standards of other agencies.
- 2) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels.
- 3) A SUBSTANTIAL PERMANENT INCREASE IN AMBIENT NOISE LEVELS IN THE PROJECT VICINITY ABOVE LEVELS EXISTING WITHOUT THE PROJECT.
- 4) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.
- 5) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels within two miles of a public airport or public use airport.
- 6) For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.

METHODOLOGY

Existing literature (Environmental Noise Assessment Bond Road Arco Car Wash Addition, 2007, and Elk Grove General Plan Draft EIR, 2005) and noise level measurements for a project that included the project site (Elk Grove/SR 99 Interchange Reconstruction Project, City of Elk Grove, 2007), were used to predict changes in ambient noise levels resulting from development within the project. Specific noise sources evaluated in this section include traffic and future noise sources which would be developed within the project.

The Notice of Preparation (NOP) identified no impact relative to exposing people to noise from a public use airport or a private airstrip. The closest airport is located approximately 2.5 miles southeast of the project site and there are no private airstrips within the vicinity for the project area. Therefore, no impact would occur relative to exposing individuals to excessive aircraft noise levels from a public or private airport. This issue is not discussed further in this EIR.

4.5 NOISE

PROJECT IMPACTS AND MITIGATION MEASURES

Exposure to Noise in Excess of Standards: Construction Noise

Impact 4.5.1 Construction activities associated with development would temporarily increase noise levels in nearby areas. The increase in noise levels is a **less than significant** impact.

Construction on the project site, noise from construction activities would add to the noise environment on the project site and immediate project vicinity. Activities involved in construction would generate maximum noise levels ranging from 85 to 90 dB at a distance of 50 feet. Construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours. Elk Grove General Plan Noise Policy NO-3 Action 1 restricts construction activities to between 7 a.m. and 7 p.m.

The closest sensitive receptors are residential uses located over a quarter mile from the project site. Intervening structures and vegetation would protect these residential uses from exposure to construction noise. No sensitive uses are located on or adjacent to the project site. Therefore, noise impacts resulting from construction of the project are considered **less than significant**.

Mitigation Measures

None required.

Exposure to Noise In Excess of Standards: Operational & Traffic Noise

Impact 4.5.2 Development of noise-producing uses on the project site could expose on-site sensitive receptors to noise levels in excess of City standards for both on-site operational noise and off-site traffic noise. The project would be required to comply with City policies regulating noise exposure. Therefore, this impact is considered **less than significant**.

The proposed GPA to Commercial with SC zoning would allow for a range of uses including lodging. Of the various uses that could occur on the project site, a hotel use would be considered a sensitive receptor. The hotel is identified on the conceptual site plan along the southwestern portion of the site and is oriented almost parallel with SR 99. The site is located entirely within the 60 dB contour as noted in the Elk Grove General Plan (refer to **Figure 4.5-1**). Existing noise exposure on the site ranges from 63.2 dbA Leq/Ldn in the southeastern portion of the site near East Stockton Boulevard to 65.7 dbA Leq/Ldn in the northwestern portion of the site just south of the cemetery (AMBIENT, 2006). If a hotel is developed, it would be exposed to traffic noise levels which exceed City standards for interiors of 45 dB for interior spaces for transient lodging (City of Elk Grove General Plan Noise Element, Table NO-C, Maximum Allowable Noise Exposure from Transportation Noise Sources).

In addition to traffic noise, operational noise could be generated if a carwash is developed on the site. A carwash is depicted on the conceptual site plan on the southeastern portion of the project site. Noise emissions for a car wash use are expected to be 63.9 dB at a distance of 30 feet perpendicular to the exit end of the car wash. This level can be reduced to 56.5 dB at a distance of 40 feet perpendicular to the exit. Dryers are expected to generate noise emissions of 68.8 dB at a distance of 30 feet perpendicular to the exit end of the car wash. This can be reduced to 61.4 dB at a distance of 40 feet (j.c. brennan & associates, 2007). However, noise exposure for the hotel would still be in excess of the 45 dB standard. Policy NO-2 of the Elk Grove

General Plan Noise Element requires that an acoustical analysis be prepared where noise-sensitive land uses are proposed in areas exposed to existing or projected exterior noise levels. This policy also requires so that noise mitigation may be included in the project design. The proposed project would be required to comply with the provisions of this policy and design the hotel to achieve a minimum average-daily interior noise level in the hotel guest rooms of 45 dBA CNEL. Therefore, impacts associated with exposure to operational and traffic noise in excess of standards are considered less than significant.

Mitigation Measures

None required.

