

**RESOLUTION NO. 2013-124**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ELK GROVE  
CERTIFYING A SUBSEQUENT ENVIRONMENTAL IMPACT REPORT FOR THE  
DIGNITY HEALTH ELK GROVE MEDICAL CAMPUS PROJECT (EG-12-014);  
ASSESSOR PARCEL NUMBERS 132-2120-006 AND 132-2120-008**

**WHEREAS**, the Planning Department of the City of Elk Grove received an application on May 10, 2012 from Dignity Health (the "Applicant") requesting a Specific Plan Amendment, Amendment to the Elk Grove Town Center Design Guidelines, Conditional Use Permit, Tentative Parcel Map, Design Review, and Uniform Sign Program for the Dignity Health Elk Grove Medical Campus Project (the "Project"); and

**WHEREAS**, the proposed Project is located on real property in the incorporated portions of the City of Elk Grove more particularly described as APN: 132-2120-006 and 132-2120-008; and

**WHEREAS**, the California Environmental Quality Act (CEQA), requires local agencies to consider the potential environmental impacts of their decisions prior to taking action; and

**WHEREAS**, the City determined that the adoption of the Project is subject to CEQA, Public Resources Code §21000 et seq. and that a Subsequent Environmental Impact Report (SEIR) to the Laguna Ridge Specific Plan Environmental Impact Report and Laguna Ridge Town Center (also referred to as "Elk Grove Town Center") Subsequent Environmental Impact Report needed be prepared to evaluate the potential environmental effects of the Project; and

**WHEREAS**, in compliance with Public Resources Code §21080.4, a Notice of Preparation (NOP) was prepared by the City of Elk Grove and was distributed to the State Clearinghouse, Office of Planning and Research, responsible agencies and other interested parties on August 8, 2012 with the comment period ending on September 7, 2012; and

**WHEREAS**, the City of Elk Grove distributed a Notice of Availability for the Project's Draft EIR on January 11, 2013, which started the 45-day public review period, ending on February 27, 2013; and

**WHEREAS**, the Draft SEIR, provided herein as Exhibit A, was filed with the State Clearinghouse (SCH No. 2012082029) and was distributed to public agencies and other interested parties for public review and comment; and

**WHEREAS**, the City of Elk Grove prepared a Final SEIR (provided herein as Exhibit B), which consists of: (1) Draft SEIR, (14) comments received on the Draft SEIR during the public review period, and (14) responses to comments received, and (6) errata and revisions to the Draft EIR.

**NOW, THEREFORE, BE IT RESOLVED** by the City Council of the City of Elk Grove as follows:

**1. Certification of the Final SEIR**

- A. The City Council hereby certifies that the Final SEIR has been completed in compliance with the requirements of the California Environmental Quality Act.
- B. The City Council hereby certifies that the Final SEIR was presented to the City Council and that the City Council reviewed and considered the information contained in the Final SEIR prior to taking action on the Project.
- C. The City Council hereby certifies that the Final SEIR reflects the independent judgment and analysis of the City Council.

**2. Findings on Impacts**

The City Council finds that the SEIR identifies potentially significant impacts that cannot be mitigated to a less than significant level and are thus considered significant and unavoidable. The City Council makes the findings with respect to these significant and unavoidable impacts as set forth in Exhibit C.

**3. Findings on Alternatives**

The City Council finds that the alternatives analyzed in the SEIR are rejected because the alternatives would not achieve the project objectives. The City Council makes the finding as set forth in Exhibit C, attached hereto and incorporated herein by reference.

**4. Statement of Overriding Considerations**

The City Council finds that there are no feasible mitigation measures or project alternatives that would mitigate or substantially lessen the impacts from the Project. Despite the occurrence of these significant effects, however, the City Council chooses to approve the project because, in its view, the environmental, social, and other benefits of the project will render the significant effects acceptable as described in Statement of Overriding Considerations as set forth in Exhibit C.

**5. Adoption of the Mitigation Monitoring and Reporting Program**

- A. The City Council hereby finds that the proposed mitigation measures described in the SEIR and Findings are feasible, and therefore will

become binding upon the City and on future Applicants. The Mitigation Monitoring and Reporting Program is included as Exhibit D.

- B. The City Council hereby adopts the Mitigation Monitoring and Reporting Program, as set forth in Exhibit D, attached hereto and incorporated herein by reference.

**6. Other Findings**

The City Council finds that issues raised during the public comment period and written comment letters submitted after the close of the public review period of the Draft SEIR do not involve any new significant impacts or "significant new information" that would require recirculation of the Draft SEIR pursuant to CEQA Guidelines Section 15088.5.

**PASSED AND ADOPTED** by the City Council of the City of Elk Grove this 10<sup>th</sup> day of July 2013.

  
\_\_\_\_\_  
GARY DAVIS, MAYOR of the  
CITY OF ELK GROVE

ATTEST:

  
\_\_\_\_\_  
JASON LINDGREN, CITY CLERK

APPROVED AS TO FORM:


  
\_\_\_\_\_  
JONATHAN P. HOBBS,  
CITY ATTORNEY

EXHIBIT A

**DIGNITY HEALTH  
ELK GROVE MEDICAL CAMPUS  
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT**

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SCH No. 2012082029



*Prepared by:*

CITY OF ELK GROVE  
8401 LAGUNA PALMS WAY  
ELK GROVE, CA 95758

**JANUARY 2013**

**DIGNITY HEALTH ELK GROVE MEDICAL CAMPUS  
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT**

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**JANUARY 2013**

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# **ES EXECUTIVE SUMMARY**

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This section provides an overview of the Project and the environmental analysis. For additional detail regarding specific issues, please consult the appropriate chapter of Section 3.0, Environmental Setting, Impacts, and Mitigation Measures.

### ES.1 PURPOSE AND SCOPE OF THE EIR

The California Environmental Quality Act (CEQA) requires the preparation of an environmental impact report (EIR) when there is substantial evidence that a project could have a significant effect on the environment. The purpose of an EIR is to provide decision-makers, public agencies, and the general public with an objective and informational document that fully discloses the potential environmental effects of the proposed project. The term "proposed project," as used in this EIR, refers to the development of the Dignity Health Elk Grove Medical Campus Project. The EIR process is specifically designed to describe the objective evaluation of potentially significant direct, indirect, and cumulative impacts of the proposed Project; to identify alternatives that reduce or eliminate the Project's significant effects; and to identify feasible measures that mitigate significant effects of the Project. In addition, CEQA requires that an EIR identify those adverse impacts determined to remain significant after mitigation. This EIR provides an analysis of the potential environmental effects associated with the implementation of the Dignity Health Elk Grove Medical Campus Project, located in the City of Elk Grove.

This EIR has been prepared as a Subsequent EIR to the Laguna Ridge Specific Plan EIR and Laguna Ridge Town Center EIR, pursuant to CEQA Guidelines Section 15162. The City determined that because the proposed Project requests changes to land uses previously analyzed for environmental effects in the LRSP EIR and LRTC EIR, a Subsequent EIR was necessary for the proposed Project.

### ES.2 PROJECT CHARACTERISTICS

The Project proposes the construction of a six-story, 456,719-square-foot, 330-bed hospital; a three-story, 65,000-square-foot medical office building (referred to as MOB #2); and a five-level, 169,520-square-foot parking structure. The project would be constructed in a total of four phases, with the first three phases associated with the hospital building and the last phase associated with the medical office building and parking structure. The three hospital phases to be built in succession are a four-story, 112,050-square-foot Surgery and Maternity Hospital building section; a six-story, 175,095-square-foot Hospital Expansion #1 building section; and a six-story, 169,574-square-foot Hospital Expansion #2 building section. The number of beds associated with each building section is 106 beds, 112 beds, and 112 beds, respectively.

The following objectives have been identified for the proposed project:

- Continue Dignity Health's long-standing commitment to providing high quality healthcare services to the City of Elk Grove and its residents, based upon projected healthcare demands for the area.
- Offer comprehensive, convenient services closer to Elk Grove residents, thereby reducing the distance patients have to travel in order to receive quality health care.
- Design facilities to enhance the comfort and healing of patients and the productive care-giving and general welfare of staff and visitors.

## ES EXECUTIVE SUMMARY

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- Meet current hospital planning guidelines by providing space to accommodate patients in single-bed rooms, as appropriate, including adequate space for treatment by healthcare providers, equipment, and support by family members.
- Provide the optimum height for quality and efficient operations and patient care that maximizes proximity of internal departments by taking full advantage of the efficiency of vertical circulation within the hospital buildings.
- Bring high paying jobs and vital services just west of the new Civic Center. Provide the height and density that would be a catalyst for the new civic center area, as well as support the City's economic development goals.
- To provide for helicopter access directly to the facility to accept hospital-to-hospital patient transfers when warranted by medical necessity to be used occasionally, not routinely, primarily for transporting critically injured patients away from this hospital to higher-level trauma care facilities. Design the helistop to:
  - meet the functional needs of the hospital;
  - maximize safety by locating the helistop on the ground;
  - comply with all applicable regulatory and life safety requirements for helistops and helicopter travel, including but not limited to Federal Aviation Administration (FAA) requirements for flight path obstruction clearance, to ensure public safety during helicopter landings and takeoffs; and
  - allow a visually unobtrusive helistop, integrating into the design of the campus.
- Design facilities to create an attractive "campus" appearance with pedestrian-friendly circulation. Use materials and colors that are complementary to the existing MOB and the neighboring community.
- Promote use of alternative transportation modes by creating connections to the existing bike path along Elk Grove Boulevard, providing more bicycle storage facilities than required by City code, and allowing for a bus stop on campus.

### ES.3 PROJECT ALTERNATIVES SUMMARY

CEQA Guidelines Section 15126.6 requires that an EIR describe a range of reasonable alternatives to the project, which could feasibly attain the basic objectives of the project and reduce the degree of environmental impact. Section 5.0, Project Alternatives, provides a qualitative analysis of three scenarios:

- Alternative 1 – No Project Alternative
- Alternative 2 – No Helicopter Operations Alternative
- Alternative 3 – Reduced Hospital Alternative

Due to the reduced size of the development under the Reduced Hospital Alternative, there would be reduced impacts at the project site and the Reduced Hospital Alternative would be the environmentally superior alternative.

#### ES.4 AREAS OF CONTROVERSY

The City of Elk Grove was identified as the lead agency for the proposed Project. In accordance with Section 15082 of the CEQA Guidelines, the City prepared and distributed a Notice of Preparation (NOP) of an EIR on August 8, 2012. This notice was circulated to the public, local, state, and federal agencies, and other interested parties to solicit comments on the proposed Project. The NOP is presented in **Appendix A**. An Initial Study was prepared for the project and released for public review at the same time as the NOP. The Initial Study is also included in **Appendix A**.

Concerns raised in response to the NOP were considered during the preparation of the Draft EIR. Comment letters are presented in **Appendix A**.

Issues raised in comment letters on the NOP include:

- traffic from the Project at Wymark Drive and Elk Grove Boulevard
- noise from traffic, sirens, and helicopter flights
- building height and helicopter flight paths in relation to bats, nesting raptors, and migratory birds
- concerns about water quality, water supply, drainage, and runoff
- fire protection, police protection, schools, parks, and other public facilities
- use of use neighborhoods and regional parks
- visual effect of buildings over 60 feet in height, the parking garage, additional surface parking, and the helistop
- cumulative effects of construction and operational air pollutants
- cumulative effects of diesel backup generators
- hazardous materials disposal
- effects on water supply and sewer systems
- traffic counts in the Laguna Ridge Town Center EIR differ from those in the 2010 Caltrans Transportation System Network

#### ES.5 SUMMARY OF ENVIRONMENTAL IMPACTS

**Table ES-1** presents a summary of project impacts and proposed mitigation measures that would avoid or minimize potential impacts. In the table, the level of significance of each environmental impact is indicated both before and after the application of the recommended mitigation measure(s).

For detailed discussions of all project impacts and mitigation measures, the reader is referred to the topical environmental analysis in Section 3.0.

TABLE ES-1  
PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
<b>3.1 Aesthetics</b>			
<b>Impact 3.1.1</b> Implementation of the proposed Project would increase development within the Laguna Ridge Town Center area and alter the character of the area. <b>The proposed Project would not result in a substantial increase in the severity of this impact, which was previously identified in the Laguna Ridge Specific Plan EIR as significant and unavoidable. There is no new or substantially more severe significant impact.</b>	N	None required.	N
<b>Impact 3.1.2</b> Implementation of the proposed Project would introduce new sources of light and glare in and around the area. <b>The proposed Project would not result in a substantial increase in the severity of this impact, which was previously identified in the LRSP EIR as significant and unavoidable. There is no new or substantially more severe significant impact.</b>	N	None required.	N
<b>Impact 3.1.3</b> Development of the proposed Project, in addition to other reasonably foreseeable projects in the project vicinity, would introduce new development into an undeveloped area and contribute to a cumulative increase in urban uses. <b>The proposed Project would not result in a substantial increase in the severity of this impact. There is no new or substantially more severe contribution to the cumulative impact that would result from the proposed Project.</b>	N	None required.	N

N – No new or substantially more severe impact  
 SU – Significant and Unavoidable

LS – Less Than Significant  
 LCC – Less Than Cumulatively Considerable

PS – Potentially Significant

S – Significant  
 CC – Cumulatively Considerable

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
<p><b>Impact 3.1.4</b> Development of the proposed Project, in addition to other reasonably foreseeable projects in the region, would introduce new development into an agricultural area and increase nighttime lighting and glare. <b>The proposed Project would not result in a substantial increase in the severity of this impact. There is no new or substantially more severe contribution to the cumulative impact that would result from the proposed Project.</b></p>	N	None required.	N
<b>3.2 Air Quality</b>			
<p><b>Impact 3.2.1</b> Construction activities associated with the development of the proposed Dignity Health Medical Campus Project could result in a short-term increase in criteria air pollutants within the Laguna Ridge Town Center area. <b>The proposed Project would not result in a substantial increase in the severity of this impact, which was previously identified in the LRSP EIR as significant and unavoidable and Laguna Ridge Town Center EIR as less than significant. There are no new or substantially more severe significant impacts.</b></p>	N	None required.	N
<p><b>Impact 3.2.2</b> Implementation of the proposed Dignity Health Medical Campus Project will not result in long-term increases in criteria air pollutants. <b>The proposed Project would not result in a substantial increase in the severity of this impact, which was previously identified in the LRSP EIR as significant and unavoidable and Laguna Ridge Town Center EIR as less than significant. There are no new or substantially more severe significant impacts.</b></p>	N	None required.	N

N – No new or substantially more severe impact  
 SU – Significant and Unavoidable

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**ES EXECUTIVE SUMMARY**

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
<p><b>Impact 3.2.3</b> Implementation of the proposed Project would not contribute to localized concentrations of mobile-source CO that would exceed applicable standards. <b>The proposed Project would not result in an increase in the severity of this impact, and there is not a new or substantially more severe significant impact.</b></p>	N	None required.	N
<p><b>Impact 3.2.4</b> Implementation of the proposed Dignity Health Medical Campus Project would not result in increased exposure of sensitive receptors to mobile-source toxic air contaminants. <b>The proposed Project would not result in a substantial increase in the severity of this impact, which was previously identified in the LRSP EIR and Laguna Ridge Town Center EIR as less than significant. There are no new or substantially more severe significant impacts.</b></p>	N	None required.	N
<p><b>Impact 3.2.5</b> Implementation of the proposed Project would not result in increased exposure of sensitive receptors to odorous emissions. As a result, <b>the proposed Project would not result in an increase in the severity of this impact, and there is not a new or substantially more severe significant impact.</b></p>	N	None required.	N
<p><b>Impact 3.2.6</b> Implementation of the proposed Dignity Health Medical Campus Project, in combination with growth throughout the air basin, will not exacerbate existing regional problems with ozone and particulate matter. <b>The proposed Project would not result in a substantial increase in the severity of this impact, which was previously identified in the LRSP EIR and Laguna Ridge Town Center EIR as significant and unavoidable. There is no new or substantially more severe contribution to the cumulative impact that would result from the proposed Project.</b></p>	N	LRSP EIR mitigation measure MM 4.3.2 and Laguna Ridge Town Center EIR mitigation measure MM 4.2.3.	N

N – No new or substantially more severe impact  
 SU – Significant and Unavoidable

LS – Less Than Significant  
 LCC – Less Than Cumulatively Considerable

PS – Potentially Significant

S – Significant  
 CC – Cumulatively Considerable

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
<b>3.3 Greenhouse Gases and Climate Change</b>			
<p><b>Impact 3.3.1</b> Implementation of the proposed Project may result in a net increase in greenhouse gas emissions that will conflict with the goals of AB 32 or result in a significant impact on the environment. This impact is <b>cumulatively considerable</b>.</p>	CC	<p><b>MM 3.3.1</b> Prior to building permit approval, the City of Elk Grove Planning Department shall require that the project applicant implement the following measures to reduce emissions of GHGs associated with the proposed Project:</p> <ul style="list-style-type: none"> <li>• The proposed Project shall be designed to exceed state energy efficiency standards by 15 percent (to Tier 1 Title 24 Standards) as directed by Appendix A5 of the 2010 California Green Building Standards (CBSC 2011). This measure helps to reduce emissions associated with energy consumption.</li> <li>• Indoor water conservation measures shall be incorporated, such as use of low-flow toilets, urinals, and faucets.</li> <li>• The Project shall ensure that low-water-use landscaping (i.e., drought-tolerant plants and drip irrigation) is installed. At least 75 percent of all landscaping plants shall be drought tolerant as determined by a licensed landscape architect or contractor and in conformance with Chapter</li> </ul>	CC/SU

N – No new or substantially more severe impact  
 SU – Significant and Unavoidable

LS – Less Than Significant  
 LCC – Less Than Cumulatively Considerable

PS – Potentially Significant

S – Significant  
 CC – Cumulatively Considerable



**ES EXECUTIVE SUMMARY**

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		23.54 of the Elk Grove Municipal Code.  The Project shall provide interior and exterior storage areas for recyclables and green waste and adequate recycling containers located in public areas. Composting of a limited amount of food waste that may be generated as a byproduct of on-site food preparation shall be completed by agreement with a waste hauler. Cooking oils shall be directed off site for reuse, and leftover food shall be donated to a local charity/shelter.	
<b>3.4 Hazards and Hazardous Materials</b>			
<b>Impact 3.4.1</b> Construction and/or operation of the proposed Project would involve the routine transport, use, storage, and disposal of hazardous materials, which could create a potential health hazard to the public or environment. <b>The proposed Project would not result in an increase in the severity of this impact, and there is not a new or substantially more severe significant impact.</b>	N	None required.	N
<b>Impact 3.4.2</b> The proposed Project would involve the transport of hazardous materials that could involve accident conditions, resulting in the release of hazardous materials into the environment. <b>The proposed Project would not result in an increase in the severity of this impact, and there is not a new or substantially more severe significant impact.</b>	N	None required.	N
<b>Impact 3.4.3</b> The proposed Project would involve operation of a helistop on the project site, but would not be located within 2 miles of an airport. This is a <b>less than significant</b> impact.	LS	None required.	LS

N – No new or substantially more severe impact  
 SU – Significant and Unavoidable

LS – Less Than Significant  
 LCC – Less Than Cumulatively Considerable

PS – Potentially Significant

S – Significant  
 CC – Cumulatively Considerable

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
<b>Impact 3.4.4</b> Cumulative development would increase handling, storage, disposal, and transport of hazardous materials at the project site and in the project vicinity and may increase the potential for upset. However, cumulative development would be subject to applicable federal, state, and local regulations that would govern the handling, storage, disposal, and transport of hazardous materials. As a result, <b>the proposed Project would not result in a substantial increase in the severity of this impact. There is no new or substantially more severe contribution to the cumulative impact that would result from the proposed Project.</b>	N	None required.	N
<b>Impact 3.4.5</b> Cumulative development would result in an increase in air traffic in the region, which could result in an increase in the potential for accidents. <b>The proposed Project's contribution to this impact would be less than cumulatively considerable.</b>	LCC	None required.	LCC
<b>3.5 Noise</b>			
<b>Impact 3.5.1</b> The proposed Project could generate construction noise at sensitive receptors. <b>The proposed Project would not result in an increase in the severity of this impact, and there is not a new or substantially more severe significant impact.</b>	N	None required.	N
<b>Impact 3.5.2</b> The proposed Project could generate construction vibration at sensitive receptors. <b>The proposed Project would not result in an increase in the severity of this impact, and there is not a new or substantially more severe significant impact.</b>	N	None required.	N

N – No new or substantially more severe impact  
 SU – Significant and Unavoidable

LS – Less Than Significant  
 LCC – Less Than Cumulatively Considerable

PS – Potentially Significant

S – Significant  
 CC – Cumulatively Considerable

**ES EXECUTIVE SUMMARY**

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
<b>Impact 3.5.3</b> Increased traffic noise could affect sensitive receptors. <b>The proposed Project would not result in an increase in the severity of this impact, and there is not a new or substantially more severe significant impact.</b>	N	None required.	N
<b>Impact 3.5.4</b> Traffic noise could exceed noise standards in hospital rooms. This would be a <b>less than significant</b> impact.	LS	None required.	LS
<b>Impact 3.5.5</b> Helistop operations would generate noise at sensitive receptors and could result in sleep disturbance. This is considered a <b>potentially significant</b> impact.	PS	<b>MM 3.5.5</b> Provide information to emergency service providers (i.e., helicopter operators) that, to the extent possible, helicopters shall implement noise abatement flight procedures, such as maintaining as high an altitude as possible, flying at normal cruising speed or slower, observing low-noise speed and descent recommendations, avoiding sharp maneuvers, and using steep take-off and descent profiles. When possible, helicopter arrivals and departures shall be scheduled to occur during the daytime periods, to reduce the potential for sleep disturbance.	SU
<b>Impact 3.5.6</b> Central plant and emergency generator noise could affect sensitive receptors in the project vicinity. This is a <b>potentially significant</b> impact.	PS	<b>MM 3.5.6</b> During the design of the central plant, and when central plant equipment has been selected, a detailed noise analysis of the equipment noise levels and noise control measures shall be completed by a qualified acoustical consultant. Central plant noise levels shall not exceed the noise level standards contained in Table NO-A of the City of Elk Grove General Plan Noise Element. The plant design shall	LS

N – No new or substantially more severe impact  
 SU – Significant and Unavoidable

LS – Less Than Significant  
 LCC – Less Than Cumulatively Considerable

PS – Potentially Significant

S – Significant  
 CC – Cumulatively Considerable

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
		include the following: <ul style="list-style-type: none"> <li>• Chillers, boilers, and emergency generators shall be located inside of a block building to minimize noise impacts.</li> <li>• Emergency generators shall be fitted with factory "hospital grade" mufflers. If emergency generators are located outside of the central plant area, the generators shall be fitted with factory acoustical enclosures.</li> <li>• Emergency generators shall be exercised during the daytime hours, between 8:00 a.m. and 5:00 p.m., to minimize annoyance at neighboring residences.</li> </ul>	
<b>Impact 3.5.7</b> Emergency vehicle siren noise could affect sensitive receptors in the project vicinity. This is considered a <b>potentially significant</b> impact.	PS	None available.	SU
<b>Impact 3.5.8</b> Parking lot and parking garage noise could affect sensitive receptors in the project vicinity. This is considered a <b>less than significant</b> impact.	LS	None required.	LS

N – No new or substantially more severe impact  
 SU – Significant and Unavoidable

LS – Less Than Significant  
 LCC – Less Than Cumulatively Considerable

PS – Potentially Significant  
 S – Significant  
 CC – Cumulatively Considerable

**ES EXECUTIVE SUMMARY**

Impact	Level of Significance Without Mitigation	Mitigation Measure	Resulting Level of Significance
<b>Impact 3.5.9</b> The proposed Project could contribute to the cumulative traffic noise environment at nearby land uses. The proposed Project would not result in a substantial increase in the severity of this impact. <b>There is no new or substantially more severe contribution to the cumulative impact that would result from the proposed Project.</b>	N	None required.	N
<b>Impact 3.5.10</b> Operation of the proposed Project could contribute to the noise environment at nearby land uses. <b>Therefore, the proposed Project's contribution would be considerable and would result in a substantial increase in the severity of this cumulative impact. The impact would remain significant and unavoidable.</b>	S	<b>MM 3.5.10</b> Implement mitigation measure MM 3.5.5.	SU

N – No new or substantially more severe impact  
 SU – Significant and Unavoidable

LS – Less Than Significant  
 LCC – Less Than Cumulatively Considerable

PS – Potentially Significant

S – Significant  
 CC – Cumulatively Considerable

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# **1.0 INTRODUCTION**

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### 1.1 PURPOSE AND BACKGROUND

This Draft Environmental Impact Report (EIR) has been prepared in conformance with the California Environmental Quality Act (CEQA) of 1970 (as amended) to evaluate the environmental impacts associated with the Dignity Health Elk Grove Medical Campus Project (proposed Project). CEQA requires the preparation of an EIR prior to approving any project that may have a significant effect on the environment. For the purposes of CEQA, the term "project" refers to the whole of an action which has the potential for resulting in a direct physical change or a reasonably foreseeable indirect physical change in the environment (CEQA Guidelines Section 15378[a]). With respect to the proposed Project, the City of Elk Grove has determined that the proposed development is a project within the definition of CEQA.

The City, acting as the lead agency, has prepared this EIR to provide the public and responsible and trustee agencies with information about the potential environmental effects of the proposed Project. As described in CEQA Guidelines Section 15121(a), an EIR is a public informational document that assesses potential environmental effects of the proposed Project, as well as identifies mitigation measures and alternatives to the proposed Project that could reduce or avoid its adverse environmental impacts. Public agencies are charged with the duty to consider and minimize environmental impacts of proposed development where feasible, and are obligated to balance a variety of public objectives, including economic, environmental, and social factors.

This section summarizes the purpose of the EIR; describes the environmental procedures that are to be followed according to state law; discusses the intended uses of the EIR; discusses the Project's relationship to the City of Elk Grove General Plan; describes the EIR's scope and organization, contact person, and impact terminology; and provides definitions of commonly used terms and abbreviations used throughout this EIR.

The Laguna Ridge Specific Plan Environmental Impact Report (LRSP EIR) (SCH #2000082139) assessed the environmental impacts resulting from the construction and operation of the Laguna Ridge Specific Plan. The City of Elk Grove (City) approved the Laguna Ridge Specific Plan and certified the Final EIR on June 16, 2004. The Laguna Ridge Specific Plan encompasses approximately 1,900 acres and consists of the development of residential, commercial, park, public school, and mixed-use land uses. The LRSP EIR identified significant and unavoidable impacts related to agricultural resources, transportation and circulation, air quality, noise, and visual resources, and the City approved a Statement of Overriding Considerations for these significant and unavoidable impacts. The LRSP EIR also identified impacts to hazards and hazardous materials, public services and utilities, hydrology and water quality, biological resources, geology and geotechnical hazards, and cultural resources. These impacts were reduced to a less than significant level with adoption of the LRSP EIR mitigation measures. A Mitigation Monitoring and Reporting Program (MMRP) was prepared and adopted with the Specific Plan. The MMRP is a binding document that runs with the land and would be applicable to the proposed Project. The LRSP MMRP is included as Appendix A of this Draft EIR.

In 2008, the City approved the Laguna Ridge Town Center (LRTC) project, which included a 23.3-acre increase in the area designated for commercial land uses and a corresponding decrease in residential uses on a 95.3-acre portion of the Laguna Ridge Specific Plan. The Laguna Ridge Town Center EIR (a Subsequent EIR to the LRSP EIR) analyzed development of up to 364,000 square feet of medical offices on approximately 30 acres of Shopping Center (SC)-designated land in the Laguna Ridge Specific Plan area. The Laguna Ridge Town Center project was subject to the MMRP for the Laguna Ridge Specific Plan. The Laguna Ridge Town Center EIR (SCH #2007082169) assessed the environmental impacts resulting from the approval,

## 1.0 INTRODUCTION

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construction, and operation of the Laguna Ridge Town Center project and identified mitigation measures to minimize potential adverse environmental impacts associated with the Laguna Ridge Town Center project. The Laguna Ridge Town Center EIR identified significant and unavoidable impacts related to regional air quality plan conflicts, long-term noise levels, traffic operations on portions of Elk Grove Boulevard, and cumulative traffic operations at intersections in the vicinity. A Statement of Overriding Considerations was adopted for these significant and unavoidable impacts. The Laguna Ridge Town Center EIR also identified potentially significant impacts to construction-related air quality, long-term increases of criteria air pollutants, and traffic operations at the Elk Grove Boulevard/State Route 99 southbound ramp intersection and at the Elk Grove Boulevard/Bruceville Road intersection; however, these impacts were reduced to a less than significant level with implementation of the adopted mitigation measures. An MMRP was also prepared and adopted for the Laguna Ridge Town Center project, which would also be applicable to the proposed Project. The Laguna Ridge Town Center MMRP is included in Appendix A of this Draft EIR.

The proposed Project is within the Laguna Ridge Specific Plan (LRSP) and includes the construction of a six-story, 456,719-square-foot, 330-bed hospital; a three-story, 65,000-square-foot medical office building (referred to as MOB #2); and a five-level, 169,520-square-foot parking structure that would be constructed in four phases. The Project also seeks, among other things, a building height limit amendment for the project site and approval of a Conditional Use Permit to allow hospital use in the Shopping Center (SC) district and allow establishment of a helistop. Please refer to Section 2.0, Project Description, for a detailed description of the components of the proposed Project.

### 1.2 TYPE OF DOCUMENT

The CEQA Guidelines identify several types of EIRs, each applicable to different project circumstances. As described in CEQA Guidelines Section 15162(a), "when an EIR has been certified . . . no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, that substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects." This EIR has been prepared as a Subsequent EIR to the Laguna Ridge Specific Plan EIR and Laguna Ridge Town Center EIR, pursuant to CEQA Guidelines Section 15162. The City determined that because the proposed Project requests changes to land uses previously analyzed for environmental effects in the LRSP EIR and LRTC EIR, a Subsequent EIR was necessary for the proposed Project.

The analysis associated with a *Subsequent* EIR focuses on substantial changes proposed in a project that require major revisions of a previous EIR due to either the identification of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. The subsequent analysis addresses impacts resulting from the development of a surgery and maternity hospital and medical office buildings, as they differ from the analysis in the certified Laguna Ridge Specific Plan EIR and Laguna Ridge Town Center EIR. The revisions to the Laguna Ridge Specific Plan and Laguna Ridge Town Center as proposed by the Project could result in new significant impacts or increase the severity of previously identified significant impacts, which this EIR addresses.

### 1.3 TYPE OF EIR AND INTENDED USES OF THE EIR

The LRSP EIR is a program EIR, which is an EIR that may be prepared for a series of actions that can be characterized as one large project and are related. A program EIR, such as the LRSP EIR,



is appropriate for land use decision-making at a broad level that contemplates further, site-specific review of individual development proposals. According to CEQA Guidelines Section 15168(d), a program EIR can be used to simplify the task of preparing environmental documents on later parts of the program.

The Laguna Ridge Town Center EIR assessed the environmental impacts resulting from the construction and operation of the Laguna Ridge Town Center project and identified mitigation measures to minimize potential adverse environmental impacts.

As noted above, this is a Subsequent EIR and provides an analysis of environmental effects specifically associated with the proposed Project, in light of the environmental analysis provided in the Laguna Ridge Specific Plan program EIR and Laguna Ridge Town Center Subsequent EIR. Consistent with CEQA Guidelines Section 15162, this EIR addresses environmental effects that are particular to the project and utilizes mitigation measures that are based on adopted Laguna Ridge Specific Plan and Laguna Ridge Town Center development policies and standards to mitigate anticipated impacts. (See Appendix A)

This Subsequent EIR will be used by the City as a tool in evaluating the environmental impacts of the proposed Project. As the lead agency under the provisions of CEQA, the City of Elk Grove has discretionary approval authority and the responsibility to consider the environmental effects of the Project. This EIR is intended to evaluate the environmental impacts of the Project to the greatest extent possible. This EIR, in accordance with CEQA Guidelines Section 15126, should be used as the primary environmental document to evaluate all subsequent planning and permitting actions associated with the Project. Subsequent actions may include, but are not limited to, the following:

- Approval of a Tentative Parcel Map.
- Approval of an Amendment to the Laguna Ridge Specific Plan to establish a maximum building height limit of 120 feet for the project site.
- Amendment to the Elk Grove Town Center Design Guidelines to eliminate the requirement for a joint shared driveway between the hospital district and commercial district.
- Approval of a Conditional Use Permit to allow hospital use in the Shopping Center (SC) district and allow establishment of a helistop.
- Design Review of the Dignity Health Elk Grove Medical Campus Master Development Plan, consisting of the overall site plan and facility layout.
- Design Review of the Surgery and Maternity Hospital building and associated site improvements.
- Approval of a Uniform Sign Program to establish sign criteria for the Project.
- Subsequent Design Review approvals for buildings and associated site improvements in future phases.

## 1.0 INTRODUCTION

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### 1.4 RELATIONSHIP TO THE CITY OF ELK GROVE GENERAL PLAN, LAGUNA RIDGE SPECIFIC PLAN, AND LAGUNA RIDGE TOWN CENTER

The City adopted the City of Elk Grove General Plan (General Plan) in November 2003. The General Plan is the City's overall guide for the use of the City's resources, expresses the development goals of the community, and is the foundation upon which all land use decisions are made.

The proposed project site has two different levels of land use designation: those land uses identified in the Elk Grove General Plan Land Use Policy Map and those identified in the Laguna Ridge Specific Plan Land Use Map, as revised by the Laguna Ridge Town Center project. The City's General Plan currently designates the project site as Commercial (C).

The proposed project site also has an LRSP land use designation of Shopping Commercial.<sup>1</sup> The Project includes uses that are conditionally permitted under the LRSP and LRTC, and the Project includes a request for approval of a Conditional Use Permit as a project component.

The General Plan EIR (SCH# 2002062082) analyzed the environmental impacts associated with buildout of the city under the land uses and densities allowed by the General Plan. Where feasible, the City has adopted mitigation measures to reduce impacts to an acceptable level of significance. In addition, significant and unavoidable impacts identified in the General Plan EIR were addressed by the City in the General Plan EIR, and a Statement of Overriding Considerations was adopted with the approval of the General Plan EIR.

Sections 3.1 through 3.7 in this EIR provide the setting, environmental impacts, and mitigation measures for each of the environmental issue areas addressed. Potential effects of implementing the proposed Project are identified, including cumulative effects, along with mitigation measures recommended to reduce identified impacts. This EIR provides an analysis of environmental effects specifically associated with the proposed Project, as well as an evaluation of project impacts in light of the environmental analysis provided in the LRSP EIR and Laguna Ridge Town Center EIR. Consistent with CEQA Guidelines Section 15183, this EIR addresses environmental effects that are peculiar to the Project and utilizes mitigation measures adopted as part of the LRSP EIR and LRTC EIR, which are based on adopted City development policies and standards to mitigate anticipated impacts.

Cumulative environmental effects of the proposed Project are generally based on information provided in the Laguna Ridge Town Center project EIR with identification of the Project's contribution to the cumulative condition and updated information on the cumulative setting based on currently approved and proposed development projects in the city.

### 1.5 EIR SCOPE AND ORGANIZATION

Sections 15122 through 15132 of the CEQA Guidelines identify the content requirements for Draft and Final EIRs. An EIR must include a description of the environmental setting, an environmental impact analysis, mitigation measures, alternatives, significant unavoidable environmental changes, growth-inducing impacts, and cumulative impacts. The environmental issues addressed in this Subsequent EIR were established through review of prior environmental

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<sup>1</sup> The land uses identified on the Laguna Ridge Specific Plan Land Use Map represent the zoning for that area.

documentation developed for the site, environmental documentation for nearby projects, and public agency responses to the Notice of Preparation (NOP).

Cumulative environmental effects of the proposed Project are generally based on information provided in the General Plan and General Plan EIR and Laguna Ridge Specific Plan, Laguna Ridge Specific Plan EIR, Laguna Ridge Town Center, and Laguna Ridge Town Center EIR, with identification of the Project's contribution to the cumulative conditions and updated information on the cumulative setting based on currently approved, proposed, and reasonably foreseeable development projects in the city.

The City determined the scope for this EIR based upon the Notice of Preparation/Initial Study, comments in response to the NOP, agency consultation, and review of the project application. Based on this information, the City determined that this EIR address aesthetics, air quality, greenhouse gas emissions, hazards and hazardous materials, noise, water supply, and traffic.

This Draft EIR is organized in the following manner:

### SECTION ES – EXECUTIVE SUMMARY

This section summarizes the characteristics of the proposed Project and provides a concise summary matrix of the Project's environmental impacts and associated mitigation measures.

### SECTION 1.0 – INTRODUCTION

Section 1.0 provides an introduction and overview describing the intended use of the EIR and the review and certification process.

### SECTION 2.0 – PROJECT DESCRIPTION

This section provides a detailed description of the proposed Project, including intended objectives, background information, and physical and technical characteristics.

### SECTION 3.0 – ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

Section 3.0 contains an analysis of environmental topic areas as identified below. Each subsection contains a description of the existing setting of the project area, identifies standards of significance, identifies project-related impacts, and recommends mitigation measures.

The following major environmental topics are addressed in this section:

- Aesthetics
- Air Quality
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Noise

## 1.0 INTRODUCTION

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### SECTION 4.0 – CUMULATIVE IMPACTS SUMMARY

This section discusses the cumulative impacts associated with the Project. As required by CEQA Section 15130, an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable.

### SECTION 5.0 – ALTERNATIVES TO THE PROJECT

CEQA Guidelines Section 15126.6 requires that an EIR describe a range of reasonable alternatives to the Project which could feasibly attain the basic objectives of the Project and avoid and/or lessen the environmental effects of the Project. This alternatives analysis provides a comparative analysis between the Project and the selected alternatives, which include:

- **No Project Alternative:** CEQA Guidelines Section 15126.6(e) requires that a “no project” alternative be evaluated in an EIR. Under this alternative, the Project would not be approved and current land use designations on the project site would remain unchanged. Under this alternative, the proposed project site could be developed consistent with existing land use and zoning designations on the project site, which would allow for development under the existing Laguna Ridge Town Center project. Under the existing land use designations, it is expected that the project site could be developed with 364,000 square feet of medical office assumed in the Laguna Ridge Town Center EIR or up to 302,742 square feet of shopping center uses
- **No Helicopter Operations Alternative:** The No Helicopter Operations Alternative assumes development of a hospital of the same size and configuration as the proposed project, with the same operations but without the helistop. As discussed in the project objectives, the purpose of the helistop is to transport critical patients away from this hospital to higher-level trauma care facilities. With elimination of the helistop under this alternative, critical patients would be transported via ambulance to another hospital or to another facility that has helicopter transport that would then transport the patient to the higher-level facility.
- **Reduced Hospital Alternative:** This alternative is limited to the Surgery and Maternity Hospital and the two medical office buildings. This alternative assumes construction of the 112,050-square-foot Surgery and Maternity Hospital and the 65,000-square-foot medical office building (MOB), for a total of 245,240 square feet of structures on the site.

### SECTION 6.0 – OTHER CEQA REQUIREMENTS

This section contains discussions and analysis of various topical issues mandated by CEQA. These include significant environmental effects that cannot be avoided if the Project is implemented and growth-inducing impacts.

### SECTION 7.0 – REPORT PREPARERS

This section lists all authors and agencies that assisted in the preparation of the report by name, title, and company or agency affiliation.

## APPENDICES

This section includes all notices and other procedural documents pertinent to the EIR, as well as all technical material prepared to support the analysis.

### 1.6 ENVIRONMENTAL REVIEW PROCESS

The review and certification process for the EIR will involve the following procedural steps:

#### NOTICE OF PREPARATION AND INITIAL STUDY

In accordance with Section 15082 of the CEQA Guidelines, the City prepared a Notice of Preparation of an EIR for the Project on August 8, 2012. This notice was circulated to the public, local, state, and federal agencies, and other interested parties to solicit comments on the Project. An Initial Study for the Project was prepared and released for public review along with the NOP. Its conclusions supported preparation of an EIR for the Project. The NOP and Initial Study are presented in **Appendix B**. The City held a scoping meeting on August 23, 2012.

#### DRAFT EIR PUBLIC NOTICE/PUBLIC REVIEW

This document constitutes the Draft Subsequent EIR (Draft EIR). The Draft Subsequent EIR contains a description of the Project, description of the environmental setting, identification of project impacts, and mitigation measures for impacts found to be significant, as well as an analysis of project alternatives. Upon completion of the Draft EIR, the City will file the Notice of Completion (NOC) with the State Office of Planning and Research to begin the public review period (Public Resources Code Section 21161).

Concurrent with the NOC, the City will provide public notice of the availability of the Draft EIR for public review and invite comment from the general public, agencies, organizations, and other interested parties. The public review and comment period should be no less than 30 days or longer than 90 days. The review period in this case is expected to be 45 days. Public comment on the Draft EIR will be accepted both in written form and orally at public hearings. Although no public hearings to accept comments on the EIR are required by CEQA, the City expects to hold a public comment meeting during the 45-day review period prior to EIR certification. Notice of the time and location of the hearing will be published prior to the hearing. All comments or questions regarding the Draft EIR should be addressed to:

Gerald Park  
City of Elk Grove  
8401 Laguna Palms Way  
Elk Grove, CA 95758

#### RESPONSE TO COMMENTS/FINAL EIR

Following the public review period, a Final EIR will be prepared. The Final EIR will respond to written comments received during the public review period and to oral comments made at public hearings regarding the Project.

## 1.0 INTRODUCTION

### CERTIFICATION OF THE EIR/PROJECT CONSIDERATION

The Elk Grove Planning Commission will review and consider the Final EIR. If the Planning Commission finds that the Final EIR is "adequate and complete," the Planning Commission will make a recommendation to the City Council whether to certify the EIR, and the City Council will make a final decision as to what action to take. The Planning Commission and City Council will each hold a hearing on the Project as part of consideration of its requested entitlements. A decision to approve the Project would be accompanied by written findings in accordance with CEQA Guidelines Section 15091 and, if applicable, a Statement of Overriding Considerations in accordance with Section 15093. A Mitigation Monitoring and Reporting Program (MMRP), as described below, would also be adopted for mitigation measures that have been incorporated into or imposed upon the Project to reduce or avoid significant effects on the environment. This MMRP will be designed to ensure that these measures are carried out during project implementation.

### MITIGATION MONITORING

CEQA Section 21081.6(a) requires lead agencies to adopt an MMRP to describe measures which have been adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment. The specific "reporting or monitoring" program required by CEQA is not required to be included in the EIR; however, it will be presented to the City Council for adoption. Throughout the EIR, mitigation measures are clearly identified and presented in language that will facilitate establishment of an MMRP. Any mitigation measures adopted by the City as conditions for approval of the Project will be included in the MMRP to verify compliance.

### 1.7 COMMENTS RECEIVED ON THE NOTICE OF PREPARATION

The City received comment letters on the Notice of Preparation for the Dignity Health Elk Grove Medical Campus EIR (see **Table 1.0-1**). A copy of each letter is provided in **Appendix B** of this Draft EIR. The City received letters from the following agencies and interested parties.

**TABLE 1.0-1  
LIST OF NOP COMMENT LETTERS**

Agency	Date	Comment
Tim Rymel	8-31-2012	<p>The comment expresses concern about <i>traffic</i> from the Project and notes traffic is already congested at Wymark Drive and Elk Grove Boulevard.</p> <p>The comment expresses concern about noise from the Project from traffic, sirens, and helicopter flights.</p>
Laguna Ridge Residents et al.	9-5-2012	<p>The comment states that biological concerns of the Project include building height and helicopter flight paths in relation to bats, nesting raptors, and migratory birds, and cumulative impacts regarding operation of the helistop.</p> <p>The comment states that hydrology and water quality concerns of the Project include water quality, water supply, drainage, and runoff associated with the construction and operation of the helistop and additional buildings beyond what was considered in the previous EIR. It also asks for proof that there will be adequate water supply for the residents of the area surrounding the project site and the project site itself, including an analysis of whether the residential water rates will increase due to the Project.</p>

Agency	Date	Comment
		<p>The comment states that changes made to the Project since the previous EIRs were prepared necessitate a discussion of fire protection, police protection, schools, parks, and other public facilities.</p> <p>The comment states that, because of the proposed medical campus that includes a Maternity and Surgery Center and two hospitals with families of patients who would use neighborhoods and regional parks, a further discussion of recreation is required.</p> <p>The comment asks that the EIR's Aesthetics section include an analysis of the inclusion of three buildings over the 60-foot height restriction, the parking garage, additional surface parking, and the helistop. It asks that MOB #2 and the parking structures be moved, that natural-looking façades, landscaping, and maintenance of the 60-foot building height restriction be used, and that trees be planted along Civic Center Drive and Wymark Drive.</p> <p>The comment asks that the EIR's Air Quality section include an analysis of the cumulative effects of construction and operational pollutants, and asks what additional studies and mitigation will be included for this Project beyond what was considered in the prior EIR's air quality analyses.</p> <p>The comment asks that an analysis of the cumulative effects of diesel backup generators be included in the Greenhouse Gas Emissions section of the EIR.</p> <p>The comment asks that the Hazards &amp; Hazardous Materials section of the EIR include information of where and how hazardous materials will be disposed and an analysis of vehicle and helicopter fuel-related effects on the environment.</p> <p>The comment asks that the Noise section of the EIR include an analysis of construction and operation of each portion of the entire Project as well as cumulative effects of the Project's uses over a 20-year period.</p> <p>The comment asks for proof in the Utilities and Service Systems chapter of the EIR that there will be adequate water and sewer system service to both the project site and the surrounding area, including an analysis of whether the residential sewer rates will increase due to the Project.</p> <p>The comment asks that the Mandatory Findings of Significance chapter of the EIR include proof that the impacts discussed in the EIR will not be significant and will not have adverse effects on human beings.</p>
Caltrans	9-7-2012	The comment notes that the traffic counts included in the Laguna Ridge Town Center EIR differ from those in the 2010 Caltrans Transportation System Network.

Comments regarding biological resources are referred to Section IV of the Initial Study (Appendix B). Based on the findings in the LRSP EIR, compliance with the Laguna Ridge Specific Plan MMRP would ensure a less than significant impact for the Project. The Laguna Ridge Specific Plan EIR considered potential impacts to bats, nesting raptors, and other migratory birds. While the proposed Project would include the potential for taller buildings than previously considered, the proposed buildings would be quite visible to birds and raptors passing through the project area, and they would have ample area to maneuver around the buildings. Regarding the issue of helicopter flight paths, due to the infrequent nature of helicopter operations (approximately 10 flights per year), it is unlikely that project operations would result in a substantial increase in the potential for impacts on these species. Therefore, it was determined that a detailed discussion of this type of impact was not warranted for the proposed Project.

Comments regarding hydrology and water quality are referred to Section IX of the Initial Study. While the previous EIRs did not account for the building heights or helipad associated with the Project, the proposed Project's footprint and the types of use would not substantially differ from

## 1.0 INTRODUCTION

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that previously analyzed such that the amount or quality of stormwater runoff would substantially differ. Compliance with the Laguna Ridge Specific Plan and Laguna Ridge Town Center MMRPs and the City's Storm Drainage Master Plan would ensure hydrology and water quality impacts of the Project would not exceed those previously disclosed. Therefore, this impact is not discussed further in this EIR. Water supply is discussed in Section 3.6 of this Draft EIR.

Comments regarding public services are referred to Section XIV of the Initial Study. While the proposed Project is different than that previously analyzed, the Laguna Ridge Town Center EIR assumed a density and intensity of development that would accommodate the uses currently proposed. Compliance with the Laguna Ridge Specific Plan and Laguna Ridge Town Center MMRPs would ensure that impacts of the Project would not exceed those previously disclosed. Public services are, therefore, not addressed further in this EIR.

Comments regarding recreation are referred to Sections XIV and XV of the Initial Study. As shown in the objectives of the proposed Project (see Section 2.0, Project Description), the intent of the hospital is to serve local and regional residents for healthcare needs. Consequently, it is assumed that most patients and visitors would already have access to the parks, and the presence of the hospital would not increase that usage. In addition, due to the nature of a hospital use, it is unlikely that hospital patients or their visitors would use parks to such a degree that existing parks would be substantially degraded or that new parks would need to be constructed. Occasional use of area parks by hospital visitors would not constitute a substantial change in park use beyond what was considered in the prior EIRs. Therefore, this impact is not discussed further in this EIR.

Comments regarding traffic are referred to Section XVI of the Initial Study. Regarding the comments specific to the background traffic volume at the Elk Grove Boulevard/SR 99 NB On-Ramp intersection compared to the traffic volume forecasts from the LRTC EIR, subsequent analysis is provided in Appendix C of this Draft EIR. As discussed in Appendix C, AM peak hour traffic volumes at the Elk Grove Boulevard/SR 99 NB On-Ramp intersection have increased since the LRTC EIR was prepared; however, the NB On-Ramp intersection would operate acceptably (LOS B or better) without and with trips from the proposed project.

Comments regarding aesthetics are referred to Section 3.1 of this Draft EIR.

Comments regarding air quality are referred to Section 3.2 of this Draft EIR.

Comments regarding greenhouse gas emissions are referred to Sections 3.2 and 3.3 of this EIR, which include all project components, including the proposed diesel generators, in air quality emissions calculations.

Comments regarding hazards are referred to Section 3.4 of this EIR.

Comments regarding noise concerns are referred to Section 3.5 of this EIR.

Section XVI of the Initial Study discusses water supplies for the proposed project site and the service area of the water provider. Water rates are not discussed in the EIR, as rates are not associated with a physical environmental impact. As shown in Appendix D, which includes the Water Supply Assessment prepared for the proposed project, the Comments regarding other utilities and service systems are referred to Section XVII of the Initial Study. As discussed in Section XVI of the Initial Study, the Project would be required to implement Laguna Ridge Specific Plan mitigation measures MM 4.6.2.1 and MM 4.6.2.2 and to pay connection and capacity fees to ensure sewer service would not be impacted. In addition, the Sacramento Area Sewer District has indicated



that there is adequate capacity to accommodate the Project. Therefore, sewer impacts are not discussed further in the EIR.

## 1.8 IMPACT TERMINOLOGY

This Draft EIR uses the following terminology to describe environmental effects of the proposed Project:

- **Standards of Significance:** A set of criteria used by the lead agency to determine at what level or "threshold" an impact would be considered significant. Significance criteria used in this EIR include the CEQA Guidelines, factual or scientific information, regulatory performance standards of local, state, and federal agencies, and City goals, objectives, and policies.
- **Less Than Significant Impact:** A less than significant impact would cause no substantial change in the environment. No mitigation is required.
- **Significant Impact:** A significant impact would cause, or would potentially cause, a substantial adverse change in the physical conditions of the environment. Significant impacts are identified by the evaluation of project effects using specified standards of significance. Mitigation measures and/or project alternatives are identified to reduce project effects to the environment.
- **Significant and Unavoidable Impact:** A significant and unavoidable impact would result in a substantial change in the environment that cannot be avoided or mitigated to a less than significant level if the Project is implemented.
- **Cumulative Significant Impact:** A cumulative significant impact would result in a new substantial change in the environment from effects of the Project when evaluated in the context of reasonably foreseeable development in the surrounding area.

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## **2.0 PROJECT DESCRIPTION**

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## 2.0 PROJECT DESCRIPTION

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This section describes the proposed Dignity Health Elk Grove Medical Campus Project (Project), depicts the location of the Project both regionally and locally, and describes the existing conditions of the project site and vicinity. The objectives sought by the project applicant, and a general description of the Project's technical and environmental characteristics, are provided. A detailed list of the approvals required to implement the Project is also included. As the City of Elk Grove would make a number of decisions on this project, all decisions subject to the California Environmental Quality Act (CEQA) are listed and the implementation process is described in the order that it would occur, including both actions the City would take now and actions that may be taken in the future.

For a description of the background, purpose, intended use, and type of EIR, please refer to Section 1.0, Introduction, of this document. This project description has been prepared in compliance with CEQA Guidelines Section 15124.

### 2.1 PREVIOUS PLANNING AND ENVIRONMENTAL DOCUMENTS

The project site is designated for Commercial use under the Elk Grove General Plan (2005). The Commercial designation is generally characterized by office, professional, and retail uses in any mix. Residential uses are not permitted. The zoning districts implementing the Commercial land use designation include Auto Commercial (AC), Limited Commercial (LC), General Commercial (GC), Shopping Center (SC), and Highway Travel Commercial (TC). The proposed Project is located on land designated Shopping Center (SC) in the Laguna Ridge Specific Plan (LRSP). The Shopping Center designation is intended for medium- to high-intensity shopping centers with a local or regional market area. Developments within this district should include a wide choice of goods and services. The designation should be applied to medium to large sites near freeways, along arterials, and at major intersections. The SC district should be adjacent to other commercial uses or higher-density residential development. When the district is located adjacent to single-family residential, vehicles using the commercial site should not have a direct impact on the entrances to the neighborhood. Development in this district typically involves integrated structures with multiple uses and tenants providing a broad range of goods and services. Development should incorporate pedestrian-friendly designs that include walkways interior to the project as well as connections to adjacent uses and neighborhoods, but should also be auto-accommodating. Hospitals and heliports (helistop) are conditionally permitted uses in the Shopping Center district.

#### LAGUNA RIDGE SPECIFIC PLAN

The Laguna Ridge Specific Plan Environmental Impact Report (LRSP EIR) (SCH #2000082139) assessed the environmental impacts resulting from the construction and operation of the Laguna Ridge Specific Plan. The City of Elk Grove approved the Laguna Ridge Specific Plan and certified the Final EIR on June 16, 2004. The Laguna Ridge Specific Plan encompasses approximately 1,900 acres and consists of the development of residential, commercial, park, public school, and mixed-use land uses. The LRSP EIR identified significant and unavoidable impacts related to agricultural resources, transportation and circulation, air quality, noise, and visual resources. A Statement of Overriding Considerations was adopted for these significant and unavoidable impacts. The LRSP EIR also identified impacts to hazards and hazardous materials, public services and utilities, hydrology and water quality, biological resources, geology and geotechnical hazards, and cultural resources. These impacts were reduced to a less than significant level with adoption of the recommended mitigation measures. A Mitigation Monitoring and Reporting Program (MMRP) was prepared and adopted with the Specific Plan. The MMRP is a binding document that runs with the land and would be applicable to the proposed Project.

## 2.0 PROJECT DESCRIPTION

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### LAGUNA RIDGE TOWN CENTER

In 2008, the City approved the Laguna Ridge Town Center project, which included a 23.3-acre increase in the area designated for commercial land uses on a 95.3-acre portion of the Laguna Ridge Specific Plan. The Laguna Ridge Town Center EIR (a Subsequent EIR to the LRSP EIR) analyzed development of up to 364,000 square feet of medical offices on approximately 30 acres of SC-designated land in the Laguna Ridge Specific Plan area. The Laguna Ridge Town Center project was subject to the MMRP for the Laguna Ridge Specific Plan. The Laguna Ridge Town Center EIR (SCH #2007082169) assessed the environmental impacts resulting from the approval, construction, and operation of the Laguna Ridge Town Center project and identified mitigation measures to minimize potential adverse environmental impacts. The Laguna Ridge Town Center EIR identified significant and unavoidable impacts to regional air quality plan, long-term noise levels, traffic operations on portions of Elk Grove Boulevard, and cumulative traffic operations at intersections in the vicinity. A Statement of Overriding Considerations was adopted for these significant and unavoidable impacts. The Laguna Ridge Town Center EIR also identified potentially significant impacts to construction-related air quality, long-term increases of criteria air pollutants, and traffic operations at the Elk Grove Boulevard/State Route 99 southbound ramp intersection and at the Elk Grove Boulevard/Bruceville Road intersection; however, these impacts were reduced to a less than significant level with adoption of the recommended mitigation measures. An MMRP was also prepared and adopted for the Laguna Ridge Town Center project, which would also be applicable to the proposed Project.

All documents associated with the Laguna Ridge Specific Plan and Laguna Ridge Town Center project are available for review at the following location: City of Elk Grove, Development Services – Planning, 8401 Laguna Palms Way, Elk Grove, CA 95758. Adopted Mitigation Monitoring and Reporting Programs for these documents are included in Appendix A of this Draft EIR.

### 2.2 PROJECT LOCATION AND SETTING

The proposed project site is located in the central portion of the City of Elk Grove, in southern Sacramento County. The approximately 27.8-acre project site is located at 8220 Wymark Drive, on the southwest corner of Elk Grove Boulevard, in the Laguna Ridge Specific Plan (LRSP) area (**Figure 2.0-1**).

An existing, newly constructed 68,190-square-foot medical office building (MOB #1) is located in the central portion of the project site. The remainder of the site is currently undeveloped but was previously graded as part of a large-lot tentative subdivision map. The site is predominantly flat, with an elevation of 33± feet above mean sea level, and slopes slightly toward the west.

#### SURROUNDING LAND USES

The project site is generally bounded to the north by Elk Grove Boulevard and a residential development fully developed with one- and two-story single-family homes. This development is approximately 100 feet north of the project boundary and approximately 275 feet from the closest building proposed on the project site (Hospital Expansion #2). Wymark Drive serves as the eastern boundary of the project site. The site immediately east of Wymark Drive is currently being developed with three-story town houses. This site is approximately 50 feet from the project site's eastern boundary and approximately 230 feet from the existing medical office building, which would be the closest building on the project site. Civic Center Drive is located south of the project site. The area south of Civic Center Drive has been approved for residential development and is currently being developed. The area immediately south of the project site is



partially developed, and some of these units are model homes. This area would ultimately include one- and two-story single-family homes. The area to the west consists of vacant parcels that are zoned for High Density Residential (RD-30) and Shopping Center (SC). **Figure 2.0-2** shows the project site in the context of the surrounding development.

### 2.3 PROJECT OBJECTIVES

The following objectives have been identified for the proposed Project:

- Continue Dignity Health's long-standing commitment to providing high quality healthcare services to the City of Elk Grove and its residents, based upon projected healthcare demands for the area.
- Offer comprehensive, convenient services closer to Elk Grove residents, thereby reducing the distance patients have to travel in order to receive quality health care.
- Design facilities to enhance the comfort and healing of patients and the productive care-giving and general welfare of staff and visitors.
- Meet current hospital planning guidelines by providing space to accommodate patients in single-bed rooms, as appropriate, including adequate space for treatment by healthcare providers, equipment, and support by family members.
- Provide the optimum height for quality and efficient operations and patient care that maximizes proximity of internal departments by taking full advantage of the efficiency of vertical circulation within the hospital buildings.
- Bring high paying jobs and vital services just west of the new Civic Center. Provide the height and density that would be a catalyst for the new civic center area, as well as support the City's economic development goals.
- Provide for helicopter access directly to the facility to accept hospital-to-hospital patient transfers when warranted by medical necessity to be used occasionally, not routinely, primarily for transporting critically injured patients away from this hospital to higher-level trauma care facilities. Design the helistop to:
  - meet the functional needs of the hospital;
  - maximize safety by locating the helistop on the ground;
  - comply with all applicable regulatory and life safety requirements for helistops and helicopter travel, including but not limited to Federal Aviation Administration (FAA) requirements for flight path obstruction clearance, to ensure public safety during helicopter landings and takeoffs; and
  - allow a visually unobtrusive helistop, integrating into the design of the campus.
- Design facilities to create an attractive "campus" appearance with pedestrian-friendly circulation. Use materials and colors that are complementary to the existing MOB and the neighboring community.

## 2.0 PROJECT DESCRIPTION

- Promote use of alternative transportation modes by creating connections to the existing bike path along Elk Grove Boulevard, providing more bicycle storage facilities than required by City code, and allowing for a bus stop on campus.

### 2.4 PROJECT CHARACTERISTICS

#### OVERVIEW AND PHASING

The proposed Project includes the construction of a six-story, 456,719-square-foot, 330-bed hospital; a three-story, 65,000-square-foot medical office building (referred to as MOB #2); and a five-level, 169,520-square-foot parking structure (see **Table 2.0-1** for a summary of building square footage and beds). The Project would be constructed in a total of four phases, with the first three phases associated with the hospital building and the last phase associated with the medical office building (MOB) and parking structure. It is anticipated that the Master Plan would have a 20-plus year build out. The three hospital phases to be built in succession are the following: four-story, 112,050-square-foot Surgery and Maternity Hospital building section; six-story, 175,095-square-foot Hospital Expansion #1 building section; and the six-story, 169,574-square-foot Hospital Expansion #2 building section. The number of beds associated with each building section is 106 beds, 112 beds, and 112 beds, respectively.

The Hospital Expansion #1 and Hospital Expansion #2 are proposed to be six stories, or 116 feet tall. The current height limit in the LRSP is 60 feet. The Project is seeking an amendment to the Specific Plan to allow a maximum building height limit of 120 feet for the project site.

The Surgery and Maternity Hospital building section is anticipated to start construction in 2017, with the remaining hospital, MOB, and parking structure phases to be completed at an undetermined time. The Project would also include a helistop that would primarily be used for transporting patients away from the hospital. The 500-stall parking garage is proposed for construction during the final phase of the project, at the time MOB #2 is constructed; however, surface parking would be constructed per City code with each phase of development to ensure adequate parking is provided for uses on site. Additional information for each project phase is provided below. The project site configuration is shown in **Figure 2.0-2**.

**TABLE 2.0-1  
SUMMARY OF DEVELOPMENT PROPOSED**

Project	Phase	Existing Square Footage	Proposed New Square Footage	Hospital Beds	Parking <sup>1</sup>
Existing Medical Office Building		68,190	–	–	309
Surgery and Maternity Hospital	1	–	112,050	106	487
Hospital Expansion #1	2	–	175,095	112	491
Hospital Expansion #2	3	–	169,574	112	738
Medical Office Building #2	4	–	65,000	–	1,330
<b>Total</b>		<b>68,190</b>	<b>521,719</b>	<b>330</b>	<b>1,330</b>

1. Parking denotes the total parking that would be available for each phase.

T:\GIS\Elk\_Grove\MXD\Health\HealthFigure 1.mxd - 1/10/2013 @ 3:24:39 PM



City of Elk Grove  
Development Services

Figure 2.0-2  
Site Configuration



### SURGERY AND MATERNITY HOSPITAL

The four-story Surgery and Maternity Hospital building is proposed to be 68 feet tall. The program for this building includes the hospital entry/reception, meditation chapel, service support, and urgent care on the first floor. The second floor includes 12 labor-delivery-recovery-postpartum (LDRP) beds, 20 postpartum beds, 14 neonatal intensive care unit (NICU) beds, 2 C-section rooms, and a well-baby nursery. The third and fourth floors are currently not programmed, but are assumed to provide 30 beds per floor for the medical/surgery unit. This phase could include construction of a bridge connection to the existing medical office building. This phase would also include construction of Healing Gardens located east of the hospital and between the hospital and MOB #1. A central heating and cooling plant to serve the Surgery and Maternity Hospital would be constructed in this phase. The proposed helistop platform would also be constructed during this phase, but it would not be operational until the emergency department is constructed with the first hospital expansion.

### HOSPITAL EXPANSION #1

Hospital Expansion #1 is proposed as a six-story, 116-foot-tall expansion of the Surgery and Maternity Hospital building. It would accommodate up to 112 beds and would include an emergency department (not a trauma unit), imaging center, laboratory, pharmacy, operating suites and post-anesthesia care unit (PACU), intensive care unit (ICU) with nursing support (one floor), medical/surgery unit with nursing care (three floors), and an enclosed emergency generator. The central heating and cooling plant serving the Surgery and Maternity Hospital would be expanded in this phase to serve Hospital Expansion #1. Parking would be provided per City code requirements.

### HOSPITAL EXPANSION #2

Hospital Expansion #2 would also be six stories and 116 feet tall and would connect to the north portion of the first hospital expansion. It would include an expansion of hospital support facilities, including ICU with nursing support (one floor), medical/surgery unit with nursing care (three floors), and an additional enclosed emergency generator. An expansion of the central heating and cooling plant to serve the previous phases and Hospital Expansion #2 would be constructed during this phase. Additional parking per City code requirements would also be provided.

### MEDICAL OFFICE BUILDING #2 AND PARKING STRUCTURE

MOB #2 would be three stories and approximately 60 feet tall. It would accommodate additional outpatient services at the campus. The parking structure would be approximately 50 feet tall with five levels of above-grade parking for 500 cars.

### SUPPORT FACILITIES

The campus would also be served by additional support facilities, such as a central cooling and heating plant and diesel backup generators. The central heating and cooling plant would be located immediately west of the hospital in the central portion of the project site in a completely enclosed central plant building. The generators would be fully enclosed and would include sound attenuation and pollution controls meeting California Environmental Protection Agency standards.

## 2.0 PROJECT DESCRIPTION

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### PROPOSED HEALTH POLICIES AND PROCEDURES

The proposed facility would comply with the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) standards. Although compliance with JCAHO standards is voluntary, because the Center for Medicare and Medicaid Services and many third-party payers require hospitals to be accredited as a condition of participation in health insurance reimbursement programs, this accreditation would allow the facility to serve the City of Elk Grove. The JCAHO standards include an entire chapter entitled "Managing the Environment of Care" (EOC). The EOC standards include seven required programs: Safety, Security, Hazardous Materials and Waste, Emergency Management (hospital and community disasters), Fire Life Safety, Medical Equipment Management, and Utilities Management.

As an accredited hospital, the proposed Project would be surveyed every three years by JCAHO and the Department of Health Services (Licensing & Certification) to attain compliance with JCAHO standards and California Code of Regulations Title 22 (Hospital Licensing and Certification) regulations. The new facilities created by the Project would also be required to comply with existing laws and regulations.

### HELISTOP

The Project would also include a helistop, located on the western portion of the site, adjacent to Hospital Expansion #1. The helistop would be located approximately 500 feet from the residential development to the north and approximately 800 feet from the residential development to the south. The helistop would consist of a concrete pad approximately 8 feet above the surrounding grade, accessed by a ramp and enclosed by a low fence. The proposed helistop platform would be constructed during the same phase as the Surgery and Maternity Hospital, but it would not be operational until the emergency department is constructed as part of Hospital Expansion #1.

Operation of the helistop would consist of transporting critically injured patients away from this hospital to higher-level care facilities (i.e., to a trauma center). This will be an occasional, not routine occurrence. Because the Project does not propose a trauma unit, the helicopter operations would not be used to transport trauma patients to the hospital, so there would be no unscheduled flights transporting critical trauma patients to the facility. Flights can generally be scheduled to occur during daytime hours; however, some night flights could occur. Based upon helicopter operations at a similar facility, Dignity Health estimates the helistop would result in approximately 10 flights per year.

A helistop differs from a heliport in that it is not a permanent base for air ambulance vehicles. There will be no fueling, service, long-term parking, or storage of helicopters or related equipment at this site.

The design of the helistop and the flight paths to and from the project site are regulated by the Federal Aviation Administration. Helistop design standards are specified in Chapter 4 of the FAA Advisory Circular 150/5390-2B (September 2004). Federal Aviation Regulations (FAR) contain prescriptive standards for flight paths and other safety requirements that are designed to provide adequate maneuvering room for pilots using the facility. Flight paths must meet FAR Part 77 obstruction clearance standards; Part 77 of the FAR specifies a series of "imaginary surfaces" in the airspace surrounding landing areas. These surfaces include a "primary surface" (a horizontal plane at landing pad elevation), "approach surfaces" (shallow, inclined planes along each designated flight path), and "transition surfaces" (steeper inclined planes to the sides of flight paths). Flight paths are reviewed by the FAA when conducting airspace studies for landing sites. The FAA evaluation takes into account the airspace of other existing facilities (e.g.,

Sacramento International Airport and Sacramento Executive Airport) and whether there are any conditions or structures that would make a new landing site infeasible. Rather than an explicit approval of the helistop or flight operations, the product of the FAA's study is an airspace determination letter that expresses no objection to the use of the airspace for operation to and from the site. Anticipated flight paths are shown in **Figure 2.0-3**.

The Project will be required to submit a Notice of Landing Area Proposal to the FAA. The FAA will consider the effects the proposal would have on existing or planned traffic patterns of neighboring airports, existing structures and programs of the FAA, safety of persons or property on the ground, existing and proposed man-made objects on file with the FAA, and known natural objects in the affected area. Prior to providing an airspace determination letter, the FAA would have to determine that the Project would not adversely affect the safe and efficient use of the navigable airspace by aircraft.

The helistop would include 12 to 16 flush-mounted perimeter lights surrounding the landing pad surface to define the structural landing area. The perimeter lights would be green in color and would be visible from all flight paths. The helistop would also include obstruction lights—red lights on the highest hospital building. The perimeter lights would be radio controlled by pilots upon approach to the helistop and would operate by timer, turning off after three to five minutes. The helistop would also require an illuminated wind cone to provide a visual indication of wind direction and velocity at the site. Helicopters would use typical running lights, which would include red and green right-of-way lights on the sides of the aircraft and a strobe light to indicate the helicopter's position in low visibility conditions.

### ENERGY CONSERVATION

While the proposed Project would result in energy consumption during construction and operation, it would not result in wasteful, inefficient, or unnecessary consumption. The proposed Project would comply with Laguna Ridge Town Center EIR mitigation measure MM 4.2.3, which requires implementation of energy-efficient lighting and process systems, such as water heaters, furnaces, and boiler units for all buildings and lighting, and the use of energy-efficient and automated controls for air conditioning in all buildings. In addition, the Project would comply with Title 24, Part 6 of the California Code of Regulations (Building Energy Efficiency Standards), established to reduce California's energy consumption, and CALGreen, which requires new buildings to reduce water consumption by 20 percent, divert 50 percent of construction waste from landfills, and install low-pollutant-emitting materials.

## **2.0 PROJECT DESCRIPTION**

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Figure 2.0-3  
Anticipated Helicopter Flight Path

**2.5 REGULATORY REQUIREMENTS, PERMITS, AND APPROVALS****CITY OF ELK GROVE**

The project site is under the jurisdiction of the City of Elk Grove. Actions that would be required from the City Council, Planning Commission, and/or City staff include, but are not limited to, the following:

- Approval of a Tentative Parcel Map.
- Approval of an Amendment to the Laguna Ridge Specific Plan to establish a maximum building height limit of 120 feet for the project site.
- Amendment to the Elk Grove Town Center Design Guidelines to eliminate the requirement for a joint shared driveway between the hospital district and commercial district.
- Approval of a Conditional Use Permit to allow hospital use in the Shopping Center (SC) district and allow establishment of a helistop.
- Design Review of the Dignity Health Elk Grove Medical Campus Master Development Plan, consisting of the overall site plan and facility layout.
- Design Review of the Surgery and Maternity Hospital building and associated site improvements.
- Approval of a Uniform Sign Program to establish sign criteria for the Project.
- Subsequent Design Review approvals for buildings and associated site improvements in future phases.

**RESPONSIBLE AGENCIES**

A responsible agency is a public agency with discretionary approval over one or more actions involved with the development of a proposed project. Responsible agencies could include the following:

- Sacramento Metropolitan Air Quality Management District (SMAQMD)
- State of California, Department of Health Services (DHS)
- Office of Statewide Health Planning and Development (OSHPD)
- Caltrans Division of Aeronautics
- Federal Aviation Administration (FAA)

**OTHER AGENCIES**

Other discretionary approvals by other governmental agencies include, but are not limited to, the following:

## **2.0 PROJECT DESCRIPTION**

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- Water quality permitting (National Pollutant Discharge Elimination System [NPDES] and water quality certifications) under the Clean Water Act by the Central Valley Regional Water Quality Control Board
- Approval of infrastructure details for water supply facilities by the Sacramento County Water Agency
- Approval of infrastructure details for wastewater conveyance facilities by Sacramento Area Sewer District

### REFERENCES

City of Elk Grove. 2003. *City of Elk Grove Zoning Code*. Elk Grove, CA.

———. 2004a. *Laguna Ridge Specific Plan*. Elk Grove, CA.

———. 2004b. *Laguna Ridge Specific Plan Environmental Impact Report* (SCH #2000082139). Elk Grove, CA.

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

———. 2008. *Laguna Ridge Town Center Environmental Impact Report* (SCH #2007082169). Elk Grove, CA.



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## **3.0 INTRODUCTION TO THE ENVIRONMENTAL ANALYSIS AND ASSUMPTIONS USED**

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### **3.0 INTRODUCTION TO THE ENVIRONMENTAL ANALYSIS AND ASSUMPTIONS USED**

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The following is an introduction to the project-specific and cumulative environmental analysis and general assumptions used in the analysis. The reader is referred to the individual technical sections of the Draft Environmental Impact Report (EIR) regarding specific assumptions and methodology and significance criteria used in the analysis.

#### **ANALYSIS ASSUMPTIONS GENERALLY USED TO EVALUATE THE IMPACTS OF THE PROJECT**

##### **BASELINE ENVIRONMENTAL CONDITIONS ASSUMED IN THE DRAFT EIR**

Section 15125(a) of the California Environmental Quality Act (CEQA) Guidelines requires that an EIR include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the Notice of Preparation (NOP) is published. The CEQA Guidelines also specify that this description of the physical environmental conditions is to serve as the baseline physical conditions by which a lead agency determines whether impacts of a project are considered significant.

The environmental setting conditions of the project site and the surrounding area are described in detail in the technical sections of the Draft EIR (see Sections 3.1 through 3.7). In general, these setting discussions describe the setting conditions of the project site and the surrounding area as they existed when the NOP for the project was released in August 2012.

##### **GENERAL PLAN CONSISTENCY ANALYSIS**

As required by CEQA Guidelines Section 15125(d), each technical section of the EIR has been evaluated for consistency with the existing Elk Grove General Plan (updated 2005) and Laguna Ridge Specific Plan.

##### **APPROACH TO THE PROJECT-SPECIFIC ANALYSIS**

###### **Project Buildout Assumptions**

The Draft EIR impact analysis is based on buildout of the proposed Dignity Health Elk Grove Medical Campus Project. **Table 2.0-1** (see Section 2.0, Project Description) identifies maximum buildout conditions of the project site under the proposed Project. Operational impacts of the Project are based on project buildout.

Sections 3.1 through 3.7 of this Draft EIR contain a description of current setting conditions (including applicable regulatory setting), an evaluation of the direct and indirect environmental effects resulting from the implementation of the proposed Project, identification of measures that mitigate the identified significant environmental effects, additional feasible mitigation measures, and, if applicable, identification of whether significant environmental effects of the proposed Project would remain after application of proposed mitigation measures. The individual technical sections of the Draft EIR follow the following format.

###### **Existing Setting**

This subsection includes a description of the physical setting conditions associated with the technical area of discussion, consistent with CEQA Guidelines Section 15125. As previously identified above, the existing setting is based on conditions as they existed when the NOP for the Project was released.

### **3.0 INTRODUCTION TO THE ENVIRONMENTAL ANALYSIS AND ASSUMPTIONS USED**

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#### **Regulatory Framework**

This subsection consists of the identification of applicable federal, state, regional, and local plans, policies, laws, and regulations that apply to the technical area of discussion.

#### **Impacts and Mitigation Measures**

The Impacts and Mitigation Measures subsection identifies direct and indirect environmental effects associated with implementation of the proposed Project and identifies proposed measures that mitigate the environmental effect (unless that impact results in an unavoidable impact). Concluding statements are included in the impact discussion to verify the level of significance the impact will have after mitigation. Standards of significance are identified and *utilized to determine whether identified environmental effects are considered "significant" and require the application of mitigation measures.* Each environmental impact analysis is identified numerically and is supported by substantial evidence included in the discussion.

CEQA requires that mitigation to lessen the environmental impact must be feasible. CEQA Guidelines Section 15126.4(a)(1) states, "[a]n EIR shall describe feasible measures which could minimize significant adverse impacts..." Feasible is defined as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors" (CEQA Section 21061.1).

Mitigation measures for the proposed Project were developed through a thorough review of the environmental effects of the Project by environmental professionals and consultants with specific technical expertise. Any feasible mitigation measures that could minimize significant adverse impacts are discussed, after which the impact discussion notes whether the impact has been mitigated to a less than significant level or remains significant and unavoidable.

#### **APPROACH TO THE CUMULATIVE IMPACT ANALYSIS**

##### **Definition of Cumulative Setting**

CEQA Guidelines Section 15130(a) requires that an EIR "discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable." CEQA Guidelines Section 15130(b) states, "[t]he discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact."

For this Project, the cumulative setting conditions considered in this Draft EIR generally encompass the City of Elk Grove and, specifically, the Laguna Ridge Specific Plan area. Therefore, the cumulative setting conditions consider the City of Elk Grove General Plan (adopted November 2003; amended January 2005). However, the cumulative setting varies for each environmental issue area, depending on the resources affected and any relevant boundaries, such as the Sacramento Valley Air Basin for air quality resources. Each technical section of the Draft EIR includes a description of the geographic extent of the cumulative setting for that resource based on the characteristics of the environmental issues under consideration as set forth in Section 15130(b) of the CEQA Guidelines.

#### **Consideration of Cumulative Impacts**

Each technical section in the Draft EIR considers whether the Project's effect on anticipated cumulative setting conditions is cumulatively considerable (i.e., a significant effect). The determination of whether the Project's impact on cumulative conditions is considerable is based on applicable public agency standards, consultation with public agencies, and/or expert opinion. In addition, as described above, the environmental effects of potential development of the Project are considered in the cumulative impact analysis. Section 4.0, Cumulative Impacts Summary, provides a summary of the cumulative impacts associated with the development of the Project.

#### **EFFECTS FOUND NOT TO BE SIGNIFICANT**

As discussed in the Initial Study for the project, the following topics were adequately addressed in the previous EIRs: agricultural resources, biological resources, cultural resources, geology and soils, hydrology, land use, mineral resources, population and housing, public services and utilities, recreation, and transportation. As discussed in Chapter 1, Introduction, the proposed Project would be required to comply with mitigation measures adopted for the Laguna Ridge Specific Plan and Laguna Ridge Town Center projects. The Mitigation Monitoring and Reporting Programs for the Laguna Ridge Specific Plan and Laguna Ridge Town Center EIRs are included in Appendix A of this Draft EIR. Based upon Caltrans comments on the NOP and a determination by Sacramento County Water Agency that a water supply assessment was required, additional information supporting the findings of the Initial Study is provided in Chapter 1, Introduction and Appendices C and D of this Draft EIR.

## **3.1 AESTHETICS**

This section describes the existing aesthetic resources of the project area and discusses the impacts associated with implementation of the proposed Project. The analysis focuses on the anticipated alteration of the existing visual characteristics resulting from the proposed Project and includes discussions of existing City regulations that reduce or avoid these impacts. The analysis of aesthetic resources presented in this section is based on a review of the most current project description (Section 2.0), City regulations, and the existing visual character of the project area.

### 3.1.1 EXISTING SETTING

#### PROJECT AREA

The proposed Dignity Health Elk Grove Medical Campus Project is located in the central portion of the City of Elk Grove, in southern Sacramento County. The City of Elk Grove is approximately 14 miles southeast of downtown Sacramento and approximately 12 miles north of the Sacramento-San Joaquin County boundary. The project site is on the southwest corner of Elk Grove Boulevard, in the Laguna Ridge Specific Plan (LRSP) area (see **Figure 2.0-1** in Section 2.0, Project Description).

The project site consists of two parcels that encompass approximately 27.8 acres. The site is predominantly flat, with an elevation of 33± feet above mean sea level, and slopes slightly toward the west. An approximately 65,000-square-foot, three-story medical office building is located on the site. The building is surrounded by surface parking. Existing development on the site occupies approximately 5.5 acres.

#### SURROUNDING LAND USES

The project site is generally bounded to the north by Elk Grove Boulevard and a residential development fully developed with one- and two-story single-family homes. This development is approximately 100 feet north of the project boundary and approximately 275 feet from the closest building proposed on the project site (Hospital Expansion #2). Wymark Drive serves as the eastern boundary of the project site. The site immediately east of Wymark Drive is currently being developed with three-story town houses, approximately 50 feet from the project site's eastern boundary and approximately 230 feet from the existing medical office building, which would be the closest building on the project site. Civic Center Drive is located south of the project site. The area south of Civic Center Drive has been approved for residential development and is currently being developed. The area immediately south of the project site is partially developed, and some of these units are model homes. This area would ultimately include one- and two-story single-family homes. The area to the west is currently vacant property, but it is planned for multi-family residential (apartments). **Figure 2.0-2** (see Section 2.0, Project Description) shows the project site in the context of the surrounding development.

### 3.1.2 REGULATORY FRAMEWORK

#### STATE

##### California Environmental Quality Act (CEQA)

CEQA affords protection for the environment, including aesthetic resources. CEQA Guidelines Appendix G provides four criteria that may be used to evaluate the significance of visual quality impacts (see Standards of Significance below).

### 3.1 AESTHETICS

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#### CITY OF ELK GROVE

#### **Elk Grove Design Guidelines**

The following Elk Grove Design Guidelines for nonresidential development would apply to the Project:

- 37) Exterior site lighting shall be designed so that light is not directed off the site and the light source is shielded downward from direct off-site viewing.
- 39) Light features shall be located and designed with cut-off lenses to avoid light spill and glare on adjacent properties. In order to minimize light trespass on residential structures directly abutting a nonresidential site, illumination measured at the nearest residential structure or rear yard/side yard setback line shall not exceed the moon's potential ambient illumination of one-tenth (0.1) foot-candle. This measurement is not taken at the property line, but at the nearest location of a residential structure (required rear yard or side yard setback line).
- 40) Except as otherwise exempt, all outdoor lighting for nonresidential development shall be constructed with full shielding. Where the light source from an outdoor light fixture is visible beyond the property line, shielding shall be required to reduce glare so that the light source is not visible from within any existing or future residential dwelling unit.
- 41) Outdoor light fixtures used to illuminate architectural or landscape features should use a narrow cone of light for the purpose of confining the light to the object of interest and minimize light trespass and glare. Appropriate level of illumination will be determined during the required design review.

#### **3.1.3 IMPACTS AND MITIGATION MEASURES**

##### STANDARDS OF SIGNIFICANCE

A project is considered to have a significant effect on the environment if it will:

- 1) Have a substantial adverse effect on a scenic vista.
- 2) Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.
- 3) Substantially degrade the existing visual character or quality of the site and its surroundings.
- 4) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area.

##### METHODOLOGY

The Laguna Ridge Specific Plan Environmental Impact Report (Laguna Ridge Specific Plan EIR) (SCH #2000082139) addressed aesthetic issues related to the development of the entire Laguna

Ridge Specific Plan area, of which this Project is a part. The Project would be subject to the Laguna Ridge Specific Plan Mitigation Monitoring and Reporting Program (MMRP), including implementation of mitigation measures required to reduce aesthetics and visual resources impacts.

Evaluation of potential aesthetic impacts of the proposed Project was based on review of relevant planning documents, including the City of Elk Grove General Plan, the Laguna Ridge Specific Plan, and the City of Elk Grove Zoning Code, and field review of the project and surrounding area.

PROJECT IMPACTS AND MITIGATION MEASURES

**Local Visual Resource Impacts (Standards of Significance 1, 2, and 3)**

**Impact 3.1.1** Implementation of the proposed Project would increase development within the Laguna Ridge Town Center area and alter the character of the area. **The proposed Project would not result in a substantial increase in the severity of this impact, which was previously identified in the Laguna Ridge Specific Plan EIR as significant and unavoidable. There is no new or substantially more severe significant impact.**

The previous analysis under the LRSP EIR and Laguna Ridge Town Center (LRTC) EIR found that views of open areas would be replaced by views of residential and commercial uses. The LRSP EIR states that existing uses and features within the Laguna Ridge Specific plan are not considered to be significant visual resources. Additionally, there are no scenic visual resources in the vicinity of the LRSP.

The Laguna Ridge Specific Plan EIR previously identified changes to the character of the area as a significant and unavoidable impact. Since approval of the Laguna Ridge Specific Plan, the area in the vicinity of the project site has begun to develop, with one- and two-story residential development occurring south of Civic Center Drive, three-story residential developing immediately east of the project site, and a three-story medical office building on the project site. The proposed Project would contribute to changes to the visual character as the area becomes more urban and the Project buildings would be visible from viewpoints along Elk Grove Boulevard, Civic Center Drive, and other viewpoints in the vicinity of the project site. However, the Laguna Ridge Specific Plan EIR acknowledged that the plan area is undergoing rapid urbanization and views of open areas would be replaced by views of residential and commercial uses. The proposed hospital and medical buildings would contribute to the evolving visual character of an urbanized area and would be consistent with the assumptions in the Laguna Ridge Specific Plan EIR.

With regard to the specific characteristics of the proposed Project, LRSP Development Standards (3.5.9.4) state, "the maximum permitted building height shall not exceed 36 within 100 feet of residential property, but buildings beyond 100 feet are limited to a maximum of 60 feet. Exceptions may be allowed for architectural elements subject to approval of a conditional use permit." The Project is requesting an amendment to the Laguna Ridge Specific Plan to establish an increased Height Overlay designation in the LRSP to allow a maximum building height limit of 120 feet. The City has established, through its Zoning Code (Section 23.32.040), that "the maximum height in a commercial district may be increased up to one hundred fifty (150' 0") feet, provided that all buildings are set back from the ultimate right-of-way line of all abutting streets and freeways a distance at least equal to the height of the building." The intent of the increased setback when heights are increased is based on the phenomenon that with increased distance



### 3.1 AESTHETICS

between the viewer and an object, objects will appear smaller. Therefore, increased setbacks would minimize the perceived height and mass of a building when viewed at the increased setback.

**Table 3.1-1** shows the buildings in the Project that would exceed the 60-foot height limit and the distance to property boundaries. As shown, the distance from these buildings to any of the project boundaries would far exceed the proposed height of any of the buildings.

**TABLE 3.1-1  
BUILDING HEIGHT AND DISTANCE TO PROPERTY BOUNDARIES FOR BUILDINGS EXCEEDING 60 FEET**

Building	Proposed Height (feet)	Distance to Boundary (feet)			
		North	East	South	West
Surgery and Maternity Hospital	79	625	420	490	285
Hospital Expansion #1	116	420	420	700	260
Hospital Expansion #2	116	195	420	905	295

Source: Dreyfuss and Blackford 2012

The Zoning Code includes a one-to-one ratio for building height and setback distance. As shown in **Table 3.1-1**, the smallest setback for any proposed building greater than 60 feet would be from the northern portion of the site, which would represent a 0.65:1 ratio. Based on the increased setbacks included in the Project, the height-to-setback ratio is within that allowed by the Zoning Code and would not be considered a substantial negative change in an area described in the LRSP EIR as "a portion of the City previously planned for, and currently experiencing, urban growth and development." As this portion of the City has been planned for urban growth and the Project provides a height-to-setback ratio that is consistent with the Zoning Code, the Project would be consistent with the changes in the area assumed in the LRSP and this would not be considered a substantial change in character. Therefore, the Project would not result in impacts related to local visual resources beyond those disclosed in the previous EIRs. **The proposed Project would not result in a substantial increase in the severity of this impact, which was previously identified in the LRSP EIR as significant and unavoidable. There is no new or substantially more severe significant impact.**

#### Mitigation Measures

None required.

#### **Light and Glare (Standard of Significance 4)**

**Impact 3.1.2** Implementation of the proposed Project would introduce new sources of light and glare in and around the area. **The proposed Project would not result in a substantial increase in the severity of this impact, which was previously identified in the LRSP EIR as significant and unavoidable. There is no new or substantially more severe significant impact.**

The proposed Project would introduce new sources of light and glare through development of over 500,000 square feet of hospital buildings and associated landscaping and parking areas. However, the proposed Project would be subject to the Laguna Ridge Specific Plan EIR MMRP, which includes implementation of Laguna Ridge Specific Plan EIR mitigation measures MM 4.11.2a and MM 4.11.2b (see Appendix A) requiring preparation of a lighting plan to ensure that

parking lot pole lights and streetlights are fully hooded and back-shielded to reduce light "spillage" and glare. The measures also prohibit the illumination from breaking the horizontal plane, ensure that lighting does not exceed the standard illumination of 2 foot-candles along the property lines of adjoining land uses, and require the use of non-glare glass. While the Laguna Ridge Specific Plan EIR found that these mitigation measures would reduce the effect of light and glare, the impact would remain significant and unavoidable.

However, the previous EIRs did not assume operation of a helistop, which would include its own operational lighting. The helistop would include 12 to 16 flush-mounted perimeter lights surrounding the landing pad surface to define the structural landing area. The perimeter lights would be green in color and would be visible from all flight paths. Because the lights are flush mounted on the landing pad surface, which would be elevated approximately 8 feet above the surrounding grade, they would not be visible horizontally. The perimeter lights would be radio controlled by pilots upon approach to the helistop and would operate by timer, turning off after three to five minutes. The helistop would also require obstruction lights— red lights located on the adjacent structures—and an illuminated wind cone. The wind cone, which would include downward-directed floodlights and a red obstruction light at the top of its mast, provides a visual indication of wind direction and velocity at the site. The wind cone could be installed on an adjacent building or at ground level near the helistop.

A three-color (white-green-yellow) helipad beacon is not required by regulations, but may be installed at ground level adjacent to the helistop for the purpose of aiding helicopter pilots to visually locate the heliport. The beacon can be run continuously or can be set to run by radio control from pilots.

Helicopters would use typical running lights, which would include red and green right-of-way lights on the sides of the aircraft and a strobe light to indicate the helicopter's position in low visibility conditions. The landing light, which is a relatively bright white light in front of the helicopter, would be used to light the helipad during approaches. This light would be directed toward the helipad along a flight path.

In addition to the lighting described above, which is specific to helicopter flight operations, there would be some exterior lighting to facilitate safe transport of patients between the hospital and a helicopter at night. This lighting would consist of floodlights mounted to the side of the hospital building or footlights along the walkway between the hospital and helipad deck surface. This lighting would be on for even shorter times than the lights described above, activated after the helicopter lands and turned off prior to its departure. This lighting would be directed to the specific areas where needed and, consistent with the lighting standards in the Elk Grove Design Guidelines, lighting would be oriented to avoid off-site light spillover onto adjacent properties.

The helistop perimeter lights would only be activated when the helistop is in use, would not be visible from the horizontal plane, and would be activated only for a brief time from shortly before a helicopter's arrival until shortly after its departure. The obstruction and wind cone lights, however, would be operated during nighttime hours. While some lights (i.e., building obstruction lights and wind cone lights) may be visible from nearby residences and other land uses, the Project would include landscaping throughout the campus, as well as along the perimeter of the property, which would further reduce the potential for spillover of light onto adjacent properties. The obstruction lights would be located at the top of the highest building, but these would not be floodlights that would be directed toward or cast shadows onto adjacent properties, and the red light emitted from these lights would not substantially affect viewers' nighttime vision. Therefore, with the limited operation of lighting for helicopter landings and departures during nighttime hours and the separation distance of the proposed lighting fixtures

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and closest surrounding uses, lighting associated with the proposed helipad would not result in an adverse light impact. **The proposed Project would not result in a substantial increase in the severity of this impact, which was previously identified in the LRSP EIR as significant and unavoidable. There is no new or substantially more severe significant impact.**

#### Mitigation Measures

None required.

### 3.1.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

#### CUMULATIVE SETTING

As previously described, the City of Elk Grove is located in the southern portion of Sacramento County. The proposed project would include development of hospital uses in an area that was assumed for development in the Laguna Ridge Specific Plan. The City of Elk Grove Planning Area was considered for the purpose of evaluation of visual impacts on a cumulative level. Development in the Elk Grove area, including proposed and approved projects, would change the intensity of land uses in the Elk Grove region. Future growth under cumulative conditions may result in a variety of visual impacts such as consistency with land use plans and land use compatibility. The cumulative impact analysis herein focuses on the Project's contribution to cumulative impacts and whether that contribution is considered significant and unavoidable.

#### CUMULATIVE IMPACTS AND MITIGATION MEASURES

The cumulative setting for visual resources/light and glare is the area in the vicinity of the project site. Cumulative development, including existing, proposed, approved, and reasonably foreseeable projects, would result in increased nighttime lighting and daytime glare. Currently, there are vacant parcels to the west of the Project site; however, the majority of the surrounding area is currently developed or planned for residential urban uses. It is assumed that vacant parcels will be developed as residential and, along with the proposed Project's uses in the area, would contribute to changes to the visual character, nighttime lighting, and daytime glare.

#### Cumulative Visual Resource Impacts

**Impact 3.1.3** Development of the proposed Project, in addition to other reasonably foreseeable projects in the project vicinity, would introduce new development into an undeveloped area and contribute to a cumulative increase in urban uses. **The proposed Project would not result in a substantial increase in the severity of this impact. There is no new or substantially more severe contribution to the cumulative impact that would result from the proposed Project.**

The LRSP EIR states that cumulative impacts from the Laguna Ridge Specific Plan include the conversion of vacant or agricultural land to urban uses. The EIR states that although individual development projects would be responsible for incorporating mitigation to minimize their visual impacts, the net result would still be a general conversion of an area with an open, rural character to a more urban and developed character. The EIR goes on to state that because the project-specific and cumulative impacts are inherently related to the general conversion of an agricultural area to urban development from the introduction of development structures and lighting sources, both project-specific and cumulative impacts would be significant and

unavoidable. The proposed Project, while adding taller buildings than previously assumed for the site, would not have a significantly greater cumulative contribution to what was previously approved in the area under the LRSP and revised under the LRTC. The proposed project site and the areas surrounding the Project were considered in the LRSP EIR for conversion to developed urban uses. Because these areas were previously assumed for development, and the Project provides a height-to-setback ratio that is consistent with the Zoning Code, the Project would be consistent with the changes in the area assumed in the LRSP, the cumulative change to the character would not substantially change from that previously considered and there would be no additional cumulative visual impacts. **The proposed Project would not result in a substantial increase in the severity of this impact. There is no new or substantially more severe contribution to the cumulative impact that would result from the proposed Project.**

Mitigation Measures

None required.

**Cumulative Light and Glare Impacts**

**Impact 3.1.4** Development of the proposed Project, in addition to other reasonably foreseeable projects in the region, would introduce new development into an agricultural area and increase nighttime lighting and glare. **The proposed Project would not result in a substantial increase in the severity of this impact. There is no new or substantially more severe contribution to the cumulative impact that would result from the proposed Project.**

The LRSP EIR states that cumulative impacts from the LRSP include the conversion of vacant or agricultural land to urban uses. Nighttime illumination would be increased in the project area as a result of cumulative project development. The LRSP EIR found that the introduction of structures and lighting sources in the Specific Plan area would result in a significant and unavoidable cumulative impact related to light and glare. Since certification of the LRSP, the City has adopted Design Guidelines to reduce glare and spillover lighting. Compliance with these Design Guidelines would result in an overall reduction in the effects of glare and spillover lighting for new development throughout the City. While there would still be a net increase in urban development in the vicinity of the project site that could contribute to increased nighttime lighting and daytime glare, future individual development projects would be required to conform to City requirements, including those set forth in the Elk Grove Design Guidelines and the Zoning Code, related to daytime glare and nighttime lighting. Compliance with these guidelines would have a mitigating effect on light and glare throughout the City. **The proposed Project would not result in a substantial increase in the severity of this impact. There is no new or substantially more severe contribution to the cumulative impact that would result from the proposed Project.**

Mitigation Measures

None required.

### 3.1 AESTHETICS

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#### REFERENCES

City of Elk Grove. 2003. *Elk Grove Design Guidelines*.

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## **3.2 AIR QUALITY**

This section examines the air quality in the area of the proposed project area and region, includes a summary of applicable air quality regulations, and analyzes potential air quality impacts associated with the Project.

### 3.2.1 EXISTING SETTING

Air quality in a region is determined by its topography, meteorology, and existing air pollutant sources. These factors are discussed below, together with the current regulatory structure that applies to the Sacramento Valley Air Basin, which encompasses the City of Elk Grove, pursuant to the regulatory authority of the Sacramento Metropolitan Air Quality Management District (SMAQMD).

Ambient air quality is commonly characterized by climate conditions, the meteorological influences on air quality, and the quantity and type of pollutants released. The air basin is subject to a combination of topographical and climatic factors that reduce the potential for high levels of regional and local air pollutants. The following section describes pertinent characteristics of the air basin and provides an overview of the physical conditions affecting pollutant dispersion in the project area.

#### AIR BASIN CHARACTERISTICS

##### **Sacramento Valley Air Basin**

The proposed Project is located in the Sacramento Valley Air Basin (SVAB), which is under the jurisdiction of the SMAQMD. The SVAB is relatively flat, bordered by mountains to the east, west, and north and by the San Joaquin Valley to the south. Air flows into the SVAB through the Carquinez Strait, moving across the Sacramento Delta, and bringing with it pollutants from the heavily populated San Francisco Bay Area. The climate is characterized by hot, dry summers and cool, rainy winters. Characteristic of SVAB winter weather are periods of dense and persistent low-level fog, which are most prevalent between storm systems. From May to October, the region's intense heat and sunlight lead to high ozone pollutant concentrations. Summer inversions are strong and frequent, but are less troublesome than those that occur in the fall. Autumn inversions, formed by warm air subsiding in a region of high pressure, have accompanying light winds that do not provide adequate dispersion of air pollutants.

Most precipitation in the SVAB results from air masses moving in from the Pacific Ocean during the winter months. These storms usually move through the area from the west or northwest. Over half the total annual precipitation falls during the winter rainy season (November through February); the average winter temperature is a moderate 49 degrees Fahrenheit (°F). During the summer, daytime temperatures can exceed 100°F. Dense fog occurs mostly in mid-winter and never in the summer. Daytime temperatures from April through October average between 70 and 90°F with extremely low humidity. The inland location and surrounding mountains shelter the valley from much of the ocean breezes that keep the coastal regions moderate in temperature. The only breach in the mountain barrier is the Carquinez Strait, which exposes the midsection of the valley to the coastal air mass.

Winds across Elk Grove, which encompasses the project site, are an important meteorological parameter because they control the dilution of locally generated air pollutant emissions and their regional trajectory. Based on data obtained from the Sacramento Executive Airport, the closest station to the City that measures wind speed and direction, southwest winds are the most predominant (CARB 1992).

## 3.2 AIR QUALITY

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### Meteorological Influences on Air Quality

Regional flow patterns affect air quality patterns by directing pollutants downwind of sources. Localized meteorological conditions, such as moderate winds, disperse pollutants and reduce pollutant concentrations. However, the mountains surrounding the Sacramento Valley can create a barrier to airflow, which can trap air pollutants in the valley when meteorological conditions are right and a temperature inversion exists. The highest frequency of air stagnation occurs in the autumn and early winter when large high-pressure cells lie over the valley. The lack of surface wind during these periods and the reduced vertical flow caused by less surface heating reduces the influx of outside air and allows air pollutants to become concentrated in a stable volume of air. The surface concentrations of pollutants are highest when these conditions are combined with smoke from agricultural burning or when temperature inversions trap cool air, fog, and pollutants near the ground (SMAQMD 2011a).

The ozone season (May through October) in the valley is characterized by stagnant morning air or light winds, with the delta sea breeze arriving in the afternoon out of the southwest. Usually the evening breeze transports the airborne pollutants to the north out of the valley. During about half of the days from July to September, however, a phenomenon called the Schultz Eddy prevents this from occurring. Instead of allowing for the prevailing wind patterns to move north and carry the pollutants out of the valley, the Schultz Eddy causes the wind pattern to circle back south. Essentially, this phenomenon causes the air pollutants to be blown south toward the Sacramento area, which exacerbates the pollution levels in the area and increases the likelihood of violating federal or state standards (SMAQMD 2011a).

### REGIONAL AMBIENT AIR QUALITY

Motor vehicle transportation, including automobiles, trucks, transit buses, and other modes of transportation, is the major contributor to regional air pollution. Stationary sources were once important contributors to both regional and local pollution, and remain significant contributors in other parts of the State and country. However, their role has been substantially reduced in recent years by pollution control programs, discussed below. Any further progress in air quality improvement now focuses heavily on transportation sources.

### Criteria Air Pollutants

Criteria air pollutants are defined as those pollutants for which the federal and state governments have established air quality standards for outdoor or ambient concentrations to protect public health. The national and California ambient air quality standards have been set at levels to protect human health with a determined margin of safety. For some pollutants, there are also secondary standards to protect the environment. Ozone and particulate matter (PM) are generally considered to be regional pollutants because they or their precursors affect air quality on a regional scale. Pollutants such as carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), and lead are considered to be local pollutants because they tend to accumulate in the air locally. In addition to being considered a regional pollutant, PM is considered a local pollutant. In the Elk Grove region, ozone and PM are of particular concern. Health effects commonly associated with criteria pollutants are summarized in **Table 3.2-1**.



**TABLE 3.2-1  
CRITERIA AIR POLLUTANTS SUMMARY OF COMMON SOURCES AND EFFECTS**

<b>Pollutant</b>	<b>Major Man-Made Sources</b>	<b>Human Health &amp; Welfare Effects</b>
Carbon Monoxide (CO)	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, effecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
Nitrogen Dioxide (NO <sub>2</sub> )	A reddish-brown gas formed during fuel combustion for motor vehicles and industrial sources. Motor vehicles, electric utilities, and other sources that burn fuel.	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone and acid rain. Contributes to global warming, and nutrient overloading which deteriorates water quality. Causes brown discoloration of the atmosphere.
Ozone (O <sub>3</sub> )	Formed by a chemical reaction between volatile organic compounds (VOC) and nitrous oxides (NO <sub>x</sub> ) in the presence of sunlight. VOCs are also commonly referred to as reactive organic gases (ROGs). Common sources of these precursor pollutants include motor vehicle exhaust, industrial emissions, gasoline storage and transport, solvents, paints and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield. Damages rubber, some textiles and dyes.
Particulate Matter (PM <sub>10</sub> & PM <sub>2.5</sub> )	Power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles and others.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; aggravated asthma; development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility (haze).
Sulfur Dioxide (SO <sub>2</sub> )	A colorless, nonflammable gas formed when fuel containing sulfur is burned; when gasoline is extracted from oil; or when metal is extracted from ore. Examples are petroleum refineries, cement manufacturing, metal processing facilities, locomotives, and ships.	Respiratory irritant. Aggravates lung and heart problems. In the presence of moisture and oxygen, sulfur dioxide converts to sulfuric acid which can damage marble, iron and steel; damage crops and natural vegetation. Impairs visibility. Precursor to acid rain.
Lead (Pb)	Metallic element emitted from metal refineries, smelters, battery manufacturers, iron and steel producers, use of leaded fuels by racing and aircraft industries.	Anemia, high blood pressure, brain and kidney damage, neurological disorders, cancer, lowered IQ. Affects animals, plants, and aquatic ecosystems.

Source: CAPCOA 2011

### Toxic Air Contaminants

In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern. TACs are considered either carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For regulatory purposes, carcinogenic TACs are assumed to have no safe threshold below which health impacts would not occur, and cancer risk is expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be

## 3.2 AIR QUALITY

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a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

There are many different types of TACs, with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Public exposure to TACs can result from emissions from normal operations, as well as from accidental releases of hazardous materials during upset conditions. The health effects of TACs include cancer, birth defects, neurological damage, and death.

To date, the California Air Resources Board (CARB) has designated nearly 200 compounds as TACs and has implemented control measures for a number of compounds that pose high risks and show potential for effective control. The majority of the estimated health risks from TACs can be attributed to a relatively few compounds, one of the most important in California being particulate matter from diesel-fueled engines. In 1998, CARB identified particulate emissions from diesel-fueled engines (diesel PM) as a TAC. Previously, the individual chemical compounds in diesel exhaust were considered as TACs. Almost all diesel exhaust particle mass is 10 microns or less in diameter and, because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.

### **Diesel Exhaust**

According to the California Almanac of Emissions and Air Quality (CARB 2009), the majority of the estimated health risk from TACs can be attributed to relatively few compounds, the most important being PM from diesel-fueled engines (diesel PM). Diesel PM differs from other TACs in that it is not a single substance but rather a complex mixture of hundreds of substances. The exhaust from diesel engines contains hundreds of different gaseous and particulate components, many of which are toxic. Many of these compounds adhere to the particles, and because diesel particles are so small, they penetrate deep into the lungs. Diesel engine particulate has been identified as a human carcinogen. Mobile sources, such as trucks, buses, automobiles, trains, ships, and farm equipment, are by far the largest source of diesel emissions. Studies show that diesel PM concentrations are much higher near heavily traveled highways and intersections.

Although diesel PM is emitted by diesel-fueled internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emission control system is present. No ambient monitoring data are available for diesel PM because no routine measurement method currently exists. However, CARB has made preliminary concentration estimates based on a PM exposure method. This method uses CARB's emissions inventory PM<sub>10</sub> database, ambient PM<sub>10</sub> monitoring data, and the results from several studies to estimate concentrations of diesel PM. In addition to diesel PM, benzene, 1,3-butadiene, acetaldehyde, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, and perchloroethylene pose the greatest existing ambient risk, for which data are available, in the State. However, diesel PM poses the greatest health risk among the ten TACs mentioned. Based on receptor modeling techniques, CARB estimated its health risk to be 360 excess cancer cases per million people in the SVAB. Since 1990, the health risk from diesel PM has been reduced by 52 percent. Overall, levels of most TACs have decreased since 1990, except for para-dichlorobenzene and formaldehyde (CARB 2009).

Unlike criteria pollutants like nitrogen oxide, TACs do not have ambient air quality standards. Since no safe levels of TACs can be determined, there are no air quality standards for TACs. Instead, TAC impacts are evaluated by calculating the health risks associated with a given

exposure. Two types of risk are usually assessed: chronic non-cancer risk and acute non-cancer risk. Diesel PM has been identified as a carcinogenic material but is not considered to have acute non-cancer risks. The State has begun a program of identifying and reducing risks associated with particulate matter emissions from diesel-fueled vehicles. The plan consists of new regulatory standards for all new on-road, off-road, and stationary diesel-fueled engines and vehicles, new retrofit requirements for existing on-road, off-road, and stationary diesel-fueled engines and vehicles, and new diesel fuel regulations to reduce the sulfur content of diesel fuel as required by advanced diesel emission control systems. Areas where individuals could be exposed to high levels of diesel exhaust in the City include:

- Railroad operations
- Warehouses
- Schools with a high volume of bus traffic
- High-volume highways
- High-volume arterials and local roadways with a high level of diesel traffic

There are no railroad operations, large-scale warehouses, schools, or high-volume highways near the project site. However, trucks are considered major sources of diesel-related emissions, and the project site is adjacent to Elk Grove Boulevard, a high-volume arterial.

### **Elk Grove Ambient Air Quality**

Ambient air quality in the City, and thus at the project site, can be inferred from ambient air quality measurements conducted at air quality monitoring stations. There is one air quality monitoring station in the City located at Elk Grove-Bruceville Road, which monitors ambient concentrations of ozone. Concentrations of ozone and airborne particulate matter were obtained from a nearby monitoring station located in the City of Sacramento (Sacramento-T Street air monitoring station) (see **Table 3.2-2**). Ambient emission concentrations will vary due to localized variations in emission sources and climate and should be considered "generally" representative of ambient concentrations affecting the project site.

**Table 3.2-2** summarizes the last three years of published data from the Elk Grove-Bruceville Road monitoring station and the Sacramento-T Street air monitoring station. As depicted in **Table 3.2-2**, state and federal ozone standards have been exceeded on several occasions during the last three years of available data.

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**TABLE 3.2-2  
AMBIENT AIR QUALITY MONITORING DATA FOR THE CITY OF ELK GROVE**

Pollutant Standards	2009	2010	2011
<b>Elk Grove-Bruceville Road Air Quality Monitoring Station</b>			
<b>Ozone</b>			
Max 1-hour concentration (ppm)	0.102	0.106	0.097
Max 8-hour concentration (ppm) (state/federal)	0.087/0.086	0.089/0.089	0.081/0.080
Number of days above state 1-hr standard	2	1	1
Number of days above state/federal 8-hour standard	12/5	6/2	6/1
<b>Sacramento-T Street Air Quality Monitoring Station</b>			
<b>Ozone</b>			
Max 1-hour concentration (ppm)	0.102	0.092	0.100
Max 8-hour concentration (ppm) (state/federal)	13/4	1/0	5/1
Number of days above state 1-hr standard	3	0	1
Number of days above state/federal 8-hour standard	0.089/0.088	0.074/0.074	0.087/0.087
<b>Respirable Particulate Matter (PM<sub>10</sub>)</b>			
Max 24-hour concentration (µg/m <sup>3</sup> ) (state/federal)	50.7/47.8	53.9/53.5	42.2/38.8
Number of days above state/federal standard	6/0	6.1/0	0/0
<b>Fine Particulate Matter (PM<sub>2.5</sub>)</b>			
Max 24-hour concentration (µg/m <sup>3</sup> ) (state/federal)	50.1/37.7	37/30.6	50.5/50.5
Number of days above state/federal standard	-/3	-/0	-/18.4

Source: CARB 2012a

µg/m<sup>3</sup> = micrograms per cubic meter; ppm = parts per million

- Insufficient or no data currently available to determine the value

#### 3.2.2 REGULATORY FRAMEWORK

Air quality in Elk Grove is addressed through the efforts of various federal, state, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, regulations, planning, policymaking, education, and a variety of programs. The agencies primarily responsible for improving the air quality in the county are discussed below, along with their individual responsibilities.

#### AMBIENT AIR QUALITY STANDARDS

Both the US Environmental Protection Agency (EPA) and CARB have established ambient air quality standards for common pollutants. These ambient air quality standards are levels of contaminants representing safe levels that avoid specific adverse health effects associated with each pollutant. The ambient air quality standards cover what are called "criteria" pollutants because the health and other effects of each pollutant are described in criteria documents. The national and California ambient air quality standards are summarized in **Table 3.2-3**. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas.

Regulations implementing the federal Clean Air Act and its subsequent amendments established national ambient air quality standards for the six criteria pollutants. California has adopted more stringent state ambient air quality standards for most of the criteria air pollutants. In addition, California has established ambient air quality standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. Because of the meteorological conditions in the State, there is a considerable difference between state and federal standards in California.

The ambient air quality standards are intended to protect the public health and welfare, and they incorporate an adequate margin of safety. They are designed to protect those segments of the public most susceptible to respiratory distress, known as sensitive receptors, including asthmatics, the very young, elderly, people weak from other illness or disease, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollution levels somewhat above the ambient air quality standards before adverse health effects are observed.

**TABLE 3.2-3  
AIR QUALITY STANDARDS**

Pollutant	Averaging Time	California Standards <sup>1</sup>	National Standards
Ozone	8 Hour	0.070 ppm (137 $\mu\text{g}/\text{m}^3$ )	0.075 ppm
	1 Hour	0.09 ppm (180 $\mu\text{g}/\text{m}^3$ )	-
Carbon Monoxide	8 Hour	9.0 ppm (10 $\text{mg}/\text{m}^3$ )	9 ppm (10 $\text{mg}/\text{m}^3$ )
	1 Hour	20 ppm (23 $\text{mg}/\text{m}^3$ )	35 ppm (40 $\text{mg}/\text{m}^3$ )
Nitrogen Dioxide	1 Hour	0.18 ppm (339 $\mu\text{g}/\text{m}^3$ )	100 ppb
	Annual Arithmetic Mean	0.030 ppm (57 $\mu\text{g}/\text{m}^3$ )	53 ppb
Sulfur Dioxide	24 Hour	0.04 ppm (105 $\mu\text{g}/\text{m}^3$ )	N/A
	3 Hour	-	N/A
	1 Hour	0.25 ppm (665 $\mu\text{g}/\text{m}^3$ )	75 ppb
Particulate Matter ( $\text{PM}_{10}$ )	Annual Arithmetic Mean	20 $\mu\text{g}/\text{m}^3$	N/A
	24 Hour	50 $\mu\text{g}/\text{m}^3$	150 $\mu\text{g}/\text{m}^3$
Particulate Matter - Fine ( $\text{PM}_{2.5}$ )	Annual Arithmetic Mean	12 $\mu\text{g}/\text{m}^3$	15 $\mu\text{g}/\text{m}^3$
	24 Hour	N/A	35 $\mu\text{g}/\text{m}^3$
Sulfates	24 Hour	25 $\mu\text{g}/\text{m}^3$	N/A
Lead	Calendar Quarter	N/A	1.5 $\mu\text{g}/\text{m}^3$
	30 Day Average	1.5 $\mu\text{g}/\text{m}^3$	N/A
Hydrogen Sulfide	1 Hour	0.03 ppm (42 $\mu\text{g}/\text{m}^3$ )	N/A

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Pollutant	Averaging Time	California Standards <sup>1</sup>	National Standards
Vinyl Chloride (chloroethene)	24 Hour	0.01 ppm (26 µg/m <sup>3</sup> )	N/A
Visibility-Reducing Particles	8 Hour (10:00 to 18:00 PST)	Extinction coefficient: 0.23/kilometer-visibility of 10 miles or more (0.07–30 miles or more for Lake Tahoe) due to particles when the relative humidity is less than 70%.	N/A

Sources: CARB 2012b

Notes: N/A = not applicable; mg/m<sup>3</sup> = milligrams per cubic meter; ppm = parts per million; ppb = parts per billion; µg/m<sup>3</sup> = micrograms per cubic meter

1. This table provides a summary of current air quality standards and attainment designations at the time of this analysis. For more information on standards, visit the CARB website at <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>.

#### AMBIENT AIR QUALITY ATTAINMENT STATUS

**Table 3.2-4** shows the national and California attainment status for Sacramento County. The region is nonattainment for both federal and state ozone, PM<sub>10</sub>, and PM<sub>2.5</sub> standards (CARB 2011).

Areas with air quality that exceed adopted air quality standards are designated as nonattainment areas for the relevant air pollutants. Areas that comply with air quality standards are designated as attainment areas for the relevant air pollutants. Unclassified areas are those with insufficient air quality monitoring data to support a designation of attainment or nonattainment, but are generally presumed to comply with the ambient air quality standard. State Implementation Plans must be prepared by states for areas designated as federal nonattainment areas to demonstrate how the area will come into attainment of the exceeded national ambient air quality standard.

As detailed further below, both CARB and the EPA have established air pollution standards in an effort to protect human health and welfare. Geographic areas are designated attainment if these standards are met and nonattainment if they are not met.

**TABLE 3.2-4  
NATIONAL AND CALIFORNIA AMBIENT AIR QUALITY ATTAINMENT STATUS  
FOR SACRAMENTO COUNTY**

Pollutant	National	California
1-hour Ozone (O <sub>3</sub> )	–	Nonattainment
8-hour Ozone (O <sub>3</sub> )	Nonattainment	Nonattainment
Coarse Particulate Matter (PM <sub>10</sub> )	Nonattainment	Nonattainment
Fine Particulate Matter (PM <sub>2.5</sub> )	Nonattainment	Nonattainment
Carbon Monoxide (CO)	Unclassifiable/Attainment	Attainment
Nitrogen Dioxide (NO <sub>2</sub> )	Unclassified/Attainment	Attainment
Sulfur Dioxide (SO <sub>2</sub> )	Unclassified	Attainment
Hydrogen Sulfide (H <sub>2</sub> S)	Unclassified	Unclassified

Source: CARB 2011

Air quality with respect to criteria air pollutants and toxic air contaminants in the Sacramento Valley Air Basin is regulated by such agencies as the SMAQMD, CARB, and the EPA. Each of these agencies develops rules, regulations, policies, and/or goals to attain the goals or directives imposed through legislation.

### FEDERAL

#### **Federal Clean Air Act**

At the federal level, the EPA has been charged with implementing national air quality programs. The EPA's air quality mandates are drawn primarily from the federal Clean Air Act (CAA), which was enacted in 1963 and was amended in 1970, 1977, and 1990. The EPA is responsible for enforcing the federal Clean Air Act (codified 42 United States Code 7401–7671), as well as the national ambient air quality standards that the EPA establishes.

The CAA required the EPA to establish primary and secondary national ambient air quality standards (NAAQS), which are available at <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>. The CAA also required each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). The CAA Amendments of 1990 (CAAA) added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is periodically modified to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. The EPA has responsibility to review all SIPs to determine conformation to the mandates of the CAAA and determine if implementation will achieve air quality goals. If the EPA determines a SIP to be inadequate, a Federal Implementation Plan may be prepared for the nonattainment area that imposes additional control measures. Failure to submit an approvable SIP or to implement the plan within the mandated time frame may result in sanctions being applied to transportation funding and stationary air pollution sources in the air basin.

### STATE

#### **California Clean Air Act**

CARB, a department of the California Environmental Protection Agency, oversees air quality planning and control throughout the State. CARB is primarily responsible for ensuring implementation of the 1989 amendments to the California Clean Air Act (CCAA), responding to the federal CAA requirements, and regulating emissions from motor vehicles and consumer products within the State (Section 209(b) of the federal Clean Air Act grants California the authority to develop its own vehicle emissions standards if those standards are at least as stringent as the federal standards). CARB has established emission standards for vehicles sold in the State and for various types of equipment available commercially. It also sets fuel specifications to further reduce vehicular emissions.

The CCAA establish ambient air quality standards for the State and a legal mandate to achieve these standards by the earliest practical date. These standards apply to the same criteria pollutants (described above) as the federal Clean Air Act and also include sulfate, visibility, hydrogen sulfide, and vinyl chloride. The state standards are more stringent than the federal standards and, in the case of PM<sub>10</sub> and NO<sub>2</sub>, far more stringent.

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### Senate Bill 656 (Particulate Matter)

In 2003, the California Legislature enacted Senate Bill 656 to reduce public exposure to PM<sub>10</sub> and PM<sub>2.5</sub> (codified Health and Safety Code 39619). CARB approved a list of the most readily available, feasible, and cost-effective control measures that can be employed by air districts to reduce PM<sub>10</sub> and PM<sub>2.5</sub> (collectively referred to as PM) in 2004. The list is based on rules, regulations, and programs existing in the State as of January 1, 2004, for stationary, area-wide, and mobile sources. In 2005, air districts adopted implementation schedules for selected measures from the list. The implementation schedules identify the appropriate subset of measures and the dates for final adoption, implementation, and the sequencing of selected control measures. In developing the implementation schedules, each air district prioritized measures based on the nature and severity of the PM problem in their area and cost effectiveness. Consideration was also given to ongoing programs such as measures being adopted to meet national air quality standards or the state ozone planning process.

### Toxic Air Contaminant Programs

California regulates TACs primarily through the Tanner Air Toxics Act (Assembly Bill (AB) 1807; codified Health and Safety Code Sections 39650–39675) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588 and amended with SB 1731; codified Health and Safety Code Sections 44300–44394). The Tanner Act sets forth a formal procedure for CARB to designate substances as TACs. This includes research, public participation, and scientific peer review before CARB can designate a substance as a toxic air contaminant. To date, CARB has identified over 21 TACs and adopted the EPA's list of hazardous air pollutants as toxic air contaminants. Most recently, diesel exhaust particulate was added to the CARB list of TACs. Once a TAC is identified, CARB then adopts an Airborne Toxics Control Measure for sources that emit that particular TAC. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If there is no safe threshold, the measure must incorporate toxic best available control technology to minimize emissions. None of the toxic air contaminants identified by CARB have a safe threshold.

The Hot Spots Act requires that existing facilities that emit toxic substances above a specified level:

- Prepare a toxic emission inventory.
- Prepare a risk assessment if emissions are significant.
- Notify the public of significant risk levels.
- Prepare and implement risk reduction measures.

CARB has adopted diesel exhaust control measures and more stringent emission standards for various on-road mobile sources of emissions, including transit buses, and off-road diesel equipment (e.g., tractors, generators). In February 2000, CARB adopted a new public transit bus fleet rule and emission standards for new urban buses. These new rules and standards provide for (1) more stringent emission standards for some new urban bus engines beginning with 2002 model year engines, (2) zero-emission bus demonstration and purchase requirements applicable to transit agencies, and (3) reporting requirements with which transit agencies must demonstrate compliance with the urban transit bus fleet rule. Milestones include the low-sulfur diesel fuel requirement and tighter emissions standards for heavy-duty diesel trucks (2007) and off-road diesel equipment (2011) nationwide. Over time, the replacement of older vehicles will result in a vehicle fleet that produces substantially less TACs than under current conditions.



Mobile-source emissions of TACs (e.g., benzene, 1-3-butadiene, diesel PM) have been reduced significantly over the last decade and will be reduced further in the State through a progression of regulatory measures (e.g., low emission vehicle/clean fuels and Phase II reformulated gasoline regulations) and control technologies. With implementation of CARB's Risk Reduction Plan, it is expected that diesel PM concentrations will be reduced by 85 percent in 2020 from the estimated year 2000 level. Adopted regulations are also expected to continue to reduce formaldehyde emissions from cars and light-duty trucks. As emissions are reduced, it is expected that risks associated with exposure to the emissions will also be reduced.

### LOCAL

#### **Sacramento Metropolitan Air Quality Management District**

The Sacramento Metropolitan Air Quality Management District (SMAQMD) coordinates the work of government agencies, businesses, and private citizens to achieve and maintain healthy air quality for the Sacramento area. The SMAQMD develops market-based programs to reduce emissions associated with mobile sources; processes permits; ensures compliance with permit conditions and with SMAQMD rules and regulations; and conducts long-term planning related to air quality.

As a nonattainment area, the region is also required to submit rate-of-progress milestone evaluations in accordance with the CAAA. These milestone reports include compliance demonstrations that the requirements have been met for the Sacramento nonattainment area. The air quality attainment plans and reports present comprehensive strategies to reduce reactive organic gases (ROG), nitrous oxides (NO<sub>x</sub>), and PM<sub>10</sub> emissions from stationary, area, mobile, and indirect sources. Such strategies include the adoption of rules and regulations; enhancement of CEQA participation; implementation of a new and modified indirect source review program; adoption of local air quality plans; and stationary-, mobile-, and indirect-source control measures.

#### **Sacramento Area Regional Ozone Attainment Plan**

As previously stated, the region is nonattainment for both federal and state ozone standards. The federal 8-hour ozone regulations require that areas classified as serious or above submit a reasonable further progress demonstration plan that shows a minimum of 18 percent volatile organic compound (and/or NO<sub>x</sub>) emission reductions over the first six years following the 2002 baseline year and then an average of 3 percent reductions per year for each subsequent three-year period out to the attainment year. The Sacramento Regional 8-Hour Ozone 2011 Reasonable Further Progress Plan (SMAQMD 2008) includes the information and analyses to fulfill Clean Air Act requirements for demonstrating reasonable further progress toward attaining the 8-hour ozone NAAQS for the Sacramento region. In addition, this plan establishes an updated emissions inventory and maintains existing motor vehicle emission budgets for transportation conformity purposes. The plan indicates that despite meeting the 2011 progress target, the Sacramento region cannot meet the 2013 attainment date for serious nonattainment areas. Section 181(b)(3) of the CAA permits a state to request that the EPA reclassify or "bump up" a nonattainment area to a higher classification and extend the time allowed for attainment. This bump-up process is appropriate for areas that must rely on longer-term strategies to achieve the emission reductions needed for attainment. Therefore, the air districts in the Sacramento region submitted a letter to CARB in February 2008 to request a voluntary reclassification (bump-up) of the Sacramento federal nonattainment area from a serious to a severe 8-hour ozone nonattainment area with an extended attainment deadline of June 15, 2019. On May 5, 2010, the EPA approved the request effective June 4, 2010.

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### Sacramento Area Regional PM<sub>10</sub> Attainment Plan

As previously stated, the region is nonattainment for both national and California PM<sub>10</sub> and PM<sub>2.5</sub> standards. The SMAQMD (2010) has prepared the PM<sub>10</sub> Implementation/Maintenance Plan and Re-Designation Request for Sacramento County in compliance with the federal Clean Air Act requirements pertaining to PM<sub>10</sub> nonattainment areas. The purpose of this plan is to fulfill the requirements for the EPA to redesignate Sacramento County from nonattainment to attainment of the PM<sub>10</sub> national ambient air quality standards by preparing the following plan elements and tasks:

- Document the extent of the PM<sub>10</sub> problem in Sacramento County.
- Determine the emission inventory sources contributing to the PM<sub>10</sub> problem.
- Identify the appropriate control measures that achieved attainment of the PM<sub>10</sub> NAAQS.
- Demonstrate maintenance of the PM<sub>10</sub> NAAQS.
- Request formal redesignation to attainment of the PM<sub>10</sub> NAAQS.

The SMAQMD has also adopted various rules and regulations pertaining to the control of emissions from area and stationary sources. Some of the more pertinent regulatory requirements applicable to the proposed Project are identified as follows (SMAQMD 2011a):

- *Rule 402: Nuisance.* The purpose of this rule is to limit emissions which cause injury, detriment, nuisance or annoyance to any considerable number of persons or the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause or have natural tendency to cause injury or damage to business or property.
- *Rule 403: Fugitive Dust.* The purpose of this rule is to require that reasonable precautions be taken so as not to cause or allow the emissions of fugitive dust from non-combustion sources from being airborne beyond the property line from which the emission originates.
- *Rule 442:* The purpose of this rule is to limit the quantity of volatile organic compounds in architectural coatings supplied, sold, offered for sale, applied, solicited for application, or manufactured for use within the District.

### **City of Elk Grove General Plan**

The Conservation and Air Quality Element of the General Plan (City of Elk Grove 2005) addresses air quality-related issues in the City. The element includes various policies that are intended to protect air quality. The following policies of the Conservation and Air Quality Element would have a mitigating effect with respect to air quality impacts.

**Policy CAO-32:** As part of the environmental review of projects, the City shall identify the air quality impacts of development proposals to avoid significant adverse impacts and require appropriate mitigation measures, potentially including—in the case of projects which may conflict with applicable air quality plans—emission reductions in addition to those required by Policy CAQ-30.

**Policy CAO-33:** The City shall require that public and private development projects use low emission vehicles and equipment as part of project construction and operation, unless determined to be infeasible.

This section of the DEIR identifies the potential air quality impacts resulting from the project and implementation of mitigation measures included in this section, and requirements imposed by the City would ensure consistency with these policies.

### 3.2.3 IMPACTS AND MITIGATION MEASURES

#### STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the application of the CEQA Guidelines Appendix G environmental checklist. An air quality impact is considered significant if implementation of the Project will:

- 1) Conflict with or obstruct implementation of any applicable air quality plan.
- 2) Violate any air quality standard or contribute substantially to an existing or projected air quality violation.
- 3) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).
- 4) Expose sensitive receptors to substantial pollutant concentrations.
- 5) Create objectionable odors affecting a substantial number of people.

#### METHODOLOGY

The Laguna Ridge Specific Plan Environmental Impact Report (LRSP EIR) (SCH #2000082139) addressed air quality issues related to the development of the entire Laguna Ridge Specific Plan area, of which this Project is a part. In addition, the Laguna Ridge Town Center EIR (SCH #2007082169) addressed air quality issues related to the development of the Laguna Ridge Town Center project area, which assumed development of 364,000 square feet of medical facilities on the project site, and included 13,151 vehicle trips per day. The proposed Project will be subject to the Mitigation Monitoring and Reporting Programs (MMRPs) adopted for both the Laguna Ridge Specific Plan and the Laguna Ridge Town Center, including implementation of mitigation measures required to reduce air quality impacts. The Laguna Ridge Specific Plan and Laguna Ridge Town Center MMRPs are included in Appendix A of this Draft EIR.

The impact evaluation below utilizes the analyses completed for the LRSP EIR and the Laguna Ridge Town Center EIR to determine whether implementation of the proposed Project would result in a new impact to air quality not previously addressed in either the LRSP EIR or the Laguna Ridge Town Center EIR, or increase the severity of previously identified LRSP EIR Impacts 4.3.1 through 4.3.9 and/or Laguna Ridge Town Center EIR Impacts 4.2.1 through 4.2.4. Criteria Air Pollutants.

Short-term construction-related and long-term operational air quality impacts are disclosed and assessed in accordance with methodologies recommended by CARB and the SMAQMD and in comparison to the recommended SMAQMD construction significance threshold of 85 pounds per day of NO<sub>x</sub> and operational significance threshold of 65 pounds per day of NO<sub>x</sub> and ROG. Both short-term construction emissions and long-term operational emissions associated with the proposed Project were calculated using the California Emissions Estimator Model (CalEEMod),

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version 2011.1.1, computer program. This model was developed in coordination with the South Coast Air Quality Management District and is the most current emissions model approved for use within the State of California by various air districts. Output from the model runs for both construction and operational activity are provided in **Appendix E**.

As discussed in Chapter 2, Project Description, the Project includes operation of a helistop to provide for helicopter access directly to the facility to accept hospital-to-hospital patient transfers for transporting critically injured patients away from this hospital to higher-level trauma care facilities. Dignity Health has indicated that Stanford University Medical Center would be a likely destination for these patients, so the modeling for helicopter flights is based upon that trip length.

### Localized CO Concentrations

The SMAQMD provides a project-level screening procedure to determine whether detailed CO hotspot modeling is required for a proposed development project. Analysis of localized CO impacts relies on the screening methodologies recommended by the SMAQMD. Potential short-term exposure to CO associated with the proposed Project was qualitatively assessed based on a review of project-generated traffic volumes and predicted intersection levels of service.

### Exposure to Toxic Air Pollutants

Exposure to localized concentrations of toxic air contaminants were assessed based on a review of stationary sources within 2,640 feet of the project site per the SMAQMD. Potential increases in risk associated with the future development of new sources associated with the Project were also qualitatively assessed. Potential exposure to localized mobile-source pollutants were qualitatively assessed based on a review of major roadways in the vicinity of the proposed Project site and associated predicted risks provided by the SMAQMD.

### Exposure to Odorous Emissions

The SMAQMD considers appropriate land use planning the primary method to mitigate odor impacts. Providing a sufficient buffer zone between sensitive receptors and odor sources should be considered prior to analyzing implementation of odor mitigation technology. In accordance with SMAQMD methodologies, potential exposure to odorous emissions was qualitatively assessed, based on a review of nearby potential odor-generating sources obtained from the SMAQMD.

## PROJECT IMPACTS AND MITIGATION MEASURES

### Short-Term or Construction-Related Air Quality Impacts (Standards of Significance 1 and 2)

**Impact 3.2.1** Construction activities associated with the development of the proposed Dignity Health Medical Campus Project could result in a short-term increase in criteria air pollutants within the Laguna Ridge Town Center area. **The proposed Project would not result in a substantial increase in the severity of this impact, which was previously identified in the LRSP EIR as significant and unavoidable and Laguna Ridge Town Center EIR as less than significant. There are no new or substantially more severe significant impacts.**

Three basic sources of short-term emissions will be generated through implementation of the proposed Project: operation of the construction vehicles (i.e., excavators, trenchers, dump trucks), the creation of fugitive dust during clearing and grading, and the use of asphalt or other

oil-based substances during paving activities. Construction activities such as excavation and grading operations, construction vehicle traffic, and wind blowing over exposed soils will generate exhaust emissions and fugitive particulate matter emissions that will affect local air quality at various times during construction. Effects will be variable depending on the weather, soil conditions, the amount of activity taking place, and the nature of dust control efforts. The dry climate of the area during the summer months creates a high potential for dust generation.

Construction activities will be subject to SMAQMD Rule 403 that requires taking reasonable precautions to prevent the emissions of fugitive dust, such as using water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the construction of roadways, or the clearing of land where possible and applying asphalt, oil, water, or suitable chemicals on dirt roads, materials, stockpiles, and other surfaces, which can give rise to airborne dust.

The previous analysis under the LRSP EIR found that construction activities associated with the development of the Specific Plan area would contribute to regional pollutants, such as ROG, NO<sub>x</sub>, and PM<sub>10</sub>, to a level that is significant and unavoidable, despite the implementation of several mitigation measures that reduce the project's construction impact. These LRSP EIR mitigation measures address air quality impacts resulting from construction, including the requirements to water all exposed surfaces, graded areas, storage piles, and haul roads at least twice daily during construction, to minimize the amount of material actively worked, the amount of disturbed area, and the amount of material stockpiled, to limit vehicle speed for on-site construction vehicles to 15 mph when winds exceed 20 miles per hour, to wash or sweep paved streets adjacent to construction sites daily in order to remove accumulated dust, and to maintain 2 feet of freeboard when transporting soil or other materials by truck during construction and to cover the material. The LRSP EIR also contains construction-related mitigation intended to reduce NO<sub>x</sub> emissions and control visible emissions from off-road diesel-powered equipment and a requirement that contractors implement ridesharing programs for construction employees traveling to and from the site. (The LRSP MMRP is included in Appendix A of this Draft EIR. See LRSP EIR mitigation measures MM 4.3.1a through MM 4.3.1g.)

The Laguna Ridge Town Center EIR also contains separate mitigation measures to address air quality impacts resulting from construction. These measures include the requirement to wash dirt off construction vehicles and equipment within the staging area prior to leaving the construction site, the application of water three times daily on all unpaved roads, and the submittal of an inventory of all off-road construction equipment and other requirements. (The MMRP for this analysis is also included in Appendix A of this Draft EIR. See Laguna Ridge Town Center EIR mitigation measures 4.2.1a through 4.2.1d.)

Projected daily emissions from construction of the proposed medical campus have been estimated and are summarized in **Table 3.2-5**.

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**TABLE 3.2-5  
CONSTRUCTION-RELATED CRITERIA POLLUTANT AND PRECURSOR EMISSIONS  
(POUNDS PER DAY)**

Construction Phases	Reactive Organic Gases (ROG)	Nitrogen Oxide (NO <sub>x</sub> )	Carbon Monoxide (CO)	Sulfur Dioxide (SO <sub>2</sub> )	Coarse Particulate Matter (PM <sub>10</sub> )	Fine Particulate Matter (PM <sub>2.5</sub> )
<b>Summer Emissions – Pounds per Day (Unmitigated)</b>						
Phase 1 (Surgery/Maternity Hospital Building & Helistop Pad)	37.76	22.61	20.42	0.04	7.78	4.41
Phase 2 (Hospital Expansion #1)	56.41	26.08	24.05	0.05	8.10	4.67
Phase 3 (Hospital Expansion #2)	57.98	24.02	23.26	0.05	7.97	4.54
Phase 4 (Medical Office Building #2 & Parking Structure)	40.94	21.85	22.01	0.05	7.82	4.39
<b>Winter Emissions – Pounds per Day (Unmitigated)</b>						
Phase 1 (Surgery/Maternity Hospital Building & Helistop Pad)	37.76	22.67	20.61	0.04	7.78	4.41
Phase 2 (Hospital Expansion #1)	56.41	26.08	24.37	0.05	8.10	4.67
Phase 3 (Hospital Expansion #2)	57.98	24.03	23.57	0.05	7.97	4.54
Phase 4 (Medical Office Building #2 & Parking Structure)	40.94	21.86	22.23	0.04	7.82	4.39
SMAQMD Potentially Significant Impact Threshold	-	82 pounds/day	-	-	-	-
Exceed SMAQMD Threshold?	-	No	-	-	-	-

Source: CalEEMod version 2011.1.1. Diesel-fueled construction equipment load factors reduced 33% to account for off-road emission overestimation (CARB 2010). Refer to Appendix E for model data outputs.

As shown in **Table 3.2-5**, project emissions resulting from construction will not exceed the SMAQMD significance criterion of 85 pounds per day of NO<sub>x</sub>. Although the potential to locally exceed the PM<sub>10</sub> California ambient air quality standard exists with the proposed Project, the SMAQMD has no established daily thresholds for PM<sub>10</sub> during construction activities due to the temporary generation of these emissions. While construction impacts are temporary and will cease once construction is completed, they nevertheless will have an effect on particulate matter emissions while such activities occur. As previously discussed, the Project will be subject to the MMRPs adopted for both the Laguna Ridge Specific Plan and the Laguna Ridge Town Center, including implementation of mitigation measures required to reduce air quality impacts described above. Adherence to LRSP EIR and Laguna Ridge Town Center EIR mitigation measures will further reduce construction-generated air pollutants for nuisance conditions in accordance with SMAQMD regulations by requiring individual construction activities to perform

dust control measures to prevent the emissions of fugitive airborne dust and the required utilization of lower-emission construction vehicles. Therefore, construction-related air quality impacts will be considered **less than significant**.

Mitigation Measures

None required.

**Long-Term Increases of Criteria Air Pollutants (Standards of Significance 1 and 2)**

**Impact 3.2.2** Implementation of the proposed Dignity Health Medical Campus Project will not result in long-term increases in criteria air pollutants. **The proposed Project would not result in a substantial increase in the severity of this impact, which was previously identified in the LRSP EIR as significant and unavoidable and Laguna Ridge Town Center EIR as less than significant. There are no new or substantially more severe significant impacts.**

The previous analysis under the LRSP EIR found that the long-term increase of criteria air pollutants resulting from implementation of the LRSP is a significant and unavoidable impact. This was concluded despite implementation of an air quality plan (AQ-15 Management Plan) that helps to reduce operational air quality impacts in the Specific Plan area through the requirements of mixed-use development and enhanced bicycle and pedestrian access to popular uses (LRSP EIR mitigation measure MM 4.3.2, see MMRP for LRSP in Appendix A of this Draft EIR). The Laguna Ridge Town Center EIR, which assumed development of 364,000 square feet of medical facilities on the project site, determined that such development would not increase the severity of long-term increases of criteria air pollutants compared with the LRSP due to the imposition of mitigation that includes the requirement to implement energy-efficient lighting and process systems, such as water heaters, furnaces, and boiler units for all buildings and lighting, as well as the requirement to use energy-efficient and automated controls for air conditioning in all buildings (Laguna Ridge Town Center EIR mitigation measure MM 4.2.3). As stated previously, the proposed Project will be subject to the MMRPs adopted for both the LRSP EIR and the Laguna Ridge Town Center EIR (see Appendix A), including implementation of these mitigation measures required to reduce long-term air quality impacts.

The Laguna Ridge Town Center EIR estimates operational air pollutant emissions associated with 364,000 square feet of medical facilities on the project site. According to the Laguna Ridge Town Center EIR, 364,000 square feet of medical facilities on the project site would result in 95.86 pounds per day of ROG and 95.14 pounds per day of NOx in the summer months and 100.58 pounds per day of ROG and 140.24 pounds per day of NOx in the winter months, as shown in **Table 3.2-6**.

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**TABLE 3.2-6  
364,000 SQUARE FEET OF MEDICAL OFFICE BUILDINGS ASSUMED UNDER LAGUNA RIDGE TOWN CENTER EIR  
OPERATIONAL CRITERIA POLLUTANT AND PRECURSOR EMISSIONS (POUNDS PER DAY)**

Operations	Reactive Organic Gases (ROG)	Nitrogen Oxide (NO <sub>x</sub> )	Carbon Monoxide (CO)	Sulfur Dioxide (SO <sub>2</sub> )	Coarse Particulate Matter (PM <sub>10</sub> )	Fine Particulate Matter (PM <sub>2.5</sub> )
<b>Summer Emissions – Pounds per Day (Unmitigated)</b>						
Medical Office Buildings (364,000 square feet)	95.86	95.14	1,083.4	0.73	116.04	22.67
<b>Winter Emissions – Pounds per Day (Unmitigated)</b>						
Medical Office Buildings (364,000 square feet)	100.58	140.24	973.14	0.59	116.04	22.67
SMAQMD Potentially Significant Impact Threshold	65 pounds/day	65 pounds/day	-	-	-	-
<b>Exceed SMAQMD Threshold?</b>	<b>Yes</b>	<b>Yes</b>	-	-	-	-

Source: City of Elk Grove 2008



Projected daily emissions from operations of the currently proposed medical campus have been estimated and are summarized in **Table 3.2-7**. Projected emissions in **Table 3.2-7** include the operations of Medical Office Building #1, which as described in Section 2.0, Project Description, has already been constructed.

**TABLE 3.2-7**  
**PROPOSED PROJECT – OPERATIONAL CRITERIA POLLUTANT AND PRECURSOR EMISSIONS (POUNDS PER DAY)**

Project Operations	Reactive Organic Gases (ROG)	Nitrogen Oxide (NO <sub>x</sub> )	Carbon Monoxide (CO)	Sulfur Dioxide (SO <sub>2</sub> )	Coarse Particulate Matter (PM <sub>10</sub> )	Fine Particulate Matter (PM <sub>2.5</sub> )
<b>Summer Emissions – Pounds per Day (Unmitigated)</b>						
Project Buildout <sup>1</sup>	53.69	58.34	257.64	0.63	71.09	3.60
<b>Winter Emissions – Pounds per Day (Unmitigated)</b>						
Project Buildout <sup>1</sup>	52.29	59.98	254.50	0.57	71.10	3.61
SMAQMD Potentially Significant Impact Threshold	65 pounds/day	65 pounds/day	–	–	–	–
Exceed SMAQMD Threshold?	No	No	–	–	–	–

Source: CalEEMod version 2011.1.1.<sup>1</sup> Project buildout includes two medical office buildings equaling 133,190 square feet, a 330-bed hospital equaling 456,719 square feet, and a 169,520-square-foot parking structure. Refer to Appendix E for model data outputs.

Also as shown in **Table 3.2-7**, project emissions resulting from long-term operations will not exceed the SMAQMD significance criteria of 65 pounds per day of either ROG or NO<sub>x</sub>. As shown by comparing **Table 3.2-6** and **Table 3.2-7**, estimated emissions resulting from the proposed Project are substantially less than that estimated from the 364,000 square feet of medical office facilities assumed under the Laguna Ridge Town Center EIR, despite the fact that the proposed Project includes more square footage. The reason for this is that the hospital use for the proposed Project would result in more dispersed trip generation than analyzed in that EIR (Fehr & Peers 2012). The Laguna Ridge Town Center EIR analysis is based on the equivalent number of trips if all buildings were medical office buildings and the analysis assumed the maximum trip generation for the full complex. In doing so, the trip generation assumed in the Laguna Ridge Town Center EIR covered the "worst-case" scenario for the future entitlement (Fehr & Peers 2012). Therefore, the proposed Project would not result in an increase in the severity of this impact, and there is not a new or substantially more severe significant impact.

As stated in Section 2.0, Project Description, the Project would also include a helistop that would be used for transporting hospital patients away from the hospital. Because the Project does not propose a trauma unit, the helicopter operations would not be used to transport trauma patients to the hospital, so there would be no unscheduled flights transporting critical trauma patients to the facility. Based on helicopter operations at a similar facility, Dignity Health estimates the helistop would result in approximately 10 flights per year. The Project does not propose storage, repair, or fueling of any helicopters on the project site.

According to the EPA, rotocraft turbine-engine-powered helicopters, such as those likely to be used under the proposed Project, emit 4.34 pounds of NO<sub>x</sub>, 2.75 pounds of ROG, and 0.18 pounds of PM<sub>10</sub> during the process of landing and taking off (EPA 1998). Rotocraft turbine-engine-powered helicopters are estimated to travel at a cruising speed of 137 miles per hour and consume between 50 and 61 gallons of aviation fuel per hour. Aviation fuel is a specialized type of petroleum-based fuel used to power aircraft. It is generally of a higher quality than fuels

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used in less critical applications, such as heating or road transport. Assuming that all estimated 10 flights per year travel from the medical facilities at Stanford University to the project site and then back again, each round trip will traverse over Sacramento County for a maximum total of 70 miles (35-mile one-way distance between the Sacramento County/Contra Costa County border and the project site x 2 = 70 miles round trip).<sup>1</sup> Each round-trip flight will traverse over Sacramento County for approximately 30 minutes (70 miles of flight over Sacramento County; helicopter cruising speed of 137 miles per hour,  $70/137 = 0.5$  hours), and each flight will consume approximately 30.5 gallons of aviation fuel (61 gallons of aviation fuel per hour x 0.5 hours = 30.5 gallons). According to Statistic Norway, an institution specializing in international statistics work, 24 pounds of NO<sub>x</sub> and 1.5 pounds of ROG are generated for each ton of aviation fuel consumed. As stated, each flight will consume approximately 30.5 gallons of aviation fuel at approximately 7 pounds per gallon of fuel (INFO 2012); 30.5 gallons weighs 213.5 pounds (0.11 tons). Therefore, each round-trip flight will generate 2.64 pounds of NO<sub>x</sub> and 0.17 pounds of ROG emissions (0.11 tons of fuel burned x 24 pounds of NO<sub>x</sub> = 2.64 pounds; 0.11 tons of fuel burned x 1.5 pounds of ROG = 0.17 pounds).

With the addition of these helicopter-related emissions (landing and take-off events as well as flight miles within the SVAB) to those generated under daily project operations, emissions from the proposed Project would increase to a maximum of 56.61 pounds of ROG, 66.96 pounds of NO<sub>x</sub>, and 82.28 pounds of PM<sub>10</sub>.<sup>2</sup> Therefore, ROG emissions will still be below SMAQMD significance thresholds; however, NO<sub>x</sub> emissions will surpass SMAQMD significance thresholds on the days a helicopter flight occurs by 1.96 pounds. (There is no established threshold for PM<sub>10</sub>.)

Despite the fact that NO<sub>x</sub> emissions are projected to surpass SMAQMD significance thresholds on the day a helicopter flight occurs, operational emissions resulting from the proposed Project are substantially less than those estimated from the 364,000 square feet of medical office facilities assumed under the Laguna Ridge Town Center EIR for the project site. In addition, the Project will be subject to the MMRPs adopted for both the Laguna Ridge Specific Plan and the Laguna Ridge Town Center (see Appendix A), including implementation of mitigation measures required to reduce long-term air quality impacts (LRSP EIR mitigation measure MM 4.3.2 and Laguna Ridge Town Center EIR mitigation measure MM 4.2.3). These measures have not been factored into the projections shown in **Table 3.2-7** due to limitations in modeling software. Therefore, long-term operational emissions resulting from the proposed Project would actually be less than shown.

Since operational emissions resulting from the proposed Project are substantially less than that estimated from the 364,000 square feet of medical office facilities assumed under the Laguna Ridge Town Center EIR for the project site, **the proposed Project would not result in an increase in the severity of this impact and there is not a new or substantially more severe significant impact.**

### Mitigation Measures

None required.

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<sup>1</sup> The quantification of only the helicopter emissions resulting within the Sacramento County portion of the Sacramento Valley Air Basin is considered appropriate by the SMAQMD since emissions generated from flight outside of the county would be located in the San Francisco Bay Area Air Basin (McGhee 2012).

<sup>2</sup> PM<sub>10</sub> emissions generated from helicopter landing and take-off equal 0.18 pounds (EPA 1998). PM<sub>10</sub> emissions generated from helicopter flights derived from Clovis Community Medical Center Health Care Campus Expansion Project Environmental Impact Report (City of Clovis 2009). This 2009 EIR projected a similar helicopter flight distance of 100 miles and cruise speed of 150 miles/hour as the proposed Project and estimated the generation of 80 pounds of PM<sub>10</sub> resulting from 72 helicopter flights (1.1 pound of PM<sub>10</sub> per flight). 1.1 pounds of PM<sub>10</sub> per Dignity Health Medical Campus Project helicopter flight equals 11 pounds of PM<sub>10</sub> (1.1 pounds x 10 flights = 11 pounds).

### Contribution to Near-Term Local Mobile-Source CO Concentrations (Standard of Significance 4)

**Impact 3.2.3** Implementation of the proposed Project would not contribute to localized concentrations of mobile-source CO that would exceed applicable standards. **The proposed Project would not result in an increase in the severity of this impact, and there is not a new or substantially more severe significant impact.**

The primary mobile-source criteria pollutant of local concern is carbon monoxide (CO). As noted previously, Sacramento County, and thus Elk Grove, is currently designated attainment for both California and national CO ambient air quality standards, and the county typically experiences low background CO concentrations.

Concentrations of CO are a direct function of the number of vehicles, length of delay, and traffic flow conditions. Transport of this criteria pollutant is extremely limited; CO disperses rapidly with distance from the source under normal meteorological conditions. Under certain meteorological conditions, however, CO concentrations close to congested intersections that experience high levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Given the high traffic volume potential, areas of high CO concentrations, or "hotspots," are typically associated with intersections that are projected to operate at unacceptable levels of service during the peak commute hours. Modeling is therefore typically conducted for intersections that are projected to operate at unacceptable levels of service during peak commute hours.