4.5.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative setting for noise assumes development of land uses consistent with the General Plan as amended under cumulative conditions. A list of cumulative projects that were included as part of the assumptions used in developing the baseline are included in **Table 4.0-1** in Section 4.0, Introduction to the Environmental Analysis and Assumptions Used. The projects listed in **Table 4.0-1**, along with the proposed Reynolds & Brown Plaza III project, comprise the major cumulative development occurring in the project area. Buildout in the vicinity of the project site would be in accordance with the land use designations set forth in the City of Elk Grove General Plan. Traffic conditions in the project vicinity under cumulative conditions are anticipated to include the SR 99/Elk Grove Boulevard Interchange improvement project.

Methodology for Future Noise-Producing Uses Developed Within the Reynolds & Brown Plaza III

Analysis of the cumulative noise impacts associated with the Reynolds & Brown Plaza III project assumes uses identified on the conceptual site plan. This includes a hotel, retail, restaurant, gas station with car wash and mini-mart. The analysis also takes into account planned development patterns set forth in the Elk Grove General Plan, as well as large-scale proposed and approved development projects identified in **Table 4.0-1** (Section 4.0, Introduction to the Environmental Analysis and Assumptions Used).

CEQA Guidelines and the City of Elk Grove General Project Noise Element have been used to establish cumulative noise impact standards for this section. Implementation of the project would result in significant cumulative noise impacts if the project would result in either of the following:

- 1) Exposure of persons to or generation of noise levels in excess of standards established in the City of Elk Grove General Plan Noise Element, or applicable standards of other agencies.
- 2) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project, as defined by **Table 4.5-3**, above.

4.5 NOISE

CUMULATIVE IMPACTS

Permanent Cumulative Noise Increase: Traffic

Impact 4.5.3 Development of the project site, along with existing, approved, proposed and reasonably foreseeable urban development in the region, would increase traffic volumes within and adjacent to the site. This would result in transportation related noise levels in excess of the City of Elk Grove noise standards. This is considered a **cumulatively considerable** noise impact.

Development of the project site would result in increased cumulative traffic noise levels. The conceptual worst-case development assumes a hotel, restaurant and gas station with mini-mart, and car wash. The number of trips to the site would increase in association with these uses. Noise levels are predicted to be 67.5 dBA Leq in the southeastern portion of the project site and 69.6 dBA Leq in the northwestern portion of the project site in year 2030 (AMBIENT, 2007). This represents an increase of 4.3 dBA Leq and 2.1 dBA Leq respectively over existing levels of 63.2 dBA Leq in the southeastern portion of the project site and 65.7 dBA Leq in the northwestern portion of the project site. This is considered **cumulatively considerable**.

Mitigation Measures

None feasible.

As identified in the City of Elk Grove's Draft General Plan EIR, cumulative regional noise impacts would be **cumulatively considerable** and **significant and unavoidable**. The City of Elk Grove adopted a finding as part of the Findings of Fact and Statement of Overriding Considerations that there were no feasible mitigation measures available to mitigate the impacts of traffic noise on a cumulative level.

Cumulative Exposure to Noise Levels in Excess of Standards

Impact 4.5.4 Development of the project site could contribute on a cumulative basis to noise levels in excess of City noise standards. This impact is considered **cumulatively considerable**.

Vehicle traffic on SR 99, Elk Grove Boulevard and East Stockton Boulevard affect the ambient noise levels in the area surrounding the project site. As described in Impact 4.5.3, future noise levels in 2030 are predicted range from 67.5 dBA Leq in the southeastern portion of the project site to 69.6 dBA Leq in the northwestern portion of the project site (AMBIENT, 2007). Development of the site would introduce noise generating uses include a carwash and traffic to and from the project site. Project specific mitigation measures are provided based on conceptual development to mitigate exposure of on-site uses to carwash noise. These mitigation measures would reduce project specific impacts on a project-by-project basis. Operation of uses depicted on the conceptual site plan are not anticipated to result in an increase in cumulative noise levels.

Mitigation Measures

Implementation of mitigation measure MM 4.5.2a and MM 4.5.2b would identify noise exposure levels and measures necessary for the conceptual development to meet noise thresholds. Implementation of these mitigation measures would reduce the conceptual development's

contribution to cumulative noise levels in excess of standards to **less than cumulatively considerable**.

REFERENCES

AMBIENT Air Quality & Noise Consulting. 2006. Noise & Vibration Impact Assessment for SR 99/Elk Grove Boulevard Interchange Improvement Project, Elk Grove, CA. March 24, 2006.

City of Elk Grove, 2003. City of Elk Grove General Plan Draft Environmental Impact Report. Elk Grove, CA. August, 2003.

City of Elk Grove, 2005. *City of Elk Grove General Plan, Noise Element*. Elk Grove, CA. Adopted November 2003; amended January 2005.

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