The SMAQMD provides a project-level screening procedure to determine whether detailed CO hotspot modeling is required for a proposed development project (SMAQMD 2011a). This preliminary screening methodology provides lead agencies with a conservative indication of whether project-generated vehicle trips would result in the generation of CO emissions that contribute to an exceedance of the thresholds of significance. According to the SMAQMD, the proposed Project would result in a less than significant impact to air quality for local CO if:

- Traffic generated by the proposed project would not result in deterioration of intersection level of service (LOS) to LOS E or F;<sup>3</sup> or
- The project would not contribute additional traffic to an intersection that already operates at LOS of E or F.

The Laguna Ridge Town Center EIR addressed traffic issues related to the development of the Laguna Ridge Town Center project area, which assumed development of 364,000 square feet of medical facilities in the Specific Plan area, including 13,151 vehicle trips per day. According to the Laguna Ridge Town Center EIR, cumulative operations at intersections in the vicinity of the project site are projected to experience exacerbated inefficiencies due to increased traffic, and significant and unavoidable impacts would occur.

However, implementation of the proposed Project would result in development of a less intense medical use than analyzed in the Laguna Ridge Town Center EIR, which would result in lower and more dispersed trip generation than analyzed in that EIR (Fehr & Peers 2012). This is because the Laguna Ridge Town Center EIR analysis is based on the equivalent number of trips if all

<sup>3</sup> Level of service (LOS) is a measure used by traffic engineers to determine the effectiveness of transportation infrastructure. LOS is most commonly used to analyze intersections by categorizing traffic flow with corresponding safe driving conditions. LOS A is considered the most efficient level of service and LOS F the least efficient.

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buildings were medical office buildings and the analysis assumed the maximum trip generation for the full complex. In doing so, the trip generation assumed in the Laguna Ridge Town Center EIR covered the "worst-case" scenario for the future entitlement (Fehr & Peers 2012).

In summary, the Laguna Ridge Town Center EIR traffic impact analysis conservatively assumed about 53 percent more square feet of medical office building space and 6 percent more hospital beds than are now being proposed under the Dignity Health Elk Grove Medical Campus Project. In addition, trip generation based on the project application would result in fewer peak hour trips than the Laguna Ridge Town Center EIR traffic impact analysis, since the medical office building land use assumed in the Laguna Ridge Town Center EIR generates about two times more trips in the AM peak hour and three times more trips in the PM peak hour than the land uses included in the currently proposed Project. Therefore, the Laguna Ridge Town Center EIR traffic impact analysis overstated the project-generated traffic relative to the traffic that would actually be generated by the proposed Project (Fehr & Peers 2012).

Since the Project would generate fewer total and peak-hour trips than were disclosed in the Laguna Ridge Town Center EIR, impacts of the currently proposed Project-generated traffic would be less than that previously disclosed (Fehr & Peers 2012). Therefore, CO hotspot impacts associated with traffic impacts resulting from the Dignity Health Elk Grove Medical Campus Project will be reduced compared with that disclosed in the Laguna Ridge Town Center EIR. Traffic generated by the proposed Project would not result in deterioration of intersection level of service to LOS E or F, and the project would not contribute additional traffic to an intersection that already operates at LOS of E or F. **The proposed Project would not result in an increase in the severity of this impact and there is not a new or substantially more severe significant impact.**

### Mitigation Measures

None required.

### **Long-Term Exposure of Sensitive Receptors to Toxic Air Contaminants (Standard of Significance 4)**

**Impact 3.2.4** Implementation of the proposed Dignity Health Medical Campus Project would not result in increased exposure of sensitive receptors to mobile-source toxic air contaminants. **The proposed Project would not result in a substantial increase in the severity of this impact, which was previously identified in the LRSP EIR and Laguna Ridge Town Center EIR as less than significant. There are no new or substantially more severe significant impacts.**

The LRSP EIR determined that only a few uses which could be developed within the Specific Plan area would emit toxic pollutants as a byproduct. It was further determined that any uses of toxic substances which could involve an air release would be subject to regulatory control under the permitting authority of the SMAQMD; based on this requirement to obtain permits, impacts were considered to be less than significant. The Laguna Ridge Town Center EIR, which assumed development of 364,000 square feet of medical facilities in the Specific Plan area, concluded that long-term health risks from TACs associated with short-term construction activities would also be less than significant because the use of diesel-powered construction equipment, a source of TACs, would be temporary and episodic and would occur over a relatively large area. In addition, measures required by the SMAQMD for the control of particulate emissions from on-site construction equipment would substantially reduce emissions of diesel-exhaust PM. For these reasons, the Laguna Ridge Town Center EIR found that the diesel-exhaust PM generated by construction would not be expected to create conditions where the probability of contracting cancer is greater than 10 in 1 million for nearby receptors.

According to the SMAQMD, when a project would include the development of new sensitive receptors, such as a proposed hospital campus, all sources of TACs that could potentially affect the proposed development within a half mile (2,640 feet) of the proposed project site should be analyzed. According to CARB's Community Health Air Pollution Information System, there are no sources of TACs with a half mile of the proposed project site (CARB 2004). This search was augmented by the EPA's National Air Toxic Program Release Chemical Report, which identifies the nearest source of air toxics to the project site at Dwight Road over 3 miles to the northwest (EPA 2010).

Freeways and major roadways are another source of TACs. These roadways are sources of diesel PM, which, as stated previously, has been listed as a toxic air contaminant by CARB. Therefore, the proposal to locate a sensitive land use such as a hospital on the project site could be negatively affected by TACs generated at Elk Grove Boulevard, a major roadway in Elk Grove adjacent to the north of the project site. The SMAQMD has prepared the Recommended Protocol for Evaluating the Location of Sensitive Land Uses Adjacent to Major Roadways, which was updated in March 2011. This protocol sets a screening threshold (276 per million) under which potential health risk impacts are not anticipated. The screening threshold was selected by the SMAQMD as that level of increased individual risk corresponding to a 70 percent reduction from the highest risk calculated at distances from the edge of the nearest travel lane to the nearest sensitive receptor for peak-hour traffic volumes.

Based on the location of the project site (directly adjacent to Elk Grove Boulevard) and the peak-hour volumes (2,708) along Elk Grove Boulevard, the location of the project site would not exceed the thresholds identified in the refined protocol (see **Table 3.2-8**).

**TABLE 3.2-8  
SCREENING EVALUATION OF POTENTIAL CANCER RISK TO  
PROPOSED RESIDENCES ATTRIBUTABLE TO ELK GROVE BOULEVARD**

Peak Hour Traffic (vehicles/hour)	Receptor Distance from Edge of Nearest Travel Lane (feet)							
	10	25	50	100	200	300	400	500
<b>Incremental Cancer Risk Per Million: South</b>								
2,708–4,000 <sup>1</sup>	188	165	137	102	67	51	41	35

Source: SMAQMD 201b1. <sup>1</sup> Peak-hour traffic derived from the Laguna Ridge Town Center EIR (City of Elk Grove 2008), which states 61,500 daily traffic trips occur on Elk Grove Boulevard between Bruceville Road and Wymark Road under cumulative conditions. Peak-hour traffic was determined by dividing 61,500 daily traffic trips by 24 hours. The screening threshold depicted accounts for peak-hour traffic of up to 4,000 daily trips.

While peak-hour volumes along the nearby Elk Grove Boulevard segment will most likely experience increases in the future, and thus increase diesel PM emissions, recent regulations imposed by CARB are anticipated to substantially reduce these future emissions. The On-Road Heavy-Duty Diesel Vehicles (In Use) Regulation requires diesel trucks and buses that operate in California to be upgraded to reduce emissions (CARB 2012c). Heavier trucks were required to be retrofitted with PM filters beginning January 1, 2012, and older trucks must be replaced starting January 1, 2015 (CARB 2012c). By January 1, 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent (CARB 2012c). The regulation applies to nearly all privately and federally owned diesel-fueled trucks and buses, as well as to privately and publicly owned school buses with a gross vehicle weight rating greater than 14,000 pounds (CARB 2012c). This regulation ensures that future DPM emissions associated with an increase peak hour volume of traffic along the nearby Elk Grove Boulevard segment will be negligible.

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For the reasons described, exposure of proposed sensitive receptors associated with the proposed project to existing stationary and mobile sources of TACs **would not result in an increase in the severity of this impact and there is not a new or substantially more severe significant impact.**

### Mitigation Measures

None required.

### **Exposure of Sensitive Receptors to Odorous Emissions (Standard of Significance 5)**

**Impact 3.2.5** Implementation of the proposed Project would not result in increased exposure of sensitive receptors to odorous emissions. As a result, **the proposed Project would not result in an increase in the severity of this impact, and there is not a new or substantially more severe significant impact.**

The Laguna Ridge Town Center EIR determined that development at the project site would not result in additional significant impacts related to sensitive receptors and objectionable odors other than those previously disclosed and analyzed in the Laguna Ridge Specific Plan EIR. The occurrence and severity of odor impacts depends on numerous factors, including the nature, frequency, and intensity of the source, wind speed and direction, and the sensitivity of the receptors. While offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and regulatory agencies. Projects with the potential to frequently expose members of the public to objectionable odors would be deemed to have a significant impact. According to the SMAQMD, land uses commonly considered to be potential sources of odorous emissions include wastewater treatment plants, sanitary landfills, composting/green waste facilities, recycling facilities, petroleum refineries, chemical manufacturing plants, painting/coating operations, rendering plants, and food packaging plants.

No major sources of odors were identified in the vicinity of the project site that could potentially affect proposed on-site medical land uses. In addition, implementation of the proposed Project would not result in the development or long-term operation of any on-site sources of odors. As a result, **the proposed Project would not result in an increase in the severity of this impact and there is not a new or substantially more severe significant impact.**

### Mitigation Measures

None required.

## **3.2.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES**

### CUMULATIVE SETTING

The cumulative setting for air quality is the Sacramento Valley Air Basin. The basin includes the counties of Sacramento, parts of Solano, Yolo, and parts of Placer, Yuba, Colusa, Butte, Glenn, Tehama, Shasta, and Sutter counties. The climate and geography of the lower SVAB severely limits the dilution and transportation of any air pollutants that are released to the atmosphere. At current levels of development (residential, commercial, industrial, etc.) and activity, the air basin exceeds the state/federal ambient standards for particulates and ozone. Though the proposed Project in itself will not result in significant increases in emissions that will impact regional air

quality, cumulative growth in population, vehicle use, and industrial activity in the SVAB region could inhibit efforts to improve regional air quality and attain the ambient air quality standards.

#### CUMULATIVE IMPACTS AND MITIGATION MEASURES

#### **Result in a Cumulatively Considerable Net Increase in Nonattainment Criteria Pollutant (Standard of Significance 3)**

**Impact 3.2.6** Implementation of the proposed Dignity Health Medical Campus Project, in combination with growth throughout the air basin, will not exacerbate existing regional problems with ozone and particulate matter. **The proposed Project would not result in a substantial increase in the severity of this impact, which was previously identified in the LRSP EIR and Laguna Ridge Town Center EIR as significant and unavoidable. There is no new or substantially more severe contribution to the cumulative impact that would result from the proposed Project.**

Due to the region's nonattainment status for ozone and PM<sub>10</sub>, the cumulative impact is considered significant. If project-generated emissions of either of the ozone precursor pollutants (i.e., ROG and NO<sub>x</sub>) or PM<sub>10</sub> exceed the long-term SMAQMD thresholds, then the Project's cumulative impacts would be considered significant as determined by the SMAQMD. In addition, if the Project results in a change in land use and corresponding increases in vehicle miles traveled (VMT), the resultant increase in VMT may be unaccounted for in regional emissions inventories contained in regional air quality control plans such as the Sacramento Area Regional Ozone Attainment Plan and/or the Sacramento Area Regional PM<sub>10</sub> Attainment Plan. Substantial increases in VMT that are not accounted for in the emissions inventory may result in a cumulative contribution to the region's existing air quality nonattainment status.

As discussed in Impact 3.2.2, predicted long-term operational emissions attributable to the proposed Project will not exceed SMAQMD significance thresholds and more importantly, estimated emissions resulting from the proposed Project are substantially less than that estimated from the 364,000 square feet of medical office facilities assumed under the Laguna Ridge Town Center EIR for the project site, despite the fact that the proposed Project includes a greater amount of square footage. The reason for this is that the proposed Project would result in development of a less intense medical use than analyzed in the Laguna Ridge Town Center EIR, and would result in lower and more dispersed trip generation than analyzed in that EIR (Fehr & Peers 2012). The Laguna Ridge Town Center EIR analysis is based on the equivalent number of trips if all buildings were medical office buildings and the analysis assumed the maximum trip generation for the full complex. In doing so, the trip generation assumed in the Laguna Ridge Town Center EIR covered the "worst-case" scenario for the future entitlement (Fehr & Peers 2012). Furthermore, the proposed Project will not result in a change in land use that could result in a potential increase in vehicle miles traveled.

As discussed in Impact 3.2.3, the proposed Project would result in development of a less intense medical use than analyzed in the Laguna Ridge Town Center EIR and therefore would result in lower and more dispersed trip generation than analyzed in that EIR (Fehr & Peers 2012). Since the Project would generate fewer total and peak-hour trips than were disclosed in the Laguna Ridge Town Center EIR, air quality-related impacts of the currently proposed project-generated traffic would be less than that previously disclosed (Fehr & Peers 2012). For these reasons, the proposed Project will not conflict with either the Sacramento Area Regional Ozone Attainment Plan or the Sacramento Area Regional PM<sub>10</sub> Attainment Plan. The proposed Project will not result in the exceedance of long-term emissions thresholds. Therefore, the Project would not result in a

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cumulatively considerable contribution to regional problems with ozone and particulate matter. **The proposed Project would not result in an increase in the severity of this impact, and there is not a new or substantially more severe significant impact.**

#### Mitigation Measures

LRSP EIR mitigation measure MM 4.3.2 and Laguna Ridge Town Center EIR mitigation measure MM 4.2.3.



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### **3.3 GREENHOUSE GASES AND CLIMATE CHANGE**

### 3.3 GREENHOUSE GASES AND CLIMATE CHANGE

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The California Environmental Quality Act (CEQA) requires that lead agencies consider the reasonably foreseeable adverse environmental effects of projects they are considering for approval. This section discusses climate change and the potential for development under the proposed Project to produce greenhouse gases (GHG), which are associated with global climate change. This section considers emissions related to a variety of sources including construction, vehicular traffic, energy and water consumption, as well as waste water and solid waste generation.

#### 3.3.1 EXISTING SETTING

Since the early 1990s, scientific consensus holds that the world's population is releasing greenhouse gases faster than the earth's natural systems can absorb them. These gases are released as byproducts of fossil fuel combustion, waste disposal, energy use, land-use changes, and other human activities. This release of gases, such as carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O), and chlorofluorocarbons, creates a blanket around the earth that allows light to pass through but traps heat at the surface, preventing its escape into space. While this is a naturally occurring process known as the greenhouse effect, human activities have accelerated the generation of greenhouse gases beyond natural levels. The overabundance of greenhouse gases in the atmosphere has led to an unexpected warming of the earth and has the potential to severely impact the earth's climate system.

While often used interchangeably, there is a difference between the terms "climate change" and "global warming." According to the National Academy of Sciences, climate change refers to any significant, measurable change of climate lasting for an extended period of time that can be caused by both natural factors and human activities. Global warming, on the other hand, is an average increase in the temperature of the atmosphere caused by increased greenhouse gas emissions. The use of the term climate change is becoming more prevalent because it encompasses all changes to the climate, not just temperature.

To fully understand global climate change, it is important to recognize the naturally occurring greenhouse effect and to define the greenhouse gases that contribute to this phenomenon. Solar radiation enters the earth's atmosphere from space and a portion of the radiation is absorbed by the earth's surface. The earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation. Greenhouse gases, which are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, this radiation that otherwise would have escaped back into space is now retained, resulting in a warming of the atmosphere. This phenomenon is known as the greenhouse effect.

For most nonindustrial development projects, motor vehicles make up the bulk of GHG emissions produced on an operational basis. The primary greenhouse gases emitted by motor vehicles include carbon dioxide, methane, nitrous oxide, and hydrofluorocarbons (CARB 2004). **Table 3.3-1** provides descriptions of the primary greenhouse gases attributed to global climate change, including a description of their physical properties, primary sources, and their contribution to the greenhouse effect.

### 3.3 GREENHOUSE GASES AND CLIMATE CHANGE

**TABLE 3.3-1  
GREENHOUSE GASES**

Greenhouse Gas	Description
Carbon Dioxide (CO <sub>2</sub> )	Carbon dioxide is a colorless, odorless gas. CO <sub>2</sub> is emitted in a number of ways, both naturally and through human activities. The largest source of CO <sub>2</sub> emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, industrial facilities, and other sources. A number of specialized industrial production processes and product uses such as mineral production, metal production, and the use of petroleum-based products can also lead to CO <sub>2</sub> emissions. The atmospheric lifetime of CO <sub>2</sub> is variable because it is so readily exchanged in the atmosphere. <sup>1</sup>
Methane (CH <sub>4</sub> )	Methane is a colorless, odorless gas that is not flammable under most circumstances. CH <sub>4</sub> is the major component of natural gas, about 87 percent by volume. It is also formed and released to the atmosphere by biological processes occurring in anaerobic environments. Methane is emitted from a variety of both human-related and natural sources. Human-related sources include fossil fuel production, animal husbandry (intestinal fermentation in livestock and manure management), rice cultivation, biomass burning, and waste management. These activities release significant quantities of methane to the atmosphere. Natural sources of methane include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and other sources such as wildfires. Methane's atmospheric lifetime is about 12 years. <sup>2</sup>
Nitrous Oxide (N <sub>2</sub> O)	Nitrous oxide is a clear, colorless gas with a slightly sweet odor. N <sub>2</sub> O is produced by both natural and human-related sources. Primary human-related sources of N <sub>2</sub> O are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production. N <sub>2</sub> O is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N <sub>2</sub> O is approximately 120 years. <sup>3</sup>
Hydrofluorocarbons (HFCs)	Hydrofluorocarbons are man-made chemicals, many of which have been developed as alternatives to ozone-depleting substances for industrial, commercial, and consumer products. The only significant emissions of HFCs before 1990 were of the chemical HFC-23, which is generated as a byproduct of the production of HCFC-22 (or Freon 22, used in air conditioning applications). The atmospheric lifetime for HFCs varies from just over a year for HFC-152a to 260 years for HFC-23. Most of the commercially used HFCs have atmospheric lifetimes less than 15 years (e.g., HFC-134a, which is used in automobile air conditioning and refrigeration, has an atmospheric life of 14 years). <sup>4</sup>
Perfluorocarbons (PFCs)	Perfluorocarbons are colorless, highly dense, chemically inert, and nontoxic. There are seven PFC gases: perfluoromethane (CF <sub>4</sub> ), perfluoroethane (C <sub>2</sub> F <sub>6</sub> ), perfluoropropane (C <sub>3</sub> F <sub>8</sub> ), perfluorobutane (C <sub>4</sub> F <sub>10</sub> ), perfluorocyclobutane (C <sub>4</sub> F <sub>8</sub> ), perfluoropentane (C <sub>5</sub> F <sub>12</sub> ), and perfluorohexane (C <sub>6</sub> F <sub>14</sub> ). Natural geological emissions have been responsible for the PFCs that have accumulated in the atmosphere in the past; however, the largest current source is aluminum production, which releases CF <sub>4</sub> and C <sub>2</sub> F <sub>6</sub> as byproducts. The estimated atmospheric lifetimes for CF <sub>4</sub> and C <sub>2</sub> F <sub>6</sub> are 50,000 and 10,000 years, respectively. <sup>4,5</sup>
Sulfur Hexafluoride (SF <sub>6</sub> )	Sulfur hexafluoride is an inorganic compound that is colorless, odorless, nontoxic, and generally nonflammable. SF <sub>6</sub> is primarily used as an electrical insulator in high voltage equipment. The electric power industry uses roughly 80 percent of all SF <sub>6</sub> produced worldwide. Significant leaks occur from aging equipment and during equipment maintenance and servicing. SF <sub>6</sub> has an atmospheric life of 3,200 years. <sup>4</sup>

Sources: <sup>1</sup>EPA 2011a, <sup>2</sup>EPA 2011b, <sup>3</sup>EPA 2010a, <sup>4</sup>EPA 2010b, <sup>5</sup>EFCTC 2003

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. Gases with high global warming potential, such as HFCs, PFCs, and SF<sub>6</sub>, are the most heat-absorbent. Methane traps over 21 times more

### 3.3 GREENHOUSE GASES AND CLIMATE CHANGE

heat per molecule than CO<sub>2</sub>, and N<sub>2</sub>O absorbs 310 times more heat per molecule than CO<sub>2</sub>. Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO<sub>2</sub>e), which weight each gas by its global warming potential (GWP). Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO<sub>2</sub> were being emitted. **Table 3.3-2** shows the GWPs for different greenhouse gases for a 100-year time horizon.

**TABLE 3.3-2**  
**GLOBAL WARMING POTENTIAL FOR GREENHOUSE GASES**

Greenhouse Gas	Global Warming Potential
Carbon Dioxide (CO <sub>2</sub> )	1
Methane (CH <sub>4</sub> )	21
Nitrous Dioxide (N <sub>2</sub> O)	310
Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs)	6,500
Sulfur Hexafluoride (SF <sub>6</sub> )	23,900

Source: California Climate Action Registry 2009

As the name implies, global climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern, respectively. California is a significant emitter of CO<sub>2</sub> in the world and produced 477 million gross metric tons of carbon dioxide equivalent in 2008 (CARB 2010a). Consumption of fossil fuels in the transportation sector was the single largest source of California's GHG emissions in 2008, accounting for 36.4 percent of total GHG emissions in the State (CARB 2010a). This category was followed by the electric power sector (including both in-state and out-of-state sources) (24.3 percent) and the industrial sector (19.3 percent) (CARB 2010a).

#### EFFECTS OF GLOBAL CLIMATE CHANGE

California can draw on substantial scientific research conducted by experts at various state universities and research institutions. With more than a decade of concerted research, scientists have established that the early signs of climate change are already evident in the State—as shown, for example, in increased average temperatures, changes in temperature extremes, reduced snowpack in the Sierra Nevada, sea level rise, and ecological shifts.

Many of these changes are accelerating—locally, across the country, and around the globe. As a result of emissions already released into the atmosphere, California is anticipated to face intensifying climate changes in coming decades (CNRA 2009). Generally, research indicates that California should expect overall hotter and drier conditions with a continued reduction in winter snow (with concurrent increases in winter rains), as well as increased average temperatures, and accelerating sea-level rise. In addition to changes in average temperatures, sea level, and precipitation patterns, the intensity of extreme weather events is also changing (CNRA 2009).

Climate change temperature projections identified in the 2009 California Climate Adaptation Strategy suggest the following (CNRA 2009):

- Average temperature increase is expected to be more pronounced in the summer than in the winter season.

### 3.3 GREENHOUSE GASES AND CLIMATE CHANGE

- Inland areas are likely to experience more pronounced warming than coastal regions.
- Heat waves are expected to increase in frequency, with individual heat waves also showing a tendency toward becoming longer, and extending over a larger area, thus more likely to encompass multiple population centers in California at the same time.
- As GHGs remain in the atmosphere for decades, temperature changes over the next 30 to 40 years are already largely determined by past emissions. By 2050, temperatures are projected to increase by an additional 1.8 to 5.4°F (an increase one to three times as large as that which occurred over the entire 20<sup>th</sup> century).
- By 2100, the models project temperature increases between 3.6 and 9°F.

Precipitation levels are expected to change over the 21<sup>st</sup> century, though models differ in determining where and how much rain and snowfall patterns may change (CNRA 2009). Eleven out of 12 precipitation models run by the Scripps Institution of Oceanography suggest a small to significant (12–35 percent) overall decrease in precipitation levels by mid-century (CNRA 2009). In addition, higher temperatures increase evaporation and make for a generally drier climate, as higher temperatures hasten snowmelt. Moreover, the 2009 California Climate Adaptation Strategy concludes that more precipitation may fall as rain rather than as snow, with important implications for water management in the State. California communities have largely depended on runoff from yearly established snowpack to provide the water supplies during the warmer, drier months of late spring, summer, and early autumn. With rainfall and meltwater running off earlier in the year, the State may face increasing challenges of storing the water for the dry season, while protecting Californians downstream from floodwaters during the wet season.

According to the 2009 California Climate Adaptation Strategy, the impacts of climate change in California have the potential to include, but are not limited to, the areas discussed in **Table 3.3-3**.

**TABLE 3.3-3  
POTENTIAL STATEWIDE IMPACTS FROM CLIMATE CHANGE**

Potential Statewide Impact	Description
Public Health	Climate change is expected to lead to an increase in ambient (i.e., outdoor) average air temperature, with greater increases expected in summer than in winter months. Larger temperature increases are anticipated in inland communities as compared to the California coast. The potential health impacts from sustained and significantly higher than average temperatures include heat stroke, heat exhaustion, and the exacerbation of existing medical conditions such as cardiovascular and respiratory diseases, diabetes, nervous system disorders, emphysema, and epilepsy. Numerous studies have indicated that there are generally more deaths during periods of sustained higher temperatures, and these are due to cardiovascular causes and other chronic diseases. The elderly, infants, and socially isolated people with pre-existing illnesses who lack access to air conditioning or cooling spaces are among the most at risk during heat waves.
Floods and Droughts	The impacts of flooding can be significant. Results may include population displacement, severe psychosocial stress with resulting mental health impacts, exacerbation of pre-existing chronic conditions, and infectious disease. Additionally, impacts can range from a loss of personal belongings, and the emotional ramifications from such loss, to direct injury and/or mortality.  Drinking water contamination outbreaks in the United States are associated with extreme precipitation events. Runoff from rainfall is also associated with coastal contamination that can lead to contamination of shellfish and contribute to food-borne illness. Floodwaters

### 3.3 GREENHOUSE GASES AND CLIMATE CHANGE

Potential Statewide Impact	Description
	<p>may contain household, industrial, and agricultural chemicals as well as sewage and animal waste. Flooding and heavy rainfall events can wash pathogens and chemicals from contaminated soils, farms, and streets into drinking water supplies. Flooding may also overload storm and wastewater systems, or flood septic systems, also leading to possible contamination of drinking water systems.</p> <p>Drought impacts develop more slowly over time. Risks to public health that Californians may face from drought include impacts on water supply and quality, food production (both agricultural and commercial fisheries), and risks of waterborne illness. As surface water supplies are reduced as a result of drought conditions, the amount of groundwater pumping is expected to increase to make up for the water shortfall. The increase in groundwater pumping has the potential to lower the water tables and cause land subsidence. Communities that utilize well water will be adversely affected by drops in water tables or through changes in water quality. Groundwater supplies have higher levels of total dissolved solids compared to surface waters. This introduces a set of effects for consumers, such as repair and maintenance costs associated with mineral deposits in water heaters and other plumbing fixtures, and on public water system infrastructure designed for lower salinity surface water supplies. Drought may also lead to increased concentration of contaminants in drinking water supplies.</p>
Water Resources	<p>The state's water supply system already faces challenges to provide water for California's growing population. Climate change is expected to exacerbate these challenges through increased temperatures and possible changes in precipitation patterns. The trends of the last century—especially increases in hydrologic variability—will likely intensify in this century. The state can expect to experience more frequent and larger floods and deeper droughts. Rising sea level will threaten the Delta water conveyance system and increase salinity in near-coastal groundwater supplies. Planning for and adapting to these simultaneous changes, particularly their impacts on public safety and long-term water supply reliability, will be among the most significant challenges facing water and flood managers this century.</p>
Forests and Landscapes	<p>Global climate change has the potential to intensify the current threat to forests and landscapes by increasing the risk of wildfire and altering the distribution and character of natural vegetation. If temperatures rise into the medium warming range, wildfire occurrence statewide could increase from 57 percent to 169 percent by 2085. However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks will not be uniform throughout the state.</p>
Sea Level Rise	<p>The San Francisco Bay Conservation and Development Commission (BCDC) issued a report on sea level rise in April 2009, which states that sea level along the west coast rises approximately 7.9 inches per century, or approximately 0.08 inches per year. However, the rate of sea level rise is increasing. During the period of 1993–2003, the rate was approximately 0.12 inches per year, which could demonstrate the result of human-induced warming on sea level. The BCDC uses the same sea level rise estimates that are used by California Climate Action Team–funded assessments. These estimates anticipate the sea level in the Bay Area will rise 16 inches by mid-century and 55 inches by the end of the century.</p>

Source: CNRA 2009

#### Current Greenhouse Gas Emissions

##### Statewide Inventory

The California GHG inventory compiles statewide anthropogenic GHG emissions and sinks. It includes estimates for CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, SF<sub>6</sub>, nitrogen trifluoride (NF<sub>3</sub>), HFCs, and PFCs. The current inventory covers years 2000 to 2008.



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Annual statewide emission inventories provide the basis for establishing historical emission trends. Trends are useful in tracking progress toward a specific goal or target. There are many factors affecting GHG emissions, including the state of the economy, changes in demography, improved efficiency, and changes in environmental conditions such as drought. 2008 saw a small decrease in statewide GHG emissions, driven by a noticeable drop in on-road transportation emissions. 2008 also reflects the beginning of the economic recession and fuel price spikes. California generated approximately 484,700,000 metric tons of GHG emissions in 2008 and 456,700,000 metric tons in 2009 (CARB 2011).

#### Citywide Inventory

In June 2009, Sacramento County finalized a greenhouse gas inventory for each jurisdiction in the county. The inventory calculates municipal and community-wide emissions caused by activities in 2005, including transportation, waste, water, and energy-related activities. The inventory established a baseline against which future changes in emissions can be measured and provides an understanding of major sources of GHG emissions in the City and the region.

The inventory found that the City emitted 842,971 metric tons of CO<sub>2</sub>e in 2005. On-road vehicles were by far the greatest contributor to the City's baseline emissions (40 percent) (Sacramento County 2009). Residential energy use was the second largest contributor, with 28 percent of overall emissions (Sacramento County 2009).

The City of Elk Grove has since revised this citywide inventory, to incorporate new data and GHG accounting methods and protocols, identifying a revised total of 737,838 metric tons of CO<sub>2</sub>e in 2005. Revisions to the inventory include, yet are not limited to, revised vehicle miles traveled (VMT) calculations, omission of off-road equipment and vehicle emissions, omission of residential wood-burning emissions, omission of wastewater treatment and discharge emissions, and omission of high global warming potential emissions (such as fugitive refrigerant emissions) (City of Elk Grove 2010).

#### **3.3.2 REGULATORY FRAMEWORK**

##### FEDERAL

##### **Federal Regulation and the Clean Air Act**

In the past, the US Environmental Protection Agency (EPA) has not regulated GHGs under the Clean Air Act (CAA) because it asserted that the act did not authorize the EPA to issue mandatory regulations to address global climate change and that such regulation would be unwise without an unequivocally established causal link between GHGs and the increase in global surface air temperatures. However, the US Supreme Court held that the EPA must consider regulation of motor vehicle GHG emissions. In *Massachusetts v. Environmental Protection Agency et al.*, twelve states and cities, including California, together with several environmental organizations, sued to require the EPA to regulate GHGs as pollutants under the Clean Air Act (127 S. Ct. 1438 [2007]). The Court ruled that GHGs fit within the Clean Air Act's definition of a pollutant and that the EPA did not have a valid rationale for not regulating GHGs. In response to this ruling, the EPA has recently made an endangerment finding that greenhouse gases pose a threat to the public health and welfare. This is the first step necessary for the establishment of federal GHG regulations under the Clean Air Act.

In April 2010, the EPA issued the final rule on new standards for GHG emissions and fuel economy for light-duty vehicles in model years 2017–2025. In November 2010, the EPA published the “PSD

[Prevention of Significant Deterioration] and Title V Permitting Guidance for Greenhouse Gases," which provides the basic information that permit writers and applicants need to address GHG emissions regulated under the Clean Air Act. In that document, the EPA described the "Tailoring Rule" in the regulation of GHG emissions. With the Tailoring Rule, the EPA established a phased schedule in the regulation of stationary sources. The first phase of the Tailoring Rule began January 2, 2011, and focuses the GHG permitting programs on the largest sources with the most Clean Air Act permitting experience. In step two, which began June 1, 2011, the rule expands to cover large sources of GHGs that may not have been previously covered by the Clean Air Act for other pollutants. The rule also describes the EPA's commitment to future rulemaking that will describe subsequent steps of the Tailoring Rule for GHG permitting (EPA 2010d).

#### **Federal Heavy-Duty National Program**

In August 2011, the EPA and the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) announced the first-ever program to reduce greenhouse gas emissions and improve fuel efficiency of heavy-duty trucks and buses. The EPA and the NHTSA have each adopted complementary standards under their respective authorities covering model years 2014–2018, which together form a comprehensive Heavy-Duty National Program. The goal of the joint rulemakings is to present coordinated federal standards that help manufacturers to build a single fleet of vehicles and engines that are able to comply with both. The EPA and the NHTSA have adopted standards for CO<sub>2</sub> emissions and fuel consumption, respectively, tailored to each of three main regulatory categories: (1) combination tractors; (2) heavy-duty pickup trucks and vans; and (3) vocational vehicles. The EPA has additionally adopted standards to control HFC leakage from air conditioning systems in pickups and vans and combination tractors. Also exclusive to the EPA program are the EPA's N<sub>2</sub>O and CH<sub>4</sub> standards that will apply to all heavy-duty engines, pickups, and vans. For purposes of this program, the heavy-duty fleet incorporates all on-road vehicles rated at a gross vehicle weight at or above 8,500 pounds, and the engines that power them, except those covered by the current GHG emissions and Corporate Average Fuel Economy standards for model year 2012–2016 passenger vehicles.

The Heavy-Duty National Program is projected to reduce fuel use and GHG emissions from medium- and heavy-duty vehicles, from semi trucks to the largest pickup trucks and vans, as well as all types and sizes of work trucks and buses in between. Vehicles covered by this program make up the transportation segment's second largest contributor to oil consumption and GHG emissions. This comprehensive program is designed to address the urgent and closely intertwined challenges of dependence on oil, energy security, and global climate change. The EPA and the NHTSA estimate that the combined standards will reduce CO<sub>2</sub> emissions by about 270 million metric tons and save about 530 million barrels of oil over the life of vehicles built for the 2014 to 2018 model years, providing \$49 billion in net program benefits. A second phase of regulations is planned for model years beyond 2018. The goals would include spurring innovation as well as updating the assessment of actual emissions and fuel use from this sector. Such future regulation would also be designed to align with similar programs developed outside the United States.

STATE

#### **Assembly Bill 1493**

Assembly Bill (AB) 1493 (Pavley) of 2002 (Health and Safety Code Sections 42823 and 43018.5) requires the California Air Resources Board (CARB) to develop and adopt the nation's first GHG emission standards, also known as Pavley 1, for automobiles. The California legislature declared in AB 1493 that global warming is a matter of increasing concern for public health and the environment. It cites several risks that California faces from climate change, including a

### **3.3 GREENHOUSE GASES AND CLIMATE CHANGE**

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reduction in the State's water supply, an increase in air pollution caused by higher temperatures, harm to agriculture, an increase in wildfires, damage to the coastline, and economic losses caused by higher food, water, energy, and insurance prices. The bill also states that technological solutions to reduce GHG emissions would stimulate California's economy and provide jobs. In 2004, the State of California submitted a request for a waiver from federal clean air regulations, as the State is authorized to do under the CAA, to allow the State to require reduced tailpipe emissions of CO<sub>2</sub>. In late 2007, the EPA denied California's waiver request and declined to promulgate adequate federal regulations limiting GHG emissions. In early 2008, the state brought suit against the EPA related to this denial.

In January 2009, President Obama instructed the EPA to reconsider the Bush Administration's denial of California's and 13 other states' requests to implement global warming pollution standards for cars and trucks. In June 2009, the EPA granted California's waiver request, enabling the state to enforce its GHG emissions standards for new motor vehicles beginning with the current model year.

Also in 2009, President Obama announced a national policy aimed at both increasing fuel economy and reducing GHG pollution for all new cars and trucks sold in the United States. The new standards would cover model years 2012 to 2016 and would raise passenger vehicle fuel economy to a fleet average of 35.5 miles per gallon (mpg) by 2016. When the national program takes effect, California has committed to allowing automakers showing compliance with the national program to also be deemed in compliance with state requirements. California is committed to further strengthening these standards, requiring a 45 percent GHG reduction from the 2020 model year vehicles.

#### **Executive Order S-3-05**

Executive Order S-3-05 (State of California) proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the snowpack in the Sierra Nevada, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the Executive Order established total greenhouse gas emission targets. Specifically, emissions are to be reduced to the 2000 level by 2010, to the 1990 level by 2020, and to 80 percent below the 1990 level by 2050.

The Executive Order directed the Secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce greenhouse gas emissions to the target levels. The Secretary will also submit biannual reports to the governor and state legislature describing (1) progress made toward reaching the emission targets, (2) impacts of global warming on California's resources, and (3) mitigation and adaptation plans to combat these impacts. To comply with the Executive Order, the Secretary of CalEPA created a Climate Action Team made up of members from various state agencies and commissions. The Climate Action Team released its first report in March 2006 and continues to release periodic reports on progress. The report proposed to achieve the targets by building on voluntary actions of California businesses, local government and community actions, as well as through state incentive and regulatory programs.

#### **Assembly Bill 32, the California Global Warming Solutions Act of 2006**

AB 32 (Health and Safety Code Sections 38500, 38501, 28510, 38530, 38550, 38560, 38561–38565, 38570, 38571, 38574, 38580, 38590, 38592–38599) requires that statewide GHG emissions be reduced to 1990 levels by the year 2020. The gases regulated by AB 32 include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, nitrogen trifluoride, and sulfur

hexafluoride. The reduction to 1990 levels will be accomplished through an enforceable statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires that CARB adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrives at the cap, institute a schedule to meet the emissions cap, and develop tracking, reporting, and enforcement mechanisms to ensure that the State achieves reductions in GHG emissions necessary to meet the cap. CARB is implementing this program. The CARB Board adopted a draft resolution for formal cap-and-trade rulemaking on December 16, 2010, and is developing offset protocols and compliance requirements. AB 32 also includes guidance to institute emissions reductions in an economically efficient manner and conditions to ensure that businesses and consumers are not unfairly affected by the reductions.

#### **Climate Change Scoping Plan**

In October of 2008, CARB published its Climate Change Proposed Scoping Plan, which is the State's plan to achieve GHG reductions in California required by AB 32. The Scoping Plan contains the main strategies California will implement to achieve reduction of 169 million metric tons (MMT) of CO<sub>2</sub>e, or approximately 30 percent from the State's projected 2020 emission level of 596 MMT of CO<sub>2</sub>e under a business-as-usual scenario (this is a reduction of 42 MMT CO<sub>2</sub>e, or almost 10 percent, from 2002–2004 average emissions). The Scoping Plan also includes CARB-recommended GHG reductions for each emissions sector of the State's GHG inventory. The largest proposed GHG reduction recommendations are from improving emission standards for light-duty vehicles (estimated reductions of 31.7 MMT CO<sub>2</sub>e), implementation of the Low-Carbon Fuel Standard (15.0 MMT CO<sub>2</sub>e), energy efficiency measures in buildings and appliances and the widespread development of combined heat and power systems (26.3 MMT CO<sub>2</sub>e), and a renewable portfolio standard for electricity production (21.3 MMT CO<sub>2</sub>e). The Scoping Plan identifies the local equivalent of AB 32 targets as a 15 percent reduction below baseline greenhouse gas emissions level, with baseline interpreted as greenhouse gas emissions levels between 2003 and 2008. The Scoping Plan states that land use planning and urban growth decisions will play an important role in the State's GHG reductions because local governments have primary authority to plan, zone, approve, and permit how land is developed to accommodate population growth and the changing needs of their jurisdictions. (Meanwhile, CARB is also developing an additional protocol for community emissions.) CARB further acknowledges that decisions on how land is used will have large impacts on the GHG emissions that will result from the transportation, housing, industry, forestry, water, agriculture, electricity, and natural gas emission sectors. The Scoping Plan states that the ultimate GHG reduction assignment to local government operations is to be determined. With regard to land use planning, the Scoping Plan expects approximately 5.0 MMT CO<sub>2</sub>e will be achieved associated with implementation of Senate Bill 375, which is discussed further below. The Climate Change Proposed Scoping Plan was approved by CARB on December 11, 2008.

The status of the Scoping Plan had been uncertain as a result of a court decision in the case of *Association of Irrigated Residents v. California Air Resources Board* (San Francisco Superior Court Case No. CPF-09-509562). The court found that CARB, in its CEQA review, had not adequately explained why it selected a scoping plan that included a cap-and-trade program rather than an alternative plan. While CARB disagrees with the trial court finding and has appealed the decision, in order to remove any doubt about the matter and in keeping with CARB's interest in

### **3.3 GREENHOUSE GASES AND CLIMATE CHANGE**

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public participation and informed decision-making, CARB revisited the alternatives. The revised analysis includes the five alternatives included in the original environmental analysis: a "no project" alternative (that is, taking no action at all); a plan relying on a cap-and-trade program for the sectors included in a cap; a plan relying more on source-specific regulatory requirements with no cap-and-trade component; a plan relying on a carbon fee or tax; and a plan relying on a variety of proposed strategies and measures. The revised analysis relies on emissions projections updated in light of current economic forecasts, accounting for the economic downturn since 2008 and reduction measures already approved and put in place.

The public hearing to consider approval of the AB 32 Scoping Plan Functional Equivalent Document (including the Supplement) and the AB 32 Scoping Plan was held on August 24, 2011. On this date, the Scoping Plan was re-approved by the Board.

#### **Senate Bill 1368**

Senate Bill (SB) 1368 (codified at Public Utilities Code Chapter 3) is the companion bill of AB 32. SB 1368 required the California Public Utilities Commission (CPUC) to establish a greenhouse gas emission performance standard for baseload generation from investor-owned utilities by February 1, 2007. The bill also required the California Energy Commission (CEC) to establish a similar standard for local publicly owned utilities by June 30, 2007. These standards cannot exceed the greenhouse gas emission rate from a baseload combined-cycle natural-gas-fired plant. The legislation further requires that all electricity provided to California, including imported electricity, must be generated from plants that meet the standards set by the CPUC and CEC.

#### **Senate Bill 1078, Governor's Order S-14-08, and Senate Bill 2(1X) (California Renewables Portfolio Standards)**

Senate Bill 1078 (Public Utilities Code Sections 387, 390.1, 399.25 and Article 16) addresses electricity supply and requires that retail sellers of electricity, including investor-owned utilities and community choice aggregators, provide a minimum 20 percent of their supply from renewable sources by 2017. This Senate Bill will affect statewide GHG emissions associated with electricity generation. In 2008, Governor Schwarzenegger signed Executive Order S-14-08, which set the Renewables Portfolio Standard target to 33 percent by 2020. It directed state government agencies and retail sellers of electricity to take all appropriate actions to implement this target.

Prior to the Executive Order, the California Public Utilities Commission and the California Energy Commission were responsible for implementing and overseeing the Renewables Portfolio Standards. The Executive Order shifted that responsibility to the California Air Resources Board, requiring them to adopt regulations by July 31, 2010. CARB is required by current law, AB 32 of 2006, to regulate sources of greenhouse gases to meet a state goal of reducing greenhouse gas emissions to 1990 levels by 2020 and an 80 percent reduction of 1990 levels by 2050.

In March 2011, Senate Bill 2(1X) established S-14-08 as law passed the California legislature. While Senate Bill 2(1X) contains the same targets as Governor's Order S-14-08 (33 percent of supply from renewable sources by 2020), as an executive order it did not have the force of law (Governor's Orders can be reversed by future governors).

#### **Senate Bill 375**

Senate Bill 375 (codified at Government Code and Public Resources Code<sup>1</sup>), signed in September 2008, aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. SB 375 requires metropolitan planning organizations (MPOs) to adopt a Sustainable Communities Strategy or Alternative Planning Strategy, which will prescribe land use allocation in that MPO's Regional Transportation Plan. CARB, in consultation with MPOs, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years, but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's Sustainable Communities Strategy or Alternative Planning Strategy for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, transportation projects would not be eligible for funding programmed after January 1, 2012.

#### **California Building Energy Efficiency Standards**

Title 24, Part 6 of the California Code of Regulations, known as the Building Energy Efficiency Standards, was established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. On January 1, 2010, the California Building Standards Commission adopted CALGreen and became the first state in the United States to adopt a statewide green building standards code. CALGreen requires new buildings to reduce water consumption by 20 percent, divert 50 percent of construction waste from landfills, and install low-pollutant-emitting materials.

#### LOCAL

#### **Sacramento Metropolitan Air Quality Management District**

The proposed Project is located in the Sacramento Valley Air Basin, which is under the jurisdiction of the Sacramento Metropolitan Air Quality Management District (SMAQMD). The SMAQMD offers the guidance contained in the Guide for Air Quality Assessment in Sacramento County (2011) for addressing the GHG emissions associated with land use development projects. However, the SMAQMD does not currently have an adopted threshold of significance for GHG emissions. The SMAQMD recommends addressing the potential impacts of project-generated GHG emissions, including a description of the existing environmental conditions or setting (see Existing Setting above), a discussion of the existing regulatory environment pertaining to GHGs (see Regulatory Framework above), a discussion of the GHG emission sources associated with the proposed Project's construction and operational activities, and a discussion of feasible construction and operational mitigation necessary to reduce impacts.

#### **City of Elk Grove General Plan Proposed Climate Action Plan and Proposed Sustainability Element**

The proposed Sustainability Element and Climate Action Plan (CAP) are two separate but related components of the City's sustainability strategy. The City is taking proactive steps to become a more environmentally sustainable community and respond to state requirements

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<sup>1</sup> Senate Bill 375 is codified at Government Code Sections 65080, 65400, 65583, 65584.01, 65584.02, 65584.04, 65587, 65588, 14522.1, 14522.2, and 65080.01 as well as Public Resources Code Sections 21061.3, 21159.28, and Chapter 4.2.

### 3.3 GREENHOUSE GASES AND CLIMATE CHANGE

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related to GHG emissions. The proposed CAP is a culmination of existing and proposed initiatives to reduce GHG emissions through goals and measures related to transportation, land use, energy use, waste, and water use. The CAP, if adopted, will help to ensure that the City's future activities and development patterns conform to California climate change legislation. Concurrently with the CAP, the City is proposing to establish a new Sustainability Element of the General Plan. The proposed Sustainability Element is a long-term (20+ years) plan that organizes and highlights the City's goals related to sustainability and provides new direction and vision to maintain a healthy, balanced community.

The CAP focuses specifically on strategies to reduce GHG emissions and provides direction to reduce emissions consistent with state law. It also builds on the goals and vision of the Sustainability Element, but translates these goals into numeric estimates of GHG reduction potential. While the CAP is not an adopted component of the General Plan, it will be linked to the General Plan as an implementation item of the Sustainability Element, if adopted, in order to directly implement the goals and policies of the Sustainability Element.

#### 3.3.3 IMPACTS AND MITIGATION MEASURES

##### STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the application of the following CEQA Guidelines Appendix G Environmental Checklist. A greenhouse gas impact is considered significant if implementation of the Project will:

- 1) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
- 2) Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

To meet the GHG emission targets of AB 32, California would need to generate fewer GHG emissions in the future than current levels. It is recognized, however, that for most projects there is no simple metric available to determine if a single project would substantially increase or decrease overall GHG emission levels or conflict with the goals of AB 32. Moreover, emitting GHG emissions into the atmosphere is not itself an adverse environmental effect. It is the increased concentration of GHG emissions in the atmosphere resulting in global climate change and the associated consequences of climate change that result in adverse environmental effects (e.g., sea level rise, loss of snowpack, severe weather events). Although it is possible to generally estimate a project's incremental contribution of GHGs into the atmosphere, it is typically not possible to determine whether or how an individual project's relatively small incremental contribution might translate into physical effects on the environment. Given the complex interactions between various global and regional-scale physical, chemical, atmospheric, terrestrial, and aquatic systems that result in the physical expressions of global climate change, it is impossible to discern whether the presence or absence of GHGs emitted by the project would result in any altered conditions.

However, the State of California has established GHG reduction targets and has determined that GHG emissions as they relate to global climate change are a source of adverse environmental impacts in California that should be addressed under CEQA. Although AB 32 did not amend CEQA, it identifies the myriad environmental problems in California caused by global warming (Health and Safety Code Section 38501[a]). In response to the relative lack of guidance on addressing GHGs and climate change, SB 97 was passed in order to amend CEQA

### 3.3 GREENHOUSE GASES AND CLIMATE CHANGE

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by directing the Office of Planning and Research to prepare revisions to the State CEQA Guidelines addressing the mitigation of GHGs or their consequences. These revisions to the State CEQA Guidelines went into effect in January 2010.

Thresholds of significance illustrate the extent of an impact and are a basis from which to apply mitigation measures. Significance thresholds for GHG emissions resulting from land use development projects have not been established by the City of Elk Grove and, as previously mentioned, the SMAQMD also has not yet established significance thresholds for GHG emissions. Instead, the SMAQMD recommends that lead agencies identify thresholds of significance applicable to the proposed project. The SMAQMD advises that when identifying applicable project significance thresholds, a lead agency may consider thresholds of significance adopted or recommended by other lead agencies, provided the decision is supported by substantial evidence (SMAQMD 2011).

For the purpose of full disclosure, this analysis identifies and quantifies the GHG emissions of the proposed Project. In the absence of any GHG emission significance thresholds, the City of Elk Grove has determined that the use of the Bay Area Air Quality Management District (BAAQMD) significance threshold of 1,100 metric tons of CO<sub>2e</sub> annually would be appropriate. BAAQMD thresholds are based on substantial evidence contained in Appendix D of the BAAQMD's CEQA Guidelines and, based on that evidence, attaining the thresholds would result in project compliance with the requirements of AB 32.<sup>2</sup>

#### METHODOLOGY

Greenhouse gases were not addressed in the previous EIRs. The resultant GHG emissions of the proposed Project were calculated using the California Emissions Estimator Model (CalEEMod), version 2011.1.1, computer program (see **Appendix D**). CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for the use of government agencies, land use planners, and environmental professionals. This model is the most current emissions model approved for use in California by various other air districts.

GHG emissions contribute, on a cumulative basis, to the significant adverse environmental impacts of global climate change. No single project could generate enough GHG emissions to noticeably change the global average temperature. The combination of GHG emissions from past, present, and future projects contributes substantially to the phenomenon of global climate change and its associated environmental impacts and as such is addressed only as a cumulative impact.

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<sup>2</sup> The thresholds the BAAQMD adopted were called into question by a minute order issued January 9, 2012, in *California Building Industry Associated v. BAAQMD*, Alameda Superior Court Case No RG10548693. On March 5, 2012, the Alameda County Superior Court issued a judgment finding that the BAAQMD had failed to comply with CEQA when it adopted the thresholds. The court did not determine whether the thresholds were valid on the merits, but found that the adoption of the thresholds was a project under CEQA. The court issued a writ of mandate ordering the BAAQMD to set aside the thresholds and cease dissemination of them until the BAAQMD had complied with CEQA. The claim made in the case concerned the CEQA impacts of adopting the thresholds; that is, how the thresholds would affect land use development patterns. Those issues are not relevant to the scientific soundness of the BAAQMD's analysis of what levels of pollutants should be deemed significant, or the threshold to use in assessing any air quality-related impact the project would have on the existing environment. These thresholds are based on substantial evidence identified in Appendix D of the Guidelines and are therefore used in this analysis.



### 3.3 GREENHOUSE GASES AND CLIMATE CHANGE

#### PROJECT IMPACTS AND MITIGATION MEASURES

#### GHG Emissions (Standards of Significance 1 and 2)

**Impact 3.3.1** Implementation of the proposed Project may result in a net increase in greenhouse gas emissions that will conflict with the goals of AB 32 or result in a significant impact on the environment. This impact is **cumulatively considerable**.

#### Construction GHG Emissions

Subsequent development under the proposed Project would result in direct emissions of GHGs from construction. The approximate quantity of annual GHG emissions generated by construction equipment utilized to build the proposed Project is depicted in **Table 3.3-4**.

**TABLE 3.3-4  
CONSTRUCTION-RELATED GREENHOUSE GAS EMISSIONS – METRIC TONS PER YEAR**

Construction Phases	Carbon Dioxide (CO <sub>2</sub> )	Methane (CH <sub>4</sub> )	Nitrous Oxide (N <sub>2</sub> O)	CO <sub>2</sub> e
Phase 1 – 2015 (Surgery/Maternity Hospital Building & Helistop Pad)	314	0.03	0	315
Phase 2 – 2016 (Hospital Expansion #1)	399	0.03	0	400
Phase 3 – 2017 (Hospital Expansion #2)	393	0.03	0	393
Phase 4 – 2018 (Medical Office Building #2 & Parking Structure)	400	0.03	0	401

Source: CalEEMod version 2011.1.1. Diesel-fueled construction equipment load factors reduced 33% to account for off-road emission overestimation (CARB 2010b). Refer to Appendix F for model data outputs.

#### Operational GHG Emissions

As shown in **Table 3.3-5**, the long-term operations of the proposed Project would produce 11,194 metric tons of CO<sub>2</sub>e annually. Projected emissions in **Table 3.3-5** include the operations of Medical Office Building #1, which as described in Section 2.0, Project Description, has already been constructed.

**TABLE 3.3-5  
OPERATIONAL GREENHOUSE GAS EMISSIONS – METRIC TONS PER YEAR (UNMITIGATED)**

Source	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
Area	0	0	0	0
Energy	3,304	0.16	0.06	3,327
Mobile	6,656	0.26	0	6,661
Solid Waste	488	29	0	1,093
Water	71	1.42	0.04	113
<b>Total</b>	<b>10,519</b>	<b>31</b>	<b>0.10</b>	<b>11,194</b>

Source: CalEEMod version 2011.1.1. See Appendix F for emission model outputs.

### 3.3 GREENHOUSE GASES AND CLIMATE CHANGE

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As stated in Section 2.0, Project Description, the proposed Project would also include a helistop that would be used for transporting patients away from the hospital. Because the Project does not propose a trauma unit, the helicopter operations would not be used to transport trauma patients to the hospital, so there would be no unscheduled flights transporting patients to the facility. Based on helicopter operations at a similar facility, Dignity Health estimates the helistop would result in approximately 10 flights per year. The Project does not propose storage, repair, or fueling of any helicopters on the project site.

Rotocraft turbine-engine-powered helicopters such as those likely to be used under the proposed Project are estimated to travel at a cruising speed of 137 miles per hour and consume between 50 and 61 gallons of aviation fuel per hour. Aviation fuel is a specialized type of petroleum-based fuel used to power aircraft. It is generally of a higher quality than fuels used in less critical applications, such as heating or road transport. Assuming that all estimated 10 flights per year travel from the medical facilities at Stanford University to the project site and then back again, each round-trip flight will take approximately 1.1 hours (75-mile one-way distance between Stanford Medical and project site x 2 = 150-mile round trip; helicopter cruising speed is 137 miles per hour,  $150/137 = 1.1$  hours), and each flight will consume approximately 67.1 gallons of aviation fuel (61 gallons of aviation fuel per hour x 1.1 hours = 67.1 gallons). According to the California Climate Action Registry (2009), 0.008 metric tons of CO<sub>2</sub> is generated for every gallon of aviation fuel consumed, which equates to 0.5 metric tons of CO<sub>2</sub> generated per round-trip helicopter flight between Stanford University's medical facilities and the project site. Therefore, 10 helicopter flights per year will generate 5 metric tons of CO<sub>2</sub> per year.

As shown in **Table 3.3-5**, the long-term operations of the proposed Project would produce 11,194 metric tons of CO<sub>2</sub>e annually, and as described above, helicopter operations could generate an additional 5 metric tons of CO<sub>2</sub> per year. This is over the significance threshold for operations of 1,100 metric tons of CO<sub>2</sub>e per year and may conflict with the goals of AB 32. Therefore, the following mitigation is required.

#### Mitigation Measures

- MM 3.3.1** Prior to building permit approval, the City of Elk Grove Planning Department shall require that the project applicant implement the following measures to reduce emissions of GHGs associated with the proposed Project:
- The proposed Project shall be designed to exceed state energy efficiency standards by 15 percent (to Tier 1 Title 24 Standards) as directed by Appendix A5 of the 2010 California Green Building Standards (CBSC 2011). This measure helps to reduce emissions associated with energy consumption. If construction occurs under subsequent editions of the California Green Building Standards, the Project shall be at least as efficient as if it were constructed under the 2010 edition, as determined by the Planning Director.
  - Indoor water conservation measures shall be incorporated, such as use of low-flow toilets, urinals, and faucets.
  - The Project shall ensure that low-water-use landscaping (i.e., drought-tolerant plants and drip irrigation) is installed. At least 75 percent of all landscaping plants shall be drought tolerant as determined by a licensed landscape architect or contractor and in conformance with Chapters 14.10 and 23.54 of the Elk Grove Municipal Code.

### 3.3 GREENHOUSE GASES AND CLIMATE CHANGE

- The Project shall provide interior and exterior storage areas for recyclables and green waste and adequate recycling containers located in public areas. Composting of a limited amount of food waste that may be generated as a byproduct of on-site food preparation shall be completed by agreement with a waste hauler. Cooking oils shall be directed off site for reuse, and leftover food shall be donated to a local charity/shelter.

Timing/Implementation: During project construction and operation

Enforcement/Monitoring: City of Elk Grove Planning Department

**Table 3.3-8** identifies the estimated GHG emissions resulting from long-term operations of the proposed project with the imposition of the mitigation identified in mitigation measure **MM 3.3.1**. In addition to mitigation measure **MM 3.3.1**, **Table 3.3-8** accounts for GHG emissions reductions associated with the increased density the Project will provide for this area, specifically the projection of 41 jobs per acre. (According to the Energy Information Administration (2001), healthcare buildings contain an average of one employee per 520 square feet. Applying this ratio to the proposed Project equates to 1,134 jobs (1,134 jobs/28 acres = 41). Also accounted for in **Table 3.3-8**, in addition to mitigation measure **MM 3.3.1**, are GHG emissions reductions associated with the bus stop on Elk Grove Boulevard at the north border of the project site; increased diversity of land use provided by the Project, which proposes several medical-related uses, such as an imaging center, pharmacy, and outpatient services, in the vicinity of residential land uses; and an improved pedestrian network resulting from the Project, including landscaped pedestrian pathways within the medical campus and along the perimeter of the campus, providing ready access to campus facilities and adjacent properties.

As shown in **Table 3.3-8**, implementation of mitigation measure **MM 3.3.1** as well as the increased density, increased land use diversity, increased access to public transit, and improved pedestrian network associated with the proposed Project will result in a reduction of 1,823 metric tons of CO<sub>2</sub>e annually compared with baseline emissions estimates identified in **Table 3.3-5**. This is a reduction of 16.3 percent. Also shown in **Table 3.3-8** is the GHG sequestration potential of the Project's proposed landscaping, which identifies a GHG sequestration rate of 188 metric tons of CO<sub>2</sub>e annually attributed to the planting of 265 trees on the project site. Accounting for this GHG sequestration rate, the proposed Project will generate 9,183 metric tons of CO<sub>2</sub>e annually.

**TABLE 3.3-8**  
**OPERATIONAL GREENHOUSE GAS EMISSIONS – METRIC TONS PER YEAR (MITIGATED)**

Source	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
Area	0	0	0	0
Energy	3,073	0.15	0.06	3,095
Mobile	5,088	0.20	0	5,092
Solid Waste	488	29	0	1,093
Water	58	1.13	0.03	91
<b>Subtotal</b>	<b>8,707</b>	<b>30.5</b>	<b>0.09</b>	<b>9,371</b>
Landscape Sequestration Reduction	–	–	–	<b>-188</b>
<b>Total</b>	–	–	–	<b>9,183</b>

Source: CalEEMod version 2011.1.1. See Appendix F for emission model outputs.

While the implementation of mitigation measure **MM 3.3.1** and GHG-reducing project features will decrease GHG emissions by 2,011 metric tons annually, the Project will still generate GHG emissions in excess of the annual 1,100 metric ton threshold. Therefore, this impact is **cumulatively considerable** and **significant and unavoidable**.

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## **3.4 HAZARDS AND HAZARDOUS MATERIALS**

## 3.4 HAZARDS AND HAZARDOUS MATERIALS

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This section describes the existing conditions in the project area, identifies the methods used in analyzing the Project's effects, provides California Environmental Quality Act (CEQA) standards of significance, identifies any hazardous materials that may impact public safety, and suggests mitigation measures to reduce the level of significance. This section is based on the Hazards and Hazardous Materials analysis in the Laguna Ridge Specific Plan Environmental Impact Report (EIR), various websites and documents referenced in this section, and California and federal codes.

### 3.4.1 PREVIOUS ANALYSIS

The Laguna Ridge Specific Plan EIR addressed the impacts associated with construction and operation of residential and nonresidential uses in the Laguna Ridge Specific Plan area. Potentially significant impacts disclosed in the Laguna Ridge Specific Plan EIR include exposure to past herbicide or pesticide applications due to construction on agricultural land; exposure to asbestos and lead paint materials due to demolition of existing on-site structures; and exposure to contaminants due to historic chemical or burn dump areas. The EIR determined that these site-specific potential impacts would be reduced to less than significant levels with implementation of mitigation measures identified in the EIR (mitigation measures MM 4.5.1 through 4.5.4). The Laguna Ridge Specific Plan EIR also determined that the project site is not on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, such that it would create a significant hazard to the public or to the environment. There are no schools within one-quarter mile of the project site. Because the proposed Project would not result in conditions that would require any changes to the analysis or mitigation measures in the previous EIR, these site-specific issues are not addressed further in this Draft EIR. However, a hospital use was not considered in the previous EIR, so this analysis focuses on the hazardous materials handling aspects of the Project that are specific to hospital uses.

### 3.4.2 EXISTING SETTING

#### HAZARDOUS MATERIALS DEFINED

The term hazardous substance refers to both hazardous materials and hazardous wastes. A material is defined as hazardous if it appears on a list of hazardous materials prepared by a federal, state or local regulatory agency or if it has characteristics defined as hazardous by such an agency.

The California Environmental Protection Agency, Department of Toxic Substances Control defines hazardous waste, as found in the California Health and Safety Code Section 25141(b), as follows:

. . . its quantity, concentration, or physical, chemical, or infectious characteristics:  
(1) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; (2) pose a substantial present or potential hazard to human health or the environment, due to factors including, but not limited to, carcinogenicity, acute toxicity, chronic toxicity, bioaccumulative properties, or persistence in the environment, when improperly treated, stored, transported, or disposed of, or otherwise managed.

Public health is potentially at risk whenever hazardous materials are or will be used. It is necessary to differentiate between the "hazard" of these materials and the acceptability of the "risk" they pose to human health and the environment. A hazard is any situation that has the potential to cause damage to human health and the environment. The risk to health and public safety is determined by the probability of exposure, in addition to the inherent toxicity of a material.

### **3.4 HAZARDS AND HAZARDOUS MATERIALS**

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When the risk of an activity is judged acceptable by society, in relation to perceived benefits, then the activity is judged to be safe. For example, ammonia is a common household chemical whose use has been judged safe in our society. Although it can be hazardous to health, irritating the eyes, respiratory tract, and skin, and even causing bronchitis or pneumonia following severe exposures, the risk of such a severe exposure is believed to be low. Therefore, the use of household ammonia is thought to be a safe activity.

Factors that can influence the health effects of exposure to hazardous materials include the dose the person is exposed to, the frequency of exposure, the duration of exposure, the exposure pathway (route by which a chemical enters a person's body) and the individual's unique biological susceptibility.

In addition to chemicals, which are most commonly associated with the term "hazardous materials," other categories applicable to the definition are, for example:

- Radioactive materials, which contain atoms with unstable nuclei that spontaneously emit ionizing radiation to increase their stability.
- Radioactive wastes, which are radioactive materials that are discarded (including wastes in storage) or abandoned.
- Biohazardous materials, including certain infectious agents (microorganisms, bacteria, molds, parasites, and viruses) that normally cause or significantly contribute to increased human mortality, and organisms capable of being communicated by invading and multiplying in body tissues.
- Medical waste, which includes both biohazardous wastes (byproducts of biohazardous materials) and sharps (devices capable of cutting or piercing, such as hypodermic needles, razor blades, and broken glass) resulting from the diagnosis, treatment, or immunization of patients, or from research pertaining to these activities.

#### **PROJECT SETTING**

The project site is currently developed with a medical office building, located in the central portion of the project site. The remainder of the site is currently undeveloped, but was previously graded as part of a large-lot tentative subdivision map.

#### **Typical Hazardous Materials Used at Hospitals**

Hazardous materials, including such materials as acids, bases, flammable liquids, organic and inorganic reagents, stains and dyes, and compressed gases, are routinely used at hospitals. The quantities and types of materials used at any particular time, however, change sporadically due to the nature of patient care. Therefore, providing a detailed inventory of every hazardous material that could be used at the Project is impractical, but examples of the more common substances include acids, acetone, alcohol, ammonium compounds, cesium compounds, chloroform, formaldehyde, hydrogen peroxide, lead compounds, magnesium compounds, mercury compounds, potassium compounds, silver compounds, sodium compounds, and zinc compounds; compressed gases commonly used at hospitals include acetylene, argon, carbon dioxide, helium, nitrogen, nitrous oxide, and oxygen (City of Sacramento 2008).

## 3.4 HAZARDS AND HAZARDOUS MATERIALS

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### **Hospital Sterilization System**

Hospital supplies, such as medical instruments, equipment, and surgical linens, are sterilized in a special steam system that uses a strong hydrogen peroxide solution considered to be hazardous to respiratory functions, skin, and eyes. However, the solution's use (in combination with steam) does not require any special handling or disposal techniques because the byproducts of the process are nonhazardous (carbon dioxide and water).

### **Hospital Laboratories and Pathology**

If diagnostic laboratory functions are included by on-campus laboratories, these procedures would involve the use of small quantities of chemicals. Aqueous solutions containing formaldehyde are used extensively in pathology as a preservative. Potential health effects associated with exposure to formaldehyde include skin, eye, and respiratory irritation; it is also regulated as a carcinogen, and therefore its use and disposal are strictly controlled by the State in the California Code of Regulations (CCR) Title 8, Article 110 (Carcinogens), Section 5217.

### **Biohazardous Materials and Medical Waste**

Biohazardous and medical waste would be separated from other waste at the point of generation. Biohazardous materials include (1) materials containing certain infectious agents (microorganisms, bacteria, molds, parasites, viruses) that normally cause or significantly contribute to increased human mortality, or (2) organisms capable of being communicated by invading and multiplying in body tissues. Regulated medical wastes, including biohazardous wastes and sharps, would be sent off site and treated by a hauler licensed by the California Department of Public Health (CDPH). Section 118029 of the Health and Safety Code requires all medical waste transporters doing business in California to report information regarding business ownership, location, vehicles, and clients to CDPH's Medical Waste Management Program (MWMP). Only medical waste transporters listed with CDPH are allowed to transport medical waste. Other medical waste could be treated on site by autoclave until rendered noninfectious.

### **Radioactive Materials and Chemotherapeutic Waste**

Radioactive materials and chemotherapeutic materials could be used at the proposed facility. Sources of radiation (ranging from X-rays to radioactive iodine used in patient treatment) are regulated during use and disposal. Although radiation has beneficial uses in health care, prolonged exposure to radiation can cause radiation sickness (with symptoms such as nausea and hair loss) and even death.

Use of these materials also generates radioactive and/or chemotherapeutic wastes. The Project would be required to handle, store, and dispose of radioactive waste in accordance with federal and state regulations. Disposal of radioactive waste occurs either through regular trash or sewer (once it has reached environmentally safe levels of radioactivity) or it is removed from the site and buried by a licensed contractor. Federal and state regulations govern which type of disposal method is used for specific radioactive materials, and these regulations also mandate specific record-keeping requirements documenting the types and amounts of radioactive materials disposed.

Chemotherapeutic wastes are byproducts of storage, handling, and preparation of chemotherapeutic agents (agents that kill or prevent the reproduction of malignant cells). The facility would provide a separate secure storage area for chemotherapeutic waste, where it



### **3.4 HAZARDS AND HAZARDOUS MATERIALS**

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would be stored on site until transported by a hauler licensed by the CDPH to an off-site facility for treatment and disposal.

#### **Hazardous Materials Transport and Disposal**

The transportation of hazardous chemicals and medical waste, such as biohazardous, trace chemotherapeutic, pharmacological, and pathological waste streams, would be conducted by independent companies. These companies would be required to transport and dispose of hazardous materials in accordance with federal and state regulations.

#### **Aboveground Storage Tanks**

The proposed Project could include the use of aboveground storage tanks, such as that used for the storage of liquid oxygen. Tank design, installation, and operation would be subject to review by the Cosumnes Community Services District (CCSD) Fire Department to ensure compliance with applicable Uniform Fire Code requirements.

#### **3.4.3 REGULATORY FRAMEWORK**

Numerous federal, state, and local laws have been enacted to regulate the management of hazardous materials and wastes. These laws are regulated through programs administered by various agencies at the federal, state, and local levels. The following discussion contains a summary review of regulatory controls pertaining to hazardous substances, including federal, state, and local regulations.

##### **FEDERAL**

Federal agencies that regulate hazardous materials include the Environmental Protection Agency (EPA), the Occupational Safety and Health Administration (OSHA), the Department of Transportation (DOT), and the National Institute of Health. The following federal laws and guidelines govern hazardous materials.

- Federal Water Pollution Control
- Clean Air Act
- Occupational Safety and Health Act
- Federal Insecticide, Fungicide, and Rodenticide Act
- Comprehensive Environmental Response, Compensation, and Liability Act
- *Guidelines for Carcinogens and Biohazards*
- Superfund Amendments and Reauthorization Act Title III
- Resource Conservation and Recovery Act
- Safe Drinking Water Act
- Toxic Substances Control Act

## 3.4 HAZARDS AND HAZARDOUS MATERIALS

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Prior to August 1992, the principal agency at the federal level regulating the generation, transport, and disposal of hazardous waste was the EPA under the authority of the Resource Conservation and Recovery Act (RCRA). As of August 1, 1992, however, the California Department of Toxic Substances Control was authorized to implement the State's hazardous waste management program for the EPA. The federal EPA continues to regulate hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act.

### **Worker Safety**

OSHA's Bloodborne Pathogens Standard is intended to protect workers from the exposure of blood and bodily fluids, which is the primary means of transmittal for the most harmful infectious agents known. The Bloodborne Pathogens Standard, enforced by the California Division of Occupational Safety and Health (Cal/OSHA), ensures that infectious materials, such as patient laboratory samples, are handled, stored, and transported in a manner that prevents worker, community, and environmental exposure.

The Hazard Communication Standard (Title 29, Part 1910 of the Code of Federal Regulations [CFR]) requires that workers be informed of the hazards associated with the materials they handle. Workers must be trained in safe handling of hazardous materials, use of emergency response equipment, and the building emergency response plan and procedures. Containers must be appropriately labeled, and Material Safety Data Sheets must also be available in the workplace.

### **Hazardous Waste Handling**

The California Department of Toxic Substances Control (DTSC) is authorized by the EPA to enforce hazardous waste laws and regulations in California. Requirements place "cradle-to-grave" responsibility for hazardous waste disposal on hazardous waste generators, who must ensure that their wastes are disposed of properly. Legal requirements dictate the disposal requirements for many waste streams (e.g., banning many types of hazardous wastes from landfills).

### **Hazardous Materials Transportation**

The US Department of Transportation developed regulations pertaining to the transport of hazardous materials and hazardous wastes by all modes of transportation. DOT regulations specify packaging requirements for different types of materials. In addition to the US DOT, the US Postal Service (USPS), the US Environmental Protection Agency (EPA), the California Highway Patrol (CHP), the California Department of Transportation (Caltrans), and the DTSC implement and enforce state and federal laws regarding hazardous materials transportation. The USPS has regulations for the transport of hazardous materials by mail. The EPA has also promulgated regulations for the transport of hazardous wastes. These more stringent requirements include tracking shipments with manifests to ensure that wastes are delivered to their intended destinations.

Transporters of hazardous materials are subject to both US DOT and EPA enforcement of the regulations. Consequently, the DOT and the EPA coordinate their efforts, especially at the regional level, to obtain compliance with both the RCRA and Hazardous Materials Transportation Act (HMTA) regulations. Under the authority of the Resource Conservation and Recovery Act, the EPA regulates the transportation of hazardous materials. The EPA coordinates its transportation ordinances with the requirements of the HMTA and any statutes promulgated by the DOT pursuant to the HMTA. The EPA has set forth these standards applicable to transporters of hazardous materials in 40 CFR 263. These EPA standards incorporate and require compliance with the DOT provisions on labeling, marking, placarding, using proper containers,

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and reporting discharges. The EPA's adoption of these DOT standards ensures consistency among the requirements and avoids establishing conflicting rules. The DOT's regulations are documented in 49 CFR 171-180 and implemented by the Research and Special Programs Administration within the DOT. In summary, the EPA is directed by the RCRA to establish certain standards for transporters of hazardous materials and to coordinate regulatory activities with the DOT.

EPA regulations require a transporter to:

- Comply with the manifest system (a system that ensures the integrity of the shipment from the point of origin to its destination).
- Maintain the appropriate records (signed manifests) for three years.
- Take immediate action to protect human health and the environment (e.g., notify local authorities or initiate interim measures) in the case of a discharge.
- Notify the National Response Center and submit a report to the DOT Office of Hazardous Materials Regulations in the event of a hazardous waste discharge.
- Clean up any discharges to the environment and take any actions required by the appropriate government officials for mitigating the discharge effects on human health and environment.

Transporters of hazardous wastes must also adhere to all of the Federal Motor Carrier Safety Regulations that the DOT has adopted under the Motor Carrier Safety Act of 1984. This act specifies more requisites that apply to the transport vehicle and the driver. Among them are concise specifications for vehicle parts and accessories, such as lighting devices, brakes, glazing and windows, fuel systems, tires, and horns. Additional requirements concerning inspection, repair, and maintenance are enumerated. Special driving and parking rules that relate to hazardous materials transportation are also indicated. Standards for drivers identify minimum qualifications, including physical qualifications, background and character profiles, and pertinent examinations. Also included among these rules are testing requirements for alcohol and controlled substances such as marijuana, cocaine, opiates, amphetamines, and phencyclidine. Other regulations pertaining to drivers include standards for the driving of vehicles, stopping, fueling, the use of lamps, the reporting of accidents, and the monitoring of a driver's hours of service.

#### **STATE**

The California Environmental Protection Agency (CalEPA) and the State Water Resources Control Board establish rules governing the use of hazardous materials and the management of hazardous waste. Applicable state and local laws include the following:

- Public Safety/Fire Regulations/Building Codes
- Hazardous Waste Control Law
- Hazardous Substances Information and Training Act
- Air Toxics Hot Spots and Emissions Inventory Law

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- Underground Storage of Hazardous Substances Act
- Porter-Cologne Water Quality Control Act

Within CalEPA, the DTSC has primary regulatory responsibility, with delegation of enforcement to local jurisdictions that enter into agreements with the state agency, for the management of hazardous materials and the generation, transport and disposal of hazardous waste under the authority of the Hazardous Waste Control Law.

### **Hazardous Materials Management**

CalEPA has established regulations governing the use of hazardous materials in the State. Within CalEPA, the DTSC has primary hazardous materials regulatory responsibility, but can delegate enforcement responsibilities to local jurisdictions that enter into agreements with the DTSC, for the generation, transport, and disposal of hazardous materials under the authority of the Hazardous Waste Control Law. State regulations applicable to hazardous materials are contained primarily in Title 22 of the California Code of Regulations (CCR). Title 26 of the CCR is a compilation of those chapters or titles of the CCR that are applicable to hazardous materials management. Cal/OSHA standards are presented in Title 8 of the CCR; these are more stringent than federal OSHA regulations and address workplace regulations involving the use, storage, and disposal of hazardous materials.

CalEPA adopted regulations implementing a Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program). The six program elements of the Unified Program are hazardous waste generation and on-site treatment, underground storage tanks, aboveground storage tanks, hazardous material release response plans and inventories, risk management and prevention programs, and Uniform Fire Code hazardous materials management plans and inventories. The program is implemented at the local level by a local agency, referred to as the Certified Unified Program Agency (CUPA), which is responsible for consolidating the administration of the six program elements within its jurisdiction. The Sacramento County Environmental Management Department (EMD) is the CUPA for Sacramento County.

State and federal laws require detailed planning to ensure that hazardous materials are properly handled, used, stored, and disposed of, and, in the event that such materials are accidentally released, to prevent or to mitigate injury to health or the environment. California's Hazardous Materials Release Response Plans and Inventory Law, also called the Business Plan Act, is intended to minimize the potential for accidents involving hazardous materials and facilitate an appropriate response to possible hazardous materials emergencies. The law requires businesses that use hazardous materials to provide inventories of those materials to designated emergency response agencies, to illustrate on a diagram where the materials are stored on site, to prepare an emergency response plan, and to train employees to use the materials safely.

### **Worker Safety**

Occupational safety standards exist in federal and state laws to minimize worker safety risks from both physical and chemical hazards in the workplace. Cal/OSHA is responsible for developing and enforcing workplace safety standards and assuring worker safety in the handling and use of hazardous materials. Among other requirements, Cal/OSHA obligates many businesses to prepare Injury and Illness Prevention Plans and Chemical Hygiene Plans. As at the federal level, the Hazard Communication Standard requires that workers be informed of the hazards associated with the materials they handle. This is achieved through actions such as requiring

### **3.4 HAZARDS AND HAZARDOUS MATERIALS**

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manufacturers to appropriately label containers, make Material Safety Data Sheets available in the workplace, and require employers to properly train workers.

#### **Uniform Fire Code**

The Uniform Fire Code contains regulations relating to construction and maintenance of buildings and the use of premises. The code includes specification for fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and premises.

#### **Radioactive Materials Management**

The Department of Public Health Services Radiologic Health Branch administers the federal and state radiation safety laws that govern the storage, use, and transportation of radioactive materials and the disposal of radioactive wastes. The Radiologic Health Branch licenses institutions that use radioactive materials and radiation-producing equipment, such as X-ray equipment. An institution must meet training and radiation safety requirements and be subject to routine inspections to maintain a radioactive materials license.

#### **Medical Waste Handling**

The Bloodborne Pathogens Standard, enforced at the state level by the Division of Occupational Safety and Health (Cal/OSHA), requires worker safety training to minimize releases and exposures to potential hazards. The standard also requires employees to follow universal precautions, which call for the handling of all human blood and body fluids as if they contain infectious agents.

The Medical Waste Management Program enforces the California Medical Waste Management Act and related regulations. Medical waste is generally regulated in the same manner as hazardous waste, except that special provisions apply to storage, disinfection, containment, and transportation. The law imposes on all hospital facilities a cradle-to-grave tracking system and a calibration and monitoring system for on-site treatment. Facilities must obtain permits to treat medical wastes and are subject to annual audits.

The Medical Waste Management Act requires that all hospitals develop and implement a medical waste management plan. The purpose of the plan is to successfully guide the proper handling of medical waste throughout the facility, including storage, transport, and disposal.

#### **California Accidental Release Prevention Program**

The California Accidental Release Prevention Program (CCR Title 19, Division 2, Chapter 4.5) covers certain businesses that store or handle more than a certain volume of specific regulated substances at their facilities. The list of regulated substances is found in Article 8, Section 2770.5 of the program regulations.

## 3.4 HAZARDS AND HAZARDOUS MATERIALS

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### LOCAL

#### **Sacramento County**

The County of Sacramento, Office of Emergency Services implements the State's Right-to-Know Ordinance that gives it the authority to inventory hazardous materials used by businesses. The County is also in the process of collecting information regarding existing and proposed locations of hazardous material disposal, storage, handling, and transportation facilities.

The Sacramento County Environmental Management Department is responsible for enforcing the state regulations on the city and county level, governing hazardous waste generators, hazardous waste storage, underground storage tanks, and environmental health including inspections and enforcement. The EMD also regulates the use, storage, and disposal of hazardous materials and the abandonment of wells and septic systems in the county by issuing permits, monitoring regulatory compliance, investigating complaints, and other activities. The EMD reviews technical aspects of hazardous waste site cleanups and oversees remediation of certain contaminated sites resulting from leaking underground storage tanks. The EMD is also responsible for providing technical assistance to public and private entities that seek to minimize the generation of hazardous waste. As noted above, the EMD is the CUPA for Sacramento County and administers the local regulatory programs for all CUPA program elements through:

- Inspections
- Permit issuance
- Enforcement
- Complaint response
- Local ordinance maintenance and oversight
- Establishment of administrative policy

#### **City of Elk Grove General Plan**

The City of Elk Grove Draft General Plan Safety Element addresses regulatory issues including safety and exposure standards, risk management, and interagency coordination. The following policies would have a mitigating effect with respect to hazards and hazardous materials:

**Policy SA-7:** Storage of hazardous materials and waste shall be strictly regulated, consistent with state and federal law.

**Policy SA-8:** Industrial facilities shall be constructed and operated in accordance with up-to-date safety and environmental protection standards.

#### **City of Elk Grove Municipal Code – 23.60.030 Hazardous Materials**

The following standards are intended to ensure that the use, handling, storage and transportation of hazardous materials comply with all applicable state laws (Section 65850.2 of the Government Code and Section 25505 et seq. of the Health and Safety Code) and that appropriate information is reported to the Fire Department as the regulatory authority.

### 3.4 HAZARDS AND HAZARDOUS MATERIALS

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- A. Reporting Requirements. All businesses required by state law (Section 6.95 of the Health and Safety Code) to prepare hazardous materials release response plans and hazardous materials inventory statements shall, upon request, submit copies of these plans, including any revisions, to the Fire Department.
- B. Underground Storage. Underground storage of hazardous materials shall comply with all applicable requirements of state law (Section 6.7 of the Health and Safety Code and Articles 679 and 680 of the California Fire Code, or as subsequently amended). Businesses that use underground storage tanks shall comply with the following procedures:
  - 1. Notify the Fire Department of any unauthorized release of hazardous materials prescribed by City, county, state and federal regulations;
  - 2. Notify the Fire Department and the Sacramento County Health Department of any proposed abandoning, closing or ceasing operation of an underground storage tank and actions to be taken to dispose of any hazardous materials; and
  - 3. Submit copies of the closure plan to the Fire Department.
- C. Above-Ground Storage. Above-ground storage tanks for hazardous materials and flammable and combustible materials may be allowed subject to the approval of the Fire Department.
- D. New Development. Structures adjacent to a commercial supply bulk transfer delivery system with at least six (6) inch pipes shall be designed to accommodate a setback of at least one hundred (100) feet from that delivery system. The setback may be reduced if the Planning Director, with recommendation from the Fire Department, can make one or more of the following findings:
  - 1. The structure would be protected from the radiant heat of an explosion by berming or other physical barriers;
  - 2. A one hundred (100) foot setback would be impractical or unnecessary because of existing topography, streets, parcel lines or easements; or
  - 3. A secondary containment system for petroleum pipelines and transition points shall be constructed. The design of the system shall be subject to the approval of the Fire Department.
- E. Notification Required. A subdivider of a development within five hundred (500) feet of a pipeline shall notify a new/potential owner before the time of purchase and the close of escrow of the location, size and type of pipeline. [Ord. 26-2006 §3, eff. 8-11-2006]

## 3.4 HAZARDS AND HAZARDOUS MATERIALS

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### 3.4.4 IMPACTS AND MITIGATION MEASURES

#### STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the application of the CEQA Guidelines Appendix G environmental checklist. An impact is considered significant if implementation of the Project will:

- 1) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- 2) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment as defined by City of Elk Grove General Plan Policy SA-3.
- 3) Result in a safety hazard for people residing or working in the project area for a project in the vicinity of a private airstrip, within an airport land use plan, or within 2 miles of a public airport or public use airport.

#### METHODOLOGY

Exposure pathways are the means by which hazardous substances move through the environment from a source to exposure with people. A complete exposure pathway must have four parts: (1) a source of contamination; (2) a mechanism for transport of the substance from the source to the air, surface water, groundwater, or soil; (3) a point where people come in contact with contaminated air, surface water, groundwater, or soil; and (4) a route of entry into the body. As discussed in the Regulatory Framework subsection above, the transport, use, storage, and disposal of hazardous materials is governed by a substantial body of existing regulations. These regulations are intended to reduce the potential for exposure by controlling the pathways by which persons could be exposed to hazardous substances to ensure that effects are less than significant. Compliance with these regulations is required, not optional.

The qualitative analysis of the potential public safety and hazards impacts identified is based on review of intended uses to identify potential environmental effects, based on the standards of significance presented in this section. In determining the level of significance, the analysis assumes that the proposed Project would comply with all applicable laws, ordinances, and regulations (summarized above).

#### PROJECT IMPACTS AND MITIGATION MEASURES

##### **Exposure Through Transport, Use, Storage, and Disposal of Hazardous Materials (Standard of Significance 1)**

**Impact 3.4.1** Construction and/or operation of the proposed Project would involve the routine transport, use, storage, and disposal of hazardous materials, which could create a potential health hazard to the public or environment. **The proposed Project would not result in an increase in the severity of this impact, and there is not a new or substantially more severe significant impact.**



### **3.4 HAZARDS AND HAZARDOUS MATERIALS**

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#### **Project Construction**

Construction of the Project would involve the use of various products that could contain materials classified as hazardous (e.g., solvents, adhesives and cements, certain paints, cleaning agents and degreasers). Construction of the Project would be required to comply with applicable building, health, fire, and safety codes. Hazardous materials would be used in varying amounts during construction and occupancy of the Project. Construction and maintenance activities would use hazardous materials such as fuels (gasoline and diesel), oils and lubricants, paints and paint thinners, glues, cleaners (which could include solvents and corrosives in addition to soaps and detergents), and possibly pesticides and herbicides. Compliance with applicable federal, state, and local regulations including, but not limited to, Titles 8 and 22 of the California Code of Regulations (CCR), the Uniform Fire Code, and Chapter 6.95 of the California Health and Safety Code would ensure that the Project would not create a significant hazard to the public or to the environment through the routine transport, use, or disposal of hazardous materials.

Hazardous materials regulations, which are codified in Titles 8, 22, and 26 of the CCR, and their enabling legislation set forth in Chapter 6.95 of the California Health and Safety Code, were established at the state level to ensure compliance with federal regulations to reduce the risk to human health and the environment from the routine use of hazardous substances. These regulations must be implemented by employers/businesses, as appropriate, and are monitored by the State (e.g., Cal/OSHA in the workplace or DTSC for hazardous waste) and/or local jurisdictions.

#### **Project Operation**

As stated above, hospital operation would involve the use of hazardous materials. To minimize the potential for accidental spills of hazardous materials during transit to and from the project site, suppliers and transporters are required to follow US DOT, CHP, and USPS regulations for packaging and handling hazardous materials. For all personnel that handle hazardous waste, OSHA regulations mandate an initial 40-hour training course and subsequent annual training review. In case of an accidental spill during project operation, the project would be required to comply with state and regional cleanup standards. Compliance with these regulations would serve to protect human health and environment.

The proposed facility would comply with the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) standards. Although compliance with JCAHO standards is voluntary, because the Center for Medicare and Medicaid Services and many third-party payers require hospitals to be accredited as a condition of participation in health insurance reimbursement programs, this accreditation would allow the facility to serve the City of Elk Grove. The JCAHO standards include an entire chapter entitled "Managing the Environment of Care" (EOC). The EOC standards include seven required programs: Safety, Security, Hazardous Materials and Waste, Emergency Management (hospital and community disasters), Fire Life Safety, Medical Equipment Management, and Utilities Management.

As an accredited hospital, the proposed Project would be surveyed every three years by JCAHO and the Department of Health Services (Licensing & Certification) to attain compliance with JCAHO standards and California Code of Regulations Title 22 (Hospital Licensing and Certification) regulations. The new facilities created by the Project would also be required to comply with existing laws and regulations.

## 3.4 HAZARDS AND HAZARDOUS MATERIALS

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The Project would include backup emergency generators that would require diesel fuel and oxygen tanks could be included for use in the hospital. The oxygen would be contained in pressurized tanks with leak control devices and would be surrounded by a concrete wall. Tank design, installation, and operation would be subject to review by the CCSD Fire Department to ensure compliance with applicable Uniform Fire Code requirements. Workplace regulations addressing hazardous materials in Title 8 of the CCR would apply to the project site. Compliance with these regulations would be monitored by the CCSD Fire Department when they perform inspections for flammable and hazardous materials storage. Other mechanisms in place to enforce the Title 8 regulations include compliance audits and reporting to local and state agencies. Implementation of the workplace regulations would further reduce the potential for hazardous materials releases.

The use, storage, and transportation of hazardous materials are subject to stringent local, state, and federal regulations, the intent of which is to minimize the public's risk of exposure. Based on the uses that would be part of the Project and the existing regulatory structure that controls the transport, use, storage, and disposal of hazardous materials, hazardous materials would not be transported, used, stored, or disposed of such that the proposed Project would cause a threat to public safety, either during construction or operation of the Project. Therefore, the risk that the Project would cause an accidental release of hazardous materials that could create a public or environmental health hazard is unlikely. **The proposed Project would not result in an increase in the severity of this impact, and there is not a new or substantially more severe significant impact.**

### Mitigation Measures

None required.

### **Exposure Through Reasonably Foreseeable Accident Involving the Release of Hazardous Materials (Standard of Significance 2)**

**Impact 3.4.2** The proposed Project would involve the transport of hazardous materials that could involve accident conditions, resulting in the release of hazardous materials into the environment. **The proposed Project would not result in an increase in the severity of this impact, and there is not a new or substantially more severe significant impact.**

Aside from accidents possibly occurring on site, which is addressed in Impact 3.4.1, accidents during transport of materials to and from the project site could expose the community and the environment to risks along haul routes to the site. However, as discussed in the Regulatory Framework subsection above, there is a substantial body of regulations that protects people and the environment for the transportation of hazardous materials. Under EPA regulations, in the event of a hazardous material discharge, a transporter must take immediate action to protect human health and the environment, notify the National Response Center and submit a report to the DOT Office of Hazardous Materials Regulations, and clean up any discharges to the environment and take any actions required by the appropriate government officials for mitigating the discharge effects on human health and environment. These existing regulations would ensure that the transport of hazardous materials associated with project construction and operation would not substantially increase exposure to the community and surrounding environment due to upset or accident. **The proposed Project would not result in an increase in the severity of this impact, and there is not a new or substantially more severe significant impact.**

### **3.4 HAZARDS AND HAZARDOUS MATERIALS**

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#### Mitigation Measure

None required.

#### **Hazards Associated with Air Traffic (Standard of Significance 3)**

**Impact 3.4.3** The proposed Project would involve operation of a helistop on the project site, but would not be located within 2 miles of an airport. This is a **less than significant** impact.

The closest public airport to the project site is the Sacramento Executive Airport, approximately 7.5 miles north; Mather Airport is approximately 10.5 miles to the northeast. Kaiser Hospital's existing South Sacramento helistop is located approximately 3.5 miles north of the project site. The project site is not within the jurisdiction of any airport land use plan or within 2 miles of a public airport. Thus, it would not result in a safety hazard related to airports.

The Project includes construction and operation of a helistop on the project site and would involve periodic air traffic, but, due to the distance between the project site and other existing facilities, would not result in any other changes in existing air patterns. The design of the helistop and the flight paths to and from the project site would be regulated by the Federal Aviation Administration (FAA). Helistop design standards are specified in Chapter 4 of the FAA Advisory Circular 150/5390-2B (FAA 2004). Federal Aviation Regulations (FAR) contain prescriptive standards for flight paths and other safety requirements that are designed to provide adequate maneuvering room for pilots using the facility. Flight paths must meet FAR Part 77 obstruction clearance standards; Part 77 of the FAR specifies a series of "imaginary surfaces" in the airspace surrounding landing areas. These surfaces include a "primary surface" (a horizontal plane at landing pad elevation), "approach surfaces" (shallow, inclined planes along each designated flight path), and "transition surfaces" (steeper inclined planes to the sides of flight paths). Flight paths are reviewed by the FAA when conducting airspace studies for landing sites. The FAA evaluation takes into account the airspace of other existing facilities (e.g., Sacramento International Airport and Sacramento Executive Airport) and whether there are any conditions or structures that would make a new landing site infeasible. Rather than an explicit approval of the helistop or flight operations, the product of the FAA's study is an airspace determination letter that expresses no objection to the use of the airspace for operation to and from the site.

The Project will be required to submit a Notice of Landing Area Proposal to the FAA. The FAA will consider the effects the proposal would have on existing or planned traffic patterns of neighboring airports, existing structures and programs of the FAA, safety of persons or property on the ground, existing and proposed man-made objects on file with the FAA, and known natural objects in the affected area. Prior to providing an airspace determination letter, the FAA would have to determine that the Project would not adversely affect the safe and efficient use of the navigable airspace by aircraft. As an airspace determination letter will be required prior to construction or operation of the helistop, the potential for the Project to alter air traffic patterns such that it would cause substantial safety risks would be **less than significant**.

#### Mitigation Measures

None required.

## 3.4 HAZARDS AND HAZARDOUS MATERIALS

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### 3.5.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

#### CUMULATIVE SETTING

The analysis of cumulative impacts focuses on those effects that, when combined together with other similar activities or projects, could result in a large enough effect or impact that would be considered cumulatively significant. If the individual project's contribution is substantial enough, it may be considered cumulatively significant. In some instances, a project-specific impact may not combine with effects from other activities, in which case, the project's contribution to a cumulative effect would be less-than-considerable. The health and safety hazards posed by most hazardous materials are typically local in nature. They generally do not combine in any cumulative sense with the hazards of other projects. Possible exceptions, however, include potential transportation of hazardous materials and waste disposal. The context for the evaluation of cumulative impacts associated with operation of the proposed project includes projects that would increase the amount of hazardous materials used, stored, disposed of, and transported in combination with other development in the City of Elk Grove.

#### CUMULATIVE IMPACTS AND MITIGATION MEASURES

##### **Cumulative Exposure Through Transport, Use, Storage, and Disposal of Hazardous Materials**

**Impact 3.4.4** Cumulative development would increase handling, storage, disposal, and transport of hazardous materials at the project site and in the project vicinity and may increase the potential for upset. However, cumulative development would be subject to applicable federal, state, and local regulations that would govern the handling, storage, disposal, and transport of hazardous materials. As a result, **the proposed Project would not result in a substantial increase in the severity of this impact. There is no new or substantially more severe contribution to the cumulative impact that would result from the proposed Project.**

Hazardous materials are transported on virtually all public roads, particularly since all motor vehicles contain hazardous materials (e.g., fuel) in addition to any hazardous cargo that may be on board. The majority of hazardous materials would be associated with the proposed hospital operations. The hazardous materials used during the construction of the Project must comply with federal, state, and local regulations regarding the handling and transportation of such materials, thereby reducing the potential for accidental release of those materials to the environment. Compliance with the regulations would ensure that the medical waste and other hazardous materials that would be generated from the proposed Project would not create a significant hazard through the routine transport, use, or disposal of hazardous materials, nor would a significant hazard to the public or to the environment through the reasonably foreseeable upset and accidental conditions involving the likely release of hazardous materials into the environment occur. The cumulative effects of transporting hazardous materials would continue to be addressed by existing regulatory requirements of the California Highway Patrol. Packaging requirements for hazardous materials and wastes established by Caltrans, the United States Postal Service, and the EPA minimize the potential consequences of possible accidents during transport. For these reasons, the cumulative impact of potential transportation-related accidents would not be substantial.

As discussed above, the transport, use, storage, and disposal of hazardous materials is governed by a substantial body of existing regulations. These regulations are intended to reduce the potential for exposure by controlling the pathways by which persons could be exposed to

### **3.4 HAZARDS AND HAZARDOUS MATERIALS**

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hazardous substances to ensure that effects are less than significant. Compliance with these regulations is required by all projects and handlers of these materials. Consequently, compliance with these regulations would ensure that the cumulative impact associated with the handling, storage, disposal, and transport of hazardous materials is considered to be less than significant and would not substantially contribute to any cumulatively considerable hazards in the City or the region. **The proposed Project would not result in a substantial increase in the severity of this impact. There is no new or substantially more severe contribution to the cumulative impact that would result from the proposed Project.**

#### Mitigation Measures

None required.

#### **Cumulative Hazards Associated with Air Traffic**

**Impact 3.4.5** Cumulative development would result in an increase in air traffic in the region, which could result in an increase in the potential for accidents. **The proposed Project's contribution to this impact would be less than cumulatively considerable.**

The increase in air traffic could result in increased potential for aircraft accidents, particularly in densely populated areas and areas in the vicinity of high-volume airports. As noted above, the proposed Project site is not within 2 miles of a private or public airport and would not result in any other changes in existing air patterns. Flight paths to and from the project site would be regulated by the FAA and must meet FAR Part 77 obstruction clearance standards. These design considerations and the very limited number of helicopter flights that would occur under the proposed Project would ensure that the Project's contribution to this impact would be **less than cumulatively considerable.**

#### Mitigation Measures

None required.

### 3.4 HAZARDS AND HAZARDOUS MATERIALS

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## **3.5 NOISE**

This section describes the existing noise environment in the area of the proposed Project and the potential of the proposed Project to generate noise levels exceeding the applicable City of Elk Grove exterior noise level standards at noise-sensitive receptors in the project area. Additionally, this section analyzes potential traffic noise impacts at both exterior and interior areas of the proposed Project.

The project site is located at the southwest corner of Elk Grove Boulevard and Wymark Drive. The primary noise sources associated with the Project include increased traffic on the roadway system, a central plant which provides heating and cooling for the campus, an emergency generator, emergency vehicle sirens, and a helistop platform. The primary sources of noise that may affect the project site include roadway traffic and helistop operations.

**Figure 3.5-1** shows the project site plan.

### 3.5.1 BACKGROUND INFORMATION ON NOISE

#### Fundamentals of Acoustics

Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), then they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound and is expressed as cycles per second or Hertz (Hz).

Noise is a subjective reaction to different types of sounds. Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected, or undesired and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

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 (20 micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) 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 A-weighted sound levels. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives sound. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels, but are expressed as dB, unless otherwise noted.

The decibel scale is logarithmic, not linear. In other words, two sound levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70 dBA sound is half as loud as an 80 dBA sound and twice as loud as a 60 dBA sound.

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 environment. A common statistical tool is the average, or equivalent, sound level ( $L_{eq}$ ), which corresponds to a steady-state A-weighted



### 3.5 NOISE

sound level containing the same total energy as sound that varies over a given time period (usually one hour). The  $L_{eq}$  is the foundation of the composite noise descriptor,  $L_{dn}$ , and shows very good correlation with community response to noise.

The day/night average level ( $L_{dn}$ ) is based on the average noise level over a 24-hour day, with a +10 decibel weighing 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. Because  $L_{dn}$  represents a 24-hour average, it tends to disguise short-term variations in the noise environment.

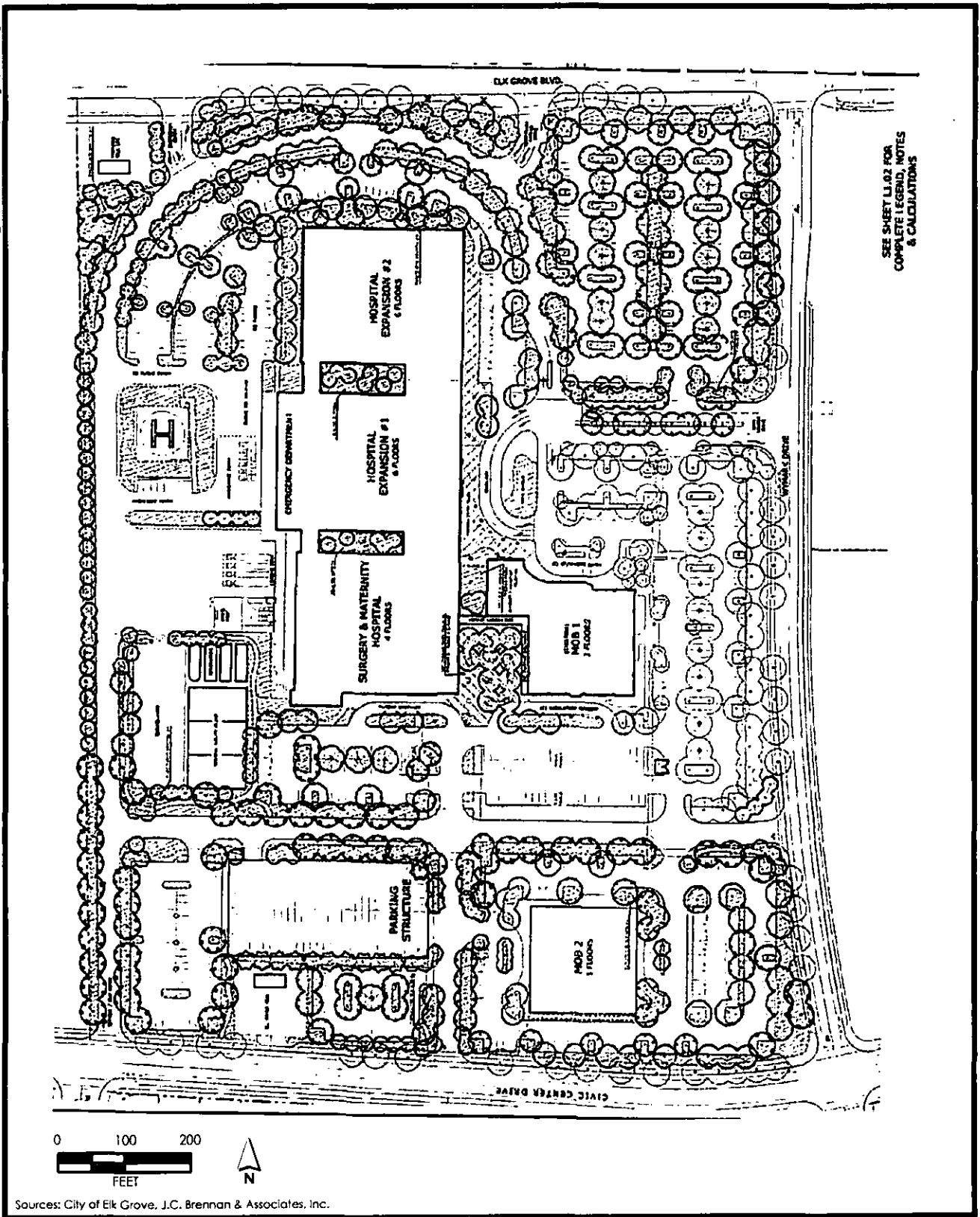
The sound exposure level (SEL) is the constant noise level that would deliver the same acoustic energy to the ear of a listener during a one-second exposure as the actual time-varying noise would deliver over its entire time of occurrence. For a sound lasting longer than one second, its SEL will be higher than that of the largest of the shorter duration component sounds that make up the total. For example, the SEL of a ten-second-long sound made up of 10 one-second-long component sounds, each of 60 dBA amplitude, would be 70 dBA. SEL most commonly is used to characterize the disruptive potential of noise from sources such as aircraft flyovers and train and heavy truck pass-bys.

**Table 3.5-1** lists several examples of the noise levels associated with common situations.

**TABLE 3.5-1  
TYPICAL NOISE LEVELS**

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	-110-	Rock Band
Jet Fly-over at 300 m (1,000 ft)	-100-	
Gas Lawn Mower at 1 m (3 ft)	-90-	
Diesel Truck at 15 m (50 ft), at 80 km/hr (50 mph)	-80-	Food Blender at 1 m (3 ft) Garbage Disposal at 1 m (3 ft)
Noisy Urban Area, Daytime Gas Lawn Mower, 30 m (100 ft)	-70-	Vacuum Cleaner at 3 m (10 ft)
Commercial Area Heavy Traffic at 90 m (300 ft)	-60-	Normal Speech at 1 m (3 ft)
Quiet Urban Daytime	-50-	Large Business Office Dishwasher in Next Room
Quiet Urban Nighttime	-40-	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	-30-	Library
Quiet Rural Nighttime	-20-	Bedroom at Night, Concert Hall (Background)
	-10-	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	-0-	Lowest Threshold of Human Hearing

Source: Caltrans 2009



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**Figure 3.5-1**  
Project Site Plan

### **Effects of Noise on People**

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

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

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. 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: the so-called ambient noise level. 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 level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived.
- Outside of the laboratory, a 3 dBA change is considered a just-perceivable difference.
- A change in level of at least 5 dBA is required before any noticeable change in human response would be expected.
- A 10 dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

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

## 3.5 NOISE

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### 3.5.2 EXISTING CONDITIONS

The existing noise environment in the project area is defined primarily by the local roadway network, including Elk Grove Boulevard, which is adjacent to the north side of the project site, and to a lesser extent Wymark Drive to the east and Bruceville Road to the west.

#### EXISTING NOISE RECEPTORS

Some land uses are considered more sensitive to noise than others. Land uses often associated with sensitive receptors generally include residences, schools, libraries, and hospitals. Sensitive noise receptors may also include threatened or endangered noise-sensitive biological species, although many jurisdictions have not adopted noise standards for wildlife areas. Noise-sensitive land uses are typically given special attention in order to achieve protection from excessive noise.

Sensitivity is a function of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities involved. In the vicinity of the project site, sensitive land uses include existing single-family residential uses to the north, east, and south of the project site. Additional residential uses are located approximately 2,500 feet to the west of the project site.

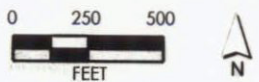
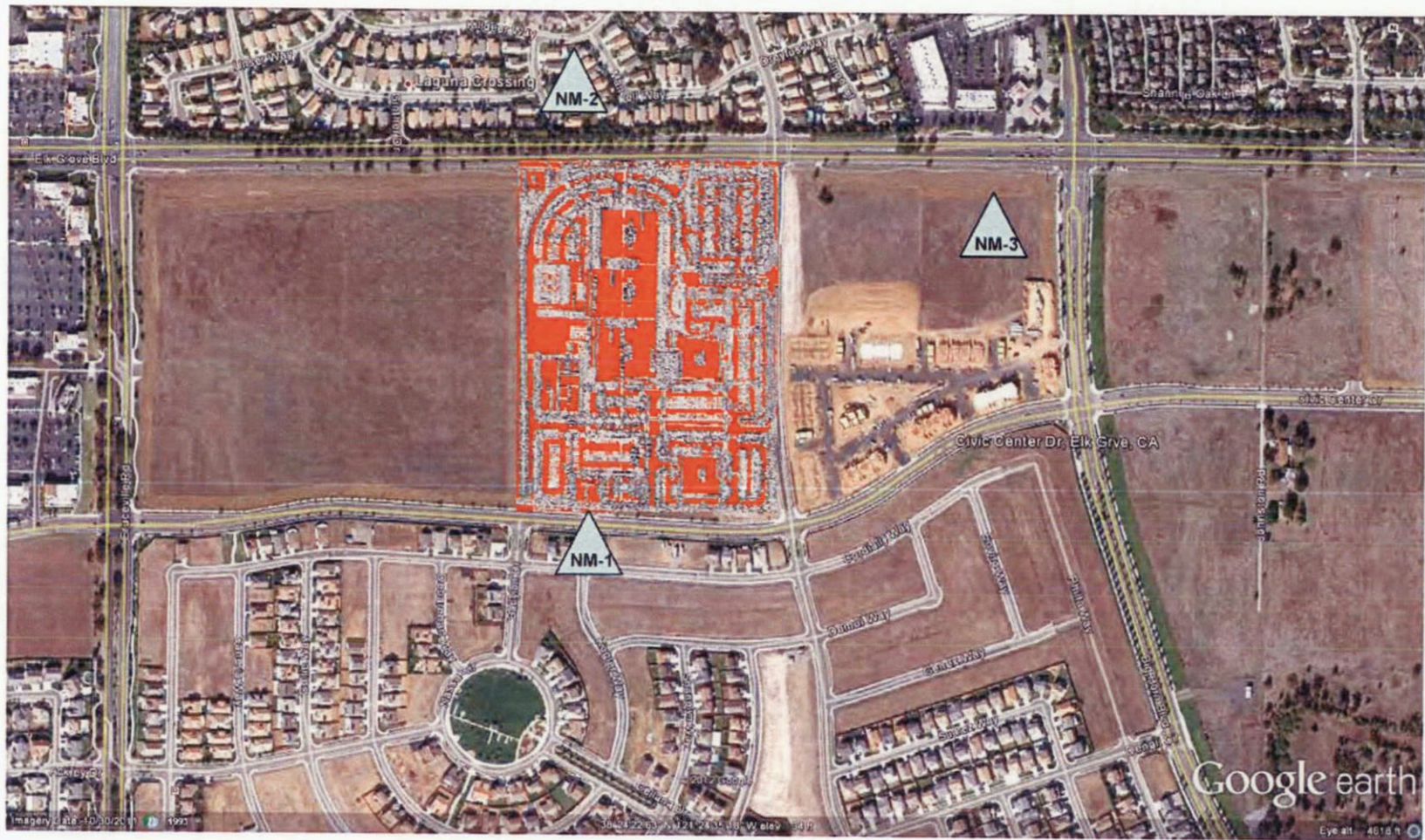
#### EXISTING AMBIENT NOISE LEVELS

To quantify the existing ambient noise environment in the project vicinity, J.C. Brennan & Associates, Inc., conducted noise level measurements at three locations adjacent to the project site.

Noise measurement locations are shown on **Figure 3.5-2**. A summary of the noise level measurement survey results is provided in **Table 3.5-2**. **Appendix G** contains the results of the continuous (24-hour) noise monitoring.

The sound level meters were programmed to record the maximum, median, and average noise levels at each site during the survey. The maximum value, denoted  $L_{max}$ , represents the highest noise level measured. The average value, denoted  $L_{eq}$ , represents the energy average of all of the noise received by the sound level meter microphone during the monitoring period. The median value, denoted  $L_{50}$ , represents the sound level exceeded 50 percent of the time during the monitoring period. In addition, the composite 24-hour average noise level ( $L_{dn}$ ) was also calculated from the hourly  $L_{eq}$  values. The calculated  $L_{dn}$  for each day applies a 10 dBA penalty to all noise which occurs during the nighttime period, which is defined as the hours between 10:00 p.m. and 7:00 a.m.

Larson Davis Laboratories (LDL) Model 820 precision integrating sound level meters were used for the ambient noise level measurement survey. The meters were calibrated before and after use with an LDL Model CAL200 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all pertinent specifications of the American National Standards Institute for Type 1 sound level meters (ANSI S1.4).



Sources: City of Elk Grove, J.C. Brennan & Associates, Inc.



City of Elk Grove  
Development Services

**Figure 3.5-2**  
Noise Monitoring Locations

**TABLE 3.5-2  
SUMMARY OF EXISTING BACKGROUND NOISE MEASUREMENT DATA**

Site	Date	L <sub>dn</sub>	Average Measured Hourly Noise Levels, dBA					
			Daytime (7 a.m. – 10 p.m.)			Nighttime (10 p.m. – 7 a.m.)		
			Leq	L50	Lmax	Leq	L50	Lmax
NM-1	August 7–8, 2012	58.4 dBA	55.4	52	72.3	51.1	47	68.8
NM-2	August 7–8, 2012	55.4 dBA	55.2	52	67.1	45.7	43	59.2
NM-3	August 7–8, 2012	60.0 dBA	56.1	53	69.2	53.0	46	69.1

Source: J.C. Brennan & Associates, Inc., 2012

### Description of Noise Monitoring Sites

Noise Monitoring Site #1 (NM-1) was located in the backyard at 6700 Cordially Way, to the south of the project site. The microphone was located at a height of 5 feet above the ground. The primary noise sources were traffic on Elk Grove Boulevard and Civic Center Drive, and some construction to the south.

Noise Monitoring Site #2 (NM-2) was located in the back yard at 9587 Prost Court, to the north of the project site. The microphone was located at a height of approximately 5 feet above the ground. The primary noise sources included some traffic noise on Elk Grove Boulevard and neighborhood activities, which included some neighborhood dogs.

Noise Monitoring Site #3 (NM-3) was located in the empty field to the east of Wymark Drive. The microphone was located on a tripod at a height of 5 feet above the ground. The primary noise sources included traffic on Elk Grove Boulevard and Big Horn Boulevard, and some construction activities at new multi-family residential development to the south.

### EXISTING TRAFFIC NOISE LEVELS

To describe existing noise levels due to traffic, the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used. The model is based upon the Calveno reference noise 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. The FHWA model was developed to predict hourly Leq values for free-flowing traffic conditions.

Traffic volumes for existing conditions were obtained from the Laguna Ridge Town Center EIR (City of Elk Grove 2008). Truck usage on the area roadways were estimated from field observations and file data.

**Table 3.5-3** shows the predicted existing traffic noise levels in terms of the day/night average level descriptor (L<sub>dn</sub>) at a standard distance of 100 feet from the centerlines of the existing project-area roadways for existing conditions, as well as distances to existing traffic noise contours. Traffic noise contours disclose the distance at which certain noise levels are experienced (**Table 3.5-3** shows the 60, 65, and 70 dB L<sub>dn</sub> contours) and provide planners with information about what receptors could be exposed to certain noise levels or, when contours are mapped, a visual depiction of the areas exposed to certain noise levels. The extent to which existing land uses in the vicinity are affected by existing traffic noise depends on their respective

### 3.5 NOISE

proximity to the roadways and their individual sensitivity to noise. A complete listing of the FHWA Model input data for existing conditions is contained in **Appendix G**.

**TABLE 3.5-3  
EXISTING TRAFFIC NOISE LEVELS AND DISTANCE TO CONTOURS**

Roadway	Segment	L <sub>dn</sub> (dB) @ 100 Feet	Distance to Contours (feet)		
			70 dB L <sub>dn</sub>	65 dB L <sub>dn</sub>	60 dB L <sub>dn</sub>
Bruceville Road	Laguna Blvd. to Elk Grove Blvd.	66 dB	58'	270'	125'
Bruceville Road	Elk Grove Blvd. to Whitlock Parkway	67 dB	63'	294'	137'
Big Horn Blvd.	Laguna Blvd. to Elk Grove Blvd.	62 dB	31'	144'	67'
Elk Grove Blvd.	Bruceville Road to Wymark Dr.	69 dB	88'	410'	191'
Elk Grove Blvd.	Wymark Dr. to Big Horn Blvd.	69 dB	88'	410'	191'
Elk Grove Blvd.	Big Horn Blvd. to Laguna Springs Dr.	69 dB	87'	402'	187'
Elk Grove Blvd.	Laguna Springs Dr. to SR 99	69 dB	90'	419'	195'

Source: J.C. Brennan & Associates, Inc., 2012; City of Elk Grove 2008

Note: Distances to traffic noise contours are measured in feet from the centerlines of the roadways.

#### 3.5.2 REGULATORY FRAMEWORK

##### FEDERAL

##### Federal Aviation Administration

The Federal Aviation Administration has adopted a noise compatibility criterion for aircraft of 65 dB L<sub>dn</sub> for residential uses, which includes penalties for nighttime noises.

##### STATE

##### State of California Public Utilities Code

The state legislative authority to adopt noise standards governing the operation of aircraft and aircraft engines for airports is provided in Section 21669, Article 3, Chapter 4, Part 1, Division 9 of the Public Utilities Code (PUC) (Aeronautics Law). The California Department of Transportation (Caltrans) Division of Aeronautics is the agency responsible for compliance with this PUC section.

The PUC differentiates emergency service helicopters from other aircraft by providing exemptions from local ordinances. Section 21662.4(a), Article 3, Chapter 4, Part 1, Division 9 of the PUC states the following concerning exemptions from the noise ordinances:

Emergency aircraft flights for medical purposes by law enforcement, fire fighting, military, or other persons who provide emergency flights for medical purposes are exempt from local ordinances adopted by a city, county, or city and county, whether general law or chartered, that restricts flight departures and arrivals to particular hours of the day or night, that restrict the departure or arrival of aircraft based upon the aircraft's noise level, or that restrict the operation of certain types of aircraft.

### Caltrans Division of Aeronautics

The Caltrans Division of Aeronautics has adopted Community Noise Equivalent Level (CNEL) as the noise descriptor to be used in describing the noise impact boundary of California airports. The Division of Aeronautics has identified a CNEL value of 65 dB as the noise impact criterion for noise-sensitive land uses, such as single-family or multi-family dwellings. The CNEL is typically about 1 dB more than the  $L_{dn}$  because it applies an additional penalty for noise sources between the hours of 7:00 p.m. and 10:00 p.m. The  $L_{dn}$  descriptor only applies a penalty to noise levels between the hours of 10:00 p.m. and 7:00 a.m.

### California Airport Noise Regulations

The California Airport Noise Regulations provide a discussion on the potential sleep disturbance from aircraft operations. The following are excerpts from that study:

The extent to which environmental noise disturbs human sleep patterns varies greatly from individual to individual as well as from one time to another for any particular individual. Whether an individual is aroused by a noise depends upon the individual's sleep state and sleep habits, the loudness or suddenness of the noise, the information value of the noise (a child crying, for example), and other factors.

Early studies of the effects of noise on sleep disturbance produced varying results. A major factor in these differences, though, is whether the study evaluated people sleeping in a laboratory or in their own homes. Generally laboratory studies have shown considerably more sleep disturbance than is evident in field studies. More recent studies, all conducted in the field, have produced relatively consistent results. These studies have included:

- A 1990 British Study;
- A 1992 U.S. Air Force study on residents near Castle Air Force Base and Los Angeles International Airport; and
- A 1995 study comparing the effects of the closure of Stapleton International Airport with the opening of Denver International Airport.

In 1997, the Federal Interagency Committee on Aviation Noise (FICAN) sought to put the subject to rest with publication of a recommended new dose-response curve predicting awakening. This curve was calculated using data from the above three studies, among others. The 1997 FICAN curve represents the upper limit of the observed field data and should be interpreted as predicting the maximum percent of the exposed population expected to be behaviorally awakened.

For the purposes of evaluating the potential for sleep disturbance due to interior noise from helicopter operations, **Figure 3.5-3**, which is based upon the FICAN curve, shows the relationship between indoor sound exposure level and percentage awakening.



## 3.5 NOISE

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### LOCAL

#### City of Elk Grove General Plan Noise Element

The City of Elk Grove General Plan Noise Element establishes policies and noise level criteria both for transportation noise sources and for non-transportation (stationary) noise sources. The following are the primary policies that are pertinent to the Project:

**Policy NO-1:** New development of the uses listed in Tables 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.

**Policy NO-2:** 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 project design.

**Policy NO-3:** 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.

**NO-3, Action 1:** Limit construction activity to the hours of 7 a.m. to 7 p.m. whenever such activity is adjacent to residential uses.

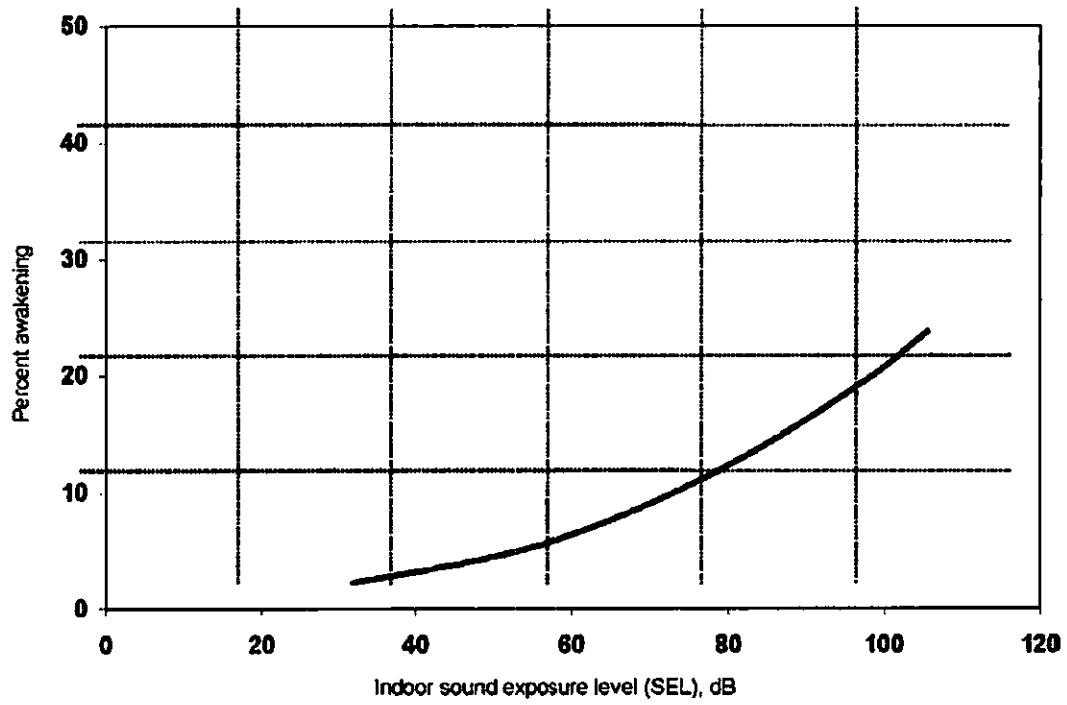
**NO-3, Action 2:** Consider limiting the hours of operation for loading docks, trash compactors, and other noise-producing uses in commercial areas which are adjacent to residential uses.

**NO-3, Action 3:** The City shall require that stationary construction equipment and construction staging areas be set back from existing noise-sensitive land uses.

#### Transportation Noise Source Criteria

For transportation noise sources, the Noise Element establishes a land use compatibility standard of 60 dB  $L_{dn}$  in outdoor activity areas of residential land uses. The intent of this standard is to provide an acceptable noise environment for outdoor activities. In addition, an interior noise level standard of 45 dB  $L_{dn}$  is applied to all residential uses and 40 dB  $L_{eq}$  is applied to interior spaces of churches. The intent of this standard is to provide a suitable environment for indoor communication and sleep.

Where it is not possible (reasonable or feasible) to reduce noise in outdoor activity areas to 60 dB  $L_{dn}$  or less using a practical application of the best available noise reduction measures, an exterior noise level of up to 65 dB  $L_{dn}$  may be allowed, provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with the 45 dB  $L_{dn}$  standard, as shown in **Table 3.5-4**.



**Sleep Disturbance Dose-Response Relationship**

**Source: Federal Interagency Committee on Airport Noise (1997)**

Sources: City of Elk Grove, J.C. Brennan & Associates, Inc.

**Figure 3.5-3**



City of Elk Grove  
Development Services

Sleep Disturbance Dose-Response Relationship

**TABLE 3.5-4  
(TABLE NO-C OF THE GENERAL PLAN)  
MAXIMUM ALLOWABLE NOISE EXPOSURE –TRANSPORTATION NOISE SOURCES**

Land Use	Outdoor Activity Areas <sup>1</sup> L <sub>dn</sub> /CNEL, dB	Interior Spaces	
		L <sub>dn</sub> /CNEL, dB	L <sub>eq</sub> , dB <sup>2</sup>
Residential	60 <sup>3</sup>	45	–
Residential subject to noise from railroad tracks, aircraft over-flights	60 <sup>3</sup>	40 <sup>5</sup>	–
Transient Lodging	60 <sup>4</sup>	45	–
Hospitals, Nursing Homes	60 <sup>3</sup>	45	–
Theaters, Auditoriums, Music Halls	–	–	35
Churches, Meeting Halls	60 <sup>3</sup>	–	40
Office Buildings	–	–	45
Schools, Libraries, Museums	–	–	45
Playgrounds, Neighborhood Parks	70	–	–

Source: City of Elk Grove 2005 (Table NO-C)

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.  
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.
2. As determined for a typical worst-case hour during periods of use.
3. Where it is not possible to reduce noise in outdoor activity areas to 60 dB L<sub>dn</sub>/CNEL or less using a practical application of the best available noise reduction measures, an exterior noise level of up to 65 dB L<sub>dn</sub>/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.
4. 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.
5. The intent of this noise standard is to provide increased protection against sleep disturbance for residences located near railroad tracks.

### Non-Transportation Noise Sources

**Table 3.5-5** provides the noise level performance criteria for new projects that are affected by or including non-transportation noise sources, such as those attributed to commercial developments. These criteria are applied at the property line of noise-sensitive land uses.

### 3.5 NOISE

**TABLE 3.5-5  
(TABLE NO-A OF THE GENERAL PLAN)  
EXTERIOR HOURLY NOISE LEVEL PERFORMANCE STANDARDS FOR TYPICAL STATIONARY NOISE SOURCES**

Noise Level Descriptor	Maximum Acceptable Noise Level, dBA	
	Daytime (7 a.m. – 10 p.m.)	Nighttime (10 p.m. – 7 a.m.)
Hourly Leq, dB	55	45

Source: City of Elk Grove 2005 (Table NO-A)

The standards shown in **Table 3.5-4** are lowered by 5 dB for noise sources that are tonal in nature, impulsive or repetitive, or consist primarily of speech or music (e.g., humming sounds, outdoor speaker systems). Typical noise sources in this category include pile drivers, drive-through speaker boxes, punch presses, steam valves, and transformer stations.

#### City of Elk Grove Municipal Code

Chapter 6.32 of the Elk Grove Municipal Code provides exemptions for certain noise sources. Section 6.32.100D exempts any mechanical device, apparatus, or equipment related to or connected with emergency activities or emergency work; the exemption does not include permanently installed emergency generators. Section 6.32.100E exempts noise sources associated with construction, repair, remodeling, demolition, paving, or grading on any real property between the hours of 6:00 a.m. and 8:00 p.m. on weekdays and between 7:00 a.m. and 8:00 p.m. on Saturdays or Sundays. However, when an unforeseen or unavoidable condition occurs during a construction project and the nature of the project necessitates that work in process be continued until a specific phase is completed, the contractor or owner shall be allowed to continue work after 8:00 p.m. and to operate machinery, and equipment necessary to completion of the specific work in progress can be brought to conclusion under conditions that will not jeopardize inspection acceptance or create undue financial hardships for the contractor owner.

#### Determination of a Significant Increase in Noise Levels

The California Environmental Quality Act (CEQA) guidelines define a significant impact of a project if it "increases substantially the ambient noise levels for adjoining areas."

**Table 3.5-6** is based on recommendations made in August 1992 by the Federal Interagency Committee on Noise (FICON) to provide guidance in the assessment of changes in ambient noise levels resulting from aircraft operations. The recommendations are based upon studies that relate aircraft noise levels to the percentage of persons highly annoyed by the noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, it has been asserted that they are applicable to all sources of noise described in terms of cumulative noise exposure metrics such as the  $L_{dn}$ .

Based on **Table 3.5-6**, an increase in the traffic noise level of 1.5 dB or more would be significant where the ambient noise level exceeds 65 dB  $L_{dn}$ . The rationale for the **Table 3.5-6** criteria is that, as ambient noise levels increase, a smaller increase in noise resulting from a project is sufficient to cause significant annoyance.

**TABLE 3.5-6**  
SIGNIFICANCE OF CHANGES IN CUMULATIVE NOISE EXPOSURE

Ambient Noise Level Without Project, $L_{dn}$	Increase Required for Significant Impact
< 60 dBA	+ 5.0 dB or more
60–65 dBA	+ 3.0 dB or more
> 65 dBA	+ 1.5 dB or more

Source: FICON 1992

### Vibration Criteria

Vibration is like noise in that it involves a source, a transmission path, and a receiver. While vibration is related to noise, it differs in that noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to the vibration will depend on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities in inches per second. Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of peak particle velocities.

The City of Elk Grove does not have specific policies pertaining to vibration levels. However, vibration levels associated with construction activities are discussed below.

Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. **Table 3.5-7**, which was developed by Caltrans, shows the vibration levels that would normally be required to result in damage to structures. The vibration levels are presented in terms of peak particle velocity (ppv) in inches per second (in/sec).

**Table 3.5-7** indicates that the threshold for damage to structures ranges from 2 to 6 in/sec. One-half this minimum threshold or 1 in/sec ppv is considered a safe criterion that would protect against architectural or structural damage. The general threshold at which human annoyance could occur is noted as 0.1 in/sec ppv.

### 3.5 NOISE

**TABLE 3.5-7  
EFFECTS OF VIBRATION ON PEOPLE AND BUILDINGS**

<b>Peak Particle Velocity inches/second</b>	<b>Peak Particle Velocity mm/second</b>	<b>Human Reaction</b>	<b>Effect on Buildings</b>
0-.006	0.15	Imperceptible by people	Vibrations unlikely to cause damage of any type
.006-.02	0.5	Range of threshold of perception	Vibrations unlikely to cause damage of any type
.08	2.0	Vibrations clearly perceptible	Recommended upper level of which ruins and ancient monuments should be subjected
0.1	2.54	Level at which continuous vibrations begin to annoy people	Virtually no risk of architectural damage to normal buildings
0.2	5.0	Vibrations annoying to people in buildings	Threshold at which there is a risk of architectural damage to normal dwellings
1.0	25.4		Architectural damage
2.0	50.4		Structural damage to residential buildings
6.0	151.0		Structural damage to commercial buildings

Source: Caltrans 1976

#### 3.5.3 IMPACTS AND MITIGATION MEASURES

##### STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the application of the CEQA Guidelines Appendix G environmental checklist. A noise impact is considered significant if implementation of the Project will result in:

- 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 the City of Elk Grove Noise Control Ordinance.
- 2) Exposure of persons to or generation of excessive groundborne vibration or groundborne 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 2 miles of a public airport or public use airport, exposure of people residing or working in the area to excessive noise levels.

- 6) For a project within the vicinity of a private airstrip, exposure of people residing or working in the project area to excessive noise levels.

The project site is not located in the vicinity of a public or private airport; therefore, standards of significance 5 and 6 would not apply.

## METHODOLOGY

### Traffic Noise Impact Assessment Methodology

To assess noise impacts due to project-related traffic increases on the local roadway network, traffic noise levels are predicted at sensitive receptors for existing and future, project and no project conditions for the Project. Noise impacts are identified at existing noise-sensitive areas if the noise levels generated by the Project create significant increases in traffic noise levels.

To describe existing and projected noise levels due to traffic, the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used. The model is based upon the Calveno reference noise 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.

The FHWA model was developed to predict hourly  $L_{eq}$  values for free-flowing traffic conditions. To predict traffic noise levels in terms of  $L_{dn}$ , it is necessary to adjust the input volume to account for the day/night distribution of traffic.

Inputs to the FHWA model included average daily traffic (ADT) volumes contained in the Laguna Ridge Town Center EIR. Truck usage and vehicle speeds on the local area roadways were based on field observations. The predicted increases in traffic noise levels on the local roadway network for baseline and future conditions that would result from the project are provided in terms of  $L_{dn}$ .

Traffic noise levels are predicted at the sensitive receptors located at the closest typical setback distance along each project-area roadway segment. Based upon a 5 dBA shielding associated with sound walls, an adjustment of -5 dB is assumed where noise barriers are located adjacent to sensitive receptors. In some locations, sensitive receptors may not receive full shielding from noise barriers or may be located at distances which vary from the assumed calculation distance. However, the traffic noise analysis is believed to be representative of the majority of sensitive receptors located closest to the project-area roadway segments analyzed.

### Helistop Noise Impact Assessment Methodology

Noise impacts associated with the proposed helistop are based on input from the feasibility study prepared by the Flight Safety Institute (2011) for the Elk Grove Medical Campus helistop. This study provided input on the alternative helistop locations, required flight paths, typical helicopters which would serve the facility, and approach/departure profiles. Operations were based on similar facilities in the Sacramento region.

Noise impact contours associated with worst-case daily operations were determined using the Federal Aviation Administration (FAA) Integrated Noise Model (INM) Version 7.0. The INM has the ability to develop noise contours for both fixed-wing aircraft (airplanes) and helicopter operations. The INM has an extensive database for helicopter operations, and this analysis utilized the BO105 model helicopter. J.C. Brennan & Associates, Inc., utilized the INM to develop

### 3.5 NOISE

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noise level contours for helicopter operations. The contours developed included the CNEL contours and the Sound Exposure Levels (SEL) contours. The number of operations is expected to be no more than one arrival and one departure per month, based on similar operations at Mercy Hospital of Folsom, California. In addition, helistop operations are anticipated primarily during daytime hours when the transport of patients to other facilities would generally occur. However, nighttime operations are a possibility. Because the intent of the modeling is to determine the noise level on any given day a helicopter trip would occur, the model input assumes one arrival and one departure per day during nighttime hours. Although the project would result in substantially fewer flights than modeled, a model input closer to that assumed for the project, such as one flight per month, would provide results for only a fraction of a trip on any given day, which would not accurately depict noise levels for a day in which a flight occurs. In addition, the CNEL contours for a fraction of an operation (approximately 0.03 operations per day) would be confined to the helistop and would not be legible on the base maps. Thus, the helicopter noise levels are not for typical daily operation of the project but are noise levels for a day in which a flight actually occurs.

#### **Central Plant and Emergency Generator Noise Impact Assessment Methodology**

The central power plant is located in the west-central portion of the project site. The plant is approximately 450 feet from the nearest residences to the south, 900 feet to the nearest residences to the north, and 750 feet to the future residences to the east. The mechanical equipment inside the central plant would include chillers, boilers, cooling towers, and emergency diesel generators. Although there is a proposed mechanical equipment room, currently specific equipment types are not available. In addition, the equipment room design is not completed. This analysis will focus on providing a preliminary analysis of the potential noise impacts and the required performance standards for each type and piece of equipment.

#### Emergency Generators

The emergency generators are expected to include typical Caterpillar Model 3512B standby power generator sets. Typically, the emergency generators will be located within the mechanical room, with supply and exhaust air ducted from the roof. In addition, engine exhausts for the emergency generators will also be ducted through the roof. The Elk Grove Municipal Code exempts the use of emergency generators from the noise level criteria during emergencies. However, approximately twice per month, the emergency generators are exercised for approximately 30 minutes. During the exercising of the equipment, the noise level criteria are applicable.

The primary noise sources associated with the generator operations are the exhaust systems and the noise associated with the mechanical equipment. **Table 3.5-8** provides information on a typical Caterpillar 1500 kw emergency generator. The information separates the exhaust noise and the mechanical noise.



**TABLE 3.5-8  
NOISE LEVEL DATA  
CATERPILLAR 3512C, 1500 kW STANDBY GENERATOR EXHAUST STACK**

Component	Manufacturer's Exhaust Stack Noise Level Data at 23 Feet								
	Overall Noise Level	Octave Band Center Frequency, Hz <sup>1</sup>							
		63	125	250	500	1000	2000	4000	8000
Exhaust Stack	100 dBA	92 dB	108 dB	102 dB	94 dB	92 dB	93 dB	93 dB	90 dB
Generator/Engine	101 dBA	104 dB	113 dB	104 dB	95 dB	89 dB	89 dB	86 dB	90 dB

Source: Caterpillar 2009

1. The frequency data shown represent linear sound pressure levels in distinct frequencies or grouped tones which comprise the overall sound level in dBA.

### Boilers and Chillers

Boiler and chiller equipment will generally run any time of the day and night. The boiler room is expected to consist of up to four boilers, vented through the roof of the building. A typical boiler produces a sound power level of approximately 95 dBA. Generally, ventilation is provided through louvers on the sides of the building.

Similar facilities, such as the Enloe Medical Center in Chico, California, include three cooling towers, which are located within the central plant. Typical sound power levels associated with these chillers and associated compressors, which have cooling capacities ranging between 200 and 300 tons, range between 98 dBA and 100 dBA (Bollard & Brennan 2005).

### **Parking Garage Noise Impact Assessment Methodology**

Parking garage noise impacts are based on trip generation to and from the project site, and noise level data associated with automobile movements on the site. J.C. Brennan & Associates, Inc., file data for automobile arrivals and departures, along with the project trip generation provided by Fehr & Peers (2012), were used for this analysis.

### **Construction Noise Impact Assessment Methodology**

Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (e.g., early morning, evening, or nighttime hours); when construction occurs in areas immediately adjoining noise-sensitive land uses; or when construction lasts over extended periods of time.

Activities involved in construction would generate maximum noise levels, as indicated in **Table 3.5-9**, ranging from 76 to 90 dB at a distance of 50 feet. Table 3.5-9 also shows noise levels at 100, 200, and 400 feet from the construction equipment and the distance to the 65 and 70 dB  $L_{max}$  contour. Construction working activities would be temporary in nature and are anticipated to occur during normal daytime working hours.

Noise would also be generated during the construction phase by increased truck traffic on area roadways. A primary project-generated noise source would be truck traffic associated with transport of heavy materials and equipment to and from construction sites. This noise increase would be of short duration and would occur primarily during daytime hours.

### 3.5 NOISE

**TABLE 3.5-9  
CONSTRUCTION EQUIPMENT NOISE LEVELS**

Type of Equipment	Predicted Noise Levels, L <sub>max</sub> dB				Distances to Noise Contours (feet)	
	Noise Level at 50'	Noise Level at 100'	Noise Level at 200'	Noise Level at 400'	70 dB L <sub>max</sub> Contour	65 dB L <sub>max</sub> Contour
Backhoe	78	72	66	60	126	223
Compactor	83	77	71	65	223	397
Compressor (air)	78	72	66	60	126	223
Concrete Saw	90	84	78	72	500	889
Dozer	82	76	70	64	199	354
Dump Truck	76	70	64	58	100	177
Excavator	81	75	69	63	177	315
Generator	81	75	69	63	177	315
Jackhammer	89	83	77	71	446	792
Pneumatic Tools	85	79	73	67	281	500

Source: FHWA 2006

#### Construction Vibration Impact Assessment Methodology

The types of construction vibration impact include human annoyance and building structural damage. Human annoyance occurs when construction vibration rises significantly above the threshold of perception. Building damage can take the form of cosmetic or structural. **Table 3.5-10** shows the typical vibration levels produced by construction equipment.

**TABLE 3.5-10  
VIBRATION LEVELS FOR VARYING CONSTRUCTION EQUIPMENT**

Type of Equipment	Peak Particle Velocity @ 25 Feet (inches/second)	Approximate Velocity Level @ 25 Feet (VdB)
Large Bulldozer	0.089	87
Loaded Trucks	0.076	86
Small Bulldozer	0.003	58
Auger/Drill Rigs	0.089	87
Jackhammer	0.035	79
Vibratory Hammer	0.070	85
Vibratory Compactor/roller	0.210	94

Source: FTA 2006

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## PROJECT IMPACTS AND MITIGATION MEASURES

### Construction Noise (Standards of Significance 1 and 4)

**Impact 3.5.1** The proposed Project could generate construction noise at sensitive receptors. **The proposed Project would not result in an increase in the severity of this impact, and there is not a new or substantially more severe significant impact.**

The Laguna Ridge Specific Plan (LRSP) EIR (City of Elk Grove 2004b) found that construction noise would be reduced to less than significant with implementation of mitigation measure MM 4.4-1 [in the LRSP EIR], which requires appropriate mufflers on construction equipment, location of staging areas as far from noise-sensitive uses as feasible, the use of acoustic barriers, and posting of information of the construction site contact to report noise issues. Construction of the proposed Project would temporarily increase noise levels during construction. Noise from construction activities would add to the noise environment in the immediate project vicinity. Activities involved in typical construction would generate maximum noise levels, as indicated in **Table 3.5-9**, ranging from 78 to 90 dB at a distance of 50 feet.

Noise would also be generated during the construction phase by increased truck traffic on area roadways. A significant project-generated noise source would be truck traffic associated with transport of heavy materials and equipment to and from construction sites. This noise increase would be of short duration and would likely occur primarily during daytime hours.

The City of Elk Grove Noise Ordinance exempts construction activities from the specified noise ordinance standards during the hours of 6:00 a.m. to 8:00 p.m. Monday through Friday and from 7:00 a.m. to 8:00 p.m. on Saturday through Sunday. Generally, if a construction project adheres to the construction times identified in the Noise Ordinance, construction noise is exempted. In addition, the General Plan Noise Element includes action items specific to construction activities under Policy NO-3, which limits construction activity to the hours of 7 a.m. to 7 p.m. whenever such activity is adjacent to residential uses and requires that stationary construction equipment and construction staging areas be set back from existing noise-sensitive land uses. Implementation of these policies, and compliance with the Laguna Ridge Specific Plan EIR mitigation measure, would ensure the effects of construction noise from **the proposed Project would not result in an increase in the severity of this impact. There is not a new or substantially more severe significant impact.**

#### Mitigation Measures

None required.

### Construction Vibration (Standard of Significance 2)

**Impact 3.5.2** The proposed Project could generate construction vibration at sensitive receptors. **The proposed Project would not result in an increase in the severity of this impact, and there is not a new or substantially more severe significant impact.**

The LRSP EIR identified groundborne vibration impacts and concluded that mitigation measure MM 4.4.2 [in the LRSP EIR], would reduce impacts to less than significant. This mitigation measure requires an assessment of pile driving-induced vibration at the site and, during construction, measuring of vibration at regular intervals to determine the levels of vibration at various

### 3.5 NOISE

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distances. The LRSP EIR identified additional methods to reduce vibrations, such as cut-off trenches and the use of smaller hammers, if needed. The primary construction activities associated with the Project would occur when the infrastructure, such as buildings and utilities, is constructed. Some construction could occur during occupancy of existing and future residential units; however, construction on the project site would occur at considerable distances from existing occupied residences and would be removed from future on-site uses. Comparing **Table 3.5-7**, which contains the criteria for acceptable vibration levels, to **Table 3.5-10**, which shows potential vibration impacts, only the vibratory compactor is expected to exceed 0.1 inches per second ppv, which is the threshold for annoyance, and is well below the 1.0 inches per second ppv that is the threshold for structural damage. These levels are based on a reference distance of 25 feet. The primary construction activities are anticipated to be a minimum of 100 feet from the nearest residences. Peak particle velocities are predicted to be less than 0.001 inches per second. Therefore, it is not expected that vibration impacts that would cause any structural damage or potential for annoyance would occur. **The proposed Project would not result in an increase in the severity of this impact, and there is not a new or substantially more severe significant impact.**

#### Mitigation Measures

None required.

#### **Traffic Noise at Adjacent Receptors (Standards of Significance 1 and 3)**

**Impact 3.5.3** Increased traffic noise could affect sensitive receptors. **The proposed Project would not result in an increase in the severity of this impact, and there is not a new or substantially more severe significant impact.**

The Laguna Ridge Town Center EIR found that the Town Center project would result in an increase in traffic noise levels along area roadways, but the increases would not result in a significant impact. The proposed Project could increase traffic noise levels on the local street system or expose residences to traffic noise levels which exceed the City of Elk Grove noise level criteria.

Traffic noise levels associated with the proposed Project were calculated for roadway segments in the project study area using the FHWA Highway Noise Prediction Model (FHWA-RD-77-108). Traffic noise levels were modeled under existing and future (2035) conditions with and without the proposed Project.

**Table 3.5-11** summarizes the modeled traffic noise levels along each roadway segment evaluated in the Laguna Ridge Town Center EIR.

Based on **Table 3.5-11**, the proposed Project would result in increases in traffic noise levels between 0 dBA and 1 dBA. Based on the significance criteria in **Table 3.5-6**, the Project would not contribute to a significant increase in traffic noise levels along the local street system.

Some residential land uses along Elk Grove Boulevard would experience an increase in traffic noise levels of 1 dBA due to the project under the existing plus project scenario. Predicted traffic noise levels along Elk Grove Boulevard at the adjacent residences would range between 69 dBA and 70 dBA  $L_{dn}$ . Currently those residences have sound walls that are a minimum of 6 feet in height relative to the roadway elevations. Based upon the 5 dBA shielding associated with the walls, sound levels at the residences would comply with the conditionally acceptable exterior

noise level standard of 65 dBA  $L_{dn}$ . Residences along Elk Grove Boulevard would not be exposed to increases in traffic noise levels due to the project under the future plus project scenario.

Residential land uses along Bruceville Road would experience increases in traffic noise levels of 1 dBA due to the proposed Project under the existing plus project and future plus project scenarios. Predicted traffic noise levels along Bruceville Road at the adjacent residences would range between 67 dBA and 70 dBA  $L_{dn}$ . The majority of residences along Bruceville Road have sound walls that are a minimum of 6 feet in height relative to the roadway elevations. Based upon the 5 dBA shielding associated with the walls, sound levels at the residences would comply with the conditionally acceptable exterior noise level standard of 65 dBA  $L_{dn}$ . Some older single-family residences adjacent to Bruceville Road do not have sound walls. However, these residences have outdoor activity areas that are located in back yards, can expect shielding from the residential facades, and are expected to comply with the conditionally acceptable exterior noise level standard of 65 dBA  $L_{dn}$  at the outdoor activity areas.

Residential land uses along Bighorn Boulevard would experience increases in traffic noise levels of 1 dBA due to the project under the existing plus project and future plus project scenarios. Predicted traffic noise levels along Bighorn Boulevard at the adjacent residences would range between 63 dBA and 68 dBA  $L_{dn}$ . The residences along Bighorn Boulevard have sound walls that are a minimum of 6 feet in height relative to the roadway elevations. Based upon the 5 dBA shielding associated with the walls, sound levels at the residences would comply with the conditionally acceptable exterior noise level standard of 65 dBA  $L_{dn}$ . The sound walls are the best available technology for reducing traffic noise levels. In addition, traffic noise levels at first- and second-floor levels will not exceed 70 dBA  $L_{dn}$ ; therefore, interior noise levels are expected to comply with the interior noise level standard of 45 dBA  $L_{dn}$ . **The proposed Project would not result in an increase in the severity of this impact, and there is not a new or substantially more severe significant impact.**

#### Mitigation Measures

None required.

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**TABLE 3.5-11  
PREDICTED TRAFFIC NOISE LEVEL AND PROJECT-RELATED TRAFFIC NOISE LEVEL INCREASES**

Roadway	Segment	Predicted L <sub>dn</sub> @ Closest Sensitive Receptors					
		Existing No Project	Existing + Project	Change	Future No Project	Future + Project	Change
Bruceville Road	Laguna Blvd. to Elk Grove Blvd.	66 dB	67 dB	+1	69dB	70 dB	+1
Bruceville Road	Elk Grove Blvd. to Whitlock Parkway	67 dB	68 dB	+1	67 dB	68 dB	+1
Big Horn Blvd.	Laguna Blvd. to Elk Grove Blvd.	62 dB	63 dB	+1	67 dB	68 dB	+1
Elk Grove Blvd.	Bruceville Road to Wymark Dr.	69 dB	69 dB	0	71 dB	71 dB	0
Elk Grove Blvd.	Wymark Dr. to Big Horn Blvd.	69 dB	70 dB	+1	71 dB	71 dB	0
Elk Grove Blvd.	Big Horn Blvd. to Laguna Springs Dr.	69 dB	70 dB	+1	70 dB	70 dB	0
Elk Grove Blvd.	Laguna Springs Dr. to SR 99	69 dB	70 dB	+1	72 dB	72 dB	0

Source: J.C. Brennan & Associates, Inc., 2012

**Bold** indicates a significant increase in traffic noise levels based upon the FICON criteria shown in Table 3.5-7.

### Traffic Noise in Hospital Rooms (Standards of Significance 1 and 3)

**Impact 3.5.4** Traffic noise could exceed noise standards in hospital rooms. This would be a **less than significant** impact.

The City of Elk Grove noise level standards for hospital uses are as follows:

- Normally acceptable exterior noise level standard of 60 dBA  $L_{dn}$
- Conditionally acceptable exterior noise level standard of 65 dBA  $L_{dn}$
- Interior noise level standard of 45 dBA  $L_{dn}$

Traffic noise levels associated with the proposed Project were calculated for roadway segments in the project study area using the FHWA Highway Noise Prediction Model (FHWA-RD-77-108). Traffic noise levels were modeled under existing and future (2035) conditions with and without the proposed Project. The primary traffic noise source at the project site is Elk Grove Boulevard. Based on the project design, the predicted future plus project Elk Grove Boulevard traffic noise level is 64 dBA  $L_{dn}$  at the closest proposed building facade and 59 dBA  $L_{dn}$  at the nearest outdoor activity area. A typical minimum exterior to interior noise level reduction for a building facade is 25 dBA. Therefore, the project will comply with the exterior and interior noise level standards. This impact is considered to be **less than significant**.

#### Mitigation Measures

None required.

### Helicopter Noise Changes to Community Noise Equivalent Level and Potential for Sleep Disturbance (Standards of Significance 1 and 4)

**Impact 3.5.5** Helistop operations would generate noise at sensitive receptors and could result in sleep disturbance. This is considered a **potentially significant** impact.

As described above, noise impact contours associated with helicopter operations were determined using the FAA Integrated Noise Model (INM) Version 7.0. The INM has the ability to develop noise contours for both fixed-wing aircraft (airplanes) and helicopter operations. The INM has an extensive database for helicopter operations, and this analysis utilized the BO105 model helicopter and assumes arrivals and departures based on prevailing wind direction. As noted above, because people react to nighttime noise exposures as though they were twice as loud as daytime exposures, the model includes a 10 decibel penalty for noise occurring at night (see page 3.5-2). **Figure 3.5-4a** shows the CNEL contours associated with one nighttime helicopter arrival and departure, which represents a worst-case scenario (due to the addition of the 10 decibel penalty for night noise). Although the noise levels for a daytime and nighttime flight would be the same, because no penalty is added in the model for daytime flights, the 55, 60, and 65 dBA CNEL contours for daytime flights would be confined to the project site (see **Figure 3.5-4b**). As a point of reference, if the operations were modeled as occurring during the daytime period, the 55 dBA CNEL contour would be located where the 65 dBA CNEL contour is shown (see **Figure 3.5-4b**). As shown on **Figure 3.5-4a**, which indicates one arrival and departure during the nighttime period, the 65 dBA CNEL contour is confined to the project site and to the parcel to the west in the area designated in the Laguna Ridge Specific Plan (City of Elk Grove 2004a) for Shopping Center, which is not considered a sensitive receptor for noise. Therefore, a worst-case scenario of operations would comply with the FAA noise level criteria of 65 dBA. The

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60 dBA CNEL contour would extend off of the project site onto Elk Grove Boulevard to the north and into the area to the west that is designated in the LRSP for residential use. Consequently, the noise level at the future residential area to the west of the project site would be between 60 dBA and 65 dBA. It should be noted that this would only occur in the instance of a night flight. Nonetheless, this noise level would exceed the City's standard of 60 dBA CNEL for residential uses (City of Elk Grove 2005, Table NO-C). This impact is considered to be potentially significant. As shown on **Figure 3.5-4b**, which indicates one arrival and departure during the daytime period, the 60 dBA CNEL contour is confined to the helistop pad.

As described above, the sound exposure level is commonly used to characterize the disruptive potential of noise from aircraft flyovers, so SEL contours associated with helicopter operations were determined using the FAA Integrated Noise Model (INM) Version 7.0. **Figures 3.5-5** through **3.5-8** show the predicted SEL contours associated with a helicopter arrival and departure, including the 85 dBA, 90 dBA, and 95 dBA contours. Under the four scenarios, each of the 85 dBA, 90 dBA, and 95 dBA SEL contours encroaches on existing and future residences adjacent to and in the vicinity of the site. Four sets of SEL contours were developed to illustrate the potential for sleep disturbance. The first set of SEL contours (**Figure 3.5-5**) represents an individual arrival from the southeast and a departure to the northeast. The second set of SEL contours (**Figure 3.5-6**) represents an individual approach from the northeast and a departure to the southeast. The third set of SEL contours (**Figure 3.5-7**) represents an individual arrival from the northwest and a departure to the southwest. The fourth set of SEL contours (**Figure 3.5-8**) represents an individual arrival from southwest and a departure to the northwest.

The proposed helicopter operations may result in sleep disturbance at existing or proposed residential uses. Comparing the SEL contours to **Figure 3.5-3** and assuming an exterior to interior noise level reduction of 25 dB, it can be expected that the following potential for sleep disturbance may occur:

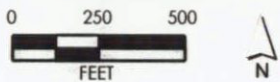
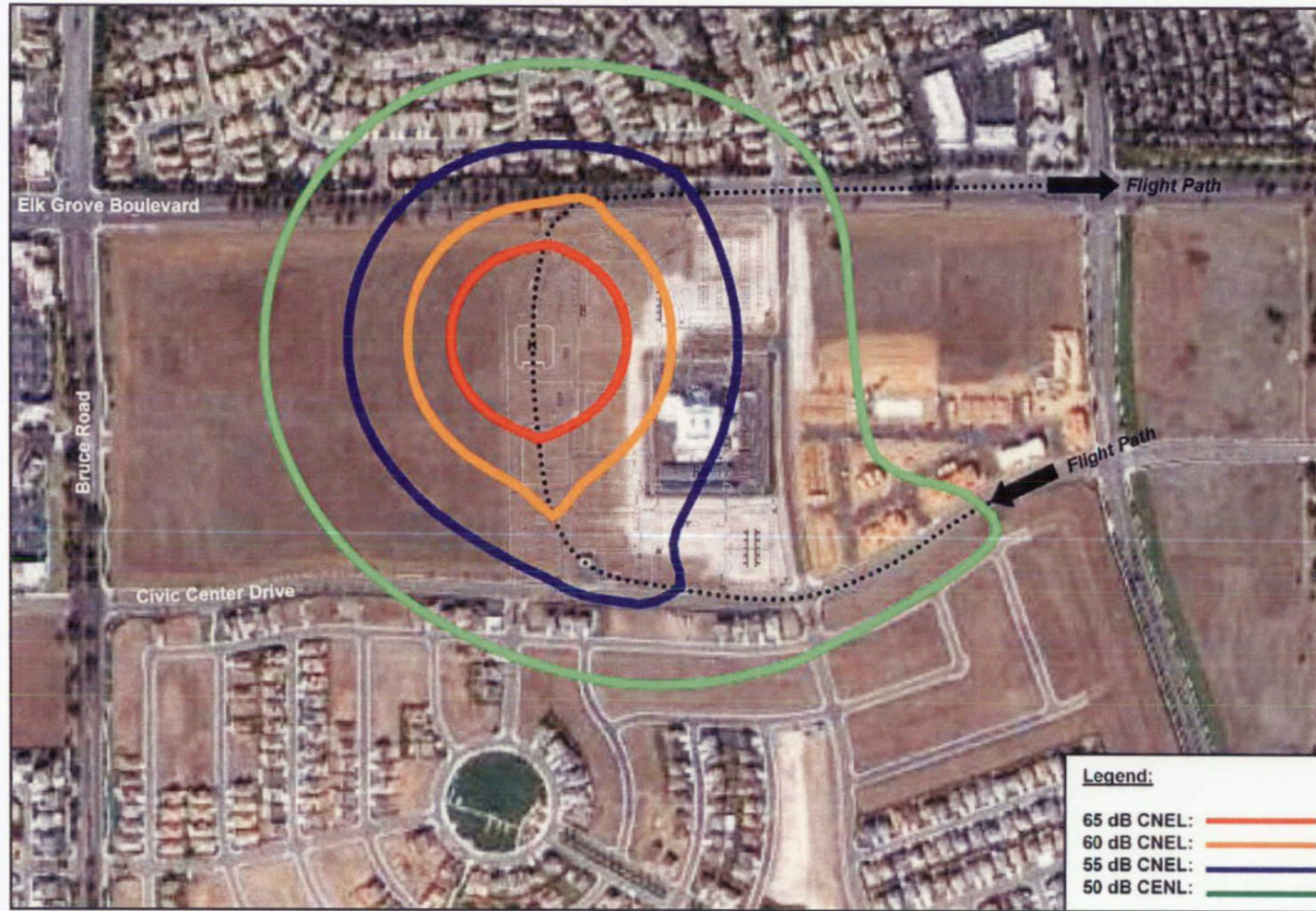
- Under the 95 dBA SEL contour, approximately 8 percent of the residences
- Under the 90 dBA SEL contour, approximately 6 percent of the residences
- Under the 85 dBA SEL contour, approximately 4 percent of the residences

Currently, there are no criteria that determine at what point sleep disturbance is considered acceptable. This is considered a **potentially significant** impact.

#### Mitigation Measures

As discussed above, the Elk Grove General Plan allows an exterior noise level of up to 65 dB  $L_{dn}/CNEL$ , provided that best available exterior noise level reduction measures have been implemented and interior noise levels do not exceed 45 dB  $L_{dn}/CNEL$ . The following mitigation measure represents best available noise reduction measures considering the infrequent nighttime use of the helistop and the critical, lifesaving nature of helicopter operations for the Project.



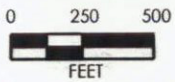
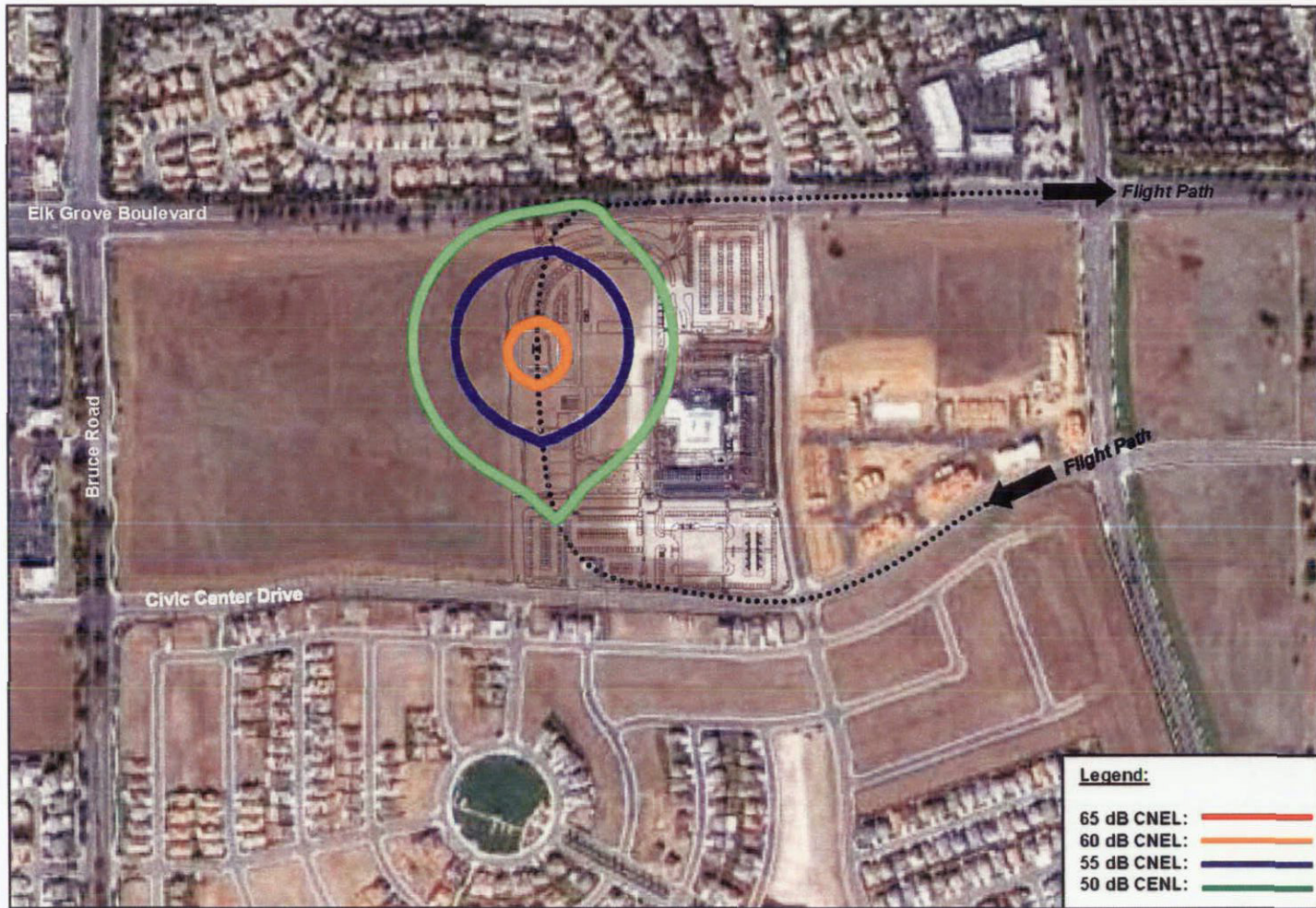


Sources: City of Elk Grove, J.C. Brennan & Associates, Inc.



City of Elk Grove  
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**Figure 3.5-4a**  
CNEL Contours for Nighttime Helicopter Operations

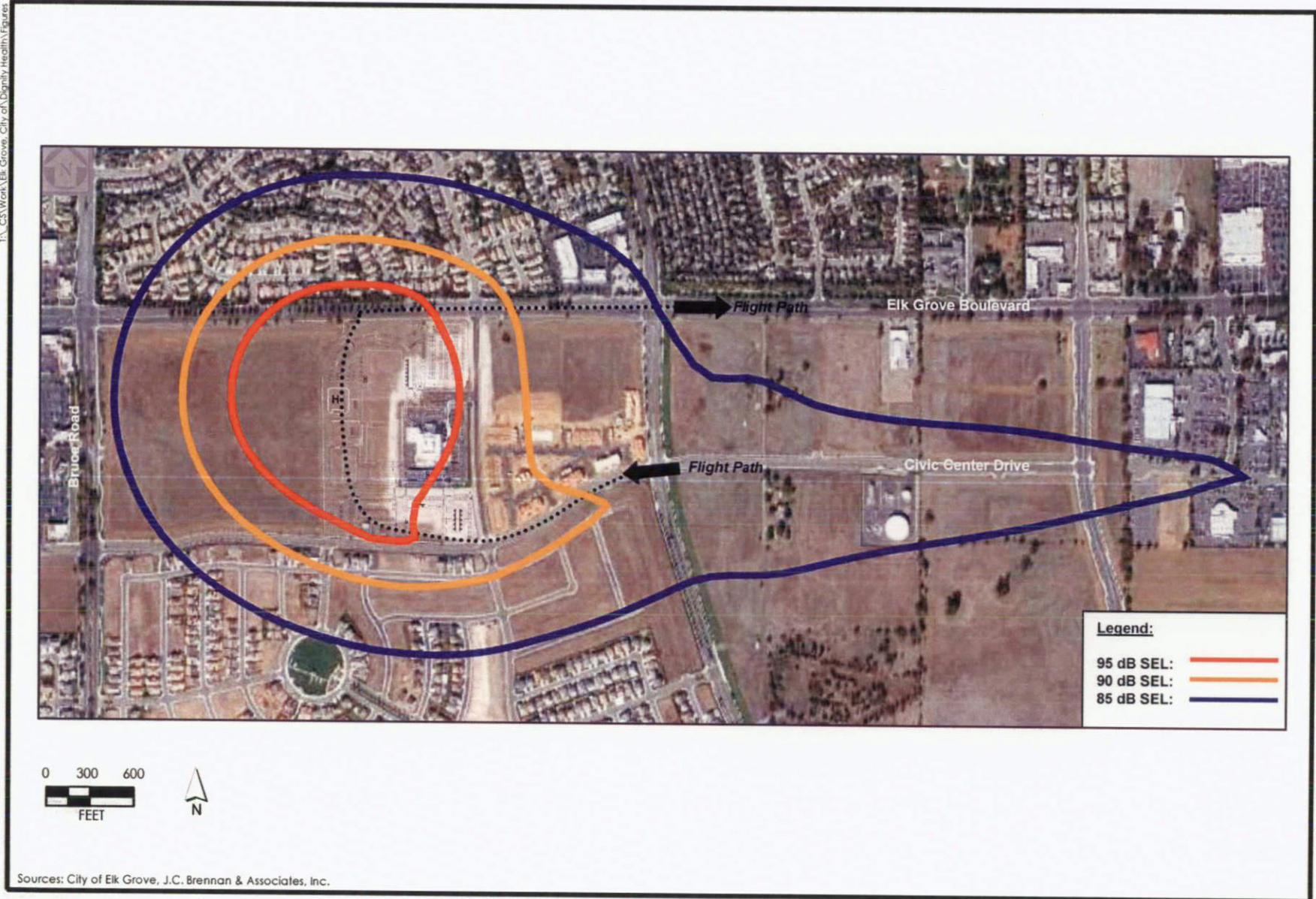


Sources: City of Elk Grove, J.C. Brennan & Associates, Inc.



City of Elk Grove  
Development Services

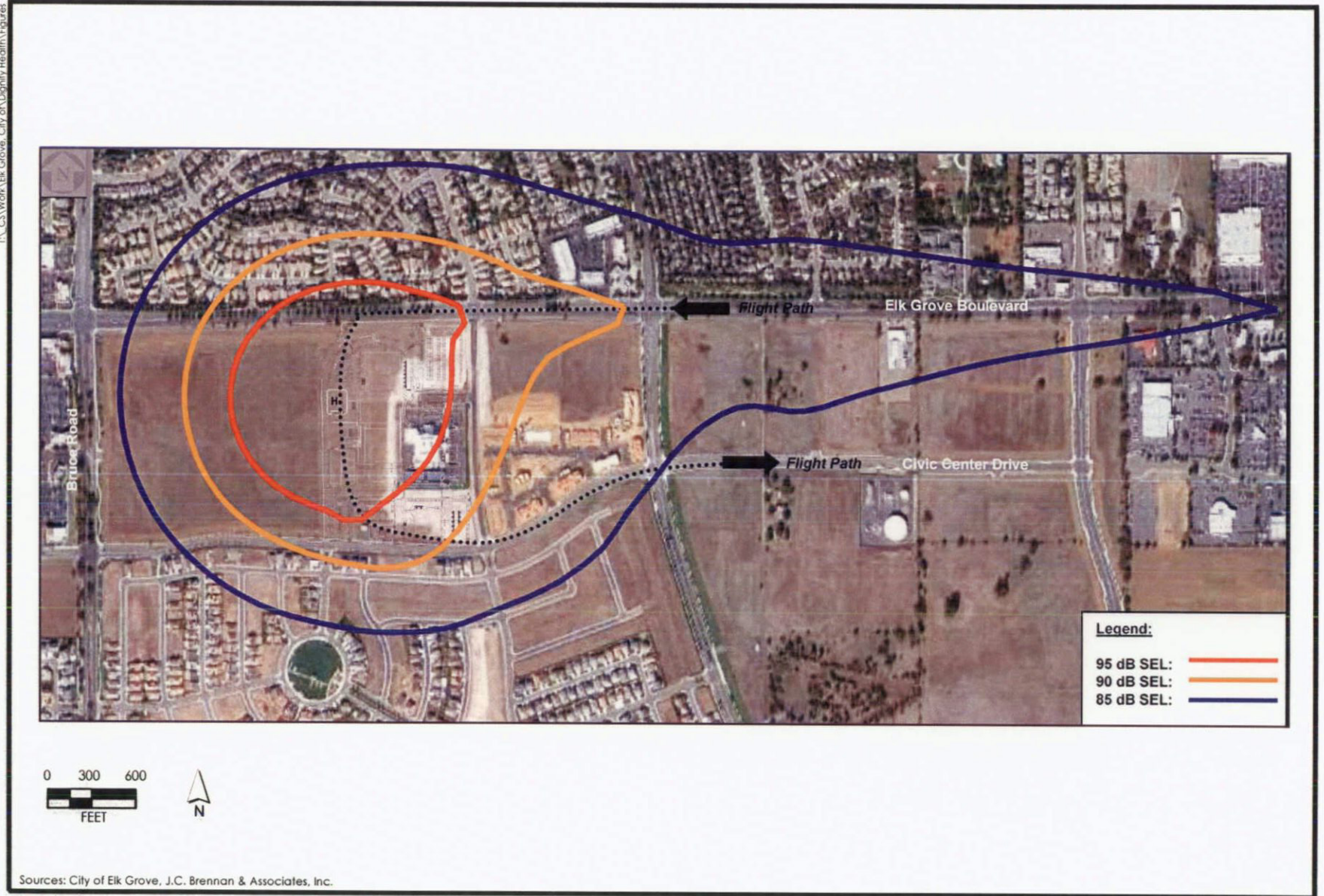
**Figure 3.5-4b**  
CNEL Contours for Daytime Helicopter Operations



City of Elk Grove  
Development Services

Figure 3.5-5

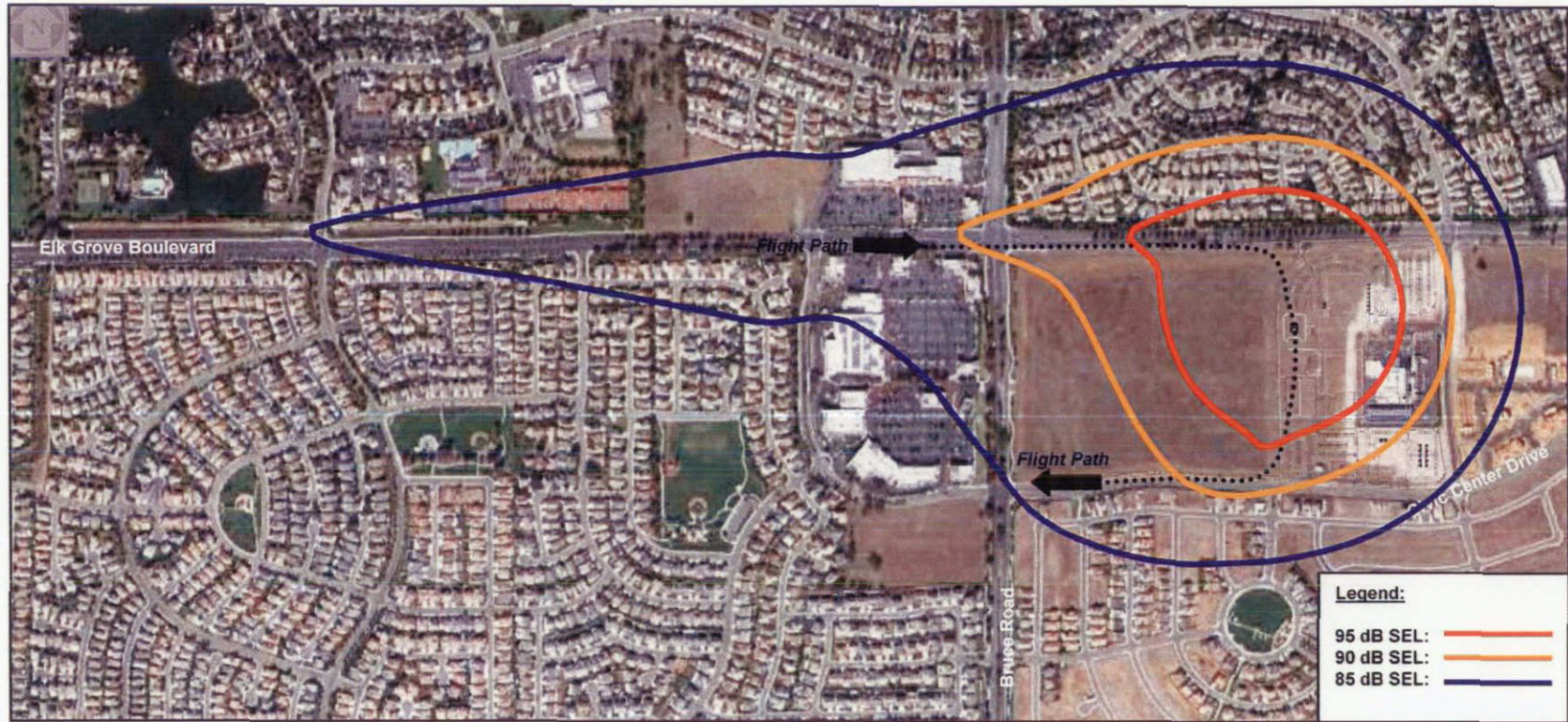
SEL Noise Contours – Approach from the Southeast



City of Elk Grove  
Development Services

**Figure 3.5-6**

SEL Noise Contours – Approach from the Northeast



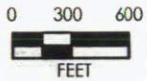
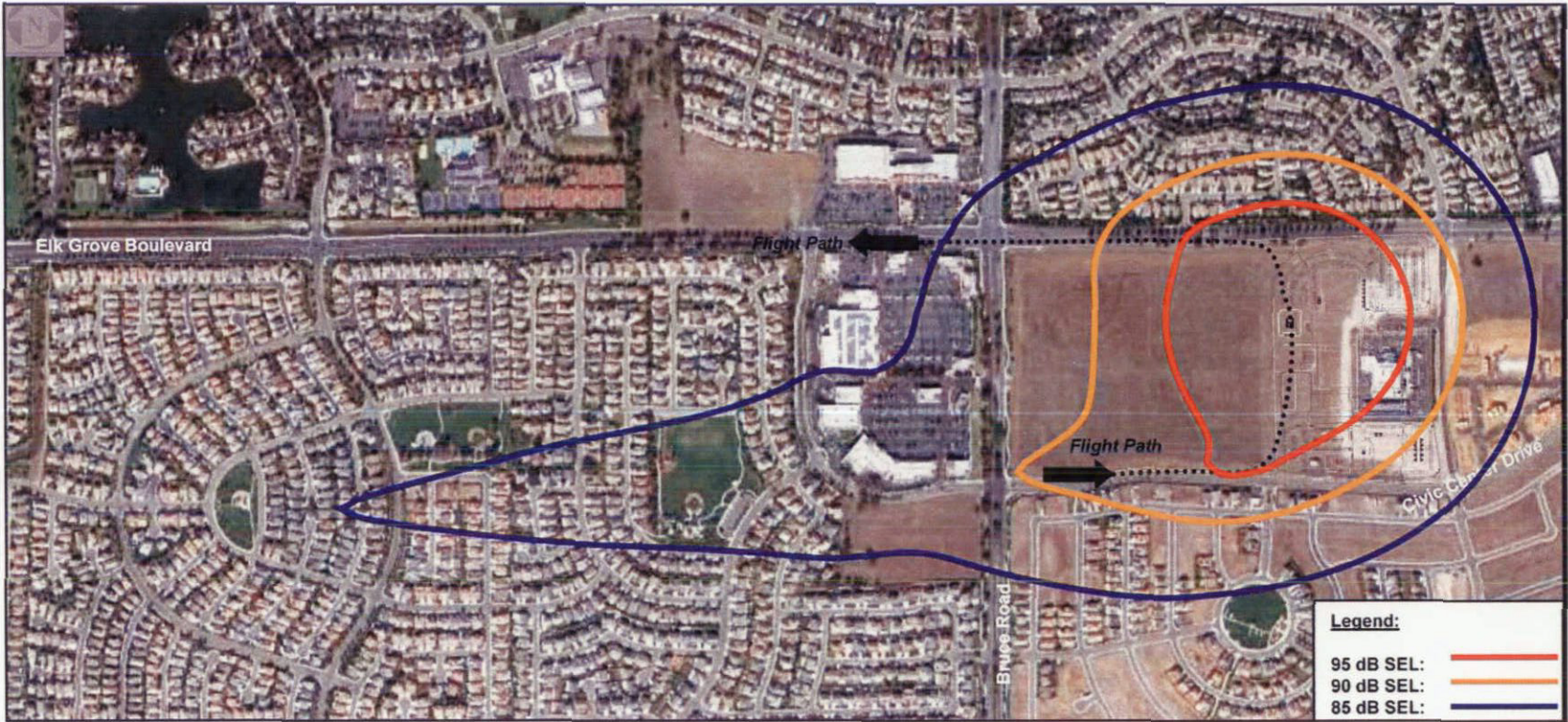
Sources: City of Elk Grove, J.C. Brennan & Associates, Inc.



City of Elk Grove  
Development Services

Figure 3.5-7

SEL Noise Contours – Approach from the Northwest



Sources: City of Elk Grove, J.C. Brennan & Associates, Inc.



City of Elk Grove  
Development Services

**Figure 3.5-8**

SEL Noise Contours – Approach from the Southwest

**MM 3.5.5** Provide information to emergency service providers (i.e., helicopter operators) that, to the extent possible, helicopters shall implement noise abatement flight procedures, such as maintaining as high an altitude as possible, flying at normal cruising speed or slower, observing low-noise speed and descent recommendations, avoiding sharp maneuvers, and using steep take-off and descent profiles. When possible, helicopter arrivals and departures shall be scheduled to occur during the daytime periods, to reduce the potential for sleep disturbance.

*Timing/Implementation:* Prior to operation of helistop

*Enforcement/Monitoring:* City of Elk Grove Planning Department

With implementation of the above mitigation measure, which represents the best available noise reduction measure, the General Plan would allow noise in outdoor activity areas of up to 65 dB L<sub>dn</sub>/CNEL. Implementation of this mitigation measure would also minimize helicopter sleep disturbance noise impacts. While mitigation to reduce noise associated with helicopter operations would be sufficient to allow application of a 65 dB L<sub>dn</sub>/CNEL standard, certain conditions may preclude implementation of the measure. For instance, a critical patient may require a night transfer, and weather or other conditions may preclude the application of noise abatement flight procedures due to safety concerns. Therefore, night flights and the potential for sleep disturbance could still occur. For these reasons, the impact would remain significant and unavoidable.

#### **Noise from Central Plant and Emergency Generator (Standards of Significance 1, 3, and 4)**

**Impact 3.5.6** Central plant and emergency generator noise could affect sensitive receptors in the project vicinity. This is a **potentially significant** impact.

As described above, the central power plant is located in the west-central portion of the project site. The plant is approximately 450 feet from the nearest residences to the south, 900 feet to the nearest residences to the north, and 750 feet to the future residences to the east. The mechanical equipment inside the central plant will include chillers, boilers, cooling towers, and emergency diesel generators. Although there is a proposed mechanical equipment area, specific equipment types are currently not available. In addition, the equipment area design is not completed. This analysis focuses on providing a preliminary analysis of the potential noise impacts, and the required performance standards for each type and piece of equipment. Since the equipment room is not designed at this time, and specific equipment has not been selected, it is expected that noise impacts could range between 70 dBA and 75 dBA at the nearest residences, without accounting for shielding from buildings or upgraded acoustical enclosures or upgraded mufflers. This is considered a **potentially significant** impact.

#### Mitigation Measures

The following mitigation measures are required for the proposed Project to mitigate central plant and emergency generator noise impacts.

**MM 3.5.6** During the design of the central plant, and when central plant equipment has been selected, a detailed noise analysis of the equipment noise levels and noise control measures shall be completed by a qualified acoustical consultant. Central plant noise levels shall not exceed the noise level

### 3.5 NOISE

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standards contained in Table NO-A of the City of Elk Grove General Plan Noise Element. The plant design shall include the following:

- Chillers, boilers, and emergency generators shall be located inside of a block building to minimize noise impacts.
- Emergency generators shall be fitted with factory "hospital grade" mufflers. If emergency generators are located outside of the central plant area, the generators shall be fitted with factory acoustical enclosures.
- Emergency generators shall be exercised during the daytime hours, between 8:00 a.m. and 5:00 p.m., to minimize annoyance at neighboring residences.

*Timing/Implementation:* Prior to approval of central plant design

*Enforcement/Monitoring:* City of Elk Grove Planning Department

Implementation of these measures would ensure that noise levels at off-site locations do not exceed General Plan standards, which would be a **less than significant** impact.

#### **Emergency Vehicle Noise (Standards of Significance 1 and 4)**

**Impact 3.5.7** Emergency vehicle siren noise could affect sensitive receptors in the project vicinity. This is considered a **potentially significant** impact.

Emergency vehicles, which are most likely to be ambulances, will utilize sirens while transporting patients to the hospital, which can occur at any time of the day. Studies on siren noise indicate that they project sound power levels (PWL) of approximately 125 dBA. The sirens are somewhat directional in nature, with the highest noise levels to the front of the vehicle, with noise levels dropping as much as 12 dBA at 90 degrees to the side of the vehicle. In many instances, sirens will not be activated, with vehicles only employing flashing emergency lights. With a sound power level of up to 125 dBA, the noise level would be approximately 85 dBA at 100 feet and approximately 79 dBA at a distance of 200 feet. Although Section 6.32.100D of the City of Elk Grove Code of Ordinances exempts any mechanical device, apparatus, or equipment related to or connected with emergency activities, this impact is considered **potentially significant**.

There is no practical mitigation for this impact except for urging emergency response personnel to avoid using sirens. Because a prohibition on the use of sirens cannot be enforced, this impact would remain **significant and unavoidable**.

#### Mitigation Measures

None available.

#### **Parking Lot Noise (Standards of Significance 1 and 4)**

**Impact 3.5.8** Parking lot and parking garage noise could affect sensitive receptors in the project vicinity. This is considered a **less than significant** impact.

The proposed parking areas are distributed throughout the project site, with an ultimate parking capacity of 1,330 parking spaces. The parking garage is located at the southwest portion of the



project site and has a capacity of 500 spaces. Although the proposed Project would generate fewer peak-hour and total vehicle trips than assumed for the site in the Laguna Ridge Town Center EIR, this analysis conservatively used the peak-hour trip generation for the overall facility of 1,367 vehicles, as reported in the Laguna Ridge Town Center EIR. Assuming that the vehicles entering and exiting the site are distributed between the parking structure and other parking areas on the site, an analysis of parking noise can be determined. Based on the ultimate site plan, it is assumed that one-half of the peak-hour trip generation (approximately 684 vehicles) will utilize the south portion of the site and the other half will utilize the north end of the site.

As a means of determining the noise levels due to parking lot activities, J.C. Brennan & Associates, Inc., utilized noise level data collected for previous parking lot studies and operations data supplied by the project developer. A typical SEL due to automobile arrivals/departures, including car doors slamming and people conversing, is approximately 71 dB, at a distance of 50 feet. Parking lot noise levels were determined using the following formula:

$$\text{Peak Hour } L_{eq} = 71 + 10 \log (N) - 35.6$$

For this formula, 71 is the mean Sound Exposure Level (SEL) for an automobile operation,  $N_{eq}$  is the equivalent number of parking lot operations during a peak hour ( $N_{eq}$  is assumed to be 684 vehicles in the parking areas the north side of the site and 684 vehicles in the parking areas on the south side of the site), and 35.6 is 10 times the logarithm of the number of seconds in an hour.

Based on the formula, the predicted parking lot noise is 64 dBA  $L_{eq}$  at a distance of 50 feet. The entrance/exit to the parking garage on the south side of the site is approximately 250 feet from the residences to the south and from property designated residential to the west, and the center of the parking area on the north side of the site is approximately 325 feet from the residences to the north. The predicted parking lot noise levels are 50 dBA  $L_{eq}$  at the nearest residences to the south and residential land to the west, and 48 dBA  $L_{eq}$  at the residences to the north. Since peak-hour use would occur during the daytime hours, and nighttime hourly trip generation is expected to be approximately one-quarter of the daytime peak hour, the parking lot noise levels will comply with the City of Elk Grove noise level criteria shown in **Table 3.5-5** (Table NO-A of the General Plan) during the daytime and nighttime periods. Based upon the analysis, this is considered a **less than significant** impact.

#### Mitigation Measures

None required.

### 3.5.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

#### CUMULATIVE SETTING

The cumulative setting for noise assumes development of land uses in the City and surrounding area. It is anticipated that development would be consistent with the General Plan, including the Laguna Ridge Specific Plan under cumulative conditions. The land uses in the Laguna Ridge Specific Plan comprise the cumulative development occurring in the Project vicinity. Potential cumulative noise impacts would be primarily associated with traffic noise sources. Cumulative noise impacts can also be assessed for on-site non-transportation noise sources and helicopter operations.

## 3.5 NOISE

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### CUMULATIVE IMPACTS AND MITIGATION MEASURES

#### Cumulative Traffic Noise (Standards of Significance 1 and 4)

**Impact 3.5.9** The proposed Project could contribute to the cumulative traffic noise environment at nearby land uses. The proposed Project would not result in a substantial increase in the severity of this impact. **There is no new or substantially more severe contribution to the cumulative impact that would result from the proposed Project.**

The Laguna Ridge Town Center EIR studied future projects in the area for the cumulative traffic analysis and determined that implementation of the Laguna Ridge Town Center project, along with approved and planned urban development in the region, would increase traffic volumes within and adjacent to the project area and increase transportation-related noise levels in excess of the City of Elk Grove noise standards. The Laguna Ridge Town Center EIR found, however, that the Town Center project would not have a cumulatively considerable contribution to cumulative traffic noise impacts. As previously discussed, the proposed Project would generate fewer peak-hour and total vehicle trips than assumed for the site in the Laguna Ridge Town Center EIR. Consequently, the future traffic noise levels generated by the Project would be less than that assumed in the Laguna Ridge Town Center EIR. **Therefore, the proposed Project would not result in a substantial increase in the severity of this impact. There is no new or substantially more severe contribution to the cumulative impact that would result from the proposed Project.**

#### Mitigation Measures

None required.

#### Cumulative Operational and Helicopter Noise (Standards of Significance 1, 3, and 4)

**Impact 3.5.10** Operation of the proposed Project could contribute to the noise environment at nearby land uses. **Therefore, the proposed Project's contribution would be considerable and would result in a substantial increase in the severity of this cumulative impact. The impact would remain significant and unavoidable.**

Based on the surrounding land uses, no other major stationary noise sources are anticipated in the immediate vicinity of the project site. Therefore, cumulative noise due to stationary sources would be a less than significant cumulative noise impact. The central plant in the Project would be the most significant stationary noise source with the potential to affect nearby and adjacent residential uses, but these noise sources would be able to be reduced to a less than significant level with mitigation measures (MM 3.5.6) identified for the project. However, the Project would also include the intermittent use of a helicopter and ambulances with sirens. These intermittent noise sources would contribute to substantial periodic increase in ambient noise levels in the project vicinity.

#### Mitigation Measures

**MM 3.5.10** Implement mitigation measure MM 3.5.5.

Implementation of mitigation measure MM 3.3.5 would minimize helicopter sleep disturbance noise impacts, but, as discussed above, certain conditions may preclude implementation of the measure. Because there is no practical mitigation for siren noise except for urging emergency

response personnel to avoid using sirens, a prohibition on the use of sirens cannot be enforced. Therefore, night flights and siren noise could still occur. **Therefore, the proposed Project's contribution would be considerable and would result in a substantial increase in the severity of this cumulative impact. The impact would remain significant and unavoidable.**

### 3.5 NOISE

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## **4.0 CUMULATIVE IMPACTS SUMMARY**

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## 4.0 CUMULATIVE IMPACTS SUMMARY

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### 4.2 CUMULATIVE SETTING

The basis of the cumulative analysis varies by technical area. For example, aesthetics impacts consider the viewshed in the vicinity of the project site. Air quality impacts are evaluated against conditions in the Sacramento air basin. Climate change considers emissions in the basin and the State, but due to the global context of the climate, assumes impacts and contributors to climate change are global. Noise impacts consider the noise environment in the City of Elk Grove to which Project-generated noise would contribute. The cumulative analysis in each of the technical sections evaluates the proposed project's contribution to the cumulative scenario. A full discussion of cumulative impacts and a general description of the cumulative setting are provided under each environmental issue area in Section 3.0, Introduction to the Environmental Analysis and Assumptions Used.

### 4.3 CUMULATIVE IMPACT ANALYSIS

Below is a compilation of the cumulative impacts that would result from the implementation of the proposed Project and future development in the vicinity. The reader is referred to Sections 3.1 through 3.5 for a complete discussion of the project's impacts.

This EIR has been prepared as a Subsequent EIR pursuant to CEQA Guidelines Section 15162. The analysis associated with a Subsequent EIR focuses on substantial changes proposed in a project that require major revisions of a previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. The impacts are based upon the extent to which the changes for the proposed Project could result in new significant impacts or increase the severity of significant impacts previously identified in the Laguna Ridge Specific Plan EIR or Laguna Ridge Town Center EIR.

The reader is referred to the Laguna Ridge Specific Plan EIR and Laguna Ridge Town Center EIR for disclosure of cumulative impacts that were addressed under those projects. The cumulative environmental effects of the proposed Project are generally based on information provided in the City of Elk Grove General Plan, General Plan EIR, Laguna Ridge Specific Plan, and Laguna Ridge Specific Plan EIR.

#### SECTION 3.1 AESTHETICS

##### Cumulative Aesthetic Impacts

**Impact 3.1.3** Development of the proposed Project, in addition to other reasonably foreseeable projects in the project vicinity, would introduce new development into an undeveloped area and contribute to a cumulative increase in urban uses. **The proposed Project would not result in a substantial increase in the severity of this impact. There is no new or substantially more severe contribution to the cumulative impact that would result from the proposed Project.**

**Impact 3.1.4** Development of the proposed Project, in addition to other reasonably foreseeable projects in the region, would introduce new development into an agricultural area and increase nighttime lighting and glare. **The proposed Project would not result in a substantial increase in the severity of this impact. There is no new or substantially more severe contribution to the cumulative impact that would result from the proposed Project.**

SECTION 3.2 AIR QUALITY

**Cumulative Air Quality Impact**

**Impact 3.2.6** Implementation of the proposed Dignity Health Medical Campus Project, in combination with growth throughout the air basin, will not exacerbate existing regional problems with ozone and particulate matter. **The proposed Project would not result in a substantial increase in the severity of this impact, which was previously identified in the LRSP EIR and Laguna Ridge Town Center EIR as significant and unavoidable. There is no new or substantially more severe contribution to the cumulative impact that would result from the proposed Project.**

SECTION 3.3 GREENHOUSE GASES AND CLIMATE CHANGE

**Cumulative Climate Change Impact**

**Impact 3.3.1** Implementation of the proposed Project may result in a net increase in greenhouse gas emissions that will conflict with the goals of AB 32 or result in a significant impact on the environment. This impact is **cumulatively considerable.**

SECTION 3.4 HAZARDS AND HAZARDOUS MATERIALS

**Cumulative Hazards Impacts**

**Impact 3.4.4** Cumulative development would increase handling, storage, disposal, and transport of hazardous materials at the project site and in the project vicinity and may increase the potential for upset. However, cumulative development would be subject to applicable federal, state, and local regulations that would govern the handling, storage, disposal, and transport of hazardous materials. As a result, **the proposed Project would not result in a substantial increase in the severity of this impact. There is no new or substantially more severe contribution to the cumulative impact that would result from the proposed Project.**

**Impact 3.4.5** Cumulative development would result in an increase in air traffic in the region, which could result in an increase in the potential for accidents. **The proposed Project's contribution to this impact would be less than cumulatively considerable.**

3.5 NOISE

**Cumulative Noise Impacts**

**Impact 3.5.9** The proposed Project could contribute to the cumulative traffic noise environment at nearby land uses. **The proposed Project would not result in a substantial increase in the severity of this impact. There is no new or substantially more severe contribution to the cumulative impact that would result from the proposed Project.**

#### 4.0 CUMULATIVE IMPACTS SUMMARY

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**Impact 3.5.10** Operation of the proposed Project could contribute to the noise environment at nearby land uses. **Therefore, the proposed Project's contribution would be considerable and would result in a substantial increase in the severity of this cumulative impact. The impact would remain significant and unavoidable.**



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## **5.0 ALTERNATIVES**

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### 5.1 INTRODUCTION

The purpose of this section is to identify and describe alternatives to the proposed project. Project alternatives are developed to reduce or eliminate the significant or potentially significant adverse environmental effects identified as a result of the proposed project, while still meeting most if not all of the basic project objectives.

#### CALIFORNIA ENVIRONMENTAL QUALITY ACT REQUIREMENTS

An environmental impact report (EIR) must evaluate a reasonable range of alternatives to the proposed project or to the location of the proposed project that could feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives (CEQA Guidelines Section 15126.6). An EIR need not evaluate the environmental effects of alternatives in the same level of detail as the proposed project, but must include enough information to allow meaningful evaluation, analysis, and comparison with the proposed project. CEQA provides the following guidelines for discussing alternatives to a proposed project.

The specific alternative of the "no project" shall also be evaluated along with its impacts... If the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives (CEQA Guidelines Section 15126.6[e][2]).

The discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the proposed objectives, or would be more costly (CEQA Guidelines Section 15126.6[b]).

If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed (CEQA Guidelines Section 15126.6[d]).

The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice....The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision making....An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative (CEQA Guidelines Section 15126.6[f]).

The requirement that an EIR evaluate alternatives to the proposed project or alternatives that address the location of the proposed project is a broad one; the primary intent of the alternatives analysis is to disclose other ways that the objectives of the project could be attained while avoiding or reducing the magnitude of the environmental impacts of the proposed project. Alternatives that are included and evaluated in the EIR must be feasible alternatives. However, the Public Resources Code and the CEQA Guidelines direct that the EIR need "set forth only those alternatives necessary to permit a reasoned choice." The CEQA Guidelines provide a definition for "a range of reasonable alternatives" and thus limit the number and type of alternatives that need to be evaluated in a given EIR. According to CEQA Guidelines Section 15126.6(b):

## 5.0 PROJECT ALTERNATIVES

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The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project.

First and foremost, alternatives in an EIR must be feasible. In the context of CEQA, "feasible" is defined as:

...capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.

Further, the following factors may be taken into consideration in the assessment of the feasibility of alternatives: site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and the ability of the proponent to attain site control (CEQA Guidelines Section 15126.6[f][1]). Finally, an EIR is not required to analyze alternatives when the effects of the alternative "cannot be reasonably ascertained and whose implementation is remote and speculative" (CEQA Guidelines Section 15126.6[f][3]).

The selection of alternatives takes into account the project objectives provided in Section 2.0, Project Description. The project objectives include:

- Continue Dignity Health's long-standing commitment to providing high quality healthcare services to the City of Elk Grove and its residents, based upon projected health care demands for the area.
- Offer comprehensive, convenient services closer to Elk Grove residents, thereby reducing the distance patients have to travel in order to receive quality health care.
- Design facilities to enhance the comfort and healing of patients and the productive care-giving and general welfare of staff and visitors.
- Meet current hospital planning guidelines by providing space to accommodate patients in single-bed rooms, as appropriate, including adequate space for treatment by healthcare providers, equipment, and support by family members.
- Provide the optimum height for quality and efficient operations and patient care that maximizes proximity of internal departments by taking full advantage of the efficiency of vertical circulation within the hospital buildings.
- Bring high paying jobs and vital services just west of the new Civic Center. Provide the height and density that would be a catalyst for the new civic center area, as well as support the City's economic development goals.
- To provide for helicopter access directly to the facility to accept hospital-to-hospital patient transfers when warranted by medical necessity to be used occasionally, not routinely, primarily for transporting critically injured patients away from this hospital, to higher-level trauma care facilities. Design the helistop to:

- meet the functional needs of the hospital;
- maximize safety by locating the helistop on the ground;
- comply with all applicable regulatory and life safety requirements for helistops and helicopter travel, including but not limited to Federal Aviation Administration (FAA) requirements for flight path obstruction clearance; to ensure public safety during helicopter landings and takeoffs; and
- allow a visually unobtrusive helistop, integrating into the design of the campus.
- Design facilities to create an attractive "campus" appearance with pedestrian-friendly circulation. Use materials and colors that are complementary to the existing MOB [medical office building] and the neighboring community.
- Promote use of alternative transportation modes by creating connections to the existing bike path along Elk Grove Boulevard, providing more bicycle storage facilities than required by City code, and allowing for a bus stop on campus.

Equally important to attaining the project objectives is the reduction of some or all significant impacts, particularly those that could not be mitigated to a level below the threshold of significance. The significant and unavoidable impacts of the proposed project, after mitigation, are shown below.

- 3.3.1 Implementation of the proposed Project may result in a net increase in greenhouse gas emissions that will conflict with the goals of AB 32 or result in a significant impact on the environment.
- 3.5.5 Helistop operations would generate noise at sensitive receptors and could result in sleep disturbance.
- 3.5.7 Emergency vehicle siren noise could affect sensitive receptors in the project vicinity.

### ALTERNATIVES CONSIDERED BUT NOT SELECTED FOR ANALYSIS

As indicated above, alternatives shall be limited to those that would avoid or substantially lessen any of the significant effects of the Project. Significant effects of the Project are related to noise generated by helicopter flights and sirens of emergency vehicles, both of which are related to the operation of a hospital. The No Project Alternative discusses a no development scenario and a no action scenario. Each of these provides a discussion of the potential of a non-hospital use on the site, so no additional non-hospital alternative is considered.

### ALTERNATIVES CONSIDERED IN THIS EIR

As noted above, the significant impacts associated with the Project are related to greenhouse gas generation and noise from emergency vehicles and helicopter operations. Therefore, alternatives that reduce these effects are analyzed in this EIR, including an alternative that does not include a helistop and a reduced hospital size that is assumed to result in a proportionate reduction in the number of ambulance trips. In accordance with the provisions of CEQA Guidelines Section 15126.6, the following alternatives to the proposed project are evaluated:

## 4.0 CUMULATIVE IMPACTS SUMMARY

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City of Elk Grove This section identifies the cumulative impacts associated with the proposed Project. Cumulative impacts are the result of combining the potential effects of the Project with other planned developments, as well as foreseeable development projects. The following discussion considers the cumulative impacts of the relevant environmental issue areas.

### 4.1 INTRODUCTION

The California Environmental Quality Act (CEQA) requires that an environmental impact report (EIR) contain an assessment of the cumulative impacts that could be associated with the proposed Project. According to CEQA Guidelines Section 15130(a), "an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable." "Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects (as defined by Section 15130).

As defined in CEQA Guidelines Section 15355, a cumulative impact consists of an impact that is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. A cumulative impact occurs from...the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

In addition, Section 15130(b) identifies that the following three elements are necessary for an adequate cumulative analysis:

- 1) Either:
  - a. A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency; or,
  - b. A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or areawide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency.
- 2) A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available; and
- 3) A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative effects.

Where a lead agency is examining a project with an incremental effect that is not cumulatively considerable, the lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable.

## 5.0 PROJECT ALTERNATIVES

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- Alternative 1 – No Project Alternative
- Alternative 2 – No Helicopter Operations Alternative
- Alternative 3 – Reduced Hospital Alternative

### 5.2 ALTERNATIVE 1 – NO PROJECT ALTERNATIVE

#### CHARACTERISTICS

Alternative 1 is the No Project Alternative. CEQA Guidelines Section 15126.6(e)(1) states that a No Project Alternative must be analyzed in every EIR. The purpose of describing and analyzing a No Project Alternative is to allow decision-makers to compare the impacts of approving a proposed project with the impacts of not approving the proposed project. However, the No Project Alternative analysis is not the baseline for determining whether the environmental impacts of a proposed project may be significant, unless the No Project Alternative analysis is identical to the environmental setting for each environmental issue area. A No Project Alternative/No Development Alternative assumes that the proposed project would not occur and there would be no development of the site. Under this scenario, there would be no impacts and the physical conditions on the site would be those described under the existing conditions in the technical sections of this Draft EIR.

The No Project/No Action Alternative assumes development consistent with the existing land use and zoning designations on the project site, which would allow for development under the existing Laguna Ridge Town Center project. The project site is designated for Commercial use under the Elk Grove General Plan and Shopping Commercial (SC) in the Laguna Ridge Specific Plan (LRSP). The Shopping Center district is intended for medium- to high-intensity shopping centers with a local or regional market area. Under the No Project Alternative, existing land use designations and zoning for the project site would not be changed. Because the No Project Alternative would allow development of the Laguna Ridge Town Center project analyzed in the Laguna Ridge Town Center EIR, the Town Center EIR analysis represents the impacts of the No Project Alternative.

Under the existing land use designations, the project site could be developed with 364,000 square feet of medical office use assumed in the Laguna Ridge Town Center EIR. Alternatively, the site could be developed with other uses consistent with the Laguna Ridge Specific Plan, which provides for Shopping Commercial uses. Typical densities for the Shopping Center district would be 0.25 floor area ratio (FAR). At that density, the 27.8-acre project site could be developed with 302,742 square feet of shopping center uses.

#### COMPARATIVE IMPACTS

##### Aesthetics

The No Project/No Action Alternative would include development of the project site with medical office buildings or other retail and/or commercial buildings. As discussed in Section 2.0, Project Description, the proposed project includes a request for an amendment to the Laguna Ridge Specific Plan to establish a maximum building height limit of 120 feet. Because the No Project Alternative would not include an amendment for an increase in height on the site, this alternative would result in shorter structures (up to 60 feet). Therefore, the change in character of the site would be less under this alternative. This alternative would also include buildings that would require lighting for parking and safety. This development would also be required to comply with the lighting standards in the Elk Grove Design Guidelines that address the scale,

placement, and shielding of fixtures. However, because this alternative would not require lighting for the helistop, the overall change in lighting would be less under this alternative.

### **Air Quality**

Because the proposed Project would include more square footage than the No Project Alternative, the No Project Alternative would result in fewer construction emissions. As shown in Section 3.2, Air Quality, the previous project analyzed in the Laguna Ridge Town Center EIR (No Project Alternative) would result in more stationary source emissions than the proposed Project. In addition, the land uses analyzed in the Laguna Ridge Town Center EIR would generate more vehicle trips than the proposed Project (13,296 for the uses analyzed in the Laguna Ridge Town Center EIR versus 8,703 for the proposed Project), which results in greater mobile source emissions for the No Project Alternative. Adding the potential emissions from helicopter use under the proposed Project, the No Project Alternative would still generate more emissions than the proposed Project. Therefore, the overall air quality impacts of the No Project Alternative would be greater than the proposed Project.

### **Greenhouse Gases and Climate Change**

As noted above, the uses analyzed in the Laguna Ridge Town Center EIR would generate approximately 50 percent more automobile trips than the proposed Project, so automobile-generated greenhouse gas emissions would be greater than the proposed Project. As shown in Table 3.3-5 in Section 3.3, Greenhouse Gases and Climate Change, mobile sources (automobiles) represent approximately 60 percent of the overall carbon dioxide equivalents (CO<sub>2</sub>e) generated by the Project. Based on the increased automobile trips under the No Project Alternative, mobile greenhouse gas emissions alone would be approximately 90 percent of the proposed Project's total emissions. Therefore, the overall greenhouse gas emissions of the No Project Alternative would exceed those of the proposed Project and the impact would be greater.

### **Hazards and Hazardous Materials**

As discussed in Section 3.4, Hazards and Hazardous Materials, hospital uses involve the handling, use, and disposal of a number of hazardous, biohazardous, and radioactive materials that could pose a threat to the public if handled improperly and exposure occurs. Medical office buildings also handle some of these types of materials, but the volume and type of these materials would be less with a medical office building, as could occur under the No Project Alternative. While there are numerous regulations in place that reduce the potential for exposure, the potential for exposure would be greater under the proposed Project than with the No Project Alternative, whether a medical office use or other commercial use were developed. Therefore, impacts related to hazardous materials would be reduced under this alternative.

### **Noise**

As discussed above, the proposed Project would result in significant impacts related to sirens for emergency vehicles and helicopter noise. Because the No Project Alternative would not include ambulances or helicopter operations, those sources would be eliminated with the No Project Alternative. Depending on the specific commercial use that could be developed under this alternative, there could be other site-specific noise sources that would not occur with the proposed Project, but it is assumed that the No Project Alternative would have a less severe noise impact than the proposed Project.

## 5.0 PROJECT ALTERNATIVES

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### Relationship of the No Project Alternative to the Project Objectives

The No Project Alternative would not be consistent with the project objectives. The No Project Alternative would not include the development of a hospital to serve the projected health care demands in Elk Grove or provide additional hospital capacity consistent with current health care standards.

### 5.3 ALTERNATIVE 2 – NO HELICOPTER OPERATIONS ALTERNATIVE

#### CHARACTERISTICS

The No Helicopter Operations Alternative assumes development of a hospital of the same size and configuration as the proposed Project, with the same operations but without the helistop. As discussed in the project objectives, the purpose of the helistop is to transport critical patients away from this hospital to higher-level trauma care facilities. With elimination of the helistop under this alternative, critical patients would be transported via ambulance to another hospital or to another facility that has helicopter transport, which would then transport the patient to the higher-level facility.

This alternative would have a similar footprint to the proposed Project (minus the helistop). Because only 10 helicopter trips per year are assumed for the proposed Project, operational differences would be limited to those few additional ambulance trips that would be required to transport patients to another hospital or another facility with a helicopter.

#### COMPARATIVE IMPACTS

##### Aesthetics

Because this alternative would include the same buildings as the proposed Project, the changes in visual character associated with this alternative would be the same as with the proposed Project. Similarly, lighting associated with the hospital would be the same as the proposed Project. However, lighting associated with the helistop would not occur under this alternative, so overall effects relating to light would be slightly decreased with this alternative.

##### Air Quality

As previously discussed, the operational aspects of this alternative would be similar to the proposed Project, with the exception of helicopter trips associated with the proposed Project. Because the hospital operations would be the same, the stationary air emissions would be the same. The difference of mobile emissions would be dependent upon how critical patients are transported in the absence of helicopter operations for the proposed Project. If patients are transported to another facility that would then transport the patient via helicopter, the emissions would be similar to the proposed Project. If transport to the higher-level care facility is done entirely by ambulance, because an ambulance would use less fuel per mile than a helicopter, emissions from this alternative would be less than those of the proposed Project.

##### Greenhouse Gases and Climate Change

As noted in the Air Quality discussion, operations at the hospital under this alternative would be the same as those of the proposed Project, so greenhouse gas emissions, except those generated by the helicopter trips, would be the same as the proposed Project. As with criteria



pollutant emissions discussed under Air Quality, if patients are transported to another facility that would then transport the patient via helicopter, the greenhouse gas emissions would be similar to the proposed Project. If transport to the higher-level care facility is done entirely by ambulance, because an ambulance would use less fuel per mile than a helicopter, greenhouse gas emissions from this alternative would be less than those of the proposed Project.

### **Hazards and Hazardous Materials**

Operations at the hospital under this alternative would be the same as those of the proposed Project, so the types and quantities of hazardous materials handled and disposed would be the same as the proposed Project. Therefore, potential exposure under this alternative would be the same as the proposed Project.

### **Noise**

As previously discussed, hospital operations under this alternative would be the same as the proposed Project, so noise sources, with the exception of helicopter noise, would be the same as with the proposed Project. Therefore, ambulance noise would still have the potential to be significant, but the noise from periodic helicopter flights would not occur under this alternative. Therefore, the overall noise associated with this alternative would be less than that of the proposed Project.

### **Relationship of the No Helicopter Operations Alternative to the Project Objectives**

The No Helicopter Operations Alternative would be consistent with many of the project objectives, such as developing a hospital to serve the projected health care demands in Elk Grove and providing additional hospital capacity consistent with current health care standards. However, this alternative would not be consistent with the objective to provide on-site helicopter transport capability for critical patients away from this hospital to higher-level trauma care facilities. Without helicopter operations on site, critical patients at the facility would be required to travel the entire way to a higher-level care facility via ambulance, which increases travel time and could be detrimental to patient care. Critical patient transport from the proposed Project via ambulance to another facility that has helicopter transport would require an additional patient transfer from the ambulance to the helicopter, which could also be detrimental to patient care.

## **5.4 ALTERNATIVE 3 – REDUCED HOSPITAL ALTERNATIVE**

### **CHARACTERISTICS**

The Reduced Hospital Alternative would serve to reduce both ambulance noise and helicopter noise by not providing an emergency department (ED). As discussed in Section 2.0, Project Description, the Surgery and Maternity Hospital building (Phase 1B) includes an urgent care unit but does not include an emergency department (proposed to be constructed as part of Hospital Expansion #1 – Phase 2). To avoid confusing potential patients and compromising the quality of medical care at the Surgery and Maternity Hospital, the applicant deliberately scaled the capabilities of Phase 1B so it is clear in the public's mind that it is not a full-service community hospital. While the proposed helistop platform is proposed to be constructed as part of this phase, it would not be operational until the emergency department is constructed with the first hospital expansion. By eliminating the emergency department, this alternative would eliminate not only ambulance trips associated with the emergency department but also the need for the helicopter operations.

## 5.0 PROJECT ALTERNATIVES

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Dignity Health has indicated that if an ED is not provided at the proposed Elk Grove Campus, because the majority of hospital admissions come from the ED, there would be no need for an acute care facility at the Elk Grove location. Having to rely upon an ED at another hospital (e.g., Methodist Hospital) and transfer patients to the new hospital in Elk Grove would create an unnecessary danger and delay in care for the sickest patients, which would be an unacceptable risk. Therefore, because providing acute care facilities at the project site without an ED would not function in such a way as to provide the best quality of medical care, this alternative is limited to the Surgery and Maternity Hospital and the two medical office buildings. This alternative assumes construction of the 112,050-square-foot Surgery and Maternity Hospital and the 65,000-square-foot medical office building (MOB), for a total of 245,240 square feet of structures on the site.

Parking for the Project is shown in Table 2.0-1 (see Section 2.0, Project Description). Assuming similar parking is provided for the existing MOB and MOB #2, this alternative would require approximately 796 parking spaces (MOB #1 + Surgery and Maternity: 487 spaces + 309 spaces for MOB #2). With this reduced demand for parking compared to the proposed Project, the parking garage would not be required for this alternative.

### COMPARATIVE IMPACTS

#### Aesthetics

The Reduced Hospital Alternative would include less development than the proposed Project. Assuming development of just the two MOB's and the Surgery and Maternity Hospital on the site, the density of the development would be substantially less than that of the proposed Project, so it would provide a more open look to the site, resulting in less of a change from the existing condition than the proposed Project. Because the Surgery and Maternity Hospital exceeds 60 feet in height, an amendment to the Specific Plan to allow a maximum building height to exceed 60 feet would still be required. Lighting associated with the hospital would be reduced compared to the proposed Project and lighting associated with the helistop would not occur under this alternative, so overall effects relating to light would be decreased with this alternative.

#### Air Quality

Stationary source emissions associated with the two hospital expansions would be eliminated under the Reduced Hospital Alternative, so these emissions would be substantially less than those associated with the proposed Project. Similarly, transportation-related emissions would also be reduced because trips associated with approximately 345,000 square feet of hospital use would not occur on the project site under this alternative, and neither would emissions from helicopter operations. Therefore, air quality impacts of the Reduced Hospital Alternative would be less than with the proposed Project.

#### Greenhouse Gases and Climate Change

As with criteria air pollutants discussed for air quality, stationary source and transportation-related emissions of greenhouse gases from the two hospital expansions would be eliminated under the Reduced Hospital Alternative. As this alternative would also eliminate helicopter operations, there would be no greenhouse gas emissions from that source. Because greenhouse gas emissions would be substantially less than that of the proposed Project, impacts related to greenhouse gas emissions from the Reduced Hospital Alternative would be less than the proposed Project. However, even with substantial reductions of operations and the corresponding reductions in greenhouse gas emissions, it is likely the Reduced Hospital

Alternative's contribution would exceed 1,100 metric tons of CO<sub>2</sub>e per year, which would be a cumulatively considerable contribution to the greenhouse gas impact.

### **Hazards and Hazardous Materials**

As discussed above, the hospital uses associated with the proposed Project would involve the handling, use, and disposal of a number of hazardous, biohazardous, and radioactive materials that could pose a threat to the public if handled improperly and exposure occurs. The MOB use would be the same under this alternative, but because the hospital uses associated with the Reduced Hospital Alternative would be less than that of the proposed Project, the amount of hazardous materials handled at the site would be reduced. Therefore, impacts related to hazardous materials would be reduced under this alternative.

### **Noise**

Because the Reduced Hospital Alternative would not include an emergency department that would result in ambulance trips and the need for helicopter operations, the significant noise generators of the proposed Project would not occur under this alternative. Therefore, the hospital and MOB uses under this alternative would be less than the proposed Project and would not be significant. Because this alternative would not result in ambulance or helicopter noise, noise under this alternative would be less than significant.

### **Relationship of the Reduced Hospital Alternative to the Project Objectives**

While the Reduced Hospital Alternative could be designed as a pedestrian-friendly campus that complements the existing neighborhood and promotes alternative transportation modes, this alternative would generally be inconsistent with many of the project objectives. The proposed Project is sized to expand as the demand grows for health care services in the City and the region. Because the Reduced Hospital Alternative is limited to only the Surgery and Maternity Hospital and medical offices, the ability to serve a growing population is limited under this alternative, as is the ability to offer comprehensive health care, including emergency services. For services beyond those offered under this alternative, patients would be required to go to other hospitals whose capacity may not be adequate to provide service at current standards, such as single-bed rooms. The limited operations under this alternative would provide high paying jobs in the area, but to a lesser extent than the proposed Project. As population and hospital demand increases, helicopter operations at other hospitals would have to increase as critical patients are treated at other area hospitals.

## **5.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE**

**Table 5.0-1** provides a summary of the potential impacts of the alternatives evaluated in this section, as compared with the potential impacts of the proposed project.

## 5.0 PROJECT ALTERNATIVES

**TABLE 5.0-1  
COMPARISON OF ALTERNATIVES TO THE PROPOSED PROJECT**

Issue	Proposed Project	Alternative 1 No Project	Alternative 2 No Helicopter	Alternative 3 Reduced Hospital
Aesthetics	LS	Reduced	Reduced	Reduced
Air Quality	LS	Reduced/Similar	Similar	Reduced
GHG/Climate	LS	Reduced/Similar	Similar	Reduced
Hazards	LS	Reduced	Similar	Reduced
Noise	SU	Reduced	Reduced	Reduced

Based on the evaluation above, the Reduced Hospital Alternative would be the environmentally superior alternative. Due to the reduced size of the development under this alternative, there would be reduced impacts at the project site for each of the issue areas discussed. However, the Reduced Hospital Alternative would be generally inconsistent with the project objectives, in that it is not a full-service community hospital as envisioned in the project objectives. It should also be noted that while impacts of construction and operations of a portion of the hospital and MOB uses on the project site may be reduced compared to the proposed Project, to the extent that additional demand grows for hospital services in the region, there could be pressure to expand existing or construct new hospital facilities elsewhere. The impacts of those new or expanded facilities cannot be determined at this time, as the extent of additional facilities and the location(s) are not known.

In addition, because the Reduced Hospital Alternative includes substantially less development than the proposed Project, a reconfigured site plan could allow this alternative to be built on only a portion of the project site, so the remaining area could be developed with other uses consistent with the designations for the site. Any additional uses on the site would contribute to site-specific effects, such as increases in density (affecting visual quality) and additional trip generation, which would contribute to additional emissions of criteria air pollutants and greenhouse gases.

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## **6.0 OTHER CEQA CONSIDERATIONS**

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## 6.0 OTHER CEQA CONSIDERATIONS

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This section discusses the additional topics statutorily required by the California Environmental Quality Act (CEQA). The topics discussed include significant irreversible environmental changes/irretrievable commitment of resources and growth-inducing impacts.

### 6.1 GROWTH-INDUCING IMPACTS

#### INTRODUCTION

CEQA Guidelines Section 15126.2(d) requires that an environmental impact report (EIR) evaluate the growth-inducing impacts of a proposed action. A growth-inducing impact is defined by the CEQA Guidelines as:

...the ways in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth...It must not be assumed that growth in an area is necessarily beneficial, detrimental, or of little significance to the environment.

A project can have direct and/or indirect growth inducement potential. Direct growth inducement would result if a project, for example, involved construction of new housing. A project would have indirect growth inducement potential if it established substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises) or if it would involve a construction effort with substantial short-term employment opportunities that would indirectly stimulate the need for additional housing and services to support the new employment demand. Similarly, a project would indirectly induce growth if it would remove an obstacle to additional growth and development, such as removing a constraint on a required public service. A project providing an increased water supply in an area where water service historically limited growth could be considered growth inducing.

The CEQA Guidelines further explain that the environmental effects of induced growth are considered indirect impacts of the proposed action. These indirect impacts or secondary effects of growth may result in significant, adverse environmental impacts. Potential secondary effects of growth include increased demand on other community and public services and infrastructure, increased traffic and noise, and adverse environmental impacts such as degradation of air and water quality, degradation or loss of plant and animal habitat, and conversion of agricultural and open space land to developed uses.

Growth inducement may constitute an adverse impact if the growth is not consistent with or accommodated by the land use plans and growth management plans and policies for the area affected. Local land use plans provide for land use development patterns and growth policies that allow for the orderly expansion of urban development supported by adequate urban public services, such as water supply, roadway infrastructure, sewer service, and solid waste service.

#### COMPONENTS OF GROWTH

The timing, magnitude, and location of land development and population growth in a community or region are based on various interrelated land use and economic variables. Key variables include regional economic trends, market demand for residential and nonresidential uses, land availability and cost, the availability and quality of transportation facilities and public services, proximity to employment centers, the supply and cost of housing, and regulatory policies or conditions. Since the general plan of a community defines the location, type, and intensity of growth, it is the primary means of regulating development and growth in California.

## 6.0 OTHER CEQA CONSIDERATIONS

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### GROWTH EFFECTS OF THE PROJECT

As required by Government Code Section 65300, the General Plan is intended to serve as the overall plan for the physical development of the City of Elk Grove. While the General Plan does not specifically propose any development projects, it does regulate the location and type of future development and thus controls future population and economic growth of the City that would result in indirect growth-inducing effects.

The Laguna Ridge Specific Plan (LRSP) (City of Elk Grove 2004a) is a policy and regulatory document. As a policy document, the LRSP amplifies the broader goals and policies contained in the General Plan through the establishment of policies for the Specific Plan area. As a regulatory document, the LRSP identifies the land use and zoning designations for all land in the plan area and lists development standards applicable solely to the plan area, while incorporating certain existing zoning standards of the Zoning Code by reference.

Implementation of the proposed Laguna Ridge Town Center project included a General Plan Amendment, Specific Plan Amendment, and Rezone to enlarge the Town Center commercial area in the Laguna Ridge Specific Plan area. The 95.3-acre Town Center site is designated a combination of High Density Residential (15.1–30 dwelling units per acre) and Commercial by the General Plan. The Dignity Health Elk Grove Medical Campus project site is designated Shopping Commercial (SC) by the LRSP, and the site was assumed for development of this employment-generating use in the Laguna Ridge Town Center EIR. Because development of the site with a similar use was already considered in the previous EIR, there would be no additional effect due to the increase in employment opportunities in the City.

#### **Population Growth**

Implementation of the proposed Project would create jobs in association with the construction and operation of a hospital and medical offices on the site. While the Project would provide jobs associated with these uses, it would not be a substantial generator of new jobs that would result in an influx of new residents to fill these jobs that had not been previously considered by the City. Historically, Elk Grove has had a jobs-housing imbalance, with more households in the City than jobs available for the households. The increase in employment opportunities associated with the proposed Project would serve to improve the jobs-housing balance by increasing job opportunities for local residents. As a result, the Project would not create in an increase in population or demand for housing beyond that already anticipated in the Laguna Ridge Specific Plan. Employees of the hospital could also live outside the City of Elk Grove in other jurisdictions; however, the location where future employees would choose to live or the number that would locate in any particular jurisdiction cannot be determined at this time.

#### **Growth Effects Associated with Infrastructure Improvements**

The Laguna Ridge Town Center EIR (City of Elk Grove 2008) determined that the Town Center project could potentially indirectly induce growth if it were to remove an obstacle to additional growth and development, such as removing a constraint on a required public service. The City's infrastructure and public services are largely provided by other public and private service providers (e.g., Sacramento County Water Agency for water supply, Sacramento Regional County Sanitation District and Sacramento Area Sewer District for wastewater service, Sacramento Municipal Utility District for electrical service, PG&E for natural gas service) that utilize master plans for guiding planned facility and service expansions that are subject to environmental review under CEQA.

## 6.0 OTHER CEQA CONSIDERATIONS

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The Laguna Ridge Town Center EIR considered the project site for development and analyzed a medical office use that is similar to, or more intense than, the proposed Project. Because the development of the site was previously considered, infrastructure improvements to serve development of the site have already been planned and appropriately sized. The proposed Project would not require the installation of new or expanded infrastructure to serve the proposed Project. The project site is located in an area that is surrounded either by development or vacant land approved for development. The project site is currently designated with a land use that envisions extension of public utilities and services, such as sewer, to serve the site. Water, sewer, and storm drainage services are available in the vicinity of the project, serving the existing commercial and residential development along Bruceville Road and Elk Grove Boulevard. As a result, extending sewer, water, and storm drainage service to serve the project site would not result in providing infrastructure that would put pressure on surrounding areas to develop at greater densities. Moreover, the project site is within a Specific Plan area designated for urban levels of development that would require extension of infrastructure, including water and wastewater services, under the existing General Plan. As a result, changing the land use designations of these sites is not anticipated to increase the pressure to develop lands within the City.

The Project does not include any roadway or infrastructure improvements that would add capacity and accommodate increased growth that has not already been planned and anticipated under the City of Elk Grove General Plan and Laguna Ridge Specific Plan. Therefore, the proposed Project would not result in any growth effects associated with increasing roadway and infrastructure capacities.

### ENVIRONMENTAL EFFECTS OF GROWTH

The proposed Project would result in increased employment in Elk Grove. This would, in turn, result in increased traffic, air pollutant emissions, operational and traffic noise, increased demand for services, and loss of vacant/open lands. Environmental effects of developing the Laguna Ridge Specific Plan area include potential effects on special-status species and their habitat, potential destruction or damage to cultural resources, increased erosion and runoff affecting soil stability and water quality, changes to drainage patterns and runoff, potential land use conflicts, increased light and glare, changes to visual character, and loss of agricultural resources. These issues are discussed in the Laguna Ridge Specific Plan EIR (SCH #2000082139) (City of Elk Grove 2004b). The proposed project would result in increased operational noise impacts beyond the impacts discussed in the Laguna Ridge Specific Plan EIR and Laguna Ridge Town Center EIR. Sections 3.1 through 3.5 of this EIR identify the potential increase in physical effects on the environment associated with implementation of the proposed Project.

### 6.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

Public Resources Code Section 21100(b)(2) requires that certain EIRs must include a discussion of significant irreversible environmental changes of project implementation. CEQA Guidelines Section 15126.2(c) describes irreversible environmental changes as follows:

Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.



## **6.0 OTHER CEQA CONSIDERATIONS**

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The Elk Grove General Plan EIR (SCH #2002062082) (2005) evaluated significant irreversible environmental effects associated with implementation of the adopted General Plan. That EIR identified that the conversion of undeveloped land areas to residential, commercial, industrial, office, public, and recreational uses would occur with implementation of the General Plan. Development of the City of Elk Grove Land Use Policy Plan Map would constitute a long-term commitment to residential, commercial, and office land uses. It is unlikely that circumstances would arise that would justify the return of the land to its original condition.

The proposed Project differs from the uses assumed for the site in the Laguna Ridge Specific Plan EIR, but the Laguna Ridge Town Center EIR analyzed uses similar to, though more intense than, the proposed Project. The Laguna Ridge Town Center EIR found that development of the project site would irretrievably commit building materials and energy to the construction and maintenance of buildings and infrastructure. Renewable, nonrenewable, and limited resources that would likely be consumed as part of the development of the proposed Project would include, but are not limited to, oil, gasoline, lumber, sand and gravel, asphalt, water, steel, and similar materials. Development on the site would require a long-term commitment for the provision of public services, including water treatment and supply, wastewater treatment and disposal, solid waste removal and disposal, and natural gas, electricity, and communication services. Development of the infrastructure necessary for these services would irretrievably commit building materials, energy, and physical sites for their provision. Because the proposed Project includes uses less intense than those considered in the Laguna Ridge Town Center EIR, the proposed Project would not change the conclusions of the Laguna Ridge Town Center EIR. There would be no additional impact.

### **6.3 SIGNIFICANT AND UNAVOIDABLE IMPACTS**

Section 15126.2(b) of the CEQA Guidelines requires that an EIR describe any significant impacts that cannot be avoided, even with the implementation of feasible mitigation measures. The environmental effects of the proposed Project on various aspects of the environment are discussed in detail in Chapter 3 of this Draft EIR. The significant and unavoidable impacts of the proposed Project, after mitigation, are shown below.

- 3.3.1 Implementation of the proposed Project may result in a net increase in greenhouse gas emissions that will conflict with the goals of AB 32 or result in a significant impact on the environment.
- 3.5.5 Helistop operations would generate noise at sensitive receptors and could result in sleep disturbance.
- 3.5.7 Emergency vehicle siren noise at sensitive receptors.

**REFERENCES**

City of Elk Grove. 2004a. *Laguna Ridge Specific Plan*. Elk Grove, CA.

———. 2003. *City of Elk Grove General Plan Environmental Impact Report (SCH# 2002062082)*. Elk Grove, CA.

———. 2004b. *Laguna Ridge Specific Plan Environmental Impact Report (SCH #2000082139)*. Elk Grove, CA.

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

———. 2008. *Laguna Ridge Town Center Environmental Impact Report (SCH #2007082169)*. Elk Grove, CA.

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## **7.0 REPORT PREPARERS**

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## 7.0 REPORT PREPARATION

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Seth Myers ..... Environmental Planner

Jolene Miller ..... Publication

#### **J.C. Brennan and Associates, Inc**

Jim Brennan ..... Acoustical Consultant

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## **APPENDICES**

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## **APPENDIX A – PREVIOUS MMRPs**

EXHIBIT "C" CONDITIONS OF APPROVAL – MITIGATION MEASURES

	Conditions of Approval / Mitigation Measure	Timing/ Implementation	Enforcement/ Monitoring	Verification (date and Signature)
1	The development approved by this action is for the Laguna Ridge Specific Plan, as described in the City Council report and associated Exhibits and Attachments dated December 3, 2003.	On-Going	City of Elk Grove Development Services	
2	This action does not relieve the applicant of the obligation to comply with all ordinances, statutes, regulations, and procedures.	On-Going	City of Elk Grove Development Services	
3	The Applicant shall hold harmless the City, its Council Members, its Planning Commission, officers, agents, employees, and representatives from liability for any award, damages, costs and fees incurred by the City and/or awarded to any plaintiff in an action challenging the validity of this permit or any environmental or other documentation related to approval of this permit. Applicant further agrees to provide a defense for the City in any such action.	On-Going	City of Elk Grove Development Services	
4	Comply with, record, and pay fees for the Mitigation Monitoring and Reporting Program (MMRP) associated with the Laguna Ridge Specific Plan. Until the MMRP has been recorded and the estimated MMRP fee of \$10,000 has been paid, no final parcel map for the subject property shall be approved and no grading, building, sewer connection, water connection, or occupancy permit from the City or County will be approved. (Planning)	Prior to Issuance of Grading Permit	City of Elk Grove Development Services	

<b>As Part of the Final Approval of the Specific Plan</b>				
<b>MM 4.2.4a</b>	All internal intersections shall be designed to meet City Level of Service Standards (LOS D or better). This requirement shall be incorporated into the specific plan.	As part of the final approval of the Specific Plan	City of Elk Grove Development Services	
<b>Prior to Approval of Subsequent Development Projects</b>				
<b>MM 4.2.1a</b>	<p>Elk Grove Boulevard shall be widened between Bruceville Road and Auto Center Drive to three lanes in each direction.</p> <p>Fair-share funding for the above roadway improvement shall be determined by the modification of the Interim Roadway Fee Program (Elk Grove Municipal Code Chapter 16.89) or its successor roadway fee program. The project applicant shall pay its fair share as well as any established City of Elk Grove development impact fees for roadway facilities. Project public facility financing plans and/or programs shall establish the timing of this improvement to ensure it is in place prior to LOS E operations and consistent with the Specific Plan's infrastructure phasing provisions.</p>	Prior to approval of subsequent development projects.	City of Elk Grove Development Services.	



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<p><b>MM 4.2.1c</b></p>	<p>Grant Line Road between SR 99 and Waterman Road shall be widened from one to two lanes in each direction.</p> <p>Fair-share funding for the above roadway improvement shall be determined by the modification of the Interim Roadway Fee Program (Elk Grove Municipal Code Chapter 16.89) or its successor roadway fee program. The project applicant shall pay its fair share as well as any established City of Elk Grove development impact fees for roadway facilities. Project and/or public facility financing plans and/or programs shall establish the timing of this improvement to ensure it is in place prior to LOS E operations.</p>	<p>Prior to approval of subsequent development projects</p>	<p>City of Elk Grove Development Services</p>	
<p><b>MM 4.2.1d</b></p>	<p>Poppy Ridge Road between Bruceville Road and West Stockton Boulevard shall be reconstructed to provide 12-foot travel lanes and minimum 6-foot paved shoulder.</p> <p>Fair-share funding for the above roadway improvement shall be determined by the modification of the Interim Roadway Fee Program (Elk Grove Municipal Code Chapter 16.89) or its successor roadway fee program. The project applicant shall pay its fair share as well as any established City of Elk Grove development impact fees for roadway facilities. Project public facility financing plans and/or programs shall establish the timing of this improvement to ensure it is in place prior to LOS E operations and consistent with the Specific Plan's infrastructure phasing provisions.</p>	<p>Prior to approval of subsequent development projects</p>	<p>City of Elk Grove Development Services</p>	

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<p><b>MM 4.2.1e</b></p>	<p>West Stockton Boulevard between Kammerer Road and Poppy Ridge Road shall be reconstructed to provide 12-foot travel lanes and minimum 6-foot paved shoulder.</p> <p>Fair-share funding for the above roadway improvement shall be determined by the modification of the Interim Roadway Fee Program (Elk Grove Municipal Code Chapter 16.89) or its successor roadway fee program. The project applicant shall pay its fair share as well as any established City of Elk Grove development impact fees for roadway facilities. Project and/or public facility financing plans and/or programs shall establish the timing of this improvement to ensure it is in place prior to LOS E operations and consistent with the Specific Plan's infrastructure phasing provisions.</p>	<p>Prior to approval of subsequent development projects</p>	<p>City of Elk Grove Development Services</p>	
<p><b>MM 4.2.1f</b></p>	<p>West Stockton Boulevard between Poppy Ridge Road and the Auto Mall Access to provide 12-foot travel lanes and minimum 6-foot paved shoulder.</p> <p>Fair-share funding for the above roadway improvement shall be determined by the modification of the Interim Roadway Fee Program (Elk Grove Municipal Code Chapter 16.89) or its successor roadway fee program. The project applicant shall pay its fair share as well as any established City of Elk Grove development impact fees for roadway facilities. Project public facility financing plans and/or programs shall establish the timing of this improvement to ensure it is in place prior to LOS E operations and consistent with the Specific Plan's infrastructure phasing provisions.</p>	<p>Prior to approval of subsequent development projects</p>	<p>City of Elk Grove Development Services</p>	

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<p><b>MM 4.2.2a</b></p>	<p>The following lane configurations shall be provided at the Elk Grove Boulevard/Bruceville Road intersection.</p> <ul style="list-style-type: none"> <li>• One shared through/right-turn lane, one through lane, and one left-turn lane on the northbound approach.</li> <li>• One right-turn lane, two through lanes, and two left-turn lanes on the southbound approach.</li> <li>• One right-turn lane, two through lanes, and one left-turn lane on the westbound approach.</li> </ul> <p>Fair-share funding for the above roadway improvement shall be determined by the modification of the Interim Roadway Fee Program (Elk Grove Municipal Code Chapter 16.89) or its successor roadway fee program. The project applicant shall pay its fair share as well as any established City of Elk Grove development impact fees for roadway facilities. Project public facility financing plans and/or programs shall establish the timing of this improvement to ensure it is in place prior to LOS E operations and consistent with the Specific Plan's infrastructure phasing provisions.</p>	<p>Prior to approval of subsequent development projects</p>	<p>City of Elk Grove Development Services</p>	
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<p><b>MM 4.2.2b</b></p>	<p>The following lane configurations shall be provided at the Elk Grove Boulevard/Big Horn Boulevard intersection.</p> <ul style="list-style-type: none"> <li>• One right-turn lane, two through lanes, and one left-turn lane on the northbound approach.</li> <li>• One right-turn lane, two through lanes, and two left-turn lanes on the southbound approach.</li> <li>• One shared through/right-turn lane, two through lanes, and two left-turn lanes on the eastbound approach.</li> <li>• One shared through/right-turn lane, two through lanes, and two left-turn lanes on the westbound approach.</li> </ul> <p>Fair-share funding for the above roadway improvement shall be determined by the modification of the Interim Roadway Fee Program (Elk Grove Municipal Code Chapter 16.89) or its successor roadway fee program. The project applicant shall pay its fair share as well as any established City of Elk Grove development impact fees for roadway facilities. Project public facility financing plans and/or programs shall establish the timing of this improvement to ensure it is in place prior to LOS E operations and consistent with the Specific Plan's infrastructure phasing provisions.</p>	<p>Prior to approval of subsequent development projects</p>	<p>City of Elk Grove Development Services</p>	
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<p><b>MM 4.2.2c</b></p>	<p>The following lane configurations shall be provided at the Elk Grove Boulevard/West Laguna Springs Drive intersection.</p> <ul style="list-style-type: none"> <li>• Two right-turn lanes, two through lanes, and one left-turn lane on the northbound approach.</li> <li>• One right-turn lane, one through lanes, and two left-turn lanes on the southbound approach.</li> <li>• One right-turn lane, three through lanes, and two left-turn lanes on the eastbound approach.</li> <li>• One right-turn lane, three through lanes, and two left-turn lanes on the westbound approach.</li> <li>• Right-turn overlap phasing for the northbound right-turn lane at the Elk Grove Boulevard/West Laguna Springs Drive intersection.</li> </ul> <p>Fair-share funding for the above roadway improvement shall be determined by the modification of the Interim Roadway Fee Program (Elk Grove Municipal Code Chapter 16.89) or its successor roadway fee program. The project applicant shall pay its fair share as well as any established City of Elk Grove development impact fees for roadway facilities. Project public facility financing plans and/or programs shall establish the timing of this improvement to ensure it is in place prior to LOS E operations and consistent with the Specific Plan's infrastructure phasing provisions.</p>	<p>Prior to approval of subsequent development projects</p>	<p>City of Elk Grove Development Services</p>	
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<p><b>MM 4.2.2d</b></p>	<p>Right-turn overlap phasing for the northbound right-turn movement shall be provided at the Elk Grove Boulevard/Auto Center Drive intersection. This improvement would require modification of the existing signal equipment and signal phasing.</p> <p>Fair-share funding for the above roadway improvement shall be determined by the modification of the Interim Roadway Fee Program (Elk Grove Municipal Code Chapter 16.89) or its successor roadway fee program. The project applicant shall pay its fair share as well as any established City of Elk Grove development impact fees for roadway facilities. Project and/or public facility financing plans and/or programs shall establish the timing of this improvement to ensure it is in place prior to LOS E operations.</p>	<p>Prior to approval of subsequent development projects</p>	<p>City of Elk Grove Development Services</p>	
<p><b>MM 4.2.2f</b></p>	<p>Install traffic signal and provide the following lane configurations at the Elk Grove Boulevard/Waterman Road intersection.</p> <ul style="list-style-type: none"> <li>• A shared through/right-turn lane and an exclusive left-turn lane on all approaches.</li> </ul> <p>Fair-share funding for the above roadway improvement shall be determined by the modification of the Interim Roadway Fee Program (Elk Grove Municipal Code Chapter 16.89) or its successor roadway fee program. The project applicant shall pay its fair share as well as any established City of Elk Grove development impact fees for roadway facilities. Project and/or public facility financing plans and/or programs shall establish the timing of this improvement to ensure it is in place prior to LOS E operations.</p>	<p>Prior to approval of subsequent development projects</p>	<p>City of Elk Grove Development Services</p>	

<p><b>MM 4.2.2g</b></p>	<p>Install a traffic signal and provide the following lane configurations at the Poppy Ridge Road/Bruceville Road intersection.</p> <ul style="list-style-type: none"> <li>• A shared through/right-turn lane and an exclusive left-turn lane on the northbound, southbound, and eastbound approaches.</li> <li>• One right-turn lane, one through lane, and one left-turn lane on the westbound approach.</li> </ul> <p>Fair-share funding for the above roadway improvement shall be determined by the modification of Interim Roadway Fee Program (Elk Grove Municipal Code Chapter 16.89) or its successor roadway fee program. The project applicant shall pay its fair share as well as any established City of Elk Grove development impact fees for roadway facilities. Project public facility financing plans and/or programs shall establish the timing of this improvement to ensure it is in place prior to LOS E operations and consistent with the Specific Plan's infrastructure phasing provisions.</p>	<p>Prior to approval of subsequent development projects</p>	<p>City of Elk Grove Development Services</p>	
<p><b>MM 4.2.2h</b></p>	<p>The applicant shall participate in the Interim Roadway Fee Program (Elk Grove Municipal Code Chapter 16.89) or its successor roadway fee program which includes reconstruction of the SR 99/Grant Line Road interchange. Fair-share funding for the SR 99/Grant Line Road improvement project shall be determined by the modification of the Interim Roadway Fee Program (Elk Grove Municipal Code Chapter 16.89) or its successor roadway fee program. The project applicant shall pay its fair share as well as any established City of Elk Grove development impact fees for roadway facilities.</p>	<p>Prior to approval of subsequent development projects</p>	<p>City of Elk Grove Development Services</p>	

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<p><b>MM 4.2.2i</b></p>	<p>Right-turn overlap phasing for the southbound right-turn movement shall be provided at the Laguna Boulevard/Franklin Boulevard intersection.</p> <p>Fair-share funding for the above roadway improvement shall be determined by the modification of the Interim Roadway Fee Program (Elk Grove Municipal Code Chapter 16.89) or its successor roadway fee program. The project applicant shall pay its fair share as well as any established City of Elk Grove development impact fees for roadway facilities. Project and/or public facility financing plans and/or programs shall establish the timing of this improvement to ensure it is in place prior to LOS E operations.</p>	<p>Prior to approval of subsequent development projects</p>	<p>City of Elk Grove Development Services</p>	
<p><b>MM 4.2.2j</b></p>	<p>Right-turn overlap phasing shall be provided for the northbound right-turn movement at the intersection of Laguna Boulevard with Big Horn Boulevard.</p> <p>Fair-share funding for the above roadway improvement shall be determined by the modification of the Interim Roadway Fee Program (Elk Grove Municipal Code Chapter 16.89) or its successor roadway fee program. The project applicant shall pay its fair share as well as any established City of Elk Grove development impact fees for roadway facilities. Project and/or public facility financing plans and/or programs shall establish the timing of this improvement to ensure it is in place prior to LOS E operations.</p>	<p>Prior to approval of subsequent development projects</p>	<p>City of Elk Grove Development Services</p>	



<p><b>MM 4.2.2k</b></p>	<p>The following lane configurations shall be provided at the Elk Grove Boulevard/Elk Grove-Florin Road intersection.</p> <ul style="list-style-type: none"> <li>• A shared through/right-turn lane, one through lane, and two left-turn lanes on the northbound approach.</li> <li>• In addition, provide protected left-turn phasing on the northbound and southbound approaches.</li> </ul> <p>Fair-share funding for the above roadway improvement shall be determined by the modification of the Interim Roadway Fee Program (Elk Grove Municipal Code Chapter 16.89) or its successor roadway fee program. The project applicant shall pay its fair share as well as any established City of Elk Grove development impact fees for roadway facilities. Project and/or public facility financing plans and/or programs shall establish the timing of this improvement to ensure it is in place prior to LOS E operations.</p> <p>If the additional right-of-way necessary for the improvement cannot be obtained, the project applicant shall pay their fair-share of the estimated cost of the improvement and cost of the right-of-way into the City's future Traffic Impact Fund.</p>	<p>Prior to approval of subsequent development projects</p>	<p>City of Elk Grove Development Services</p>	
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<p><b>MM 4.2.3d</b></p>	<p>Buceville Road between Elk Grove Boulevard and Laguna Boulevard shall be widened from two to three lanes in each direction.</p> <p>Fair-share funding for the above roadway improvement shall be determined by the modification of the Interim Roadway Fee Program (Elk Grove Municipal Code Chapter 16.89) or its successor roadway fee program. The project applicant shall pay its fair share as well as any established City of Elk Grove development impact fees for roadway facilities. Project and/or public facility financing plans and/or programs shall establish the timing of this improvement to ensure it is in place prior to LOS E operations.</p>	<p>Prior to approval of subsequent development projects</p>	<p>City of Elk Grove Development Services</p>	
<p><b>MM 4.2.5a</b></p>	<p>Right-turn overlap phasing for the southbound right-turn movement at the Laguna Boulevard/Franklin Boulevard intersection.</p> <p>Fair-share funding for the above roadway improvement shall be determined by the modification of the Interim Roadway Fee Program (Elk Grove Municipal Code Chapter 16.89) or its successor roadway fee program. The project applicant shall pay its fair share as well as any established City of Elk Grove development impact fees for roadway facilities. Project and/or public facility financing plans and/or programs shall establish the timing of this improvement to ensure it is in place prior to LOS E operations.</p>	<p>Prior to approval of subsequent development projects</p>	<p>City of Elk Grove Development Services</p>	

<p><b>MM 4.2.5b</b></p>	<p>The following lane configurations shall be provided at the Elk Grove Boulevard/Big Horn Boulevard intersection.</p> <ul style="list-style-type: none"> <li>• One right-turn lane, two through lanes, and two left-turn lanes on the northbound approach.</li> <li>• One right-turn lane, two through lanes, and two left-turn lanes on the southbound approach.</li> <li>• One right-turn lane, three through lanes, and two left-turn lanes on the eastbound approach.</li> <li>• One right-turn lane, three through lanes, and two left-turn lanes on the westbound approach.</li> <li>• Right-turn overlap phasing on all approaches to the intersection, which would require modification of the existing signal equipment and signal phasing.</li> </ul> <p>Fair-share funding for the above roadway improvement shall be determined by the modification of the Interim Roadway Fee Program (Elk Grove Municipal Code Chapter 16.89) or its successor roadway fee program. The project applicant shall pay its fair share as well as any established City of Elk Grove development impact fees for roadway facilities. Project public facility financing plans and/or programs shall establish the timing of this improvement to ensure it is in place prior to LOS E operations and consistent with the Specific Plan's infrastructure phasing provisions.</p>	<p>Prior to approval of subsequent development projects</p>	<p>City of Elk Grove Development Services</p>	
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<p><b>MM 4.2.5c</b></p>	<p>The following lane configurations shall be provided at the Elk Grove Boulevard/West Laguna Springs Drive intersection.</p> <ul style="list-style-type: none"> <li>• One right-turn lane, two through lanes, and one left-turn lane on the southbound approach.</li> <li>• Two right-turn lanes, two through lanes and one left-turn lane on the northbound approach.</li> <li>• One right-turn lane, three through lanes, and two left-turn lanes on the westbound approach.</li> <li>• One right-turn lane, three through lanes, and one left-turn lane on the eastbound approach.</li> <li>• Protected left-turn phasing for the north and southbound left-turn movements.</li> <li>• Provide right-turn overlap phasing on the northbound and southbound approaches, which would require modification of the existing signal equipment and signal phasing.</li> </ul> <p>Fair-share funding for the above roadway improvement shall be determined by the modification of the Interim Roadway Fee Program (Elk Grove Municipal Code Chapter 16.89) or its successor roadway fee program. The project applicant shall pay its fair share as well as any established City of Elk Grove development impact fees for roadway facilities. Project public facility financing plans and/or programs shall establish the timing of this improvement to ensure it is in place prior to LOS E operations and consistent with the Specific Plan's infrastructure phasing provisions.</p>	<p>Prior to approval of subsequent development projects</p>	<p>City of Elk Grove Development Services</p>	
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<p><b>MM 4.2.5d</b></p>	<p>The following lane configurations shall be provided at the Elk Grove Boulevard/Auto Center Drive intersection.</p> <ul style="list-style-type: none"> <li>• Two right-turn lanes, one through lane, and one left-turn lane on the northbound approach.</li> <li>• Provide protected left-turn phasing on the northbound and southbound approaches.</li> <li>• Provide right-turn overlap phasing on the northbound approach. Right-turn overlap phasing would require modification of the existing signal equipment and signal phasing.</li> </ul> <p>Fair-share funding for the above roadway improvement shall be determined by the modification of the Interim Roadway Fee Program (Elk Grove Municipal Code Chapter 16.89) or its successor roadway fee program. The project applicant shall pay its fair share as well as any established City of Elk Grove development impact fees for roadway facilities. Project and/or public facility financing plans and/or programs shall establish the timing of this improvement to ensure it is in place prior to LOS E operations.</p>	<p>Prior to approval of subsequent development projects</p>	<p>City of Elk Grove Development Services</p>	
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<p><b>MM 4.2.5f</b></p>	<p>The following lane configurations shall be provided at the Elk Grove Boulevard/East Stockton Boulevard intersection.</p> <ul style="list-style-type: none"> <li>• One right-turn lane, one through lane, and one left-turn lanes on the southbound approach.</li> <li>• A shared through/right-turn lane and two left-turn lanes on the northbound approach.</li> <li>• Provide protected left-turn phasing on the northbound and southbound approaches.</li> </ul> <p>Fair-share funding for the above roadway improvement shall be determined by the modification of the Interim Roadway Fee Program (Elk Grove Municipal Code Chapter 16.89) or its successor roadway fee program. The project applicant shall pay its fair share as well as any established City of Elk Grove development impact fees for roadway facilities. Project and/or public facility financing plans and/or programs shall establish the timing of this improvement to ensure it is in place prior to LOS E operations.</p>	<p>Prior to approval of subsequent development projects</p>	<p>City of Elk Grove Development Services.</p>	
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<p><b>MM 4.2.5g</b></p>	<p>The following lane configurations shall be provided at the Elk Grove Boulevard/Bruceville Road intersection.</p> <ul style="list-style-type: none"> <li>• One right-turn lane on the westbound approach.</li> </ul> <p>Fair-share funding for the above roadway improvement shall be determined by the modification of the Interim Roadway Fee Program (Elk Grove Municipal Code Chapter 16.89) or its successor roadway fee program. The project applicant shall pay its fair share as well as any established City of Elk Grove development impact fees for roadway facilities. Project public facility financing plans and/or programs shall establish the timing of this improvement to ensure it is in place prior to LOS E operations.</p>	<p>Prior to approval of subsequent development projects</p>	<p>City of Elk Grove Development Services</p>	
<p><b>MM 4.2.5j</b></p>	<p>Install a traffic signal and coordinate it with the Hood-Franklin Road/I-5 Northbound Ramps intersection. This improvement will require coordination and approval from Caltrans and Sacramento County. Fair-share funding for the above roadway improvement shall be determined by the modification of the Interim Roadway Fee Program (Elk Grove Municipal Code Chapter 16.89) or its successor roadway fee program. The project applicant shall pay its fair share as well as any established City of Elk Grove development impact fees for roadway facilities.</p>	<p>Prior to approval of subsequent development projects</p>	<p>City of Elk Grove Development Services</p>	

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<p><b>MM 4.2.5k</b></p>	<p>Install a traffic signal and coordinate it with the Hood-Franklin Road/I-5 Southbound Ramps intersection. This improvement will require coordination and approval from Caltrans and Sacramento County. Fair-share funding for the above roadway improvement shall be determined by the modification of the Interim Roadway Fee Program (Elk Grove Municipal Code Chapter 16.89) or its successor roadway fee program. The project applicant shall pay its fair share as well as any established City of Elk Grove development impact fees for roadway facilities.</p>	<p>Prior to approval of subsequent development projects</p>	<p>City of Elk Grove Development Services</p>	
<p><b>MM 4.2.5i</b></p>	<p>A traffic signal shall be installed and the following lane configurations shall be provided at the Elk Grove-Florin Road/East Stockton Boulevard intersection.</p> <ul style="list-style-type: none"> <li>• One through lane and one left-turn lane on the southbound approach.</li> <li>• One right-turn lane and two left-turn lanes on the westbound approach.</li> <li>• One right-turn lane and one through lane on the northbound approach.</li> <li>• This improvement would require 3-phase signal operation.</li> </ul> <p>Fair-share funding for the above roadway improvement shall be determined by the modification of the Interim Roadway Fee Program (Elk Grove Municipal Code Chapter 16.89) or its successor roadway fee program. The project applicant shall pay its fair share as well as any established City of Elk Grove development impact fees for roadway facilities. Project and/or public facility financing plans and/or programs shall establish the timing of this improvement to ensure it is in place prior to LOS E operations.</p>	<p>Prior to approval of subsequent development projects</p>	<p>City of Elk Grove Development Services</p>	



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<p><b>MM 4.2.5l</b></p>	<p>Right-turn overlap phasing shall be provided for the southbound right-turn movement at the intersection of Grant Line Road and Waterman Road.</p> <p>Fair-share funding for the above roadway improvement shall be determined by the modification of the Interim Roadway Fee Program (Elk Grove Municipal Code Chapter 16.89) or its successor roadway fee program. The project applicant shall pay its fair share as well as any established City of Elk Grove development impact fees for roadway facilities. Project and/or public facility financing plans and/or programs shall establish the timing of this improvement to ensure it is in place prior to LOS E operations.</p>	<p>Prior to approval of subsequent development projects</p>	<p>City of Elk Grove Development Services</p>	
<p><b>MM 4.2.5m</b></p>	<p>Right-turn overlap phasing shall be provided for the northbound right-turn movement at the intersection of Laguna Boulevard with West Laguna Springs Drive.</p> <p>Fair-share funding for the above roadway improvement shall be determined by the modification of the Interim Roadway Fee Program (Elk Grove Municipal Code Chapter 16.89) or its successor roadway fee program. The project applicant shall pay its fair share as well as any established City of Elk Grove development impact fees for roadway. Project and/or public facility financing plans and/or programs shall establish the timing of this improvement to ensure it is in place prior to LOS E operations.</p>	<p>Prior to approval of subsequent development projects</p>	<p>City of Elk Grove Development Services</p>	

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<p><b>MM 4.2.5n</b></p>	<p>Right-turn overlap phasing shall be provided for the southbound right-turn movement at the intersection of Elk Grove and Franklin Boulevards.</p> <p>Fair-share funding for the above roadway improvement shall be determined by the modification of the Interim Roadway Fee Program (Elk Grove Municipal Code Chapter 16.89) or its successor roadway fee program. The project applicant shall pay its fair share as well as any established City of Elk Grove development impact fees for roadway facilities. Project and/or public facility financing plans and/or programs shall establish the timing of this improvement to ensure it is in place prior to LOS E operations.</p>	<p>Prior to approval of subsequent development projects</p>	<p>City of Elk Grove Development Services</p>	
<p><b>MM 4.2.5o</b></p>	<p>Right-turn overlap phasing shall be provided for the southbound right-turn movement at the Grant Line Road/Bradshaw Road intersection.</p> <p>Fair-share funding for the above roadway improvement shall be determined by the modification of the Interim Roadway Fee Program (Elk Grove Municipal Code Chapter 16.89) or its successor roadway fee program. The project applicant shall pay its fair share as well as any established City of Elk Grove development impact fees for roadway facilities. Project and/or public facility financing plans and/or programs shall establish the timing of this improvement to ensure it is in place prior to LOS E operations.</p>	<p>Prior to approval of subsequent development projects</p>	<p>City of Elk Grove Development Services</p>	

<p><b>MM 4.7.3b</b></p>	<p>Subsequent non-residential projects shall be required to locate all storage areas away from any drainage features and provide water quality control measures in storm drainage facilities such as grease and sediment traps, vegetative filters, and containment structures for hazardous materials. This requirement shall be reflected on site plans and improvement plans. Water quality control features shall be consistent with the City's NPDES permit (NPDES No. CAS082597).</p>	<p>As a condition of approval of subsequent non-residential projects.</p>	<p>City of Elk Grove Public Works and Development Services</p>	
<p><b>MM 4.8.5</b></p>	<p>The project applicant shall design the subsequent public and private projects within the plan area to avoid impacts to potential habitat for VELB (elderberry shrubs; see Figure 4.8-1 of the Draft EIR), if feasible. If project development is required in areas that may impact elderberry shrubs containing stems measuring 1.0 inch or greater in diameter at ground level (development within 100 feet of shrub dripline), the project applicant shall perform one of the following measures:</p> <ol style="list-style-type: none"> <li>1. Fence and flag all areas to be avoided during construction activities. In areas where encroachment on the 100-foot buffer has been approved by the USFWS, provide a minimum setback of at least 20 feet from the dripline of each elderberry plant.</li> <li>2. Brief contractors on the need to avoid damaging the elderberry plants and the possible penalties for not complying with these requirements.</li> <li>3. Erect signs every 50 feet along the edge of the avoidance area with the following information: "This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines and</li> </ol>	<p>Prior to approval of subsequent development and prior to and during construction activities</p>	<p>U.S. Fish and Wildlife Service and City of Elk Grove Development Services</p>	

	<p>imprisonment." The signs should be clearly readable from a distance of 20 feet and must be maintained for the duration of construction.</p> <p>4. Instruct work crews about the status of the beetle and the need to protect its elderberry host plant.</p> <p>Restoration and Maintenance</p> <p>1. Restore any damage done to the buffer area (area within 100 feet of elderberry plants) during construction. Provide erosion control and re-vegetate with appropriate native plants.</p> <p>2. Buffer areas must continue to be protected after construction from adverse effects of the project. Measures such as fencing, signs, weeding and trash removal are usually appropriate.</p> <p>3. No insecticides, herbicides, fertilizers or other chemicals that might harm the beetle or its host plant should be used in the buffer areas, or within 100 feet of any elderberry plant with one or more stems measuring 1.0 inch or greater in diameter at ground level.</p> <p>4. The applicant must provide a written description of how the buffer areas are to be restored, protected and maintained after construction is completed.</p> <p>5. Mowing of grasses/ground cover may occur from July through April to reduce fire hazard. No mowing should occur within five feet of elderberry plant stems. Mowing must be done in a manner that avoids damaging plants (e.g., striping away bark through careless use of mowing/trimming equipment).</p>			
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	<p>If the shrub cannot be avoided, then a mitigation plan shall be developed and implemented in consultation with USFWS consistent with the conservation guidelines for the valley elderberry longhorn beetle, which likely includes one or more of the following:</p> <ul style="list-style-type: none"> <li>• Obtain credits at an approved mitigation bank; or</li> <li>• Implement an onsite mitigation and monitoring plan that includes transplantation of the shrub and planting of elderberry seedlings.</li> </ul> <p>The mitigation plan shall be approved by the USFWS prior to acceptance by the City. Any required onsite mitigation shall be incorporated into subsequent improvement and construction plans.</p>			
<p><b>MM 4.8.6</b></p>	<p>The project applicant shall design the subsequent public and private projects within the plan area to avoid impacts to potential habitat for vernal pool invertebrates by providing an appropriate setback from the edge of each pool, as determined by the City in consultation with the U.S. Fish and Wildlife Service, if feasible. If pools impacted cannot be avoided, the project proponent shall implement the following measures:</p> <ol style="list-style-type: none"> <li>1. Completion of an onsite mitigation and monitoring plan that includes onsite creation/preservation of the pools. Mitigation shall be to the satisfaction of the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers (as part of Section 404 permitting), and the City, or</li> <li>2. Credits may be obtained at an approved mitigation bank.</li> </ol>	<p>Prior to the approval of subsequent development and prior to construction activities</p>	<p>U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, and City of Elk Grove Development Services</p>	

As Part of Subsequent Development Application Submittals				
<p><b>MM 4.5.3a</b></p>	<p>As part of subsequent applications on non-participating properties, the project applicant shall provide the City with a Phase I Site Assessment to determine whether ash or a former burn site is present on the subject property.</p>	<p>Prior to acceptance of an application for subsequent development on non-participating properties as complete.</p>	<p>City of Elk Grove Development Services</p>	
<p><b>MM 4.8.1a</b></p>	<p>A tree survey shall be conducted by an arborist certified by the International Society of Arboriculture (ISA) to enumerate and evaluate all trees on the site that meet the standards in the City Tree Ordinance (as amended).</p> <p>All tree locations shall be mapped onto all subsequent improvement and construction plans, tentative subdivision maps, and maps associated with development projects and rezones. Direct loss of protected trees shall be clearly identified on all subsequent maps and plans.</p>	<p>As part of the subsequent development application submittals and prior to construction activities</p>	<p>City of Elk Grove Development Services</p>	
<p><b>MM 4.8.1b</b></p>	<p>Unless identified for removal as described in MM 4.8.1, all trees that meet the following criteria shall be avoided by construction and protected during all construction activity:</p> <ul style="list-style-type: none"> <li>• Native and Non-Native Oak Trees with a trunk at least six inches (6") in diameter at a height of 4.5 feet.</li> <li>• All other trees with a trunk diameter of twelve inches (12") at a height of 4.5 feet.</li> </ul> <p>Trees to be retained shall be protected by implementation of the following measures:</p> <ol style="list-style-type: none"> <li>1. Before initiating any construction activity near protected trees, install chain link fencing or a</li> </ol>	<p>As part of the subsequent development application submittals and prior to and during construction activities</p>	<p>City of Elk Grove Development Services</p>	

	<p>similar protective barrier at least one foot outside the dripline of each tree or as far as possible from the tree trunk where the existing road is within the tree dripline. The barrier fencing will remain in place for the duration of construction activity.</p> <ol style="list-style-type: none"> <li>2. Any required pruning of oak trees shall be conducted before construction activity begins. Oak trees that require pruning of branches larger than two inches in diameter shall be pruned by a certified arborist. No pruning of the six-foot-diameter tree will be permitted.</li> <li>3. No signs, ropes, cables (except cable that may be installed by a certified arborist or other professional tree expert), or other items shall be attached to the oak trees.</li> <li>4. No vehicles, construction equipment, mobile home/office, supplies, materials, or facilities shall be driven, parked, stockpiled, or located within the driplines of oak trees.</li> <li>5. No grading shall be allowed within the driplines of oak trees except where paved roadway already exists and where it can be demonstrated that the health of the tree will not be significantly impacted. Removal of pavement and grading within the driplines of oak trees shall be conducted in the presence of a certified arborist to ensure that damage and stress to any oak tree is minimized.</li> <li>6. Any work necessary within the driplines shall be conducted by hand.</li> <li>7. Paving within the driplines of oak trees shall be stringently minimized. When paving is</li> </ol>			
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	<p>absolutely necessary, porous material shall be used or a piped aeration system shall be installed under the supervision of a certified arborist.</p> <p>8. Landscaping beneath oak trees may include non-plant material such as boulders, cobbles, and wood chips. The only plant species that shall be planted within the driplines of oak trees are those that are tolerant of the natural semi-arid environs of the trees. Limited drip irrigation approximately twice per summer is recommended for understory plants.</p> <p>9. No sprinkler system shall be installed in such a manner that it irrigates within the driplines of oak trees.</p> <p>Trees that are subject to protection and which cannot be protected shall be replaced with in-kind species in accordance with established tree planting specifications, the combined diameter of which shall equal the combined diameter of the trees removed.</p> <p>If trees cannot be preserved or replaced onsite, off-site mitigation or the payment of an in-lieu fee shall be provided in accordance with the provisions of the City Tree Preservation Ordinance (as amended).</p> <p>The above requirements shall be implemented prior to and during construction activities for all subsequent public and private projects. Improvement and construction plans shall specifically note this measure.</p>			
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<p><b>MM 4.8.3</b></p>	<p>As part of each subsequent project application submittal to the City, the project applicant shall identify all potential wetland resources that occur on-site for City review (such as those identified in Figure 4.8-1 of the Draft EIR. If wetland resources are proposed to be impacted, the project applicant shall do the following:</p> <ol style="list-style-type: none"> <li>1. The applicant shall delineate the extent of jurisdictional waters of the U.S. to be impacted by the proposed project and, if required, apply for a Section 404 permit from the U.S. Army Corps of Engineers (Corps). Wetland areas that would be lost or disturbed shall be replaced or rehabilitated on a "no-net-loss" basis. Onsite creation of wetland habitat is preferred to offsite mitigation. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by methods agreeable to the Corps and City.</li> <li>2. The applicant shall obtain a Section 401 water quality waiver of certification from the RWQCB.</li> <li>3. A mitigation plan shall be implemented that includes <u>one</u> of the following:             <ol style="list-style-type: none"> <li>(a) Completion of an onsite Mitigation and Monitoring Plan that includes onsite creation/preservation of the wetlands.</li> <li>(b) Credits may be obtained at an approved mitigation bank.</li> </ol> </li> </ol> <p>The project applicant shall provide written evidence to the City from the Corps and the RWQCB that this measure has been complied with prior to recordation of final maps.</p>	<p>A part of subsequent tentative map applications and completed prior to final map recordation.</p>	<p>City of Elk Grove Development Services, Corps, and RWQCB.</p>	
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Prior to Approval of Tentative Subdivision Maps, Parcel Maps, and Site Plans				
<p><b>MM 4.2.8</b></p>	<p>Prior to the approval of tentative subdivision, parcel maps and subsequent development associated with land areas along Big Horn Blvd and Bruceville Road right-of-way for future light rail stations and lines at locations along either Big Horn Boulevard or Bruceville Road shall be dedicated based on consultation with the City of Elk Grove and Sacramento Regional Transit.</p>	<p>Prior to approval of tentative subdivision and parcel maps and subsequent development</p>	<p>City of Elk Grove Development Services and Sacramento Regional Transit</p>	
<p><b>MM 4.4.3a</b></p>	<p>When residential tentative subdivision maps include and/or are located adjacent to school and park sites, the residential subdivisions shall be designed to meet City noise standards set forth in Table 4.4-6 of the Draft EIR. If the noise levels from the school and park facilities is expected to exceed the applicable standard, the project applicant shall implement appropriate mitigation measures. Appropriate mitigation measures include walls, berms, and buffers that would ensure compliance with applicable standards, as determined through the adopted Design Review procedures. Evidence of compliance shall be provided to the City.</p>	<p>Prior to approval of residential tentative subdivision maps</p>	<p>City of Elk Grove Development Services, Elk Grove Unified School District, and Elk Grove Community Services District</p>	
<p><b>MM 4.4.3b</b></p>	<p>Prior to approval of a non-residential use that will abut a residential use and has the potential to generate noise, the project applicant shall demonstrate compliance with City noise standards set forth in Table 4.4-6 of the Draft EIR. If the noise levels from the facility exceed the applicable standard, the project applicant shall implement appropriate mitigation measures. Appropriate mitigation measures include walls, berms, and buffers that would ensure compliance with applicable standards, as determined through the adopted Design Review procedures.</p>	<p>Prior to approval of permits and/or plans for non-residential uses adjacent to existing or planned residential uses</p>	<p>City of Elk Grove Development Services</p>	

<p><b>MM 4.4.5</b></p>	<p>Prior to development of any noise-sensitive uses (as defined by the City of Elk Grove Noise Element) along Elk Grove Boulevard, Big Horn Road and Poppy Ridge Road, the project applicant shall identify specific noise mitigation measures for areas that would be located within the 60 dB Ldn traffic noise contours shown in <b>Table 4.4-12</b> of the Draft EIR that would attenuate noise levels in compliance with City noise standards for traffic noise as shown in <b>Table 4.4-9</b> of the Draft EIR. Potential design features for noise attenuation are listed below.</p> <ul style="list-style-type: none"> <li>a. <u>Setbacks</u> (i.e., open space, frontage roads, recreational areas, and storage yards) typically reduce noise attenuation by 4 to 6 dB per doubling of distance from the source.</li> <li>b. <u>Barriers</u> (i.e., walls, berms, or structures) to achieve a noise reduction ranging from 5 to 15 dB. Earth berms provide approximately 3 dB more attenuation than a wall.</li> <li>c. <u>Site design</u> (i.e., building location) to reduce noise levels.</li> <li>d. <u>Building design</u> (i.e., location of noise-sensitive uses within a building) to reduce the impact of noises on inhabitants.</li> <li>e. <u>Building facades</u> (i.e., utilizing all features of the building façade including the closed windows) to reduce noise.</li> <li>f. <u>Vegetation</u> (i.e., trees and other vegetation) 100 feet of dense foliage can achieve a 5 dB attenuation of traffic noise.</li> <li>g. <u>Noise-reducing paving materials</u> (i.e., rubberized asphalt) reduce traffic noise by approximately 4 dB.</li> </ul>	<p>Prior to approval of tentative subdivision maps and development projects along Elk Grove Boulevard, Big Horn Road and Poppy Ridge Road.</p>	<p>City of Elk Grove Development Services</p>	
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<p><b>MM 4.6.1.1a</b></p>	<p>Prior to each tentative subdivision and/or parcel map approval, the project applicant shall submit to the City, information documenting adequate availability of water supplies and associated infrastructure facilities for the proposed development consistent with facilities and phasing set forth in the Laguna Ridge Specific Plan water study (Wood-Rogers, 2000). Subsequent project applications shall not be approved by the City until proof has been provided that water supplies are available and approval from SCWA has been received.</p>	<p>Prior to tentative subdivision and/or parcel map approval</p>	<p>City of Elk Grove Development Services and Sacramento County Water Agency</p>	
<p><b>MM 4.6.2.1</b></p>	<p>Prior to each tentative subdivision or parcel map, the project applicant shall be required to demonstrate that the permanent sewer system, consistent with the Preliminary Sewer Master Plan for the Laguna Ridge Specific Plan (Wood-Rogers, 2002) adequately serves the subsequent project. This demonstration may take the form of plans and/or reports, which shall be reviewed and approved by the City consistent with the Specific Plan infrastructure phasing provisions. The project applicant shall also pay the required sewer connection and capacity fees that are used to fund expansion of trunk and interceptor facilities.</p>	<p>Prior to the approval of each tentative subdivision or parcel map</p>	<p>City of Elk Grove Development Service, Sacramento Regional County Sanitation District and County Sanitation District.</p>	
<p><b>MM 4.6.2.2</b></p>	<p>Prior to approval of each tentative subdivision or parcel map that would utilize the interim sewer facilities, the project applicant shall be required to demonstrate that there is adequate sewer capacity to support the proposed project. This will include confirmation from Sacramento Regional County Sanitation District and County Sanitation District-1 on the availability of sewer capacity.</p>	<p>Prior to approval of each tentative subdivision and parcel map</p>	<p>City of Elk Grove Development Services, Sacramento Regional County Sanitation District, and County Sanitation District-1</p>	

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<p><b>MM 4.7.2</b></p>	<p>Prior to the approval of each subsequent tentative subdivision map, the project applicant shall be required to demonstrate that drainage facilities, consistent with the Storm Drainage Master Plan for Laguna Ridge Specific Plan (Wood-Rogers, 2002), will adequately serve the subsequent project, consistent with City standards and off-site flooding impacts would not result, and that such facilities are either available or will be available upon site development. This demonstration may take the form of plans and/or reports, which shall be reviewed and approved by the City consistent with the Specific Plan infrastructure phasing provisions.</p>	<p>Prior to the approval of each subsequent tentative parcel and/or subdivision map</p>	<p>City of Elk Grove Public Works</p>	
<p><b>MM 4.8.2a</b></p>	<p>Prior to approval of site plans and/or tentative subdivision maps for each parcel proposed for development within 50 feet of the perennial marsh shown in <b>Figure 4.8-1</b> of the Draft EIR, a focused plant survey for Sanford's arrowhead is required to determine the presence/absence of this species. The surveys shall be conducted by a qualified botanist retained by the City and funded by the project applicant during the blooming period (May-August) for this species.</p>	<p>Prior to approval of site plans and/or tentative subdivision map for parcels proposed for development within 50 feet of the perennial marsh.</p>	<p>City of Elk Grove Development Services</p>	

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<p><b>MM 4.8.2b</b></p>	<p>If this species is not found onsite, no further measures are required. However, if Sanford's arrowhead is found, each population shall be mapped and technical assistance from CNPS and the U.S. Fish and Wildlife Service shall be requested. To the maximum extent feasible, plant populations shall be preserved within open space non-disturbance areas. However, if these areas cannot be avoided, land-supporting populations of the impacted species shall be purchased and shall be permanently protected. Under the direction of CNPS and the U.S. Fish and Wildlife Service, preservation strategies shall be implemented, which may include seed and soil collection or plant transplant. At a minimum, mitigation shall occur at a 1:1 ratio (one plant preserved for every plant impacted). A detailed mitigation plan that includes species, habitat, preserve management, and monitoring strategies shall be developed in consultation with the U.S. Fish and Wildlife Service.</p>	<p>Prior to approval of site plans and/or tentative subdivision maps for parcels proposed for development within 50 feet of the perennial marsh.</p>	<p>City of Elk Grove Development Services and U.S. Fish and Wildlife Service</p>	
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<p><b>MM 4.10.1a</b></p>	<p>Prior to subsequent approvals on non-participating properties, a detailed cultural resources field survey of the subject property shall be conducted by the City and funded by the project applicant. The cultural resources field survey shall identify any cultural resource finds and will set out measures to mitigate any impacts to any significant resources as defined by CEQA, California Register of Historic Resources and/or National Historic Preservation Act. Mitigation methods to be employed include, but are not limited to, the following:</p> <ul style="list-style-type: none"> <li>• Redesign of the subsequent development project to avoid the resource. The resource site shall be deeded to a non-profit agency to be approved by the City for maintenance of the site.</li> <li>• If avoidance is determined infeasible by the City, then the resource shall be mapped, stabilized, and capped pursuant to appropriate standards.</li> <li>• If the City determines capping infeasible, then the resource shall be excavated and recorded to appropriate standards.</li> </ul>	<p>Prior to subsequent approvals on non-participating properties</p>	<p>City of Elk Grove Development Services</p>	
<p><b>MM 4.10.2</b></p>	<p>Prior to subsequent approvals on non-participating properties that include the buildings at 8533 and 8551 Poppy Ridge Road, a detailed evaluation of the historical significance of the structures at the two sites listed above shall be conducted by the City and funded by the project applicant. If the evaluation is negative (i.e., not historically significant), no further mitigation is required.</p> <p>If the evaluation determines that the two sites are historically significant, the subsequent development project shall be redesigned to avoid the building site(s). The building site(s) will be deeded to a non-profit agency to be approved by the City for the maintenance of the site(s). If avoidance is</p>	<p>Prior to subsequent approvals on non-participating properties associated with 8533 and 8551 Poppy Ridge Road</p>	<p>City of Elk Grove Development Services</p>	

	<p>determined to be infeasible by the City, all required documentation (in addition to the items above) shall be conducted in accordance with appropriate standards:</p> <ul style="list-style-type: none"> <li>• The development of a site-specific history and appropriate contextual information regarding the particular resource; in addition to archival research and comparative studies, this task could involve limited oral history collection;</li> <li>• Accurate mapping of the noted resources, scaled to indicate size and proportion of the structures;</li> <li>• Architectural description of affected structures;</li> <li>• Photo documentation of the designated resources, both in still and video format;</li> <li>• Recordation of measured architectural drawings, in the case of specifically designated buildings of higher architectural merit; and</li> <li>• Any historical significant artifacts within buildings and the surrounding area shall be recorded and deposited with the appropriate museum.</li> </ul> <p>These buildings shall be preserved and relocated off-site.</p>			



Prior Final Subdivision Map Approval				
<b>MM</b> <b>4.6.4.2a</b>	<p>The project applicant shall provide a permanent fire station within the plan area and sufficient funds to purchase associated facilities including an aerial truck, and urban interface engine. These improvements and facilities, included in the Laguna South Public Facilities Fee Program, shall be provided to the satisfaction of the Elk Grove Community Services District Fire Department (EGCSDFD).</p> <p>Fair-share funding for the above fire facilities and services improvements shall be determined by the modification of the Laguna South Public Facilities Fee Program by the annexation of the Laguna Ridge Specific Plan into the Fee Program. Project public facility financing plans and/or programs shall establish the timing of these improvements to ensure they are in place to the satisfaction of the EGCSDFD. Establishment of the financing plans and/or programs shall occur prior to the approval of any subsequent development project. Development may occur prior to approval of the project's financing plans and/or programs if the project applicant constructs the EGCSDFD required improvement and purchases associated facilities concurrent with the development of their specific project.</p>	Prior to approval of the Project Financing Program and/or Plan	EGCSDFD and City of Elk Grove Development Services	
<b>MM</b> <b>4.6.5.1</b>	<p>The project's general financing program and/or plan shall demonstrate that there are sufficient sources of funding to provide adequate law enforcement facilities and equipment for new officers required to maintain the one officer per 1,000 residents ratio with the addition of the project.</p>	Prior to approval of the Project Financing Program and/or Plan	Elk Grove Police Department and City of Elk Grove Development Services	

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<p><b>MM 4.4.4</b></p>	<p>The project proponent shall ensure that a disclosure statement shall be recorded against the property and be provided to all prospective buyers of properties within the proposed plan area notifying such persons of the presence of existing and future noise-producing agricultural-related activities in the immediate Specific Plan area. The disclosure statement shall be reviewed and approved by City of Elk Grove Development Services.</p>	<p>Prior to each final subdivision map approval</p>	<p>City of Elk Grove Development Services</p>	
<p><b>MM 4.1.2b</b></p>	<p>The project proponent shall ensure that a disclosure statement shall be recorded against the property and be provided to all prospective buyers of properties within the proposed plan area notifying such persons of the presence of existing and future noise-producing agricultural-related activities in the immediate Specific Plan area. The disclosure statement shall be reviewed and approved by City of Elk Grove Development Services.</p>	<p>Prior to the sale to prospective buyers</p>	<p>City of Elk Grove Development Services</p>	
<p><b>Prior to Issuance of Demolition Permits</b></p>				
<p><b>MM 4.5.2</b></p>	<p>Prior to the issuance of demolition permits for existing onsite structures, asbestos material sampling shall be conducted to determine if materials are present. Any identified asbestos containing building materials present in each of the structures to be dismantled shall be removed under acceptable engineering methods and work practices by a licensed asbestos abatement contractor prior to removal. These practices include, but are not limited to: containment of the area by plastic, negative air filtration, wet removal techniques and personal respiratory protection and decontamination. The process shall be designed and monitored by a California Certified Asbestos Consultant. The abatement and monitoring plan shall be developed and submitted for review and approval by the appropriate regulatory agency (the Sacramento Metropolitan Air Pollution Management District).</p>	<p>Prior to the issuance of demolition permits</p>	<p>Sacramento Metropolitan APMD, City of Elk Grove Development Services</p>	

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<p><b>MM 4.5.4a</b></p>	<p>Prior to the issuance of demolition permits for existing onsite structures, all loose and peeling paint shall be removed and disposed of by a licensed and certified lead paint removal contractor, in accordance with local, state, and federal regulations.</p>	<p>Prior to issuance of demolition permits</p>	<p>City of Elk Grove Development Services</p>	
<p><b>MM 4.5.4b</b></p>	<p>The demolition contractor shall be informed that all paint on the buildings shall be considered as containing lead. The contractor shall take appropriate precautions to protect his/her workers, the surrounding community, and to dispose of construction waste containing lead paint in accordance with local, state, and federal regulations.</p>	<p>Prior to issuance of demolition permits and included in construction contracts.</p>	<p>City of Elk Grove Development Services</p>	
<p><b>Prior to Issuance of Grading Permits or Approval of Improvement Plans</b></p>				
<p><b>MM 4.1.1</b></p>	<p>The applicant of subsequent projects shall protect one acre of existing farmland land of equal or higher quality for each acre of Prime Farmland, Unique Farmland or Farmland of Statewide Importance that would be developed as a result of the project. Areas of Prime Farmland and Farmland of Statewide Importance within the project site are depicted in Figure 4.1-1 of the Revised Draft EIR. This protection may consist of the establishment of farmland conservation easement, farmland deed restriction or other appropriate farmland conservation mechanism that ensures the preservation of that land from conversion in perpetuity, but may also be utilized for compatible wildlife habitat conservation efforts (e.g., Swainson's hawk foraging habitat mitigation). The farmland/wildlife habitat land to be preserved shall be located within Sacramento County, outside the City of Elk Grove city limits, bounded by Hood-Franklin Road, Kammerer Road, Grant Line Road and the Jackson Highway, by Dillard Road and Clay Station Road, by the Sacramento County line, and by the Sacramento River, and must have adequate water supply to support agricultural use. In deciding whether to approve the land proposed for preservation by the</p>	<p>Prior to the issuance of grading permits</p>	<p>City of Elk Grove Development Services</p>	

	<p>Project applicant, the City shall consider the benefits of preserving farmlands in proximity to other protected lands. The preservation of off-site farmland may be done at one time, prior to the City's approval of the project's first grading permit, or may be done in increments with the build-out of the project, with preservation occurring prior to each grading permit approval. Grading plans shall include the farmland information contained in Figure 4.1-1 of the Revised Draft EIR and the acreage and type of farmland impacted. In addition, the City shall impose the following minimum conservation easement content standards:</p> <ul style="list-style-type: none"> <li>a) All owners of the agricultural/wildlife habitat mitigation land shall execute the document encumbering the land.</li> <li>b) The document shall be recordable and contain an accurate legal description of the agricultural/wildlife habitat mitigation land.</li> <li>c) The document shall prohibit any activity which substantially impairs or diminishes the agricultural productivity of the land. If the conservation easement is also proposed for wildlife habitat mitigation purposes, the document shall also prohibit any activity which substantially impairs or diminishes the wildlife habitat suitability of the land.</li> <li>d) The document shall protect any existing water rights necessary to maintain agricultural uses on the land covered by the document, and retain such water rights for ongoing use on the agricultural/wildlife habitat mitigation land.</li> <li>e) Interests in agricultural/habitat mitigation land shall be held in trust by an entity acceptable to the City and/or the City in perpetuity. The entity shall not sell, lease, or convey any interest in agricultural/wildlife habitat mitigation land which it shall acquire without the prior written approval of the City.</li> <li>f) The applicant shall pay to the City an</li> </ul>			
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	<p>agricultural/wildlife habitat mitigation monitoring fee to cover the costs of administering, monitoring and enforcing the document in an amount determined by the receiving entity, not to exceed 10% of the easement price paid by the applicant, or a different amount approved by the City Council, not to exceed 15% of the easement price paid by the applicant.</p> <p>g) The City shall be named a beneficiary under any document conveying the interest in the agricultural/wildlife habitat mitigation land to an entity acceptable to the City.</p> <p>h) If any qualifying entity owning an interest in agricultural/wildlife habitat mitigation land ceases to exist, the duty to hold, administer, monitor and enforce the interest shall be transferred to another entity acceptable to the City or to the City.</p> <p>Before committing to the preservation of any particular farmland pursuant to this measure, the Project proponent shall obtain the City's approval of the farmland proposed for preservation.</p>			
<p><b>MM 4.4.2</b></p>	<p>Prior to the commencement of pile driver operations in proximity to residential areas, an assessment of vibrations induced by pile driving at the site shall be completed. During indicator pile driving, vibrations should be measured at regular intervals to determine the levels of vibration at various distances from pile driving equipment. The indicator piles shall be driven at locations at least 400 feet from any existing residents. After monitoring, methods of reducing the peak ground velocities to less than 0.4 inches/second shall be determined and implemented during production pile driving. Methods to reduce vibrations, if needed, could include cut-off trenches, and the use of smaller hammers. The vibration reduction techniques to be used should be described in a note</p>	<p>Prior to any pile driving activities</p>	<p>City of Elk Grove Development Services</p>	

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	<p>attached to the construction plans for the project to be reviewed and approved by the appropriate City regulatory agency prior to issuance of building permits. This requirement shall be included as a note in all project construction plans.</p>			
<p><b>MM</b> <b>4.3.1f</b></p>	<p>This mitigation measure shall be implemented by all subsequent projects within the Laguna Ridge Specific Plan. An individual project <u>may</u> be exempt from the following mitigation if it is less than 20 acres in size and will generate less than 400 pounds per day of NO<sub>x</sub>, as determined by SMAQMD and the City. All other projects (not meeting the two exemption criteria) will be required to implement the following measures.</p> <p>(a) <b>Category 1: Reducing NO<sub>x</sub> emissions from off-road diesel powered equipment.</b></p> <p>The prime contractor shall provide a plan for approval by the City of Elk Grove and SMAQMD demonstrating that the heavy-duty (&gt;50 horsepower) off-road vehicles to be used in the construction project, and operated by either the prime contractor or any subcontractor, will achieve a fleet-averaged 20 percent NO<sub>x</sub> reduction and a 45 percent particulate reduction compared to the most recent CARB fleet average. The prime contractor shall submit to the City of Elk Grove and SMAQMD a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used an aggregate of 40 or more hours during the construction project. The inventory shall include the horsepower rating, engine production year, and hours of use or fuel throughput for each piece of equipment. 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 activity occurs; and,</p>	<p>Prior to and during construction activities.</p>	<p>City of Elk Grove Development Services and SMAQMD.</p>	

	<p>(b) <u>Category 2: Controlling visible emissions from off-road diesel powered equipment.</u></p> <p>The prime contractor shall ensure that emissions from all off-road diesel powered equipment used on the Specific Plan area do not exceed 40 percent opacity for more than three minutes in any one hour. Any equipment found to exceed 40 percent opacity shall be repaired immediately, and the City of Elk Grove 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 month summary of the visual results shall be submitted to the City and SMAQMD throughout the duration of the project, except that the monthly summary shall not be required for any 30-day period in which no construction activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed as well as the dates of each survey. The SMAQMD and/or other officials may conduct periodic site inspections to determine compliance. Nothing in this section shall supersede other SMAQMD or state rules or regulation.</p> <p>In the event construction equipment meeting the requirements set forth above is determined not to be available, the project applicant shall notify the City and SMAQMD. Upon verification that required low-emission construction equipment is not available, the City may waive this measure. This requirement shall be included as a note in all project construction plans.</p>			
<p><b>MM 4.3.2</b></p>	<p>The project applicant shall implement all measures proposed in the AQ-15 Plan provided in Appendix 4.3 of the Draft EIR for each subsequent project to reduce the emissions from both mobile and stationary sources. Each subsequent development project shall be checked for compliance with the AQ-15 Plan.</p>	<p>During all planning and development phases of the project.</p>	<p>City of Elk Grove Development Services and SMAQMD.</p>	

<p><b>MM 4.8.4a</b></p>	<p>Within 30 days prior to commencement of construction activities, a pre-construction survey of land within 200 feet of all wetlands, channels, ponds, and other such waterways within the plan area shall be conducted by a qualified biologist retained by the City and funded by the project applicant who is approved by the Service's Sacramento Fish and Wildlife Office. In order to protect snakes, dewatering of areas within the site shall not occur prior to completion of the pre-construction surveys. The biologist will provide the Service with a field report form documenting the monitoring efforts within 24-hours of commencement of construction activities. The monitoring biologist shall be retained by the City and funded by the project applicant to routinely monitor construction activities. If a snake is encountered during construction activities, the monitoring biologist shall contact the City Development Services and will have the authority to stop construction activities until appropriate corrective measures have been completed or it is determined that the snake will not be harmed.</p> <p>Giant garter snakes encountered during construction activities should be allowed to move away from construction activities on their own. Capture and relocation of trapped or injured individuals can only be attempted by personnel or individuals with current Service recovery permits pursuant to Section 10(a) 1(A) of the Act. The biologist shall be required to report any incidental take to the Service immediately by telephone at (916) 979-2725 and by written letter addressed to the Chief, Endangered Species Division, within one working day. The project area shall be re-inspected whenever a lapse in construction activity of two weeks or greater has occurred.</p> <p>This mitigation measure does not apply to land areas where surveys within the active period of the snake have been conducted and no snakes were found.</p>	<p>30 days prior to grading and commencement of construction activities</p>	<p>USFWS and City of Elk Grove Development Services</p>	
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<p><b>MM 4.8.4b</b></p>	<p>If a giant garter snake is identified within the plan area either during pre-construction surveys or during construction, the following shall occur:</p> <ol style="list-style-type: none"> <li>1. The City of Elk Grove shall be notified;</li> <li>2. The City shall suspend all construction activities on the site of the sighting and along any water feature within the plan area that is hydrologically connected to the site of the sighting;</li> <li>3. Protocol surveys shall be conducted by qualified biologists retained by the City and funded by the project applicant who are approved by the Service's Sacramento Fish and Wildlife Office;</li> <li>4. The project applicant shall consult with the USFWS and CDFG to determine appropriate mitigation for the species and habitat loss, possibly including Section 10 consultation with the USFWS and Section 2081 consultation with the CDFG; and,</li> <li>5. The project applicant shall provide the City with proof of the consultation and compliance with USFWS and CDFG mitigation requirements before construction activities may resume.</li> </ol> <p>This mitigation measure does not apply to land areas where surveys within the active period of the snake have been conducted and no snakes were found.</p>	<p>Prior to and during construction activities</p>	<p>City of Elk Grove Development Services, CDFG and USFWS</p>	
<p><b>MM 4.8.4c</b></p>	<p>No grading or other construction activities shall be conducted from October 1 to April 30, which is the inactive period of the giant garter snake. More danger is posed to snakes during their inactive period, because they are occupying underground burrows or crevices and are more susceptible to direct effects, especially during excavation. A "no grading" period from October 1 to April 30 will apply to portions of the plan area located within 1,000 feet of ditches, canals, ponds, wetlands or other such areas. This mitigation</p>	<p>Prior to project grading and during construction activity</p>	<p>City of Elk Grove Development Services</p>	

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	measure does not apply to land areas where surveys within the active period of the snake have been conducted and no snakes have been found.			
<b>MM 4.8.4d</b>	<p>Dewatering of ponds, ditches, canals and other such areas may begin any time after November 1, but no later than April 1 of the following year, once the absence of the species is determined or implementation of Mitigation Measure 4.8.4b has been completed. All water must be removed by April 15, or as soon thereafter as weather permits, and the habitat must remain dry without any standing water for 15 consecutive days after April 15 and prior to excavating or filling the dewatered habitat.</p> <p>This mitigation measure does not apply to land areas where surveys within the active period of the snake have been conducted and no snakes were found.</p>	Prior to and during construction activity	City of Elk Grove Development Services and CDFG	
<b>MM 4.8.4e</b>	<p>Construction personnel shall participate in a Service-approved worker environmental awareness program. Under this program, workers shall be informed about the presence of giant garter snakes and habitat associated with the species and that unlawful take of the animal or destruction of its habitat is a violation of the Act. Prior to construction activities, a qualified biologist approved by the Service shall instruct all construction personnel about: (1) the life history of the giant garter snake; (2) the importance of irrigation canals, marshes/wetlands, and seasonally flooded areas, such as rice fields, to the giant garter snake; and (3) the terms and conditions of the biological opinion. Proof of this instruction shall be submitted to the City and the Sacramento U.S. Fish and Wildlife Office.</p> <p>This mitigation measure does not apply to land areas where surveys within the active period of the snake have been conducted and no snakes were found.</p>	Prior to project grading and construction	U.S. Fish and Wildlife Service and City of Elk Grove Development Services	

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<p><b>MM 4.8.7b</b></p>	<p>Prior to any and all subsequent construction activities in the plan area, a Swainson's hawk nest survey shall be conducted. The nest survey shall be conducted during the Swainson's hawk breeding season (March 15-August 31) and within 30 days of the start of construction activities for a 1/2-mile radius of the project site. In addition, a survey of the project site and areas within 500 feet of the project site shall be conducted once in April and once in May. If active Swainson's hawks nests are found, the applicant shall consult with the Department of Fish and Game and a qualified biologist shall be retained by the City and funded by the project applicant and clearing and construction shall be postponed or halted until additional nesting attempts no longer occur. If a nest tree is found on the subsequent project site prior to construction and is proposed for removal, then appropriate permits from CDFG shall be obtained and mitigation implemented pursuant to CDFG guidelines.</p>	<p>Prior to construction activities and throughout project construction</p>	<p>City of Elk Grove Development Services and CDFG</p>	
<p><b>MM 4.8.8a</b></p>	<p>If construction is proposed during the raptor-breeding season (February–August), a focused survey for raptors (including burrowing owls), migratory bird nests, and bat roosts shall be conducted within 30 days prior to the beginning of construction activities by a qualified biologist in order to identify active nests onsite. If active nests are found, no construction activities shall take place within *500 feet of the nest until the young have fledged. This 500-foot construction prohibition zone may be reduced based on consultation and approval by the California Department of Fish and Game. Trees containing nests, or burrows that must be removed as a result of project implementation shall be removed during the non-breeding season (late September to March). If no active nests are found during the focused survey, no further mitigation will be required. This mitigation measure does not apply to a Swainson's hawk nest. Because the Swainson's hawk is Federally protected</p>	<p>Prior to construction activities</p> <p><i>*Note: the city &amp; DFG authorized reduction of the 500-foot no-construction zone to 250-feet. Per T. Echiburu 5-02-05</i></p>	<p>City of Elk Grove Development Services and CDFG</p>	

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	<p>and a State threatened species, the removal of any tree containing an occupied hawk nest could severely affect nesting raptors, fledgling and/or eggs. Therefore, if an occupied Swainson's hawk nest tree is found on the subsequent project site prior to construction and is proposed for removal, then appropriate permits from CDFG shall be obtained pursuant to CDFG guidelines.</p>			
<p><b>MM 4.8.8b</b></p>	<p>Within 30 days prior to the onset of construction activities outside of the breeding season (September-January), a qualified biologist shall conduct a burrow survey to determine if burrowing owls are present in the plan area. If burrowing owls are observed on the site, measures shall be implemented to ensure that no owls or active burrows are inadvertently buried during construction. Such measures include: flagging the burrow and avoiding disturbance; securing and preserving suitable habitat offsite; passive relocation and/or active relocation to move owls from the site. All measures shall be determined by a qualified biologist and approved by the CDFG.</p> <p>All burrowing owl surveys shall be conducted according to CDFG protocol. The protocol requires, at a minimum, four field surveys of the entire site and areas within 500 feet of the site by walking transects close enough that the entire site is visible. The survey shall be at least three hours in length, either from one hour before sunrise to two hours after or two hours before sunset to one hour after. Surveys shall not be conducted during inclement weather, when burrowing owls are typically less active and visible.</p>	<p>Prior to construction activities.</p>	<p>City of Elk Grove Development Services and CDFG</p>	
<p><b>MM 4.8.8c</b></p>	<p>Pursuant to the Migratory Bird Treaty Act and the California Fish and Game Code, if active songbird nests or active owl burrows are found within the survey area, clearing and construction within a minimum of 250 feet for owls and 100 feet for songbirds, or as determined by a qualified biologist to ensure</p>	<p>Thirty days prior to construction activities occurring between September 1 through January 31</p>	<p>City of Elk Grove Development Services and CDFG</p>	

	<p>disturbance to the nest will be minimized, shall be postponed or halted. Construction will not resume within the buffer until the nest is vacated and juveniles have fledged, as determined by the biologist, and there is no evidence of a second attempt at nesting. The perimeter of the protected area shall be indicated by bright orange temporary fencing. No construction activities or personnel shall enter the protected area, except with approval of the biologist.</p>			
<p><b>MM 4.5.1</b></p>	<p>Soil sampling shall be conducted within the areas of potential herbicide/pesticide contamination as identified in <b>Figure 4.5-3</b> of the Draft EIR. The soil samples shall be taken to assess the potential for persistent pesticide or herbicide residuals. If substances are detected at concentrations that could pose a health hazard and/or violate local, State, or Federal health standards, remediation of the affected areas shall be undertaken in accordance with the requirements of the City of Elk Grove and the Sacramento County Environmental Management Department. Development of the site shall not commence until the site is deemed remediated and clear for development by the City in consultation with the Sacramento County Environmental Management Department.</p>	<p>Prior to approval of improvement plans and/or grading plans for areas shown on Figure 4.5-4 of the Draft EIR.</p>	<p>City of Elk Grove Development Services and Sacramento Environmental Management Department.</p>	

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<p><b>MM 4.5.3b</b></p>	<p>Prior to approval of improvement plans and/or a grading permit, a detailed surface investigation shall be conducted to determine if former burn dumps, chemical dumps or ash are present within each subsequent project site. If any ash or burn sites are identified, surface and subsurface soil sampling shall be conducted to determine if contamination exists. If substances are detected at concentrations that could pose a health hazard and/or violate local, State, or Federal health standards, remediation of the affected areas shall be undertaken in accordance with the requirements of the City of Elk Grove and the Sacramento County Environmental Management Department. Development of the site shall not commence until the site is deemed remediated and clear for development by the City in consultation with the Sacramento County Environmental Management Department.</p>	<p>Prior to approval of improvement plans and/or grading plans.</p>	<p>City of Elk Grove Development Services and Sacramento County Environmental Management Department.</p>	
<p><b>MM 4.6.4.2b</b></p>	<p>All signalized intersections installed by the project developer shall be equipped with traffic pre-emption devices at the time of installation.</p>	<p>Prior to improvement plan approval</p>	<p>EGCSD and City of Elk Grove Development Services</p>	
<p><b>MM 4.6.4.2c</b></p>	<p>Prior to approval of individual subdivision improvement plans, the water supply system plans for the subdivisions shall be reviewed by the City and Sacramento County Water Agency (SCWA) to ensure adequate fire flows for the project as specified by the EGCSD Fire Department.</p>	<p>Prior to improvement plan approval</p>	<p>EGCSD and City of Elk Grove Development Services &amp; Sacramento County Water Agency (SCWA)</p>	
<p><b>MM 4.6.4.2d</b></p>	<p>All dead-end streets in excess of 150 feet in the Laguna Ridge Specific Plan area shall have emergency vehicle turn-arounds approved by the Elk Grove Community Services District Fire Department.</p>	<p>Prior to improvement plan approval</p>	<p>EGCSD and City of Elk Grove Development Services</p>	

EG-00-062 Laguna Ridge Specific Plan

<p><b>MM 4.6.4.2e</b></p>	<p>Prior to approval of individual subdivision improvement plans, the project applicant shall demonstrate that all required roadways, water mains, fire hydrants, and fire flow necessary to serve the subdivision shall be provided prior to the existence of any combustible construction of storage and that the installation of on-site or off-site fire protection equipment, including fire hydrants and water mains, meets the standards of the EGCSDFD and the Sacramento County Water Agency. The roadways shall be constructed to a 20-foot minimum width with an impervious surface to the satisfaction of the Elk Grove CSD and shall have good drainage.</p>	<p>Prior to improvement plan approval</p>	<p>EGCSD, Sacramento County Water Agency and City of Elk Grove Development Services</p>	
<p><b>MM 4.7.1</b></p>	<p>The project applicant shall submit to the City of Elk Grove proof that a Storm Water Pollution Prevention Plan (SWPPP) has been submitted to the California Regional Water Quality Control Board, Central Valley Region. The SWPPP shall be administered throughout all phases of grading and project construction. The SWPPP shall be included with all subsequent project improvement and grading plans and shall incorporate Best Management Practices (BMPs) to ensure that potential water quality impacts during construction phases are minimized. Examples of BMPs that may be implemented during site grading and construction could include inlet filters, filter barriers, silt fences, and sedimentation basins. The SWPPP shall be consistent with the City's NPDES permit (NPDES No. CAS082597).</p>	<p>Prior to the approval of subsequent improvement plans and grading plans and noted on plans</p>	<p>City of Elk Grove Public Works, and RWQCB</p>	
<p><b>MM 4.7.3a</b></p>	<p>Biofilter swales and vegetated strips shall be placed in the bottom of channel areas and be designed to provide biofiltration of pollutants in project runoff. The project engineer shall consult with the City when designing these areas, and the developer shall submit designs of the areas to the City for review and approval prior to approval of the improvement plans. Water quality control features shall be consistent with the City's NPDES permit (NPDES No. CAS082597).</p>	<p>Prior to approval of improvement plans for each water quality facility</p>	<p>City of Elk Grove Public Works, and CVRWQCB</p>	

<p><b>MM 4.8.1c</b></p>	<p>For trees that are planned to be removed and which meet the criteria contained in the City's Tree Preservation Ordinance (as amended) and the City of Elk Grove Draft General Plan Conservation and Air Quality Element, a tree mitigation plan shall be submitted to the City of Elk Grove in accordance with City requirements. Protected trees shall be replaced on a no-net-loss basis.</p> <p>Tree mapping required under mitigation measure MM 4.8.1a will delineate all protected trees planned to be removed. Mitigation areas, if needed, shall be within the plan area limits in landscape corridors and designated open space areas, if feasible. However, if the applicant demonstrates that onsite mitigation is not feasible, offsite mitigation within the city limits will be acceptable. Should the applicant contract with an organization for offsite tree mitigation, the City of Elk Grove shall review and may approve the contract if it meets the no-net-loss requirement and is otherwise deemed appropriate. The mitigation plan shall include the following components:</p> <ol style="list-style-type: none"> <li>1. Number, location, size, and species of the replacement trees to be planted;</li> <li>2. Methods of irrigation for planted trees;</li> <li>3. Planting and maintenance schedule; and</li> <li>4. Plan for care of planted trees for a three-year establishment period and replacement of any planted trees that do not survive.</li> </ol>	<p>Prior to issuance of grading permit</p>	<p>City of Elk Grove Development Services</p>	
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<p><b>MM 4.8.7a</b></p>	<p>As a condition of approval of subsequent development (i.e., approval of improvement and construction plans), including offsite improvements, under the Plan, the project applicant shall mitigate the loss of Swainson's hawk foraging and/or nesting habitat by one of the following methods:</p> <ul style="list-style-type: none"> <li>• Preserve 1.0 acre of similar habitat for each acre lost due to project implementation. This land shall be protected through a fee title or conservation easement acceptable to the CDFG and the City of Elk Grove. The applicant shall be responsible for funding the operation and maintenance and/or monitoring of the protected land.</li> <li>• Prepare and implement a Swainson's hawk mitigation plan to the satisfaction of the CDFG that includes the preservation of Swainson's hawk foraging habitat.</li> <li>• Mitigate impacts in compliance with Chapter 16.130 of the City of Elk Grove Code as such may be amended from time to time and to the extent that said chapter remains in effect. This option shall be suspended until Chapter 16.130 is amended to eliminate the mitigation fee option so that it is available only to projects that do not exceed 50 acres in size.</li> </ul> <p>Compliance with this mitigation measure may be fulfilled in combination with the implementation of Mitigation Measure MM 4.1.1 if the CDFG determines that farmland preserved under MM 4.1.1 also qualifies as suitable Swainson's hawk foraging habitat.</p>	<p>Prior to approval of improvement and construction plans</p>	<p>City of Elk Grove Development Services and CDFG</p>	
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EG-00-062 Laguna Ridge Specific Plan

<p><b>MM</b> <b>4.6.4.2f</b></p>	<p>Within the Specific Plan Area, the following requirements will be met:</p> <ol style="list-style-type: none"> <li>1. Non-combustible fences shall be provided along all developed areas adjacent to wetlands/creeks/open spaces.</li> <li>2. Access shall be provided to all wetland corridors at the end of cul-de-sacs via rolled curbs and gates to the satisfaction of the EGCSDFD. Bike lanes adjacent to creeks shall be a minimum of 10 feet wide with a turning radius of not less than 35 feet inside and 45 feet outside. All bike paths shall be paved with 2 inches of AC over 4 inches of AB compacts to 95 percent.</li> <li>3. Any bridges over creeks or wetland areas shall be capable of supporting 65,000 GVW.</li> <li>4. At least 10 feet of greenbelt or other defensible space between noncombustible fences and the creek/wetland areas shall be provided.</li> </ol>	<p>Prior to improvement plan approval</p>	<p>EGCSD and City of Elk Grove Development Services</p>	
<p><b>MM</b> <b>4.7.3c</b></p>	<p>All plan area storm drains shall provide a permanent storm drain message "No Dumping – Flows to Creek" or other approved message at each storm drain inlet. This may be accomplished with a stamped concrete impression (for curbs) or manufactured colored tiles, which are epoxied in place, adjacent to the inlet (for parking lots and areas without curbs).</p>	<p>Prior to improvement plan approval for drainage facilities</p>	<p>City of Elk Grove Public Works</p>	

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<p><b>MM 4.9.1</b></p>	<p>Prior to issuance of a grading permit for each subsequent project, the project applicant shall submit to the City an erosion control plan, which will utilize best construction practices to limit the erosion effects of the proposed project. Measures shall include, but are not limited to, the following:</p> <ul style="list-style-type: none"> <li>• Hydro-seeding</li> <li>• Placement of loose straw and/or straw bales within drainage ways and ahead of drop inlets;</li> <li>• The temporary lining (during construction activities) of drop inlets with "filter fabric" (a specific type of geotextile fabric);</li> <li>• The placement of straw wattles along slope contours;</li> <li>• Directing subcontractors to a single designation "wash-out" location (as opposed to allowing them to washout wherever they feel like); and</li> <li>• The use of siltation fences.</li> </ul>	<p>Prior to the issue of grading permit and during construction</p>	<p>City of Elk Grove Development Services, Public Works.</p>	
<p><b>MM 4.11.2a</b></p>	<p>A lighting plan shall be developed and provided with improvement plans for each subsequent non-residential project to ensure that parking lot pole lights and streetlights shall be fully hooded and back shielded to reduce the light "spillage" and glare, prohibit the illumination from breaking the horizontal plane, and ensure that lighting not exceed the standard illumination of two-foot candles along the property lines of adjoining land uses. The two-foot candle lighting standard shall also apply to all park and school facilities where stadium lighting may be installed and used.</p>	<p>Prior to approval of improvement plans for all subsequent public and private projects.</p>	<p>City of Elk Grove Development Services, Elk Grove Community Services District and Elk Grove Unified School District.</p>	

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<b>MM 4.3.1a</b>	The project applicant shall require that the contractors water all exposed surfaces, graded areas, storage piles and haul roads at least twice daily during construction. This requirement shall be included as a note in all project construction plans.	During all grading and construction phases of the project.	City of Elk Grove Development Services and SMAQMD	
<b>MM 4.3.1b</b>	The project applicant shall require that the contractor minimize the amount of material actively worked, the amount of disturbed area, and the amount of material stockpiled. This requirement shall be included as a note in all project construction plans.	During all grading and construction phases of the project.	City of Elk Grove Development Services and SMAQMD.	
<b>MM 4.3.1c</b>	The project applicant shall require that the contractor limit vehicle speed for onsite construction vehicles to 15 mph. This requirement shall be included as a note in all project construction plans.	During all grading and construction phases of the project.	City of Elk Grove Development Services and SMAQMD.	
<b>MM 4.3.1d</b>	The project applicant shall require paved streets adjacent to construction sites to be washed or swept daily to remove accumulated dust. This requirement shall be included as a note in all project construction plans.	During all grading and construction phases of the project.	City of Elk Grove Development Services and SMAQMD	
<b>MM 4.3.1e</b>	The project applicant shall require that, when transporting soil or other materials by truck during construction, two feet of freeboard shall be maintained by the contractor, and that the materials be covered. This requirement shall be included as a note in all project construction plans.	During all grading and construction phases of the project.	City of Elk Grove Development Services and SMAQMD.	
<b>MM 4.3.1g</b>	The project applicant shall require contractors to implement ridesharing programs for construction employees traveling to and from the site. This requirement shall be included as a note in all project construction plans.	During all grading and construction phases of the project.	City of Elk Grove Development Services and SMAQMD.	

EG-00-062 Laguna Ridge Specific Plan

<p><b>MM 4.4.1a</b></p>	<p>Site preparation and construction activities shall be limited to between the hours of 6:00 A.M. to 8:00 P.M., Monday through Friday, and 7:00 A.M. to 8:00 P.M. on Saturday and Sunday (City of Elk Grove Noise Control Ordinance, Section #6.68.090 (e)). Furthermore, construction equipment maintenance shall be limited to the same hours. This requirement shall be included as a note in all project construction plans.</p>	<p>During all construction phases of the project</p>	<p>City of Elk Grove Development Services</p>	
<p><b>MM 4.4.1b</b></p>	<p>All construction equipment shall be equipped with appropriate mufflers in good working condition. This requirement shall be included as a note in all project construction plans.</p>	<p>During all construction phases of the project</p>	<p>City of Elk Grove Development Services</p>	
<p><b>MM 4.4.1c</b></p>	<p>Construction staging areas shall be located as far from noise-sensitive uses as is feasible. This requirement shall be included as a note in all project construction plans.</p>	<p>During all construction phases of the project</p>	<p>City of Elk Grove Development Services</p>	
<p><b>MM 4.4.1d</b></p>	<p>Stationary construction equipment shall be located as far from noise sensitive uses as feasible, and temporary or portable acoustic barriers shall be installed around the equipment/work area when within 100 feet or less of residential properties or other sensitive uses. This requirement shall be included as a note in all project construction plans.</p>	<p>During all construction phases of the project</p>	<p>City of Elk Grove Development Services</p>	
<p><b>MM 4.4.1e</b></p>	<p>Construction hours, allowable workdays, and the phone number of the job superintendent shall be clearly posted on a sign no larger than 4 foot by 8 foot at all construction entrances to allow for surrounding and onsite property owners to contact the job superintendent. If the City or the job superintendent receives a complaint, the superintendent shall investigate, take appropriate corrective action, and report the action taken to the reporting party. This requirement shall be included as a note in all project construction plans.</p>	<p>During all construction phases of the project</p>	<p>City of Elk Grove Development Services</p>	

EG-00-062 Laguna Ridge Specific Plan

<p><b>MM</b> <b>4.6.4.1</b></p>	<p>As a condition of subsequent development entitlements, uses constructed in the Plan area shall meet the minimum necessary fire flow and other standard fire protection and life safety requirements identified in the Uniform Fire Code, Uniform Building Code, and other applicable state regulations. Construction sites shall ensure adequate on-site water supply and all-weather access for fire-fighting equipment and emergency vehicles before framing can occur. The applicant shall also pay the Fire Protection Development Fee in effect at the time of building permit issuance. These requirements shall be noted on all construction plans.</p>	<p>During construction activities and prior to improvement plan approval</p>	<p>EGCSD and City of Elk Grove Development Services</p>	
<p><b>MM</b> <b>4.10.1b</b></p>	<p>In the event that any historic surface or subsurface archaeological features or deposits, including locally darkened soil indicative of an archaeological midden that could conceal cultural deposits, animal bone, shell, obsidian, mortars, or human remains, are uncovered during on-site or off-site construction, all work within 100 feet of the find shall cease and Development Services shall be notified. An archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards shall be contacted to determine if the resource is significant and to determine appropriate mitigation. Any artifacts uncovered shall be recorded and removed to a location to be determined by the archaeologist. The discovery of human remains shall also be reported to the County Coroner in accordance with Section 7050.5 the California Health and Safety Code, and the Native American Commission for further investigation. If the remains are determined to be Native American, the Native American Commission shall inform the most likely descendent and will determine the appropriate disposition of the remains and grave goods.</p>	<p>During construction activities</p>	<p>City of Elk Grove Development Services</p>	

Prior to Issuance of Building Permits				
<b>MM 4.6.1.1b</b>	As a condition of subsequent development applications, uses constructed on the property shall incorporate into the building plans water conservation measures including drought tolerant landscaping with low fuel potential, low-flow toilets, urinals, shower heads, lavatory faucets, and sink faucets, as well as insulation to reduce water uses before hot water reaches equipment or fixtures.	Prior to issuance of each building permit	City of Elk Grove Development Services	
Prior To Issuance of Occupancy Permits				
<b>MM 4.1.2a</b>	All of the landscape corridors directly adjacent to the project area that are located between existing agricultural operations or agriculturally zoned properties and the project area shall be fully improved and functional prior to the occupancy of any residence that adjoins the subject corridor.	Prior to issuance of occupancy permits	City of Elk Grove Development Services	
<b>MM 4.11.2.b</b>	Non-glare glass shall be used in all non-residential buildings to minimize and reduce impacts from glare. Office and commercial buildings, which are allowed to use semi-reflective glass, must be oriented so that the reflection of sunlight is minimized. This requirement shall be incorporated into the Specific Plan and reflected in subsequent development applications.	Types of non-glare glass shall be specified on final development plans for subsequent commercial and office projects, and installed prior to building occupancy	City of Elk Grove Development Services	

Recording Requested By and When Recorded, Mail To:

CITY OF ELK GROVE  
Attn: City Clerk  
8380 Laguna Palms Way  
Elk Grove, CA 95758

No Recording Fees Needed per Government Code §6103

SPACE ABOVE THIS LINE RESERVED FOR RECORDER'S USE

**AGREEMENT TO  
MITIGATION MONITORING AND REPORTING PROGRAM  
FOR  
LAGUNA RIDGE SPECIFIC PLAN, THE GROVE,  
LAGUNA RIDGE TOWN CENTER, CATHOLIC HEALTHCARE WEST**

**City Control Number:** EG-10-036

**Assessor's Parcel Number(s):** 132-2120-006 and 132-2120-008

**Project Description:**

- Specific Plan Amendment to change the land use designations from RD-10 and RD-15 to RD-20 and SC.
- Rezone from RD-10 and RD-15 to RD-20 and SC

**Location:**

The Laguna Ridge Specific Plan (LRSP) encompasses approximately 1,900± acres and is located in the southwestern portion of the City of Elk Grove, west of Highway 99, south of Elk Grove Boulevard, east of Bruceville Road and the East Franklin Specific Plan area, and north of Bilby Road and the area referred to as the "Southeast Policy Area" and more specifically, the corner of Elk Grove Boulevard and Wymark Drive.

**Project Applicant:**

All references to "the Applicant" below, and in the attached mitigation measures, shall mean the individual property owner, project applicant or project representative of the parcel(s) described by the APN(s) shown in the legal description(s) and location shown in **Exhibits "A"** and **"B"** executing this Declaration of Agreement.

Catholic Healthcare West  
3400 Data Drive  
Rancho Cordova, CA 95670

**Prepared by:** City of Elk Grove  
Development Services - Planning

**Date:** August 24, 2010



**DECLARATION OF AGREEMENT**

This Mitigation Monitoring and Reporting Program applies to certain real property, a Legal Description of which is attached as Exhibit "A" and located as shown in Exhibit "B". I (We) the undersigned agree that this Mitigation Monitoring and Reporting Program applies to the real property described in Exhibit "A" and "B". I (We) the undersigned am (are) the legal owner(s) of that property, and agree to comply with the requirements of this Mitigation Monitoring and Reporting Program (Summary and Mitigation Measures attached as Exhibit "C").

IN WITNESS WHEREOF, this declaration is hereby executed by the undersigned named legal owner(s)/ project applicant of the subject property on this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

_____	_____
Print or type Company name	Print or type Company name
_____	_____
Signature	Signature
_____	_____
Print or type name	Print or type name

**NOTARY'S ACKNOWLEDGEMENT**

**State of California**            )

) **ss.**

**County of Sacramento**        )

On \_\_\_\_\_ before me, \_\_\_\_\_, Notary Public, personally appeared \_\_\_\_\_ who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature of Notary Public \_\_\_\_\_

**EXHIBIT "A" – LEGAL DESCRIPTION(S)**

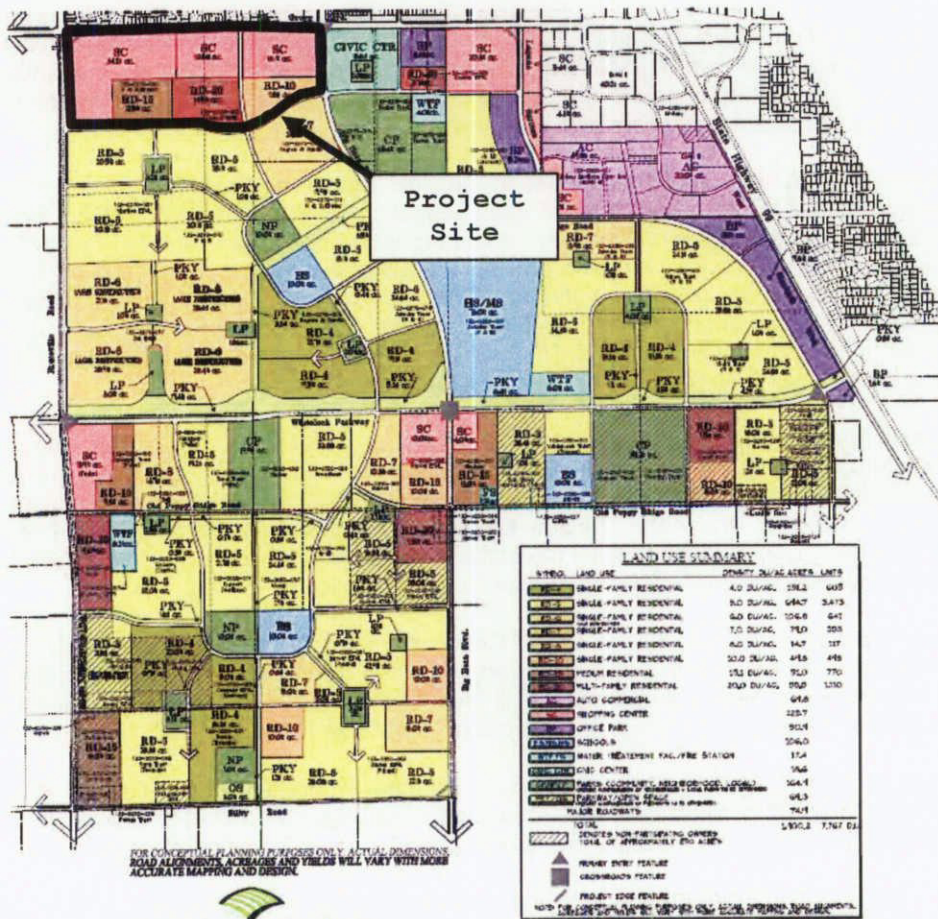
**DESCRIPTION OF PROPERTY**

Real property in the City of Elk Grove, County of Sacramento, State of California, described as follows:

Lots C and H as shown and so designated on that certain Final Map entitled "The Grove at Laguna Ridge Town Center West" filed for record on May 11, 2007 in Book 368 of Maps, at Page 1, Sacramento County Records.

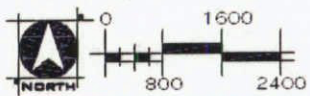
APN: 132-2120-006 and 132-2120-008.

EXHIBIT "B" - LOCATION/SITE MAP



FOR CONCEPTUAL PLANNING PURPOSES ONLY. ACTUAL DIMENSIONS, ROAD ALIGNMENTS, ACRESAGES AND YIELDS WILL VARY WITH MORE ACCURATE MAPPING AND DESIGN.

**WOOD RODGERS**  
ENGINEERING, MAPPING, PLANNING, SURVEYING  
3301 O St. Ste. 100-B Tel: 916.341.7790  
Sacramento, CA 95826 Fax: 916.341.7757



Laguna Ridge Specific Plan

**LAGUNA RIDGE  
SPECIFIC PLAN**

CITY OF ELK GROVE, CALIFORNIA

Figure 3-1 - LAND USE PLAN

June 16, 2004

## **SUMMARY and MITIGATION MEASURES**

Pursuant to Section 21081.6 of the Public Resources Code and Chapter 20.02 of the City of Elk Grove Code, a Mitigation Monitoring and Reporting Program, City Project Number **EG-07-066**, has been established for the project entitled **LAGUNA RIDGE TOWN CENTER – SPA AND REZ.** The purpose of this program is to assure diligent and good faith compliance with the Mitigation Measures which have been recommended in the environmental document, and adopted as part of the project or made conditions of project approval, in order to avoid or mitigate potentially significant effects on the environment.

It shall be the responsibility of the project applicant to provide written notification to the Environmental Coordinator, in a timely manner, of the completion of each Mitigation Measure as identified on the following pages. The City of Elk Grove Development Services - Planning will verify, within ten (10) business days of notification that the project is in compliance. Any non-compliance will be reported to the project applicant, and it shall be the project applicant's responsibility to rectify the situation by bringing the project into compliance and re-notifying the Environmental Coordinator. Any indication that the project is proceeding without good-faith compliance could result in the imposition of administrative, civil and/or criminal penalties upon the project applicant in accordance with Chapter 20.02 of the City of Elk Grove Code.

It shall be the responsibility of the project applicant to reimburse the City for all expenses incurred in the implementation of the Mitigation Monitoring and Reporting Program, including any necessary enforcement actions. The initial estimate of City monitoring costs for this project is **\$5,000.00**, which must be paid to the City of Elk Grove Development Services - Planning. If actual City monitoring costs are less than the initial estimate, the difference will be refunded to the applicant; and if the actual City monitoring costs exceed the initial estimate, a revised estimate and/or supplemental bill(s) will be submitted to the applicant.

Pursuant to Section 20.02.060 of the City of Elk Grove Code, upon the determination of the Environmental Coordinator that compliance with the terms of the approved Mitigation Monitoring and Reporting Program has been achieved, and that there has been full payment of all fees for the project, the Environmental Coordinator shall issue and the City Clerk shall record a Program Completion Certificate for the project.

In order to record the adopted Mitigation Monitoring and Reporting Program with the County Recorder as required by Section 20.02.050(b)(2) of the City of Elk Grove Code, the project applicant shall provide to the City of Elk Grove Planning Division a Legal Description for the real property that is the subject of the project.

The requirements of this adopted Program run with the real property that is the subject of the project, as described in **Exhibits "A" & "B"** Successive owners, heirs and assigns of this real property are bound to comply with all of the requirements of the adopted Program.

Prior to any lease, sale, transfer or conveyance of any portion of the real property that is the subject of the project, the record owner(s) at the time of the application for the project, or his or her successor's in interest, shall provide a copy of the adopted Program to the prospective lessee, buyer, transferee, or one to whom the conveyance is made.

Chapter 20.02 of the City of Elk Grove Code permits civil remedies and criminal penalties to be imposed in the event of non-compliance with an adopted Mitigation Monitoring and Reporting Program. The civil remedies, which are found in Section 20.02.090 of the City of Elk Grove Code, include injunctive relief, stop work orders, revocation of any special permit granted concurrently with the approval of a Program, and the abatement of any resulting nuisance. The criminal penalties, which are found in Section 20.02.080 of the City of Elk Grove Code, include a fine not to exceed five hundred dollars or imprisonment in the County jail not to exceed six months, or both.

## **STANDARD PROVISIONS**

1. Any/all Preliminary Grading Plans, Improvement Plans and/or Building/Development Plans which are submitted to the appropriate City of Elk Grove department for this project, and revisions to those Plans which are subsequently submitted, shall be in full compliance with the adopted Mitigation Monitoring and Reporting Program (MMRP). If the Elk Grove Development Services - Planning determines that the Plans are not in full compliance with the adopted MMRP, the Plans shall be returned to the project applicant or responsible party with a letter specifying the items of non-compliance, and instructing the applicant or responsible party to revise the Plans and resubmit them to the approving department.

**EXHIBIT "C" – MITIGATION MEASURES**

MITIGATION MEASURES	TIMING, IMPLEMENTATION AND NOTIFICATION  (ACTION BY THE PROJECT APPLICANT):	MONITORING / VERIFICATION (ACTION BY THE CITY):  (DATE & SIGN)
<b>PRIOR TO SUBSEQUENT DEVELOPMENT PROJECT APPROVAL</b>		
1.	<p><b>MM 4.3.2 – Traffic Mitigation</b></p> <p>The City shall require an acoustical assessment to be performed to evaluate noise impacts associated with the development of proposed onsite medical land uses. Where acoustical analysis determines that noise levels would exceed applicable noise standards, the City shall require the implementation of noise-reduction measures to reduce noise impacts to nearby noise-sensitive receptors. Such measure may include, but are not limited to, the incorporation of setbacks, sound barriers, berms, or equipment enclosures.</p>	<p><i>Prior to approval of tentative subdivision maps and development projects along Elk Grove Boulevard, Big Horn Road, and Poppy Ridge Road.</i></p> <p><i>City of Elk Grove Development Services</i></p>
2.	<p><b>MM 4.4.8 – Traffic Mitigation</b></p> <p>The westbound right turn shall be converted into an overlapping phase.</p>	<p><i>Prior to approval of design review for future development on the project site</i></p> <p><i>City of Elk Grove, Development Services, Planning</i></p>

MITIGATION MEASURES	TIMING, IMPLEMENTATION AND NOTIFICATION  (ACTION BY THE PROJECT APPLICANT):	MONITORING / VERIFICATION (ACTION BY THE CITY):  (DATE & SIGN)	
<b>PRIOR TO GRADING PERMIT AND IMPROVEMENT PLAN ISSUANCE</b>			
3.	<p><b>MM 4.2.1a – Air Quality Construction Mitigation</b></p> <p>Wash dirt off construction vehicles and equipment within the staging area prior to leaving the construction site. This requirement shall be noted in project improvement plans.</p>	<p><i>During all grading and construction phases of the project</i></p>	<p><i>City of Elk Grove Development Services and SMAQMD</i></p>
4.	<p><b>MM 4.2.1b – Air Quality Construction Mitigation</b></p> <p>Pave, apply water three times daily, or apply (non-stick) soil stabilizers on all unpaved access roads, parking areas, and staging areas. This requirement shall be noted in project improvement plans.</p>	<p><i>During all grading and construction phases of the project</i></p>	<p><i>City of Elk Grove Development Services and SMAQMD</i></p>
5.	<p><b>MM 4.2.1c – Air Quality Construction Mitigation</b></p> <p>The project shall provide a plan for approval by the City of Elk Grove and SMAQMD demonstrating that the heavy-duty (&gt; 50 horsepower) off-road vehicles to be used in the construction project, including owned, leased, and subcontractor vehicles, will achieve a project-wide fleet average 20 percent NOx reduction and 45 percent particulate reduction compared to the most recent CARB fleet average at time of construction;</p> <p style="text-align: center;">And</p> <p>The project applicant shall submit to SMAQMD a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used an aggregate of 40 or more hours during any portion of the construction project. The inventory shall include the horsepower rating, engine production year, and projected hours of use or fuel throughput for each piece of equipment. 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 activity occurs. At least 48 hours prior to the use of subject heavy-duty off-road equipment, the project representative shall provide SMAQMD with the anticipated construction timeline including start date and name and phone number of the project manager and on-site foreman.</p>	<p><i>Plan shall be submitted to SMAQMD for review and approval prior to approval of improvement plans and shall be implemented during all grading and construction phases of the project.</i></p>	<p><i>City of Elk Grove Development Services and SMAQMD</i></p>

	MITIGATION MEASURES	TIMING, IMPLEMENTATION AND NOTIFICATION  (ACTION BY THE PROJECT APPLICANT):	MONITORING / VERIFICATION (ACTION BY THE CITY):  (DATE & SIGN)
6.	<p><b>MM 4.2.1d Air Quality Construction Mitigation</b></p> <p>The project applicant shall ensure that emissions from all off-road diesel powered equipment used on the project site do not exceed 40 percent opacity for more than three minutes in any one hour. Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately, 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 the 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 activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed as well as the dates of each survey. The SMAQMD and/or other officials may conduct periodic site inspections to determine compliance. Nothing in this section shall supersede other SMAQMD or state rules or regulations</p>	<p><i>During all grading and construction phases of the project</i></p>	<p><i>City of Elk Grove Development Services and SMAQMD</i></p>
7.	<p><b>MM 4.2.1e Air Quality Construction Mitigation</b></p> <p>The project applicant shall be required to pay SMAQMD fees to mitigate NOx emissions in excess of SMAQMD's thresholds, as determined during site developments review. Fees shall be paid in accordance with SMAQMD calculations.</p>	<p><i>Prior to issuance of grading permit</i></p>	<p><i>City of Elk Grove Development Services and SMAQMD</i></p>

MITIGATION MEASURES		TIMING, IMPLEMENTATION AND NOTIFICATION  (ACTION BY THE PROJECT APPLICANT):	MONITORING / VERIFICATION (ACTION BY THE CITY):  (DATE & SIGN)
<b>PRIOR TO BUILDING PERMIT ISSUANCE</b>			
8.	<p><b>MM 4.2.3 – Air Quality Development Mitigation</b></p> <p>The project developer and all successors shall implement the following mitigation measures as part of project design:</p> <ul style="list-style-type: none"> <li>• Use of energy-efficient lighting (includes controls) and process systems such as water heaters, furnaces, and boiler units for all buildings and lighting.</li> <li>• Use of energy-efficient and automated controls for air conditioning in all buildings.</li> </ul> <p>Only natural gas/LPG fireplaces, pellet stoves, or EPA-certified Phase II wood-burning fireplaces or stoves shall be allowed within the project. Conventional open-hearth fireplaces shall not be permitted.</p>	<i>Prior to issuance of building permits.</i>	<i>City of Elk Grove Development Services and SMAQMD</i>
9.	<p><b>MM 4.4.9 – Traffic Mitigation</b></p> <p>The project is to pay its fair share cost toward the coordination of the Elk Grove Boulevard/ East Stockton Boulevard intersection with the Elk Grove Boulevard/SR 99 NB On-Ramp, Elk Grove Boulevard/SR 99 SB Ramps, and Elk Grove Boulevard/ Auto Center Drive intersections as part of the ongoing Elk Grove Boulevard Intelligent Transportation Systems (ITS) Improvements project.</p>	<i>The fair share of fees paid to be paid at the time of building permit issuance.</i>	<i>City of Elk Grove, Development Services, Planning</i>



## **APPENDIX B – NOP AND COMMENTS**

## NOTICE OF PREPARATION

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**DATE:** August 8, 2012

**TO:** Responsible Agencies, Organizations, and Interested Parties

**LEAD AGENCY:** City of Elk Grove  
Contact: Gerald Park  
8401 Laguna Palms Way  
Elk Grove, CA 95758

**SUBJECT:** Subsequent Environmental Impact Report for the Dignity Health Elk Grove Medical Campus Project

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In discharging its duties under Section 15021 of the California Environmental Quality Act (CEQA) Guidelines, the City of Elk Grove (as lead agency, hereinafter City) intends to prepare a Subsequent Environmental Impact Report (SEIR), consistent with Section 15162 of the State CEQA Guidelines (Division 6 of Chapter 3 of Title 14 of the California Code of Regulations, hereinafter the CEQA Guidelines), for the Dignity Health Elk Grove Medical Campus Project. In accordance with Section 15082 of the CEQA Guidelines, the City of Elk Grove has prepared this Notice of Preparation to provide responsible agencies and other interested parties with sufficient information describing the proposal and its potential environmental effects.

The determination to prepare a SEIR was made by the City. An Initial Study has been prepared, pursuant to CEQA Guidelines Section 15063, which identifies the anticipated environmental effects of the project. The Initial Study for the Project is attached.

As specified by the CEQA Guidelines, the Notice of Preparation shall be circulated for a 30-day review period. The City of Elk Grove welcomes public input during the review period. In the event no response or request for additional time is received by any responsible agency by the end of the review period, the lead agency may presume that the responsible agency has no response.

Comments may be submitted in writing during the review period and addressed to:

Gerald Park  
City of Elk Grove  
8401 Laguna Palms Way  
Elk Grove, CA 95758

The comment period closes on September 7, 2012.

A Scoping Meeting for the Project will be held on Thursday, August 23 at 1:30 p.m. at the City of Elk Grove City Council Chambers, located at 8400 Laguna Palms Way, Elk Grove, CA, 95758.

**A. PROJECT LOCATION AND EXISTING USES**

The proposed project is located on an approximately 27.8-acre site at 8220 Wymark Drive (Assessor's Parcel Numbers: 132-2120-006 and 132-2120-008). The site is generally bounded by Elk Grove Boulevard on the north, Wymark Drive on the east, Civic Center Drive on the south, and vacant property to the west (see **Figure 1, Project Location**). An existing, newly constructed 68,190-square-foot medical office building (MOB #1) is located in the central portion of the project site. The remainder of the site is currently undeveloped, but was previously graded as part of a large-lot tentative subdivision map.

**PROJECT CHARACTERISTICS**

The proposed Dignity Health Elk Grove Medical Campus Project (hereinafter the Project) would include the construction of up to a six-story, 456,719-square-foot, 330-bed hospital; a three-story, 65,000-square-foot medical office building (referred to as MOB #2); and a five-level, 169,520-square-foot parking structure. The project would be constructed in a total of four or more phases, with the first three phases associated with the hospital building and the last phase associated with the medical office building (MOB) and parking structure. The three hospital phases to be built in succession are the following: four-story, 112,050-square-foot Surgery and Maternity Hospital building section; six-story, 175,095-square-foot Hospital Expansion #1 building section; and six-story, 169,574-square-foot Hospital Expansion #2 building section. The number of beds associated with each building section is 106 beds, 112 beds, and 112 beds, respectively. The Surgery and Maternity building section could start construction in three to five years, with the remaining hospital, MOB, and parking structure phases to be completed at an undetermined time. The Project would also include a helistop that would be used for transporting patients away from the hospital, but there would be no storage, repair, or fueling of any helicopters on site. The 500-stall parking garage is proposed for construction during the final phase of the project, at the time MOB #2 is constructed; however, surface parking would be constructed per City code with each phase of development to ensure adequate parking is provided for uses on site. Additional information for each project phase is provided below. The project site configuration is shown in **Figure 2, Site Configuration**.

**Surgery and Maternity Hospital**

The four-story Surgery and Maternity Hospital building is proposed to be 68 feet tall. The program for this building includes the hospital entry/reception, meditation chapel, service support, and urgent care on the first floor. The second floor includes 12 labor-delivery-recovery-postpartum (LDRP) beds, 20 postpartum beds, 14 neonatal intensive care unit (NICU) beds, 2 C-section rooms, and a well-baby nursery. The third and fourth floors are currently not programmed, but are assumed to provide 30 beds per floor for the medical/surgery unit. This phase could include construction of a bridge connection to the existing MOB. This phase would also include construction of Healing Gardens located east of the hospital and between the hospital and MOB #1. The proposed helistop platform would also be constructed during this phase, but it would not be operational until the emergency department is constructed with the first hospital expansion.

**Hospital Expansion #1**

Hospital Expansion #1 is proposed as a six-story, 116-foot-tall expansion of the Surgery and Maternity Hospital building. It would accommodate up to 112 beds and would include an emergency department (not a trauma unit), imaging center, laboratory, pharmacy, operating suites and post-anesthesia care unit (PACU), intensive care unit (ICU) with nursing support (one

floor), medical/surgery unit with nursing care (three floors), and an enclosed emergency generator. A central heating and cooling plant to serve the Surgery and Maternity Hospital and Hospital Expansion #1 would be constructed in this phase. Parking would be provided per City code requirements.

**Hospital Expansion #2**

Hospital Expansion #2 would also be six stories and 116 feet tall and would connect to the north portion of the first hospital expansion. It would include an expansion of hospital support facilities, including ICU with nursing support (one floor), medical/surgery unit with nursing care (three floors), and an additional enclosed emergency generator. An expansion of the central heating and cooling plant to serve the previous phases and Hospital Expansion #2 would be constructed during this phase. Additional parking per City code requirements would also be provided.

**Medical Office Building #2 and Parking Structure**

MOB #2 would be three stories and approximately 60 feet tall. It would accommodate additional outpatient services at the campus. The parking structure would be approximately 50 feet tall with five levels of above-grade parking for 500 cars.

**Support Facilities**

The campus would also be served by additional support facilities, such as a central cooling and heating plant and diesel backup generators. The central heating and cooling plant would be located immediately west of the hospital in the central portion of the project site in a completely enclosed central plant building. The generators would be fully enclosed and would include sound attenuation and pollution controls meeting California Environmental Protection Agency standards.

**TABLE 1  
SUMMARY OF DEVELOPMENT PROPOSED**

<b>Project</b>	<b>Existing Square Footage</b>	<b>Proposed New Square Footage</b>	<b>Hospital Beds</b>	<b>Parking<sup>1</sup></b>
Medical Office Building 1	68,190	–	–	309
Surgery and Maternity Hospital	–	112,050	106	487
Hospital Expansion #1	–	175,095	112	491
Hospital Expansion #2	–	169,574	112	738
Medical Office Building 2	–	65,000	–	1,330
<b>Total</b>	<b>68,190</b>	<b>521,719</b>	<b>330</b>	<b>1,330</b>

*1. Parking denotes the total parking that would be available for each phase.*

## **NOTICE OF PREPARATION**

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### **Required Approvals**

*City of Elk Grove:* Actions that would be required from the City Council, Planning Commission, and/or City staff shall include, but are not limited to, the following:

- Approval of a Tentative Parcel Map.
- Approval of an Amendment to the Laguna Ridge Specific Plan to establish Increased Height Overlay designation in the LRSP to allow a maximum building height limit of 120 feet.
- Approval of the Increased Height Overlay designation on the project site.
- Amendment to the Elk Grove Town Center Design Guidelines to eliminate the requirement for a joint shared driveway between the hospital district and commercial district.
- Approval of a Conditional Use Permit to allow hospital use in the Shopping Center (SC) district and allow establishment of a helistop.
- Design Review of the Dignity Health Elk Grove Medical Campus Master Development Plan, consisting of the overall site plan and facility layout.
- Design Review of the Surgery and Maternity Hospital building and associated site improvements.
- Approval of a Uniform Sign Program to establish sign criteria for the project.
- Subsequent Design Review approvals for buildings and associated site improvements in future phases.

A responsible agency is a public agency with discretionary approval over one or more actions involved with the development of a proposed project. Responsible agencies could include the following:

- Sacramento Metropolitan Air Quality Management District
- State of California, Department of Transportation (Caltrans)
- State of California, Department of Health Services (DHS)
- Office of Statewide Health Planning and Development (OSHPD)
- Caltrans Division of Aeronautics
- Federal Aviation Administration (FAA)

Background and Previous Environmental Analysis

The Laguna Ridge Specific Plan Environmental Impact Report (LRSP EIR) (SCH #2000082139) assessed the environmental impacts resulting from the construction and operation of the Laguna Ridge Specific Plan. The City of Elk Grove approved the Laguna Ridge Specific Plan and certified the Final EIR on June 16, 2004. The Laguna Ridge Specific Plan encompasses approximately 1,900 acres and consists of the development of residential, commercial, park, public school, and mixed-use land uses. The LRSP EIR identified significant and unavoidable impacts related to agricultural resources, transportation and circulation, air quality, noise, and visual resources. A Statement of Overriding Considerations was adopted for these significant and unavoidable impacts. The LRSP EIR also identified impacts to hazards and hazardous materials, public services and utilities, hydrology and water quality, biological resources, geology and geotechnical hazards, and cultural resources. These impacts were reduced to a less than significant level with adoption of the recommended mitigation measures. A Mitigation Monitoring and Reporting Program (MMRP) was prepared and adopted with the Specific Plan. The MMRP is a binding document that runs with the land and would be applicable to the proposed Project.

In 2008, the City approved the Laguna Ridge Town Center project, which included a 23.3-acre increase in the area designated for commercial land uses on a 95.3-acre portion of the Laguna Ridge Specific Plan. The Laguna Ridge Town Center EIR (a Subsequent EIR to the LRSP EIR) analyzed development of up to 364,000 square feet of medical offices on approximately 30 acres of SC-designated land in the Laguna Ridge Specific Plan area. The Laguna Ridge Town Center project was subject to the MMRP for the Laguna Ridge Specific Plan. The Laguna Ridge Town Center EIR (SCH #2007082169) assessed the environmental impacts resulting from the approval, construction, and operation of the Laguna Ridge Town Center project and identified mitigation measures to minimize potential adverse environmental impacts. The Laguna Ridge Town Center EIR identified significant and unavoidable impacts to regional air quality plan, long-term noise levels, traffic operations on portions of Elk Grove Boulevard, and cumulative traffic operations at intersections in the vicinity. A Statement of Overriding Considerations was adopted for these significant and unavoidable impacts. The Laguna Ridge Town Center EIR also identified potentially significant impacts to construction-related air quality, long-term increases of criteria air pollutants, and traffic operations at the Elk Grove Boulevard/State Route 99 southbound ramp intersection and at the Elk Grove Boulevard/Bruceville Road intersection; however, these impacts were reduced to a less than significant level with adoption of the recommended mitigation measures. An MMRP was also prepared and adopted for the Laguna Ridge Town Center project, which would also be applicable to the proposed project.

All documents associated with the Laguna Ridge Specific Plan and Laguna Ridge Town Center project are available for review at the following location: City of Elk Grove, Development Services – Planning, 8401 Laguna Palms Way, Elk Grove, CA 95758.

Potential Environmental Effects

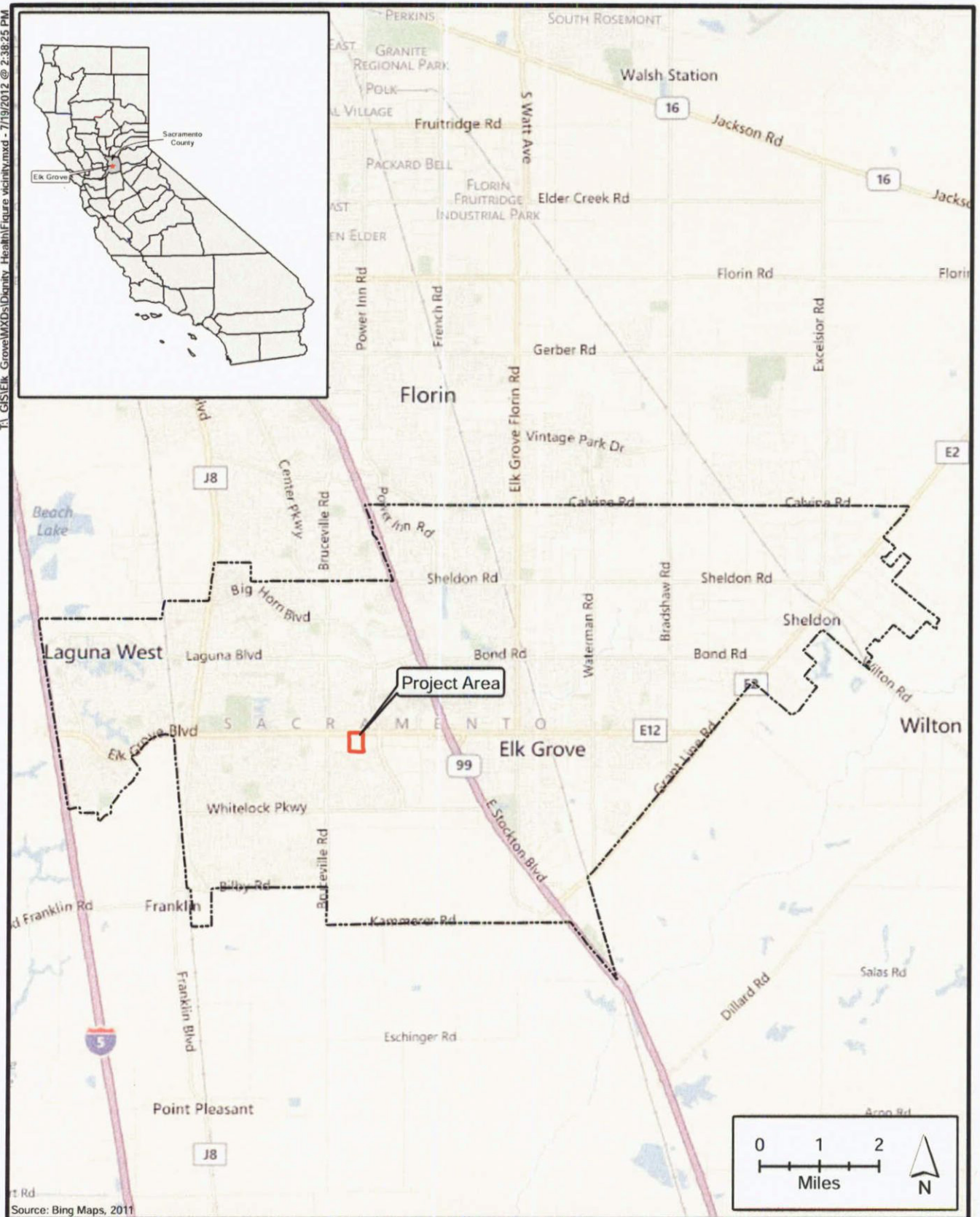
See attached Initial Study.

**NOTICE OF PREPARATION**

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City of Elk Grove  
Development Services

Figure 1  
Project Location

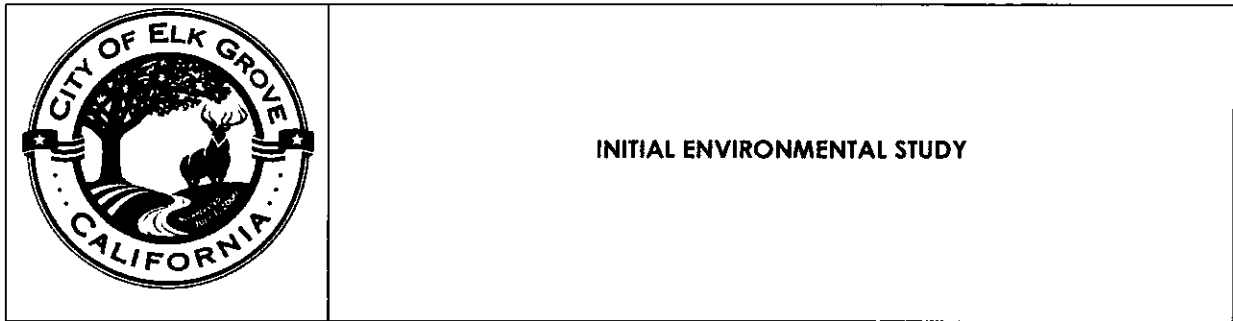


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City of Elk Grove  
Development Services

Figure 2  
Site Configuration



Project Title: Dignity Health Elk Grove Medical Campus Project  
File EG-12-014

Lead Agency Name and Address: City of Elk Grove  
Development Services – Planning  
8401 Laguna Palms Way  
Elk Grove, CA 95758

Project Location: The project site is located at the southwest corner of Elk Grove Boulevard and Wymark Drive in the Laguna Ridge Specific Plan area.

Project Sponsor's Name and Address: Dignity Health  
Attn: Jim Morrison  
3400 Data Drive  
Rancho Cordova, CA 95670

General Plan Designation(s): Commercial

Specific Plan Designation(s): Shopping Center (SC)

Zoning: Shopping Center (SC)

Contact Person: Gerald Park, 8401 Laguna Palms Way, Elk Grove, CA 95758

Phone Number: (916) 478-3671

Date Prepared: July 2012

**See attached NOP for project description information.**

**INITIAL STUDY**

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**ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:**

The environmental factors checked below would be potentially affected by this project, as indicated by the checklist and corresponding discussion on the following pages.

- |   |   |  |
|---|---|--|
| <input checked="" type="checkbox"/> Aesthetics  | <input checked="" type="checkbox"/> Greenhouse Gas Emissions      | <input type="checkbox"/> Population & Housing                          |
| <input type="checkbox"/> Agricultural Resources | <input checked="" type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Public Services                               |
| <input checked="" type="checkbox"/> Air Quality | <input type="checkbox"/> Hydrology & Water Quality                | <input type="checkbox"/> Recreation                                    |
| <input type="checkbox"/> Biological Resources   | <input type="checkbox"/> Land Use & Planning                      | <input type="checkbox"/> Transportation/Traffic                        |
| <input type="checkbox"/> Cultural Resources     | <input type="checkbox"/> Mineral Resources                        | <input checked="" type="checkbox"/> Utilities & Service Systems        |
| <input type="checkbox"/> Geology & Soils        | <input checked="" type="checkbox"/> Noise                         | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

DETERMINATION: (To be completed by the lead agency)

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided, or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Gerald Park  
Planner's Signature

GERALD PARK  
Planner's Printed Name

8/6/12  
Date

City of Elk Grove  
Development Services – Planning

**PURPOSE OF THIS INITIAL STUDY**

This Initial Study has been prepared consistent with State CEQA Guidelines Section 15063 (Division 6 of Chapter 3 of Title 14 of the California Code of Regulations, hereinafter the CEQA Guidelines) to determine if the Dignity Health Elk Grove Medical Campus Project (hereinafter the Project), as proposed, may have a significant effect upon the environment. Based upon the findings contained within this report, the Initial Study will be used in support of the preparation of an Environmental Impact Report.

**I. AESTHETICS**

	Potentially Significant Impact	Adequately Addressed in Previous EIRs	Less Than Significant Impact	No Impact
<b>Would the project:</b>				
a) Have a substantial adverse effect on a scenic vista?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**AESTHETICS DISCUSSION/CONCLUSION**

The Laguna Ridge Specific Plan Environmental Impact Report (Laguna Ridge Specific Plan EIR) (SCH #2000082139) addressed aesthetic issues related to the development of the entire Laguna Ridge Specific Plan area, of which this Project is a part. The Project would be subject to the Laguna Ridge Specific Plan Mitigation Monitoring and Reporting Program (MMRP), including implementation of mitigation measures required to reduce impacts associated with aesthetics and visual resources.

**a-c) Potentially Significant Impact.** The previous analysis found that views of open areas would be replaced by views of residential and commercial uses. While the setbacks, landscaping, varied building heights and sizes, and varied building locations would provide visual relief, project development as proposed would significantly impact existing views of the area, which was previously identified as a significant and unavoidable impact in the Laguna Ridge Specific Plan EIR. The Project would include buildings that are more than 60 feet tall, which is the maximum building height considered in the previous analysis. The proposed building heights would not be consistent with the development standards for the Shopping Center (SC) zoning district and would alter the area's visual character from a rural area to an urban environment, which was previously identified as a significant and unavoidable impact in the Laguna Ridge Specific Plan EIR. Therefore, this would be considered a **potentially significant** impact and will be analyzed in the Subsequent EIR.

**d) Potentially Significant Impact.** The Project would introduce new sources of light and glare. However, the Project would be subject to the Laguna Ridge Specific Plan EIR MMRP, which

includes implementation of Laguna Ridge Specific Plan EIR mitigation measures **MM 4.11.2a** and **MM 4.11.2b**, which require preparation of a lighting plan to ensure that parking lot pole lights and streetlights are fully hooded and back-shielded to reduce light "spillage" and glare. The measure also prohibits the illumination from breaking the horizontal plane, ensures that lighting does not exceed the standard illumination of 2 foot-candles along the property lines of adjoining land uses, and requires the use of non-glare glass. Compliance with the Laguna Ridge Specific Plan EIR mitigation measures would ensure that new sources of light and glare associated with buildings and parking are minimized and that impacts of the Project would not exceed those previously disclosed. However, the previous EIRs did not assume operation of a helistop, which would include its own operational lighting. Therefore, this would be considered a **potentially significant** impact and will be analyzed in the Subsequent EIR.

**II. AGRICULTURAL RESOURCES**

In determining whether impacts on agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forestland, including the Forest and Range Assessment Project and the Forest Legacy Assessment Projects; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Would the project:	Potentially Significant Impact	Adequately Addressed in Previous EIRs	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forestland (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forestland or conversion of forestland to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forestland to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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**AGRICULTURAL RESOURCES DISCUSSION/CONCLUSION**

The Laguna Ridge Specific Plan EIR addressed agricultural resources issues related to the development of the entire Laguna Ridge Specific Plan area, of which this Project is a part. The Project would be subject to the Laguna Ridge Specific Plan MMRP, including implementation of mitigation measures required to reduce impacts associated with agricultural resources.

**a-b) Adequately Addressed in Previous EIRs.** The Laguna Ridge Specific Plan EIR addressed agricultural issues related to the development of the entire Laguna Ridge Specific Plan area, of which this Project is a part. The Laguna Ridge Specific Plan EIR identified significant impacts on agricultural resources that required mitigation. The Project would be subject to the Laguna Ridge Specific Plan EIR MMRP, including Laguna Ridge Specific Plan EIR mitigation measures **MM 4.1.1** and **MM 4.1.2b**. Mitigation measure **MM 4.1.1** requires protection of farmland through deed restriction or other conservation mechanism on a 1:1 basis for every acre of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance converted to urban uses. Mitigation measure **MM 4.1.2b** requires notification of existing and future noise-producing agricultural-related activities in the area. These measures would minimize impacts associated with the loss of important farmland and land use conflicts between urban and agricultural land uses. However, the Laguna Ridge Specific Plan EIR determined the loss of important farmland would result in project and cumulative significant and unavoidable impacts. The Project would not convert additional land compared to that analyzed in the Laguna Ridge Specific Plan EIR and would not result in additional impacts on agricultural resources beyond those previously identified in the Laguna Ridge Specific Plan EIR. Impacts of the Project would not exceed those previously disclosed, and no further analysis is required.

**c-e) No Impact.** Since the Laguna Ridge Specific Plan EIR was certified, the CEQA Guidelines have been updated to address forestland and timberland resources. The project site has been historically use for agriculture and is surrounded by vacant land and urban land uses. There are no forestland or timberland resources within the project site; therefore, the Project would have no impact on forestland or timberland resources.



**III. AIR QUALITY**

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

Would the project:	Potentially Significant Impact	Adequately Addressed in Previous EIRs	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in significant construction-related air quality impacts?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Expose sensitive receptors to substantial pollutant concentrations?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Create objectionable odors affecting a substantial number of people?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**AIR QUALITY DISCUSSION/CONCLUSION**

The Laguna Ridge Specific Plan EIR addressed air quality issues related to the development of the entire Laguna Ridge Specific Plan area, of which this Project is a part. In addition, the Laguna Ridge Town Center EIR (SCH #2007082169) addressed air quality issues related to the development of the Laguna Ridge Town Center project area, which assumed development of 364,000 square feet of medical facilities in the Specific Plan area, which included 13,151 vehicle trips per day. The Project would be subject to the MMRPs adopted for both the Laguna Ridge Specific Plan and the Laguna Ridge Town Center, including implementation of mitigation measures required to reduce air quality impacts.

**a-f) Potentially Significant Impact.** Both the Laguna Ridge Specific Plan and Laguna Ridge Town Center EIRs addressed air quality issues related to the development within the area of the project site. Potentially significant impacts were identified and mitigation was provided to

reduce those impacts. The Project would be subject to the MMRPs for both the Laguna Ridge Specific Plan and the Laguna Ridge Town Center, which would require implementation of mitigation measures **MM 4.3.1a** through **MM 4.3.1g** and **MM 4.3.2** of the Laguna Ridge Specific Plan EIR and mitigation measures **MM 4.2.1a** through **MM 4.2.1d** and **MM 4.2.3** of the Laguna Ridge Town Center EIR. These measures require implementation of various construction management measures to reduce vehicle dust and emissions, promote ridesharing, and encourage the use of energy-efficient lighting and controls. Even with implementation of these mitigation measures, both EIRs identified significant and unavoidable air quality impacts. The Laguna Ridge Specific Plan EIR determined that construction emissions would contribute to regional pollutants and that project and cumulative emissions would exceed the Sacramento Metropolitan Air Quality Management District's (SMAQMD) significance thresholds, which were considered significant and unavoidable impacts. In addition, the Laguna Ridge Town Center EIR determined that the Laguna Ridge Town Center would result in a cumulatively considerable net increase in criteria pollutants, which was considered a significant and unavoidable impact.

Although the Project may result in the same determination of significance identified in the previous EIRs, the degree of impact may change due to changes in the types of anticipated development. The Project includes construction of a medical campus that differs from the medical office uses originally analyzed in the Laguna Ridge Town Center EIR. The construction activities and operations (i.e., vehicles and equipment) of these facilities would generate emissions that may differ from the previously analyzed project and affect air quality.

As the amount and characteristics of traffic generated by the Project would differ from that previously analyzed, the EIR will evaluate mobile-source emissions and localized mobile-source carbon monoxide (CO) air quality impacts for roadway intersections and segments projected to operate at unacceptable levels of service (i.e., level of service [LOS] E or worse) and/or an affected intersection experiencing more than 31,600 vehicles per hour.

In addition, the Project may expose sensitive receptors to toxic air contaminants (TACs). Common sources of TACs include diesel-fueled internal combustion engines. It is necessary to examine emissions associated with construction equipment, nearby transportation sources (i.e., Elk Grove Boulevard), and stationary sources. Applicable rules and regulations that would reduce public exposure to TACs, such as SMAQMD Regulation 2, need to be addressed. In addition, the Project will contribute to cumulative regional air quality impacts. Therefore, this would be considered a **potentially significant** impact and will be analyzed in the Subsequent EIR.

**INITIAL STUDY**

<b>IV. BIOLOGICAL RESOURCES</b>	Potentially Significant Impact	Adequately Addressed in Previous EIRs	Less Than Significant Impact	No Impact
<b>Would the project:</b>				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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**BIOLOGICAL RESOURCES DISCUSSION/CONCLUSION**

The Laguna Ridge Specific Plan EIR addressed biological resource issues related to the development of the entire Laguna Ridge Specific Plan area, of which this Project is a part. The Project would be subject to the Laguna Ridge Specific Plan MMRP, including implementation of mitigation measures required to reduce impacts associated with biological resources. The Grove Subdivision Project, which is within the Laguna Ridge Specific Plan area and contains the Project site, began construction in 2007, including preliminary grading of the Grove Subdivision site, including the site of the proposed Project.

**a–d, e) Adequately Addressed in Previous EIRs.** The Laguna Ridge Specific Plan EIR addressed biological issues related to the development of the project site, which is part of Laguna Ridge Specific Plan area. According to the Laguna Ridge Specific Plan EIR, buildout of the Laguna Ridge Specific Plan would result in removal of trees; the loss of potential habitat for Sanford's arrowhead, valley elderberry longhorn beetle, vernal pool fairy shrimp, and vernal pool tadpole shrimp; the direct loss of giant garter snakes; the filling of jurisdictional wetlands and/or waters of the United States; the removal of Swainson's hawk nesting and foraging habitat; and the disturbance of bats, nesting raptors, and other migratory birds, including burrowing owl and tricolored blackbird. Buildout would also contribute cumulatively to the loss of biological resources in the region.

The Project would be subject to the Laguna Ridge Specific Plan MMRP, which would include implementation of Laguna Ridge Specific Plan EIR mitigation measures **MM 4.8.1, MM 4.8.2, MM 4.8.3, MM 4.8.4, MM 4.8.5, MM 4.8.6, MM 4.8.7, and MM 4.8.8**. Mitigation measure **MM 4.8.1** requires tree surveys and mitigation or payment of in-lieu fees for any protected trees removed; **MM 4.8.2** requires surveys for Sanford's arrowhead if habitat is present; **MM 4.8.3** requires no net loss of wetlands; **MM 4.8.4** requires surveys and protection for giant garter snakes and habitat if present; **MM 4.8.5** provides for avoidance and/or mitigation for valley elderberry longhorn beetle; **MM 4.8.6** requires avoidance and/or mitigation for vernal pool fairy shrimp; **MM 4.8.7** provides for 1:1 mitigation for loss of Swainson's hawk nesting and foraging habitat (according to City records, mitigation fees for the project site have already been paid); and **MM 4.8.8** requires surveys for bats, nesting raptors, and other migratory birds prior to construction. The Laguna Ridge Specific Plan EIR determined that implementation of these measures would ensure impacts on these resources would be less than significant. The Project site is entirely within the boundaries of the Laguna Ridge Specific Plan. Because the Project would not result in disturbance of land, and therefore resources, beyond that considered for development in the Laguna Ridge Specific Plan EIR, compliance with the Laguna Ridge Specific Plan EIR mitigation measures would ensure impacts of the Project would not exceed those previously disclosed. Therefore, Project impacts on biological resources were adequately addressed in the Laguna Ridge Specific Plan EIR, and no further analysis is required.

The Laguna Ridge Specific Plan EIR identified that the Specific Plan's contribution to the loss of biological resources in the region would be cumulatively considerable, and this was determined to be a significant and unavoidable impact. Cumulative impacts of the Project would not exceed those previously disclosed, and no further analysis is required.

**f) No Impact.** No provisions of an adopted habitat conservation plan, natural conservation community plan, or other approved local, regional, or state habitat conservation plan apply to the project site.

**INITIAL STUDY**

<b>V. CULTURAL RESOURCES</b>	Potentially Significant Impact	Adequately Addressed in Previous EIRs	Less Than Significant Impact	No Impact
<b>Would the project:</b>				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**CULTURAL RESOURCES DISCUSSION/CONCLUSION**

The Laguna Ridge Specific Plan EIR addressed cultural resources issues related to the development of the entire Laguna Ridge Specific Plan area, of which this Project is a part. The Project would be subject to the Laguna Ridge Specific Plan MMRP, including implementation of mitigation measures required to reduce impacts associated with cultural resources.

**a, b, d) Adequately Addressed in Previous EIRs.** According to the Laguna Ridge Specific Plan EIR, the project site does not contain known prehistoric archaeological resources, paleontological resources, or historical buildings. However, the Laguna Ridge Specific Plan EIR acknowledged that there is the potential for unknown prehistoric archaeological resources to be discovered where construction involves land alteration activities. This was considered a significant impact. The Project would be subject to the Laguna Ridge Specific Plan EIR MMRP, including implementation of Laguna Ridge Specific Plan EIR mitigation measure **MM 4.10.1b**, which states:

- In the event that any historic surface or subsurface archaeological features or deposits are uncovered, all work within 100 feet of the find shall cease and Development Services shall be notified. An archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards must be contacted to determine if the resource is significant and to determine appropriate mitigation. Any artifacts uncovered must be recorded and removed to a location to be determined by the archaeologist. The discovery of human remains must also be reported to the County Coroner in accordance with Section 7050.5 the California Health and Safety Code, and the Native American Commission for further investigation. If the remains are determined to be Native American, the Native American Commission will inform the most likely descendent and determine the appropriate disposition of the remains and grave goods.

Implementation of this mitigation measure would ensure that any potential impacts to unknown archaeological resources and human remains are minimized, and this impact would be reduced to a less than significant level. Compliance with the Laguna Ridge Specific Plan EIR mitigation measure would ensure impacts of the Project would be less than significant and would not exceed those impacts previously disclosed. Therefore, this impact was adequately addressed in the Laguna Ridge Specific Plan EIR, and no further analysis is required.

**c) Less Than Significant Impact.** Quaternary alluvium terraces underlie the Specific Plan area (Sacramento County 2011). The Laguna Ridge Specific Plan EIR found, due to the geologic age of these alluvial deposits, there is a low potential for yielding unique paleontological resources. Therefore, the Project would have a less than significant impact on paleontological resources and would not exceed previously disclosed impacts. Therefore, no further analysis is required.

**INITIAL STUDY**

<b>VI. GEOLOGY AND SOILS</b>	Potentially Significant Impact	Adequately Addressed in Previous EIRs	Less Than Significant Impact	No Impact
<b>Would the project:</b>				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**GEOLOGY AND SOILS DISCUSSION/CONCLUSION**

The Laguna Ridge Specific Plan EIR addressed geology and soils issues related to the development of the entire Laguna Ridge Specific Plan area, of which this Project is a part. The Project would be subject to the Laguna Ridge Specific Plan EIR MMRP, including implementation of mitigation measures required to reduce impacts associated with geology and soils.

**a–d) Adequately Addressed in Previous EIRs.** The Laguna Ridge Specific Plan EIR addressed geology and soils issues related to the development of the entire Laguna Ridge Specific Plan Area, of which this Project is a part. The Laguna Ridge Specific Plan EIR identified potentially significant impacts related to loss of topsoil; however, implementation of mitigation measure **MM 4.9.1** would reduce this impact to a less than significant level by requiring preparation and implementation of an erosion control plan during construction. The Project would not result in additional impacts on geology and soils beyond those previously disclosed and analyzed in the Laguna Ridge Specific Plan EIR, because the Project would be subject to the same regulations and mitigation requirements as assumed in the Laguna Ridge Specific Plan EIR and would also be subject to review by the California Office of Statewide Health Planning and Development, which enforces building standards, specifically as they relate to the construction of health facilities. Because the geological information regarding geology and soils is not dependent upon the use of the buildings, no special circumstances exist and no changes in the Project have occurred that would necessitate the preparation of subsequent geology and soils studies. Compliance with the Laguna Ridge Specific Plan EIR mitigation measures would ensure impacts of the Project would not exceed those previously disclosed. Therefore, this impact was adequately addressed in the Laguna Ridge Specific Plan EIR, and no further analysis is required.

**e) No Impact.** The Project will connect to the sanitary sewer system and will not involve installation of a septic tank system. Therefore, there would be no impact, and no further analysis is required.



<b>VII. GREENHOUSE GAS EMISSIONS</b>	Potentially Significant Impact	Adequately Addressed in Previous EIRs	Less Than Significant Impact	No Impact
<b>Would the project:</b>				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**GREENHOUSE GAS EMISSIONS DISCUSSION/CONCLUSION**

**a-b) Potentially Significant Impact.** The CEQA Guidelines require that climate change be included in an environmental review for a project subject to CEQA. The previous EIRs did not address climate change because the projects were processed prior to the requirement that CEQA documents analyze GHG emissions. Construction and operation of the Project has the potential to generate greenhouse gas emissions, which would be considered a potentially significant impact.

Greenhouse gas emission will be quantified for the Project for construction and operation. The Project GHG analysis will identify mitigating project design features and applicable feasible measures and policies to address greenhouse gas emissions generated by the Project.

The City of Elk Grove has drafted a Climate Action Plan, but this plan has yet to be adopted. Draft policies as well as thresholds recommended by air districts throughout the state and applicable GHG-reduction planning efforts such as the AB 32 Scoping Plan will be addressed in the Subsequent EIR.

<b>VIII. HAZARDS AND HAZARDOUS MATERIALS</b>	Potentially Significant Impact	Adequately Addressed in Previous EIRs	Less Than Significant Impact	No Impact
<b>Would the project:</b>				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## HAZARDS AND HAZARDOUS MATERIALS DISCUSSION/CONCLUSION

The Laguna Ridge Specific Plan EIR addressed hazards and hazardous materials issues related to the development of the entire Laguna Ridge Specific Plan area, of which this Project is a part. The Project would be subject to the Laguna Ridge Specific Plan MMRP, including implementation of mitigation measures required to reduce impacts associated with hazards and hazardous materials.

**a–g) Potentially Significant Impact.** The Laguna Ridge Specific Plan EIR addressed hazards and hazardous materials issues related to the development of the entire Specific Plan area. The EIR identified potentially significant impacts associated with construction workers to past herbicide or pesticide applications; exposure to asbestos-containing building materials; exposure to chemical burn and dump areas; and exposure to lead-based paint materials. The Laguna Ridge Specific Plan EIR determined that implementation of Laguna Ridge Specific Plan EIR mitigation measures **MM 4.5.1**, **MM 4.5.2**, **MM 4.5.3a** through **MM 4.5.3b**, and **MM 4.5.4a** through **4.5.4b** would reduce these impacts to a less than significant level. The Project would be subject to these mitigation requirements.

As a hospital use, the Project may result in the handling and/or transport of different types and amounts of hazardous materials than would be handled and/or transported by a medical office building. The hospital campus may handle/transport materials such as biohazardous and medical waste and radioactive materials and waste, which would not likely be involved with the medical office building use previously analyzed. Therefore, this would be considered a potentially significant impact that would require further analysis in the Subsequent EIR.

**h) Adequately Addressed in Previous EIRs.** As noted in the Laguna Ridge Specific Plan EIR Notice of Preparation, the project area is adjacent to areas that are already urbanized and has been historically used for agriculture for the past century. It is not located near or intermixed with any wildlands, so the risk of wildland fire is very low. Therefore, this was considered in the Laguna Ridge Specific Plan EIR to be a less than significant impact. The existing conditions have only become more urbanized since the Laguna Ridge Specific Plan EIR was prepared; therefore, the impacts associated with wildfire risk were adequately addressed in the previous EIR, and no further analysis is required.

IX. HYDROLOGY AND WATER QUALITY	Potentially Significant Impact	Adequately Addressed in Previous EIRs	Less Than Significant Impact	No Impact
<b>Would the project:</b>				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**INITIAL STUDY**

<b>IX. HYDROLOGY AND WATER QUALITY</b>	Potentially Significant Impact	Adequately Addressed in Previous EIRs	Less Than Significant Impact	No Impact
<b>Would the project:</b>				
i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**HYDROLOGY AND WATER QUALITY DISCUSSION/CONCLUSION**

Both the Laguna Ridge Specific Plan EIR and the Laguna Ridge Town Center EIR addressed hydrology and water quality issues related to the development of the entire Laguna Ridge Specific Plan area and the Laguna Ridge Town Center area. The Project would be subject to both the Laguna Ridge Specific Plan and Laguna Ridge Town Center MMRPs, including implementation of mitigation measures required to reduce impacts associated with hydrology and water quality. In addition, all development in the city, including the Project, would be required to comply with the City's Storm Water Master Plan and EIR (SCH# 2011012035), which provide storm drainage and flood control solutions to be implemented in the design and construction of new facilities and establish criteria for selecting and prioritizing the range of storm drainage and flood control solutions.

**a-f) Adequately Addressed in Previous EIRs.** The Laguna Ridge Specific Plan and Laguna Ridge Town Center EIRs addressed hydrology and water quality issues related to the development of the project site. The Laguna Ridge Specific Plan EIR identified potentially significant impacts related to short-term water quality impacts during construction, increased drainage rates, and surface water quality impacts. Compliance with existing regulations and implementation of Laguna Ridge Specific Plan mitigation measures **MM 4.7.1**, **MM 4.7.2**, and **MM 4.7.3a** through **MM 4.7.3c** would reduce these impacts to a less than significant level by requiring preparation and implementation of a stormwater pollution prevention plan (SWPPP) consistent with the City's National Pollutant Discharge Elimination System (NPDES) permit requirements, requiring consistency with the Storm Drainage Master Plan for the Laguna Ridge Specific Plan for subsequent tentative map approval, implementation of biofilter swales and vegetated stripes in channels, requiring water quality control measures in storm drainage facilities, and painting of storm drains with the legend "No Dumping—Flows to Creek." The Project would be subject to the same regulations and mitigation requirements. No special circumstances exist on the project site and no changes in the Project have occurred that would alter the findings of the previous EIRs. Compliance with the Laguna Ridge Specific Plan and Laguna Ridge Town Center MMRPs and the City's Storm Water Master Plan would ensure impacts of the Project would not exceed those previously disclosed. Therefore, this impact was adequately addressed in the previous EIRs, and no further analysis is required.

**g-j) Adequately Addressed in Previous EIRs.** The Laguna Ridge Specific Plan EIR disclosed that the Laguna Ridge Specific Plan area is not within a Federal Emergency Management Agency (FEMA) 100-year or 500-year floodplain and is outside of the Folsom Dam failure floodplain area. The Laguna Ridge Specific Plan would not place housing or structures within the 100-year floodplain or place structures within the 500-year floodplain. The Project would not impede flows.

Based on the drainage design set forth in the Drainage Master Plan for the Laguna Ridge Specific Plan, all new development would be located a minimum of 1 foot above the 100-year water surface elevation. The Laguna Ridge Specific Plan EIR also found that the Laguna Ridge Specific Plan would not expose persons to hazards as a result of a failure of a levee or a dam. Because the Project is within the project area analyzed in the Laguna Ridge Specific Plan EIR, the project site would not be located within a 100-year or 500-year floodplain and would not result in flooding hazards beyond that assumed in the Laguna Ridge Specific Plan EIR. Therefore, this impact was adequately addressed in the Laguna Ridge Specific Plan EIR, and no further analysis is required.

**INITIAL STUDY**

<b>X. LAND USE AND PLANNING</b>	Potentially Significant Impact	Adequately Addressed in Previous EIRs	Less Than Significant Impact	No Impact
<b>Would the project:</b>				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**LAND USE AND PLANNING DISCUSSION/CONCLUSION**

The Laguna Ridge Specific Plan EIR addressed land use and planning issues related to the development of the entire Laguna Ridge Specific Plan area, of which this Project is a part. In addition, the Laguna Ridge Town Center EIR addressed land use and planning issues related to the development of the Laguna Ridge Town Center project area, which assumed development of 364,000 square feet of medical facilities in the Specific Plan area. Both EIRs found all impacts associated with land use and planning to be less than significant.

**a) No Impact.** The Project would develop a hospital campus in an area currently designated for development. Currently, no established community exists on the project site. Thus, the Project will not physically divide an established community. Therefore, development of the Project would result in no impact on the physical arrangement of the community.

**b) Adequately Addressed in Previous EIRs.** The Laguna Ridge Specific Plan provides policies, development guidelines, and standards for the Laguna Ridge Specific Plan area. The growth anticipated with buildout of the Laguna Ridge Specific Plan was determined to be consistent with projections for the City of Elk Grove over the next two decades and would not exceed Sacramento Area Council of Governments (SACOG) projections. According to the Laguna Ridge Specific Plan EIR, the Laguna Ridge Specific Plan was determined to be consistent with the General Plan, and the population and housing impacts were determined to be less than significant. The Laguna Ridge Town Center increased the commercial density and decreased the allowable residential units within the planning area under the Laguna Ridge Specific Plan. The planning area in the Laguna Ridge Town Center project was determined to be consistent with the overall intent of the General Plan and the Laguna Ridge Specific Plan and would not result any new land use conflicts.

Hospital uses are allowed under the Laguna Ridge Town Center and Laguna Ridge Specific Plan with a Conditional Use Permit. The Project is seeking approval of a Conditional Use Permit as a project component, and the Project would be required to comply with applicable regulations as part of the Conditional Use Permit. Because the Project is a conditionally permitted use and would comply with applicable regulations as part of the Conditional Use Permit, the Project would not conflict with regulations adopted to mitigate environmental impacts. The Project would not result in impacts related to land use beyond that disclosed in the previous EIRs.

**c) No Impact.** As noted above in Section IV, Biological Resources, no provisions of an adopted habitat conservation plan, natural conservation community plan, or other approved local, regional, or state habitat conservation plan apply to the project site.



<b>XI. MINERAL RESOURCES</b>	Potentially Significant Impact	Adequately Addressed in Previous EIRs	Less Than Significant Impact	No Impact
<b>Would the project:</b>				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**MINERAL RESOURCES DISCUSSION/CONCLUSION**

**a-b) No Impact.** The project site has not been identified in the City of Elk Grove General Plan EIR as containing mineral resources that would be considered a significant resource. Therefore, development of the project site would result in no impact on mineral resources.

<b>XII. NOISE</b>	Potentially Significant Impact	Adequately Addressed in Previous EIRs	Less Than Significant Impact	No Impact
<b>Would the project result in:</b>				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**NOISE DISCUSSION/CONCLUSION**

The Laguna Ridge Specific Plan EIR addressed noise issues related to the development of the entire Laguna Ridge Specific Plan planning area, of which this Project is a part. In addition, the Laguna Ridge Town Center EIR addressed noise issues related to the development of the Laguna Ridge Town Center planning area, which assumed development of 364,000 square feet of medical facilities in the Specific Plan area. The Project would be subject to the MMRPs adopted for both the Laguna Ridge Specific Plan and Laguna Ridge Town Center, including implementation of mitigation measures required to reduce noise impacts.

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**a-f) Potentially Significant Impact.** Implementation of the Project would result in development of a use similar to that analyzed in the Laguna Ridge Town Center EIR; however, the Project includes additional components that would generate noise which were not previously analyzed (e.g., emergency vehicles, helicopters, power plant, emergency generator, and parking structure). These changes may result in additional noise impacts relative to the previous analysis. A noise analysis will be prepared for the Project, and these issues will be evaluated further in the Subsequent EIR.

<b>XIII. POPULATION AND HOUSING</b>	Potentially Significant Impact	Adequately Addressed in Previous EIRs	Less Than Significant Impact	No Impact
<b>Would the project:</b>				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**POPULATION AND HOUSING DISCUSSION/CONCLUSION**

The Laguna Ridge Specific Plan EIR addressed population and housing issues related to the development of the entire Laguna Ridge Specific Plan area, of which this Project is a part. In addition, the Laguna Ridge Town Center EIR addressed population and housing issues related to the development of the Laguna Ridge Town Center project area, which assumed development of 364,000 square feet of medical facilities in the Specific Plan area. Both EIRs found impacts related to population and housing to be less than significant.

**a) Adequately Addressed in Previous EIRs.** The Project would result in the development of a hospital campus on property designated for shopping center uses. The Laguna Ridge Specific Plan was planned with residential and employment-generating uses to complement one another. Some of the relevant objectives of the Laguna Ridge Specific Plan include:

- Provide housing to accommodate the employees of the major employment centers in the City of Elk Grove.
- Provide a variety of housing opportunities for a wide range of social, economic, and age groups.
- Provide for the development of employment centers that offer job opportunities to improve the jobs/housing balance.
- Provide flexibility to respond to changes in economic and social factors.

The employment-generating uses in the Project are an objective of the Laguna Ridge Specific Plan and thus were anticipated in the Laguna Ridge Specific Plan and EIR. The Laguna Ridge Town Center project included an amendment for employment-generating uses on this site, and

## INITIAL STUDY

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those uses were considered in the Laguna Ridge Town Center EIR. The Laguna Ridge Town Center EIR determined that the changes under the Laguna Ridge Town Center project would not result in population and housing impacts beyond those disclosed in the Laguna Ridge Specific Plan EIR. There is a substantial amount of undeveloped residential land in the Specific Plan area, which was designated in the Laguna Ridge Specific Plan area to accommodate residential growth that accompanies increases in employment growth in the Specific Plan area. The Project would provide an employment center that offers job opportunities to improve the jobs/housing balance within the Specific Plan area and help stimulate the local economy by bringing both temporary construction jobs and permanent hospital jobs to the area. The Project would not exceed the assumptions for employment growth in the Plan area, and the residential capacity within the Laguna Ridge Specific Plan is sufficient to accommodate growth that could be generated by the Project. Therefore, this is an impact that was adequately addressed in the previous EIRs, and no further analysis is required.

**b-c) No Impact.** The Project would result in the development of a hospital campus on primarily vacant property historically used for agriculture and designated for development. Therefore, the Project would result in no impact related to displacement of existing housing or people.

<b>XIV. PUBLIC SERVICES</b>	Potentially Significant Impact	Adequately Addressed in Previous EIRs	Less Than Significant Impact	No Impact
<b>Would the project result in:</b>				
Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
a) Fire protection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Police protection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Schools?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Parks?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Other public facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**PUBLIC SERVICES DISCUSSION/CONCLUSION**

The Laguna Ridge Specific Plan and Laguna Ridge Town Center EIRs addressed public services issues related to the development of the entire Laguna Ridge Specific Plan area and Laguna Ridge Town Center area, which includes the project site. The Project would be subject to the Laguna Ridge Specific Plan and Laguna Ridge Town Center MMRPs, including implementation of mitigation measures required to reduce impacts associated with public services.

**a-e) Adequately Addressed in Previous EIRs.** The Laguna Ridge Specific Plan EIR addressed fire protection, police protection, and schools related to the development of the entire Laguna Ridge Specific Plan planning area, of which this Project is a part. The previous EIR identified potentially significant impacts related to the following: fire department response times may exceed 5 minutes during construction and prior to the construction of a new fire station within the planning area; the law enforcement standard of one officer per 1,000 residents may be exceeded; and there would be insufficient park and recreational facilities for the projected total population upon full buildout of the planning area. However, the Laguna Ridge Specific Plan EIR determined implementation of mitigation measures **MM 4.6.4.1**, **MM 4.6.4.2a** through **MM 4.6.4.2f**, and **MM 4.6.7.1** would reduce these impacts to a less than significant level. Development of the project site was assumed for development in the Laguna Ridge Specific Plan EIR, and the structures in the Project would include all fire protection requirements set forth in Title 17 of the City's Municipal Code (Fire Prevention). Therefore, the demand for fire and police protection, schools, and park facilities would not increase beyond those previously disclosed and analyzed in the Laguna Ridge Specific Plan EIR. No special circumstances exist and no changes in the Project have occurred that would increase demand for fire protection, law enforcement

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services, schools, or parks. Compliance with the Laguna Ridge Specific Plan and Laguna Ridge Town Center MMRPs would ensure that impacts of the Project would not exceed those previously disclosed. Therefore, impacts to public services were adequately addressed in the Laguna Ridge Specific Plan EIR, and no further analysis is required.

**XV. RECREATION**

Would the project:	Potentially Significant Impact	Adequately Addressed in Previous EIRs	Less Than Significant Impact	No Impact
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**RECREATION DISCUSSION/CONCLUSION**

The Laguna Ridge Specific Plan and Laguna Ridge Town Center EIRs addressed parks and recreation issues related to the development of the entire Laguna Ridge Specific Plan area and Laguna Ridge Town Center area, which includes the project site. The Project would be subject to the Laguna Ridge Specific Plan and Laguna Ridge Town Center MMRPs, including implementation of mitigation measures required to reduce impacts associated with parks and recreation.

**a-b) Adequately Addressed in Previous EIRs.** See discussion in Section XIV, Public Services.



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<b>XVI. TRANSPORTATION/TRAFFIC</b>	Potentially Significant Impact	Adequately Addressed in Previous EIRs	Less Than Significant Impact	No Impact
<b>Would the project:</b>				
a) Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads of highways?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**TRANSPORTATION AND TRAFFIC DISCUSSION/CONCLUSION:**

The Laguna Ridge Specific Plan EIR addressed traffic and circulation issues related to the development of the entire Laguna Ridge Specific Plan planning area, of which this Project is a part. In addition, the Laguna Ridge Town Center EIR addressed traffic and circulation issues related to the development of the Laguna Ridge Town Center project planning area, which assumed development of 364,000 square feet of medical facilities in the Specific Plan area. The

Project would be subject to the MMRPs adopted for both the Laguna Ridge Specific Plan and Laguna Ridge Town Center, including implementation of mitigation measures required to reduce traffic and circulation impacts.

**a, b, d-f) Adequately Addressed in Previous EIRs.** Implementation of the Project would result in development of a less intense medical use than analyzed in the Laguna Ridge Town Center EIR, which would result in lower and more dispersed trip generation than analyzed in the previous EIRs, as documented below.

In 2008, the City of Elk Grove and Dignity Health worked cooperatively to develop the best approach for the trip generation for the General Plan Amendment and rezone of the approximately 27.8-acre parcel to Shopping Center (SC) zoning. The goal was to conduct the trip generation in 2008 that would ultimately provide the flexibility to allow a full-service acute care hospital and medical complex at a future date when the owner applied for the use permit and Design Review.

The Laguna Ridge Town Center EIR conducted the analysis based on the equivalent number of trips if all buildings were medical office buildings (as allowed under the rezone), and the analysis assumed the maximum trip generation for the full complex. In doing so, the trip generation assumed in the Laguna Ridge Town Center EIR covered the “worst-case” scenario for the future entitlement.

The Laguna Ridge Town Center EIR analysis converted hospital beds to an equivalent amount of medical office building (MOB) based on total daily, AM, and PM peak hour trip generation (the trip generation of a 350-bed hospital is equivalent to the trip generation of about 160,000 square feet of MOB). Therefore, the trip generation in the Laguna Ridge Town Center EIR for the project site was based on 364,000 gross square feet of MOB (204,000 + 160,000 = 364,000), which is consistent with Tables 6 and 9 of the Laguna Ridge Town Center EIR traffic impact study.

Land Use Assumptions			
Land Use	Proposed Project	Laguna Ridge Town Center EIR Equivalent	Percentage Difference
Medical Office Buildings (1,000 square feet)	133	204	53%
Hospital (beds)	330	350	6%

Source: Fehr & Peers 2012

In summary, the Laguna Ridge Town Center EIR traffic impact analysis conservatively assumed about 53 percent more MOB square feet and 6 percent more hospital beds than currently proposed. In addition, trip generation based on the actual application would result in fewer peak hour trips than the Laguna Ridge Town Center EIR traffic impact analysis, because the MOB use assumed in the Laguna Ridge Town Center EIR generates about two times more trips in the AM peak hour and three times more trips in the PM peak hour than the hospital use included in the Project. Therefore, the Laguna Ridge Town Center EIR traffic impact analysis overstated the project-generated traffic relative to the traffic that would actually be generated by the Project. Because the Project would generate fewer total and peak hour trips than were disclosed in the Laguna Ridge Town Center EIR, impacts of project-generated traffic would be less than that previously disclosed. Therefore, traffic impacts were adequately addressed in the Laguna Ridge Town Center EIR, and no further analysis is required.

**c) Less Than Significant Impact.** The Project includes construction and operation of a helistop on the project site and would involve periodic air traffic, but would not result in any other changes in existing air patterns. The design of the helistop and the flight paths to and from the project site would be regulated by the Federal Aviation Administration (FAA). Helistop design standards are specified in Chapter 4 of the FAA Advisory Circular 150/5390-2B (2004). Federal Aviation Regulations (FAR) contain prescriptive standards for flight paths and other safety requirements that are designed to provide adequate maneuvering room for pilots using the facility. Flight paths must meet FAR Part 77 obstruction clearance standards; Part 77 of the FAR specifies a series of "imaginary surfaces" in the airspace surrounding landing areas. These surfaces include a "primary surface" (a horizontal plane at landing pad elevation), "approach surfaces" (shallow, inclined planes along each designated flight path), and "transition surfaces" (steeper inclined planes to the sides of flight paths). Flight paths are reviewed by the FAA when conducting airspace studies for landing sites. The FAA evaluation takes into account the airspace of other existing facilities (e.g., Sacramento International Airport and Sacramento Executive Airport) and whether there are any conditions or structures that would make a new landing site infeasible. Rather than an explicit approval of the helistop or flight operations, the product of the FAA's study is an airspace determination letter that expresses no objection to the use of the airspace for operation to and from the site.

The Project will be required to submit a Notice of Landing Area Proposal to the FAA. The FAA will consider the effects the proposal would have on existing or planned traffic patterns of neighboring airports, existing structures and programs of the FAA, safety of persons or property on the ground, existing and proposed man-made objects on file with the FAA, and known natural objects in the affected area. Prior to providing an airspace determination letter, the FAA would have to determine that the Project would not adversely affect the safe and efficient use of the navigable airspace by aircraft. As an airspace determination letter will be required prior to construction or operation of the helistop, the potential for the proposed project to alter air traffic patterns such that it would cause substantial safety risks would be less than significant.

<b>XVI. UTILITIES AND SERVICE SYSTEMS</b>	Potentially Significant Impact	Adequately Addressed in Previous EIRs	Less Than Significant Impact	No Impact
<b>Would the project:</b>				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**UTILITIES AND SERVICE SYSTEMS DISCUSSION/CONCLUSION**

Both the Laguna Ridge Specific Plan and Laguna Ridge Town Center EIRs addressed utilities and service system issues related to the development of the entire Laguna Ridge Specific Plan planning area, as well as the development of the Laguna Ridge Town Center project, which assumed development of 364,000 square feet of medical facilities. The Project would be subject to the MMRPs adopted for both the Laguna Ridge Specific Plan and Laguna Ridge Town Center, including implementation of mitigation measures required to reduce utilities and service system impacts.

**a, b, e) Adequately Addressed in Previous EIRs.** Based on correspondence from the Sacramento Regional County Sanitation District that commercial uses generate significantly less wastewater flow when compared with residential uses, the Laguna Ridge Town Center EIR determined that the replacement of residential uses in the Town Center with commercial uses would result in less wastewater generation than assumed in the Laguna Ridge Specific Plan EIR.

The Sacramento Area Sewer District (SASD) provides sewer service in the project area and will provide service to the Project, provided each building has a separate connection to the SASD public sewer system and the Project constructs connections to the SASD system (SASD 2012a). SASD also indicated that there is adequate capacity in the system to accommodate the project and the project would not be required to upgrade any offsite District facilities, with the exception of local connections immediately adjacent to the project site (SASD 2012b). The Project would also be required to implement Laguna Ridge Specific Plan mitigation measures **MM 4.6.2.1** and **MM 4.6.2.2**, payment of connection and capacity fees to ensure sewer service would not be impacted. The Laguna Ridge Specific Plan EIR determined that these mitigation measures would reduce sewer impacts to a less than significant level. Fees would help fund the SASD's normal operations, which includes regular monitoring of system capacity and performance of maintenance and upgrades, as required. As the SASD has indicated that there is adequate capacity to accommodate the Project and the Project would be required to pay connection and capacity fees, implementation of these measures would also reduce Project impacts to less than significant. Therefore, impacts to public services were adequately addressed in the Laguna Ridge Specific Plan EIR, and no further analysis is required.

**c) Adequately Addressed in Previous EIRs.** See Section IX, Hydrology and Water Quality.

**d) Potentially Significant Impact.** The Laguna Ridge Specific Plan and Laguna Ridge Town Center EIRs addressed water supply related to buildout of the Laguna Ridge Specific Plan and the Laguna Ridge Town Center project, in which this project site is located. The previous EIRs identified potentially significant impacts related to water demand and cumulative water demand. The Laguna Ridge Specific Plan EIR determined that project-specific water demand could be reduced to a less than significant level with implementation of mitigation measures **MM 4.6.1.1a** through **MM 4.6.1.1b**; however, cumulative impacts on water supply were identified to remain significant and unavoidable.

The Project would result in development of more square footage than previously analyzed in the Laguna Ridge Specific plan EIR. Increased development could increase the demand on water supply. The Sacramento County Water Agency would need to be contacted to confirm current service provisions for the project area and the ability to serve the Project. This would include an evaluation of adequate water supply and infrastructure to serve the site. This further analysis would be included in the Subsequent EIR.

**f, g) Adequately Addressed in Previous EIRs.** The previous EIRs found additional waste generated by development in the Laguna Ridge Specific Plan area, which would be disposed of at the Kiefer Landfill, will contribute incrementally to the loss of landfill capacity in the county. The Kiefer Landfill is permitted to receive waste over a 660-acre area and has a cease-operation date of 2064. The Laguna Ridge Specific Plan EIR assumes solid waste generation of 0.0132 pounds per day per building square foot in commercial designations (0.002409 tons per year). The 364,000 square feet of development approved under the Laguna Ridge Town Center would generate approximately 876.88 tons per year of solid waste. Based on a solid waste generation rate of 0.00207 tons per year per square foot (City of Palo Alto 2011), the Dignity Health Elk Grove Medical Campus would generate approximately 1,080 tons per year of solid waste. This results in

an increase of 203 tons per year (0.55 ton per day) compared to the Laguna Ridge Specific plan EIR and represents 0.005 percent of the Kiefer Landfill's permitted capacity of 10,815 tons per day. Therefore, the Project as proposed would not result in substantial additional solid waste-related impacts beyond those previously disclosed and analyzed in the Laguna Ridge Specific Plan EIR such that it would affect capacity or the closure date of the landfill. However, the type of solid waste would differ from that previously disclosed. The impacts associated with typical solid waste would be less than significant, but the disposal of hazardous or biological waste will be addressed in the Subsequent EIR (see Section VIII, Hazards and Hazardous Materials).

**XVII. MANDATORY FINDINGS OF SIGNIFICANCE**

Does the project:	Potentially Significant Impact	Adequately Addressed in Previous EIRs	Less Than Significant Impact	No Impact
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**MANDATORY FINDINGS OF SIGNIFICANCE DISCUSSION/CONCLUSION**

**a) Adequately Addressed in Previously EIRs.** As discussed in the Biological Resources and Cultural Resources sections of this Initial Study, the Project as proposed would not result in additional biological or cultural resources impacts other than those previously disclosed and analyzed in the Laguna Ridge Specific Plan and Laguna Ridge Town Center EIRs. The Project would be subject to the Mitigation Monitoring and Reporting Programs associated with these projects, which would reduce any potentially significant impacts to a less than significant level. No additional analysis is necessary.

**b, c) Potentially Significant Impact.** The Project may result in significant impacts to aesthetics, air quality, greenhouse gas emissions, hazards and hazardous materials, noise, and water supply. These effects may contribute to cumulatively considerable impacts and may also result in adverse effects on humans. These issues will be examined in the Subsequent EIR.

**REFERENCES**

- California Department of Resources Recycling and Recovery. 2012. <http://www.calrecycle.ca.gov/SWFacilities/Directory/34-AA-0001/Detail/>.
- City of Elk Grove. 2003a. *City of Elk Grove General Plan*. Amended 2005.
- City of Elk Grove. 2003b. *City of Elk Grove General Plan Draft EIR*.
- City of Elk Grove. 2004a. *City of Elk Grove General Plan Amendment Draft Supplemental Environmental Impact Report*.
- City of Elk Grove. 2004b. *Laguna Ridge Specific Plan*.
- City of Elk Grove. 2004c. *Laguna Ridge Specific Plan EIR*.
- City of Elk Grove. 2006. *High Density Residential and General Plan Amendment Project, Public Services and Utilities*.
- City of Elk Grove. 2008. *Laguna Ridge Town Center EIR*.
- City of Palo Alto. 2011. *Stanford University Medical Center Facilities Renewal and Replacement Project EIR*.
- Federal Aviation Administration, U.S. Department of Transportation. 2004. *Advisory Circular 150/5390-2B*.
- Fehr & Peers. 2012. *Dignity Health Elk Grove Medical Campus – Trip Generation*.
- Sacramento County. 2011. *Sacramento County 2030 General Plan, Safety Element Background Report, Figure II-2*.
- Sacramento County Sanitation District 1 (currently Sacramento Regional County Sanitation District). 2007. *Section 7, Sanitary Sewer Design*. <http://www.csd-1/com/pdf/idsir07.pdf>.
- SASD (Sacramento Area Sewer District). 2012a. *Dignity Health Elk Grove Medical Complex – TSM, DR, July 6, 2012*.
- SASD (Sacramento Area Sewer District). 2012b. Personal communication with Amandeep Singh, PE. July 19, 2012.



August 31, 2012

Gerald Park  
City of Elk Grove  
8401 Laguna Palms Way  
Elk Grove, CA 95758

**RECEIVED**

SEP 10 2012  
CITY OF ELK GROVE  
PLANNING

Subject: Subsequent Environmental Impact Report for the Dignity Health Elk Grove Medical Campus Project.

Dear Mr. Park,

I am vehemently opposed to additional buildings in the proposed plan. I live just across the street from where the hospital is to be built. Traffic is already overly congested at Wymark and Elk Grove Blvd. Our streets are not built for the additional traffic this will bring.

Additionally, I'm concerned about the noise level with the street traffic, sirens, a helipad and the activity associated with a hospital. I've lived in my house in Elk Grove for over 12 years. Throughout the years traffic and noise has worsened. I fear adding this hospital will exponentially increase the noise level in my neighborhood.

I chose to move to Elk Grove because there was less traffic than the rest of Sacramento and it was a quieter area. Increasingly, this is no longer the case. I own and run a small business in Elk Grove. Though I support economic growth, I think a medical facility of this magnitude is better suited away from residential areas such as mine.

Thank you for your consideration.

Sincerely,



Tim Rymel  
7909 Mansell Way  
Elk Grove, CA 95758  
916-690-3204

### **INTERESTED PARTY COMMENTS**

**Date:** September 5, 2012

**To:** City of Elk Grove  
Contact: Gerald Park  
8401 Laguna Palms Way  
Elk Grove, CA 95758

**Submitted by:** Laguna Ridge Residents and Other Interested Parties:  
Gabor Maghera  
Jennifer Maghera  
Alex Dela Cruz  
Louise Dela Cruz  
Noah Hawkins  
Annake Hawkins  
Lynn Wheat  
Elaine Macko  
Jack Lee  
Norma Lee  
Sandy White

**Subject:** Subsequent Environmental Impact Report for the Dignity Health  
Elk Grove Medical Campus Project

In response to the Notice of Preparation of the Subsequent Environmental Impact Report for the Dignity Health Elk Grove Medical Campus Project, we, as interested parties and residents of the Laguna Ridge area, submit the following comments about the initial evaluation and the subsequent Environmental Impact Report.

We understand that, on the basis of the initial evaluation, the City of Elk Grove Development Services – Planning Department found that the proposed project may have “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, and is requiring the preparation of an Environmental Impact Report that analyzes the following environmental factors:

- Aesthetics
- Air Quality
- Greenhouse Gas Emissions
- Hazards & Hazardous Materials
- Noise
- Utilities & Service Systems
- Mandatory Findings of Significance

We agree with including further analysis of all of the above-listed environmental factors in the Environmental Impact Report (EIR).

However, we also ask that the EIR include the additional analysis of the following environmental factors:

- Biological Resources
- Hydrology & Water Quality
- Public Services
- Recreation
- Transportation/Traffic

With regard to the aforementioned environmental factors, the City of Elk Grove Development Services – Planning Department found that the proposed project may *not* have “potentially significant impact” or “potentially significant unless mitigated” impact on the environment.

We disagree with that finding and feel that these factors need to be analyzed further because the Laguna Ridge Specific Plan EIR that was released in 2004 did not include the Dignity Health Elk Grove Medical Campus Project. The amendment to the land plan that allowed for the project - the Laguna Ridge Town Center Specific Plan Amendment - did not happen until 2008.

Furthermore, the subsequent Laguna Ridge Town Center EIR analysis of 2008 was based on the construction of medical offices, not a medical campus. Nor was it based on a project that would span a 20-year construction period.

Neither of the previous EIRs included, or took into account, the construction and operation of a helistop and three buildings that exceed the maximum height restriction of 60 feet – a Maternity & Surgery Center and two hospitals that include 24-hour emergency services. (*Source: Initial Study, pgs 4 & 5*)

Since the subsequent EIRs do not include the evidence and/or sufficient mitigations, we would like to see proof, in the form of more detailed studies and reports, that these factors do not have “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, specifically with regard to the Dignity Health Elk Grove Medical Campus Project.

The short-term, long-term, and cumulative effects of this multi-decade project affect us directly because this is where we live, where we own property, where we are cultivating our sense of community, and where we are raising our families.

The specific reasons for our request to have these factors included in the subsequent EIR are outlined below.

#### **Biological Resources**

The Initial Study states that the “Project impacts on biological resources were adequately addressed in the Laguna Ridge Specific Plan EIR, and no further analysis is required.”

We disagree with that finding.

The height of the proposed buildings and the flight path of the helicopters that use the helistop may impact biological resources, including, but not limited to, bats, nesting raptors, and other migratory birds. Therefore, we ask that a new analysis be conducted to determine the impact on biological resources.

The Initial Study also states that the “cumulative impacts of the Project would not exceed those previously disclosed, and no further analysis is required.”

Since the helistop and the helicopters that will be using it were not included in the previous EIR analyses, and the operation of the helistop and helicopters may result in more significant cumulative loss of biological resources, we ask that a new analysis be conducted to determine the cumulative impact on biological resources.

### **Hydrology & Water Quality**

The Initial Study states that, with regard to Hydrology and Water Quality environmental factors, "...no changes in the Project have occurred that would alter the findings of the previous EIRs."

We disagree with that statement because the previous EIRs did not take into account the construction and the 24-hour operation of a helistop and three buildings that exceed the maximum height restriction of 60 feet, which means there were changes to the project that we believe may impact:

- Water quality standards or waste discharge requirements
- Groundwater supplies and recharge
- Drainage and erosion
- Surface runoff
- Storm water drainage systems and polluted runoff
- Overall water quality

We would like proof that there will be adequate water to supply not only the residents of the area surrounding the project, but the project site itself. We would also like an analysis on whether our residential water rates will increase due to the construction and operation of the project.

We ask that you adequately address the Hydrology and Water Quality impacts on the environment in the subsequent EIR, and provide more detailed studies and reports, specifically with regard to the Dignity Health Elk Grove Medical Campus Project.

### **Public Services**

The Initial Study states that, with regard to Public Services environmental factors, "...no changes in the Project have occurred that would increase demand on fire protection, law enforcement services, schools, or parks."

We disagree with that statement because, as stated previously, there were changes made to the project since the previous EIRs were conducted that we believe may impact:

- Fire protection
- Police protection
- Schools
- Parks
- Other Public Facilities

We ask that you adequately address the Public Services impacts on the environment in the subsequent EIR, and provide more detailed studies and reports, specifically with regard to the Dignity Health Elk Grove Medical Campus Project.

### **Recreation**

The Initial Study states that previous EIRs adequately addressed the question of whether the project would "increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated."

Since the previous EIR was based on medical offices, rather than a medical campus that includes a Maternity & Surgery Center and two hospitals, we would like to request a new EIR analysis with regard to Recreation.

Families of patients, who could fill up to 330 beds, will use neighborhood and regional parks. As residents of Laguna Ridge and greater Elk Grove, we would like to preserve our neighborhood and regional parks.

We ask that you adequately address the Recreation impacts on the environment in the subsequent EIR, and provide more detailed studies and reports, specifically with regard to the Dignity Health Elk Grove Medical Campus Project.

**Transportation/Traffic**

The Initial Study states that previous EIRs "addressed traffic and circulation issues" related to the project, "which assumed development of 364,000 square feet of medical facilities in the Specific Plan Area."

However, the previous EIRs did not include all of the components of the proposed medical campus, including, but not limited to, the helistop, three buildings over the 60-foot height restriction, a total of 330 hospital beds, and a total of 1,330 parking spaces.

Because we are concerned about the resulting environmental impacts caused by the construction and operation of all of the components of the project, we would like to see proof that the traffic impact is not significant, and that hazards will not be increased.

Our families, children, and friends walk and bicycle in this neighborhood and cross intersections on Civic Center Drive, Wymark Drive, and Elk Grove Blvd and we are concerned for their safety.

Likewise, we are concerned about the negative impacts that an increase in traffic, and a potential of 1,330 or more cars visiting the project location on at any time, will have on the quality of our lives as residents. Not only are we concerned about safety; we are also concerned about the hazards to our health and the environment. The previous EIRs did not take into account the traffic and circulation impacts of a medical campus that includes 24-hour service, which translates into 24-hour traffic to and from the location.

We believe the project would significantly impact the following traffic and circulation issues:

- Substantially increase hazards due to a design feature (e.g., dangerous intersections)
- Result in inadequate emergency access
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities

We ask that you adequately address the Transportation/Traffic impacts on the environment in the subsequent EIR, and provide more detailed studies and reports, specifically with regard to the Dignity Health Elk Grove Medical Campus Project.

Other transportation/traffic considerations:

- Move the parking structure to be adjacent to Elk Grove Blvd. since it should be on a major thoroughfare due to 24-hour use

- To reduce traffic congestion along Civic Center Drive, which is a two lanes and adjacent to single family homes, do not allow for an entrance to the medical campus on that road

### **Additional Comments**

We agree with the City's reasons and decision to include the following environmental factors in the subsequent Environmental Impact Report (EIR):

- Aesthetics
- Air Quality
- Greenhouse Gas Emissions
- Hazards & Hazardous Materials
- Noise
- Utilities & Service Systems
- Mandatory Findings of Significance

However, we have additional comments about why there is a need for further analysis, beyond what was described in the Initial Study, in these areas. Our comments are outlined below.

### **Aesthetics**

Include an aesthetics analysis of the design and construction of three buildings over the 60-foot height restriction, a parking garage, additional surface parking, and a helistop.

Other aesthetics considerations:

- Move the location of the Medical Office Building 2 (MOB2) to the corner of Elk Grove Blvd. and Wymark Drive (switch the location of MOB2 with the surface parking area)
- Move the location of the parking structure to be adjacent to Elk Grove Blvd., a major thoroughfare that can better handled 24-hour use
- Design the parking structure with a natural-looking façade that blends into the surroundings and is pleasant to the eye
- Make the overall design of the project "neighborhood-friendly" through the use of natural-looking facades, landscaping, and maintaining a 60-foot height restriction for all buildings
- Start planting tall-growing, bushy trees now to block the residents' view of the medical campus, especially along Civic Center Drive and Wymark Drive

### **Air Quality**

Include an analysis of the cumulative effects of pollutants from the construction and 24-hour operation of a Maternity & Surgery Center, two hospital buildings with an emergency room, a parking garage, additional surface parking, generator with a diesel backup, and a helistop over a twenty-year period.

Also, the Initial Study states, "Even with implementation of these mitigation measures, both EIRs identified significant and unavoidable air quality impacts. The Laguna Ridge Specific Plan EIR determined that construction emissions would contribute to regional pollutants and that project and cumulative emissions would exceed the Sacramento Metropolitan Air Quality Management District's (SMAQMD) significance thresholds, which were considered significant and unavoidable impacts. In addition the Laguna Ridge Town Center EIR determined that the Laguna Ridge Town Center would result in a cumulatively considerable net increase in criteria pollutants, which was considered a significant and unavoidable impact."

We are not satisfied with these determinations and find it unacceptable that the negative and significant air quality impacts are "unavoidable." There must be other mitigations that can be put into place to help better preserve the quality of our air. We ask that you provide more detailed studies and reports, as well as proposals for further mitigation.

**Greenhouse Gas Emissions**

Include an analysis of the cumulative effects of operating diesel backup generators and the emissions they produce because they are not green or clean machines, and may pose significant air quality issues.

**Hazards & Hazardous Materials**

Although the City is already asking for further analysis with respect to the handling and transport of the different kinds of hazardous waste and materials that are produced by a Maternity & Surgery Center and two hospitals, we would also like information on where and how the material will be disposed.

Additionally, we would like the subsequent EIR to include an analysis of the near-term and cumulative effects of the hazardous materials, such as motor oil and helicopter fuel emissions (and possible spills), that will be produced by all of the vehicles that travel to and from the site, including those of construction workers, vendors, patrons, visitors, employees, and service providers.

**Noise**

Include an analysis of the impact of 24-hour noise from the construction and operation of a Maternity & Surgery Center, two hospitals with 24-hour emergency room service, a parking garage, additional surface parking, and a helistop on the environment and nearby residents.

Also include an analysis of the cumulative effects of 24-hour noise from the construction and operation of a Maternity & Surgery Center, two hospitals with 24-hour emergency room service, a parking garage, additional surface parking, and a helistop over a 20-year period.

**Utilities & Service Systems**

We would like proof that there will be adequate water and sewer system service to supply not only the residents of the area surrounding the project, but the project site itself. We would also like an analysis on whether our residential sewer rates will increase due to the construction and operation of the project and what the cumulative financial impact on residents may be.

**Mandatory Findings of Significance**

Include proof that the impacts to aesthetics, air quality, greenhouse gas emissions, hazards and hazardous materials, noise, and water supply won't be significant and won't have adverse effects on human beings.

As neighboring residents, we are very concerned about the environmental and health impacts that the project will create. We are opposed to any impacts that affect the health and well being of us, our families, members of the community, and the environment.

**We thank you for genuinely considering our comments, and look forward to receiving your detailed response, along with the requested analyses in the subsequent EIR.**

**Please send response to:**

**Laguna Ridge Residents & Other Interested Parties  
C/o Gabor & Jennifer Maghera  
6528 Cordially Way  
Elk Grove, CA 95757  
Email: [lagunaridge@groups.facebook.com](mailto:lagunaridge@groups.facebook.com)**



**DEPARTMENT OF TRANSPORTATION**  
DISTRICT 3—SACRAMENTO AREA OFFICE  
2379 GATEWAY OAKS DRIVE, SUITE 150  
SACRAMENTO, CA 95833  
PHONE (916) 274-0635  
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TTY 711  
www.dot.ca.gov



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September 7, 2012

032012-SAC0070  
SAC99-12.76  
SCH #2012082029

Gerald Park  
City of Elk Grove  
8401 Laguna Palms Way  
Elk Grove, CA 95758

**Dignity Health Elk Grove Medical Campus (EG-12-014), Notice of Preparation (NOP) for the Subsequent Environmental Impact Report (SEIR)**

Dear Mr. Park:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the Dignity Health Elk Grove Medical Campus project (project). The project would include the construction of up to a six-story 456,719 square-foot, 330 bed hospital, a three-story 65,000 square-foot medical office building, and a five-level 169,520 square-foot parking structure. The project site is located at 9550 Wymark Drive approximately 1 mile west of the State Route 99 (SR 99)/Elk Grove Boulevard (Blvd.) interchange and approximately 3 miles east of the Interstate 5 (I-5)/Elk Grove Blvd. interchange. The following comments are based on the NOP, and are offered for the purpose of assisting the City of Elk Grove (City) in establishing the necessary scope for the transportation and circulation analysis of the SEIR:

***Traffic Impact Analysis***

Page 32 of the NOP states that traffic and circulation issues for the project were previously analyzed and addressed in the Laguna Ridge Town Center (LRTC) EIR which was certified in 2008. The existing volumes used in the LRTC EIR Traffic Impact Study (TIS) for ramp locations listed below are lower than the 2010 Caltrans counts reported in the Transportation System Network (TSN):

- SR 99 Northbound on-ramp from Elk Grove Boulevard (Intersection #6) - AM peak hour trips are reported as 1,019 in the LRTC TIS. Caltrans TSN 2010 AM peak hour volume for this intersection indicates 1,497 trips.
- SR 99 Northbound on-ramp from Elk Grove Boulevard (Intersection #6) - PM peak hour trips are reported as 1,261 in the LRTC TIS. Caltrans TSN 2010 AM peak hour volume for this intersection indicates 1,776 trips.

Mr. Gerald Park/City of Elk Grove  
September 7, 2012  
Page 2

We request that the volumes for Intersection #6 be verified and/or revised to ensure that impacts to the State Highway System (SHS) were adequately analyzed and addressed in the LRTC EIR. Revisions to the forecast volumes, Level of Service and proposed mitigation reported in the LRTC EIR may be needed if SHS impacts are identified.

If you have any questions regarding these comments, please contact Laura Pennebaker, of my staff by telephone at (916) 274-0679 or by email at [laura\\_pennebaker@dot.ca.gov](mailto:laura_pennebaker@dot.ca.gov)

Sincerely,

A handwritten signature in black ink, appearing to read "Eric Fredericks". The signature is written in a cursive, slightly slanted style.

ERIC FREDERICKS, Chief  
Office of Transportation Planning—South

## **APPENDIX C – TRAFFIC DATA**

# FEHR & PEERS

July 17, 2012

Patrick Hindmarsh  
2729 Prospect Park Drive, Suite 220  
Rancho Cordova, CA 95670

**Re: Dignity Health Elk Grove Medical Campus – Trip Generation**

Dear: Mr. Hindmarsh

Fehr & Peers confirmed the trip generation developed for our 2008 traffic impact analysis relative to the project description in the draft Notice of Preparation (NOP) for the Dignity Health Elk Grove Medical Campus environmental document.

In 2008, the City of Elk Grove and Dignity Health worked cooperatively to develop the best trip generation approach for the GP Amendment and rezone of the 30 acre parcel to SC zoning. The goal was to conduct the trip generation in 2008 that would ultimately include a full service acute care hospital and medical complex at a future date when the owner applied for the use permit and design review.

The decision was made to determine the maximum trip generation for the full complex, and conduct the analysis based on the equivalent number of trips if all buildings were Medical Office Building (MOB), which was allowed under the rezone. In doing so, the trip generation completed in 2008 would cover the 'worst case' scenario for the future entitlement.

Table 1 compares the land use used to develop the trip generation for the 2008 traffic impact analysis to the land use in NOP for the environmental document.

<b>Table 1</b>			
<b>Land Use Comparison</b>			
<b>Land Use</b>	<b>2008 Traffic Impact Analysis</b>	<b>Notice of Preparation</b>	<b>Percent Difference</b>
Medical Office Building (1,000 Square Feet)	204	133	53 %
Hospital (Beds)	350	330	6 %


Source: Fehr & Peers, 2012

For the 2008 traffic impact analysis, the hospital beds were converted to an equivalent amount of MOB based on total daily, a.m., and p.m. peak hour trip generation (the trip generation of a 350-bed hospital is equivalent to the trip generation of about 160,000 square feet of MOB). Therefore, the trip generation for the 2008 traffic impact analysis was based on 364,000 GSF of MOB (204,000 + 160,000 = 364,000), which is consistent with Tables 6 and 9 of the 2008 traffic impact analysis.

In summary, the 2008 traffic impact analysis conservatively assumed about 53% more MOB square feet and 6% more hospital beds than the actual application. In addition, trip generation based on the actual application would result in fewer peak hour trips than the 2008 traffic impact analysis, since the actual application includes hospital use and MOB generates about two times more trips in the AM peak hour and three times more trips in the PM peak hour than hospital. Therefore, the 2008 traffic impact analysis overstated the traffic generated by the project relative to the actual application.

Sincerely,

FEHR & PEERS

A handwritten signature in black ink, appearing to read "David B. Robinson". The signature is fluid and cursive, with a large initial "D" and "R".

David B. Robinson, P.E.  
Senior Associate

RS11-2955



## MEMORANDUM

Date: November 14, 2012  
To: Gerald Park – City of Elk Grove  
From: David B. Robinson – Fehr & Peers

**Subject: Dignity Health Elk Grove Medical Campus – Traffic Volume Verification**

RS11-2955

Fehr & Peers prepared this memorandum to present information developed in response to Caltrans comments on the Notice of Preparation for the Dignity Health Elk Grove Medical Campus environmental document. This memorandum summarizes project background, compares peak hour traffic volumes at the Elk Grove Boulevard/SR 99 NB On-Ramp intersection, and presents updated trip generation and traffic volume forecasts for the Dignity Health Elk Grove Medical Campus.

### BACKGROUND

Caltrans comments on the Notice of Preparation (NOP) for the Dignity Health Elk Grove Medical Campus were documented in a letter dated September 7, 2012 to the City of Elk Grove. Caltrans requested verification of the traffic volumes at the Elk Grove Boulevard/SR 99 NB On-Ramp intersection that were analyzed in the Laguna Ridge Town Center (LRTC) EIR to ensure that impacts to the State Highway System were adequately analyzed. 2010 Caltrans Transportation System Network (TSN) traffic counts show higher volumes at this intersection than were analyzed in the LRTC EIR.

In response to Caltrans NOP comments, a coordination call was held to review Caltrans NOP comments and outline an evaluation approach to address Caltrans' request. Participants in the call include Caltrans, City of Elk Grove, and members of the Dignity Health project team. The following steps were outlined to respond to Caltrans' request:

- Conduct new AM and PM peak period traffic counts at the Elk Grove Boulevard/SR 99 NB On-Ramp intersection
- Compare the new traffic volume data to the traffic volumes documented in the LRTC EIR
- Update the trip generation for the Dignity Health Elk Grove Medical Campus
- Develop updated traffic volume forecasts at the Elk Grove Boulevard/SR 99 NB On-Ramp intersection and compare them to the traffic volume forecasts from the LRTC EIR

The remainder of this memorandum outlines the results of these steps.

**TRAFFIC COUNT COMPARISON**

Table 1 compares existing traffic volumes at the Elk Grove Boulevard/SR 99 NB On-Ramp intersection documented in the LRTC EIR to new traffic counts collected in October 2012.

As shown in Table 1, the new traffic counts are about 34 percent higher in the AM peak hour. The increase in the AM peak hour traffic volumes is due largely to capacity and operational improvements west of the interchange that allow more traffic to reach the interchange during the peak hour. The increase in PM peak hour on-ramp traffic is consistent with typical daily variation.

<b>TABLE 1: TRAFFIC COUNT COMPARISON</b>			
<b>Traffic Count Source</b>		<b>AM Peak Hour</b>	<b>PM Peak Hour</b>
1	LRTC EIR (May 2007)	1,019	1,261
2	New Traffic Counts (October 2012)	1,348	1,282
Difference (2 – 1)		329	21

Source: Fehr & Peers, 2012

**PROJECT TRIP GENERATION**

Table 2 compares project trip generation from the LRTC EIR to the Dignity Health Elk Grove Medical Campus (DHEGMC) project. As shown, the trip generation of proposed DHEGMC is about 30 percent lower in the AM peak hour and about 48 percent lower in the PM peak hour.

<b>TABLE 2: PROJECT TRIP GENERATION</b>			
<b>Analysis</b>		<b>AM Peak Hour</b>	<b>PM Peak Hour</b>
1	LRTC EIR	913	1,367
2	DHEGMC	703	924
Difference (2 – 1)		-210	-443

Source: Fehr & Peers, 2012

The reduced trip generation shown in Table 2 will result in lower project traffic volume using the SR 99 northbound on-ramp from Elk Grove Boulevard. Table 3 shows the change in project trips using the on-ramp. During the AM peak hour, about the same number of project trips will use the on-ramp. However, the DHEGMC will result in less project traffic using the on-ramp during the PM peak hour than were analyzed in the LRTC EIR. Please note that the distribution of project trips to/from the north on SR 99 changes between the existing and cumulative analysis scenario due to planned development in the City of Elk Grove.

<b>TABLE 3: PROJECT TRIPS USING SR 99 NB ON-RAMP</b>					
<b>Analysis</b>		<b>Existing Analysis Scenario</b>		<b>Cumulative Analysis Scenario</b>	
		<b>AM</b>	<b>PM</b>	<b>AM</b>	<b>PM</b>
1	LRTC EIR	32	159	10	46
2	DHEGMC	29	102	9	29
Difference (2 – 1)		-3	-57	-1	-17

Source: Fehr & Peers, 2012

**TRAFFIC VOLUME FORECASTS**

Table 4 compares the traffic volume forecasts for the northbound on-ramp based on the information presented in Tables 1 through 3. The increase in volumes is due to the increase in background traffic using the on-ramp (measured in October 2012).

<b>TABLE 4: PLUS PROJECT FORECASTS ON NB ON-RAMP</b>					
<b>Analysis</b>		<b>Existing + Project Conditions</b>		<b>Cumulative + Project Conditions</b>	
		<b>AM</b>	<b>PM</b>	<b>AM</b>	<b>PM</b>
1	LRTC EIR	1,051	1,420	1,620	2,146
2	DHEGMC	1,377	1,384	1,948	2,150
Difference (2 – 1)		326	-36	328	4

Source: Fehr & Peers, 2012

**ANALYSIS UPDATE**

Based on the information presented in Tables 1 through 4, AM peak hour traffic volumes at the Elk Grove Boulevard/SR 99 NB On-Ramp intersection have increased since the LRTC EIR was prepared. Therefore, we updated the AM and PM peak hour analysis at the Elk Grove Boulevard/SR 99 NB On-Ramp intersection to determine if the increase in background traffic volume would change the impact analysis documented in the LRTC EIR.

Table 5 presents the updated analysis under existing conditions without and with trips generated by the DHEGMC. The analysis presented in Table 5 incorporates updated traffic signal timings. Analysis of cumulative conditions is not presented because the NB On-Ramp intersection would be removed with the planned construction of the SR 99/Elk Grove Boulevard NB Loop On-Ramp, which is anticipated to go to construction in 2013.



<b>TABLE 5: ELK GROVE BOULEVARD/SR 99 NB ON-RAMP INTERSECTION OPERATIONS</b>							
<b>Existing Conditions</b>				<b>Existing + Project Conditions</b>			
<b>AM</b>		<b>PM</b>		<b>AM</b>		<b>PM</b>	
<b>LOS</b>	<b>Delay</b>	<b>LOS</b>	<b>Delay</b>	<b>LOS</b>	<b>Delay</b>	<b>LOS</b>	<b>Delay</b>
B	10.8	A	8.6	B	10.9	11.3	B

Source: Fehr & Peers, 2012

As shown in Table 5, the NB On-Ramp intersection would operate acceptably (LOS B or better) without and with trips from the DHEGMC. Consequently, the addition of traffic from the DHEGMC would not impact traffic operations at the NB On-Ramp intersection based on City of Elk Grove thresholds of significance.

**NEXT STEPS**

We will incorporate this updated analysis into the DHEGMC SEIR.

## **APPENDIX D – WATER SUPPLY ASSESSMENT**

# Sacramento County Water Agency

Water Supply Assessment for Dignity Health Elk Grove Medical  
Campus

Prepared by Sacramento County Water Agency  
November 2012

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## **INTRODUCTION**

### **BACKGROUND**

The California Water Code (Water Code) requires coordination between land use lead agencies and public water purveyors. The purpose of this coordination is to ensure that prudent water supply planning has been conducted, and that planned water supplies are adequate to meet both existing demands and demands of planned development.

Water Code Sections 10910 – 10915 (inclusive) require land use lead agencies: 1) to identify the responsible public water purveyor for a proposed development project, and 2) to request a “Water Supply Assessment” (WSA) from the responsible purveyor. The purpose of a WSA is to demonstrate the sufficiency of a purveyor’s water supplies to satisfy the water demands of a proposed development project while still meeting the current and projected water demands of existing customers. Water Code Sections 10910 – 10915 delineate the specific information that must be included in a WSA.

### **THE PROPOSED DEVELOPMENT PROJECT**

The proposed Dignity Health Elk Grove Medical Campus Project (Project) is located in the Laguna Ridge Specific Plan area on an approximately 28 acre site at 8220 Wymark Drive in the City of Elk Grove (City). The site is generally bounded by Elk Grove Boulevard on the north, Wymark Drive on the east, Civic Center Drive on the south, and vacant property to the west (see Figure 1, Project Location). An existing, newly constructed 68,190-square-foot medical office building (MOB #1) is located in the central portion of the project site.

The proposed Project includes the construction of up to a six-story, 456,719-square-foot, 330-bed hospital; a three-story, 65,000-square-foot medical office building (referred to as MOB #2); and a five-level, 169,520-square-foot parking structure. The project would be constructed in a total of four or more phases, with the first three phases associated with the hospital building and the last phase associated with MOB#2 and the parking structure. The three hospital phases to be built in succession are the following: four-story, 112,050-square-foot Surgery and Maternity Hospital building section; six-story, 175,095-square-foot Hospital Expansion #1 building section; and six-story, 169,574-square-foot Hospital Expansion #2 building section. The number of beds associated with each building section is 106 beds, 112 beds, and 112 beds, respectively. The Surgery and Maternity building section could start construction in three to five years, with the remaining hospital, MOB#2, and parking structure phases to be completed at an undetermined time. The Project would also include a helistop that would be used for transporting patients away from the hospital, but there would be no storage, repair, or fueling of any helicopters on site. The 500-stall parking structure is proposed for construction during the final phase of the project, at the time MOB #2 is constructed; however, surface parking would be constructed per City code with each phase of development to ensure adequate parking is provided for uses on site.

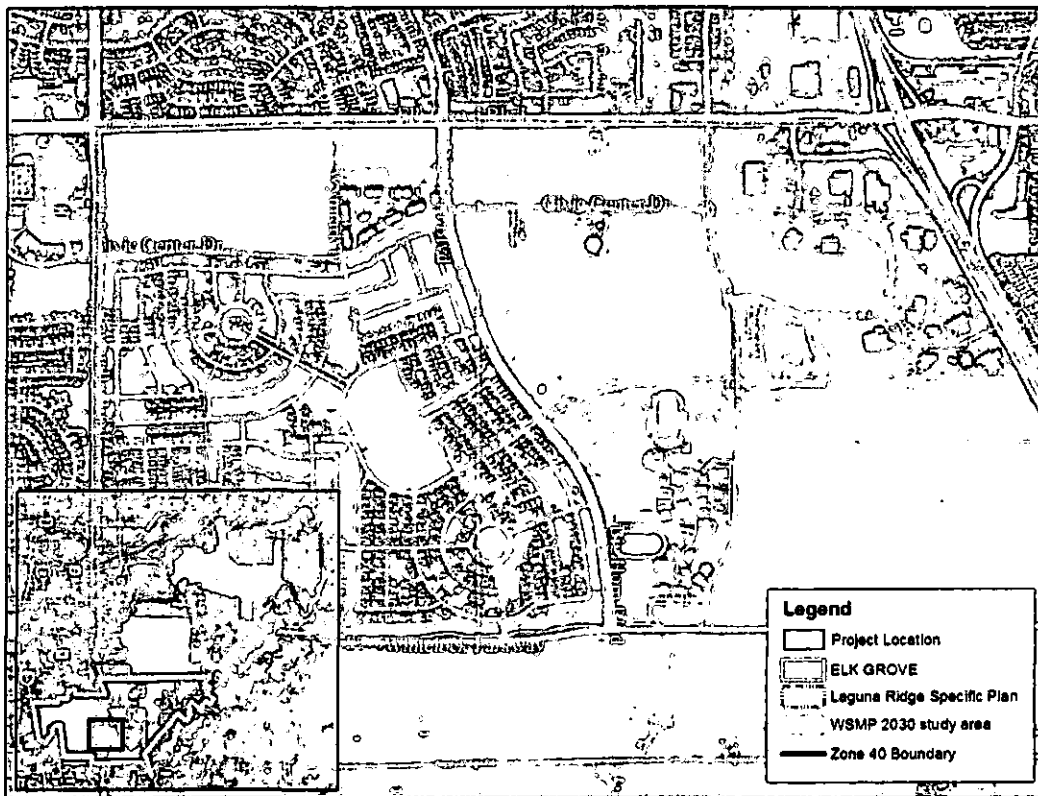
The City has identified the Sacramento County Water Agency (SCWA) as the responsible water purveyor for the Project and has requested that SCWA prepare a WSA in accordance with Water Code Sections 10910 – 10915.

## WATER SUPPLY ASSESSMENT OBJECTIVE

The objective of this WSA is to demonstrate that the planned water supplies of SCWA are sufficient to meet the demands of the Project in addition to the existing and projected water supply obligations of SCWA.

## OVERVIEW OF DIGNITY HEALTH ELK GROVE WSA

The Project lies entirely within the boundaries of SCWA's Zone 40/41 service area (see Figure 1). The water demands associated with the Project have been included and addressed in the latest SCWA's Urban Water Management Plan (UWMP) (SCWA, 2011)<sup>1</sup> and in the development of the Zone 40 "conjunctive use" program<sup>2</sup> as described in the Zone 40 Water Supply Master Plan (WSMP) (SCWA, February 2005)<sup>1</sup>.



**Figure 1 Dignity Health Elk Grove Medical Campus Location Map**

<sup>1</sup> This document, as well as all other documents referenced in this WSA, are on file at the County of Sacramento, Municipal Services Agency, Department of Water Resources, 827 7<sup>th</sup> Street, Room 301, and are available for review upon request.

<sup>2</sup> Conjunctive use entails the combined use of groundwater and surface water to meet demand, with the intent of providing 100 percent reliability. In "dry" years, the use of groundwater is maximized (although some surface water is delivered). In "wet" years, surface water diversions are maximized, while groundwater extractions are reduced. Such a program maximizes environmental benefits to surface water streams in "dry" years, while providing an opportunity for the groundwater basin to recover through natural recharge in "wet" years.

Accordingly, the WSA for the Project contains information derived from the UWMP<sup>1</sup> and other various water supply planning documents prepared in support of the Zone 40 conjunctive use program including:

- The Zone 40 Water Supply Master Plan (WSMP), (SCWA, February 2005)<sup>1</sup>;
- The Zone 40 Water System Infrastructure Plan (WSIP), (SCWA, April 2006)<sup>1</sup>;
- The Central Sacramento County Groundwater Management Plan (MWH/SCWA, February 2006)<sup>1</sup>;
- The Final Environmental Impact Report (FEIR) for 2002 Zone 40 Water Supply Master Plan (EDAW, December 2004)<sup>1</sup>;
- The FEIR for the Water Forum Proposal (FEIR – WFA), Sacramento City-County Office of Metropolitan Water Planning, October 1999<sup>1</sup>; and
- The Water Forum Agreement (WFA)<sup>3</sup>, Sacramento City-County Office of Metropolitan Water Planning, January 2000<sup>1</sup>.

### **WSA FOR DIGNITY HEALTH ELK GROVE MEDICAL CAMPUS PROJECT**

Water Code Sections 10910 – 10915 delineate the specific requirements of a WSA. The WSA for the Project is structured according to those requirements.

#### **DETERMINE IF PROJECT IS SUBJECT TO CEQA [Section 10910 (a)]**

The City has made the determination that the Project is subject to CEQA.

#### **IDENTIFY RESPONSIBLE PUBLIC WATER SYSTEM [Section 10910(b)]**

The City has identified SCWA as the responsible public water provider for the Project.

#### **DETERMINE IF UWMP INCLUDES WATER DEMANDS [Section 10910(c)]**

The total area for the Project is estimated to be 28 acres. The projected annual water demand for the project is 82.5 acre-feet per year (AF/year), including system losses. The proposed land use and projected water demand for the Project is provided in Table 1. Table 2 shows the water demand projection over the next 20 years in five-year increments.

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<sup>3</sup> Begun in 1993, the Sacramento-Area Water Forum (Water Forum) is comprised of representatives from the business, environmental, public interest, and water purveyor communities (including the Cooperating Agencies). The co-equal objectives of the group are:

- To provide a reliable and safe water supply for the region's economic health and planned development through year 2030
- To preserve the fishery, wildlife, recreational, and aesthetic values of the lower American River.

After a six-year, consensus-based, stakeholder process, the Water Forum Action Plan (referred to after its adoption as the Water Forum Agreement), which prescribes a regional conjunctive use program for the lower American River and the connected groundwater basin. In addition, the Water Forum completed an Environmental Impact Report (EIR) for the Water Forum Proposal was completed (State of California Clearinghouse Number 95082041). The document was certified by the two lead agencies (the City of Sacramento and the County of Sacramento) in 1999.



**Table 1 Proposed Land Use and Water Demands Estimate for the Project**

Land Use Description <sup>1</sup>	Building (Sqft) <sup>1</sup>	Site Area (Acres)	Land Use Classification	Unit Water Demand Factor <sup>2</sup> (AF/acre/year)	Water Demand (AF/year)
Medical Office Building No. 1 (Existing)	68,190	3.5	Commercial	2.75	9.6
Surgery/Maternity Hospital	112,050	21.0			57.8
Hospital Exp #1	175,095				
Hospital Exp #2	169,574				
Medical Office Building No. 2	65,000	3.4			9.4
<b>Subtotal</b>	<b>589,909</b>	<b>28.0</b>			<b>76.7</b>
System Losses 7.5%					5.8
<b>Total Demand</b>					<b>82.5</b>

Note(s): (1) The land use classification and acreage information were provided by the project proponent in September 2012, and (2) The unit water demand factor(s) are consistent with the WSMP

**Table 2 Water Demand Growth Projection in Five-Year Increments for the Project**

Year	2010	2015	2020	2025	2030	2035
Water Demand (AF/year)	9.6	9.6	23.8	45.9	67.4	82.5

The projected water demands associated with the Project is accounted for in the UWMP. The water demands shown in the UWMP through 2035 are an estimated gallons per capita per day (GPCD) target chosen by SCWA and are based on the projected population. Establishing a GPCD target is a new requirement for the UWMP in accordance with Senate Bill (SB) x7-7, adopted in November 2009. Because the SCWA's service area on which the population projection is based includes the Project area, the water demand associated with the Project is considered accounted for in the UWMP. Therefore, it is reasonable to conclude that the data from the UWMP can be relied upon to meet current and projected demands (see Water Code Section 10910 (c)(2)).

The UWMP has identified SCWA's Zone 40 water demand in normal, single dry, and multiple dry years in 5-year increments for the 25-year projection (2010 to 2035), as shown in Tables 7-1, 7-2, and 7-3 of the UWMP. As indicated above, the Project's water demands are included as part of the Zone 40 demand estimates in these tables. A summary of the pertinent data from these tables is presented in Table 3 below.

**Table 3 SCWA Zone 40 Water Demands in Five-Year Increments (AF/year)**

Water Year	2010	2015	2020	2025	2030	2035
Normal Year (Table 7-1, UWMP) (1)	34,511	44,425	50,662	57,583	67,565	77,712
Single Dry Year (Table 7-2, UWMP) (2)	34,511	44,425	50,662	57,583	67,565	77,712
Multiple Dry Year (3) (Table 7-3, UWMP)	34,511	44,425	50,662	57,583	67,565	77,712

Multiple Dry Year (3) (Table 7-3, UWMP)	34,511	44,425	50,662	57,583	67,565	77,712
Multiple Dry Year (3) (Table 7-3, UWMP)	34,511	44,425	50,662	57,583	67,565	77,712
Notes: (1) Normal/Average year is a year in the historical sequence that most closely represents median runoff levels and patterns. Average is defined as the median runoff over the previous 30 years or more. By this definition, 1993 is a normal/average year for the Sacramento River watershed. (2) Single-dry year is generally considered to be the lowest annual runoff for a watershed since the water year beginning in 1903. 1977 is a single-dry year for the Sacramento River watershed. (3) Multiple-dry year period is generally considered to be the lowest average runoff for a consecutive multiple year period (three years or more) for a watershed since 1903. 1989-1992 is a multiple-dry year period for the Sacramento River watershed.						

**IDENTIFY EXISTING WATER SUPPLIES FOR THE PROJECT [Section 10910(d)]**

**SECTION 10910(d)(1)**

Section 10910(d)(1) requires identification of existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed Project and a description of the quantities of water obtained by SCWA pursuant to these water supply entitlements, water rights, or water service contracts in previous years.

**Use of Groundwater**

The Project water demand, as part of the Zone 40 water demand, will ultimately be met by conjunctive use of groundwater and surface water, as described in the WSMP and UWMP. SCWA currently exercises, and will continue to exercise, its rights as a groundwater appropriator to extract groundwater from the groundwater basin (Central Basin) underlying Zone 40 for delivery to its customers<sup>4</sup>. The UWMP has identified Zone 40’s current and projected groundwater pumping in normal, single dry, and multiple dry years in 5-year increments for the 25-year projection (2010 to 2035), as shown in Tables 4-11 through 4-16 of the UWMP. A summary of the pertinent data from these tables is presented in Table 4 below.

**Table 4      Zone 40 Current and Projected Groundwater Pumping in Five-Year Increments (AF/year)**

Water Year	2010 (Table 4-11, UWMP)	2015 (Table 4-12, UWMP)	2020 (Table 4-13, UWMP)	2025 (Table 4-14, UWMP)	2030 (Table 4-15, UWMP)	2035 (Table 4-16, UWMP)
Normal Year (1)	35,000	20,000	15,000	20,000	25,000	15,000
Single Dry Year (2)	39,930	46,300	48,800	61,300	64,500	68,600
Multiple Dry Year (3)	36,232	32,500	30,500	38,500	37,200	36,800
Multiple Dry Year (3)	37,464	35,000	33,500	42,000	41,200	41,300
Multiple Dry Year (3)	38,080	36,250	35,000	43,750	43,200	43,550
Notes: (1) Normal/Average year is a year in the historical sequence that most closely represents median runoff levels and patterns. Average is defined as the median runoff over the previous 30 years or more. By this definition, 1993 is a normal/average year for the Sacramento River watershed. (2) Single-dry year is generally considered to be the lowest annual runoff for a watershed since the water year beginning in 1903. 1977 is a single-dry year for the Sacramento River watershed. (3) Multiple-dry year period is generally considered to be the lowest average runoff for a consecutive multiple year period (three years or more) for a watershed since 1903. 1989-1992 is a multiple-dry year period for the Sacramento River watershed.						

<sup>4</sup> The groundwater basin underlying Zone 40 has not been adjudicated.

For the Zone 40 portion of the Central Basin, a long-term average annual yield of 40,900 AF/year has been identified in both the WFA and WSMP. Additionally, as a signatory to the WFA and a member of the Sacramento Central Groundwater Authority (Groundwater Authority), SCWA recognizes the Water Forum-defined long-term sustainable average annual yield of the underlying groundwater basin of 273,000 AF/year.

### Use of Surface Water

The SCWA conjunctive use program includes the delivery of surface water within the Zone 40 boundaries as part of a comprehensive program to maintain the long-term, regional balance of the groundwater basin. Currently SCWA has obtained two sources of surface water supplies totaling up to 75,751 AF/year available on a long-term average:

- **Appropriative Water**

In February 2008, the State Water Resources Control Board (SWRCB) approved SCWA's appropriative right permit application to divert water from the American and Sacramento Rivers (Permit 21209). Water under this permit is considered "intermittent water" that is typically available during the winter months of normal or wet years. These flows could range up to 71,000 AF/year. The long-term average availability of this supply is 21,700 AF/year. Note that the long-term availability for appropriative water in WSMP and UWMP is updated.

- **CVP Water**

CVP water is described under three different contracts, as follows.

- SMUD 1 Assignment - 15,000 AF/year of SMUD's CVP contract water has been assigned to SCWA under the terms of an agreement with SMUD. The long-term availability of SMUD1 water is 13,000 AF/year.
- SMUD 2 Assignment - 15,000 AF/year of SMUD's CVP contract water has been assigned to SCWA under the terms of an agreement with SMUD. The long-term availability of SMUD2 water is 13,000 AF/year.
- CVP Water Public Law 101-514 ("Fazio" Water)  
SCWA has entered into a contract with the U.S. Bureau of Reclamation (USBR) for 22,000 AF/year of Central Valley Project (CVP) supplies from the American River pursuant to Public Law (PL) 101-514 (often referred to as "Fazio water"). Of this 22,000 AF/year, 7,000 AF/year has been subcontracted to the City of Folsom for diversion from Folsom Lake. The remaining 15,000 AF/year will be diverted by SCWA from the Sacramento River. The long-term average availability of this supply is 13,551 AF/year.

There are two future surface water supplies, POU water and water transfers, planned for in the WSMP to meet build-out water demand. The timing for acquiring these two surface water supplies will be determined by demand growth in Zone 40.

- POU water refers to surface water obtained through a water wholesale agreement with the City of Sacramento (City) whereby the City will sell surface water to SCWA for use in the portion of Zone 40 that lies within the City’s American River POU. The amount of water required to serve the POU area is estimated to be 9,300 AF/year.
- Water transfers refers to surface water obtained through a water purchase and transfer agreement that SCWA would enter into with other entities that currently hold surface water rights upstream of SCWA’s points of diversion. According to the WSMP, the amount of water needed is estimated to be 5,200 AF/year.

Contract documents, agreements, and applications for appropriative water and CVP water supplies are available for review (see footnote 1). Table 5 (or Table 4-3 in UWMP) shows all the surface water entitlements, water rights, and water services contracts to meet the build-out water demand in Zone 40.

**Table 5 Water Supply Entitlements, Water Rights, and Water Service Contracts to Meet Zone 40 Build-out Water Demand**

Water Supply Sources	Wholesaler Supplied Volume (Yes/No)	Status of Contract, Permit, and Agreement	Availability in Wet Years (AF/year)	Availability in Dry Years (AF/year)	Long-term Average (AF/year)	Reliability
Supplier-produced groundwater to serve Zone 40 <sup>1</sup>	no	Existing	27,300	Up to 69,900	40,900	High
Wholesaler – (City of Sacramento) to serve portion of Zone 40 in City of Sacramento’s American river POU <sup>1</sup>	yes	Planned	9,300	9,300	9,300	High
Supplier-produced surface water to Serve Zone 40: U.S. Bureau of Reclamation – CVP Supply (SMUD 1, SMUD 2, and Fazio Water) <sup>1</sup>	yes	Existing	45,000	8,700	38,000	Moderate
Supplier-produced surface water to Serve Zone 40: Appropriative Water – SWRCB Permit 21209 <sup>1</sup>	no	Existing	Up to 71,000	0	21,700	Low
Other Water - Water Transfer <sup>1</sup>	no	Planned	0	9,600	5,200	Moderate to High
Recycled water for Zone 40 <sup>1</sup>	yes	Existing	4,400	4,400	4,400	High
Remediated groundwater to serve Rio del Oro in Zone 40	no	Existing	8,900	8,900	8,900	High
Zone 40 Subtotal			165,900	110,800	128,400	

*Notes:*

1. Source: The Zone 40 Water Supply Master Plan. Groundwater pumping rates in wet and dry years are modeling results determined by the build-out demand and the availability of surface water. Groundwater pumping rates can be lower or higher than the numbers identified in the table as long as the long-term average is maintained below 40,900 AF/year.

Table 6 presents the quantities of surface water supply pursuant to these water rights and contract entitlements in five-year increments beginning in the year 2010 through 2035 under normal, single dry, and multiple dry years.

**Table 6      Zone 40 Current and Projected Surface Water Supply in Five-Year Increments (AF/year)**

Water Year	2010 (Table 4-11, UWMP)	2015 (Table 4-12, UWMP)	2020 (Table 4-13, UWMP)	2025 (Table 4-14, UWMP)	2030 (Table 4-15, UWMP)	2035 (Table 4-16, UWMP)
Normal Year (1)	12,320	35,000	42,500	50,000	66,800	81,200
Single Dry Year (2)	7,390	8,700	8,700	8,700	18,000	27,600
Multiple Dry Year (3)	11,088	22,500	27,000	31,500	45,300	59,400
Multiple Dry Year (3)	9,856	20,000	24,000	28,000	41,300	54,900
Multiple Dry Year (3)	9,240	18,750	22,500	26,250	39,300	52,650
Notes: (1) Normal/Average year is a year in the historical sequence that most closely represents median runoff levels and patterns. Average is defined as the median runoff over the previous 30 years or more. By this definition, 1993 is a normal/average year for the Sacramento River watershed. (2) Single-dry year is generally considered to be the lowest annual runoff for a watershed since the water year beginning in 1903. 1977 is a single-dry year for the Sacramento River watershed. (3) Multiple-dry year period is generally considered to be the lowest average runoff for a consecutive multiple year period (three years or more) for a watershed since 1903. 1989-1992 is a multiple-dry year period for the Sacramento River watershed.						

**SECTION 10910(d)(2)**

Section 10910(d)(2) requires SCWA to demonstrate that water supplies required to serve the Project actually exist. Section 10910(d)(2) defines what constitutes “proof”.

**Section 10910(d)(2)(A)**

This subsection requires written contracts or other proof of entitlement to the water supplies identified for the Project. The contracts and agreements for the surface water supplies are available for review at the offices of the County of Sacramento, Municipal Services Agency, Department of Water Resources (see footnote 1).

As for groundwater use, SCWA will exercise its right as a groundwater appropriator to extract groundwater from the basin for delivery to the Project.

**Section 10910(d)(2)(B)**

This subsection requires a copy of the capital outlay program for financing the delivery of the identified water supply to the Project. The documents described below are available for review at the offices of the County of Sacramento, Municipal Services Agency, Department of Water Resources (see footnote 1).

A financing plan for the construction of groundwater and surface water facilities needed to realize the conjunctive use program identified in the WSMP has been approved by SCWA’s

Board of Directors (Board). The financing plan, as outlined in Chapter 7 of the WSMP, identifies the necessary water facility projects and estimated costs associated with implementation of said conjunctive use program (Capital Improvement Program or CIP).

In addition to the WSMP, the Feasibility Report for Sacramento County Water Financing Authority Series 2007 Revenue Bonds (Sacramento County Water Agency Freeport Project) (MWH, April 2007), and the Sacramento County Water Agency FY 2009/10 Water Rate Study Report (FCS Group) evaluated and updated the total cost and fee requirements of the Zone 40 conjunctive use program incorporating all future Zone 40 expenditures for major capital facilities (i.e., surface water treatment plants, groundwater treatment plants, major transmission mains, etc.) and annual operation and maintenance costs associated therewith. Funding to meet SCWA's capital and annual funding requirements was then implemented by the Board through the issuance of revenue bonds for certain projects and the adoption of user fee and development fee increases over time (most recently in 2009).

SCWA's capital outlay program includes the means for financing facilities to deliver the identified water supply to the Project. Specifically, all facilities needed to serve the Project are included in the CIP that was financed through the above described revenue bonds, user fee and development fee. The development fee and user fee, as described in Titles 3 and 4 of the Sacramento County Water Agency Code, will continue to provide revenue to finance all aspects of the Zone 40 conjunctive use program (including repayment of debt financing). Both fee programs are evaluated annually and adjusted, if necessary, to accommodate changes in the service area, water demands, needed capital projects, and required debt financing.

**Section 10910(d)(2)(C)**

This subsection requires identification of any federal, state, and local permits required for construction of the facilities identified for delivering the water supply to the Project.

Since adoption of the WSMP, SCWA has made significant progress in the development of its conjunctive use water supply program. SCWA, in cooperation with East Bay Municipal Utility District (EBMUD), has completed the Freeport Regional Water Project (FRWP). SCWA's portion of the project consists of participation in a large diversion facility on the Sacramento River just north of the community of Freeport, and a recently completed transmission pipeline that will convey surface water to:

1. SCWA's new Vineyard Surface Water Treatment Plant (VSWTP) located at the northeast corner of the intersection of Florin Road and Knox Road for treatment prior to delivery to SCWA's customers, and
2. The Folsom South Canal where EBMUD will discharge their flows for conveyance to their service area in the East Bay.

The various federal, state, and local permits for the construction of the FRWP and the VSWTP have been obtained. Copies of these permits are available for review at the offices of the County of Sacramento, Municipal Services Agency, Department of Water Resources (see footnote 1). Any additional conveyance pipelines needed to complete the treated water system will be constructed within existing and future public right-of-way and easements. At this time, SCWA

does not foresee any regulatory or legal impediments to completing any necessary further environmental review and obtaining those permits when the need arises.

**Section 10910(d)(2)(D)**

This subsection requires identification of any regulatory approvals required for delivery of the water supply to the Project.

Water production, treatment, and storage facilities will be added to SCWA's public water system permit issued by the California Department of Public Health (DPH) and the design of these facilities will require review and approval by DPH. No other regulatory approvals are anticipated.

**IDENTIFY PARTIES DEPENDENT UPON PROPOSED SUPPLY [Section 10910(e)]**

**SECTION 10910(e)**

**Section 10910(e) states:**

*"If no water has been received in prior years by the public water system..., under the existing water supply entitlements, water rights, or water service contracts [identified to serve the proposed project], the public water system,...shall also include in its water supply assessment pursuant to subdivision (c), an identification of the other public water systems or water service contract holders that receive a water supply or have existing water supply entitlements, water rights, or water service contracts to the same source of water as the public water system, ..., has identified as a source of water supply within its water supply assessments."*

The intent of this section is to identify any potential conflicts that may arise from the exercise of a water supply entitlement, water right, or water service contract to serve a proposed project if such water supply entitlement, water right, or water service contract has not been previously exercised.

**Use of Groundwater**

The water demands of Zone 40 (including the Project) will be met with surface water, groundwater, and recycled water. SCWA has previously exercised its rights as a groundwater appropriator to meet the water demands of its customers and will continue to exercise those rights to provide treated groundwater supplies to the Project.

**Use of Surface Water**

The surface water supplies associated with SCWA's conjunctive use program fall into four categories:

- 1) Water supplies available through a current USBR CVP contract.
- 2) Water supplies available through SWRCB Permit 21209.
- 3) Water available through the City of Sacramento for use within the American River Place of Use (POU).
- 4) Surface water transfers identified in the WSMP.

The source of supply for surface water is the USBR CVP and SWRCB Permit 21209. Thus, the parties that could most directly be affected are other CVP contractors. Additionally, until such time as the SWRCB Bay Delta Water Rights Hearings are concluded, other parties that could be affected include: CVP contractors, State Water Project (SWP) contractors, water rights holders subject to Term 91 conditions, and riparian diverters downstream of SCWA's point of diversion. The point of diversion is at a site near the community of Freeport on the Sacramento River.

The source of supply for that portion of SCWA that lies within the POU is supposed to be wholesale water supply from the City of Sacramento. Delivery of this water to customers within the POU has been included in the City of Sacramento's long-range plan for perfecting their American River water rights. The diversion location, timing, and volume of delivery are currently under negotiation.

Surface water transfers would require SCWA to enter into purchase and transfer agreements with other entities that currently hold surface water rights upstream of SCWA's points of diversion. According to the WSMP, the amount of water needed is estimated to be 5,200 AF/year. The timing for the acquisition of this water supply is yet to be determined.

### **DOES SUPPLY FOR PROJECT INCLUDE GROUNDWATER? [Section 10190(f)]**

#### **SECTION 10910(f)**

As stated earlier, the water supply for Zone 40 (including the Project) include groundwater. Consequently, Section 10910(f) requires additional information about groundwater to be presented in this WSA.

#### **Section 10910(f)(1)**

Section 10910(f)(1) requires a review of groundwater information contained in the UWMP relevant to the identified water supply for the Project. The appendix section of the UWMP includes a copy of the Central Sacramento County Groundwater Management Plan (CSCGMP, or Central Basin GMP) for the groundwater basin from which SCWA extracts groundwater; the Central Basin GMP was adopted by the Sacramento Central Groundwater Authority (Groundwater Authority) in November 2006. The Central Basin GMP contains detailed information about the groundwater basin underlying the Central Basin (including Zone 40), groundwater supplies, and basin management objectives.

#### **Section 10910(f)(2)**

Section 10910(f)(2) requires a description of the groundwater basin and the efforts being taken to prevent long-term overdraft.

For the Project, SCWA would pump groundwater from the South American Sub-basin as defined by the California Department of Water Resources (DWR) Bulletin 118. According to Bulletin 118, the South American Sub-basin is defined as the area bounded on the west by Interstate 5 and the Sacramento River, on the north by the American River, on the south by the Cosumnes and Mokelumne rivers and on the east by the Sierra Nevada. The Central Basin covers a major portion of this basin.



Groundwater in the Central Basin is generally classified as occurring in a shallow aquifer (Laguna or Modesto Formation) and in a deep aquifer (Mehrten Formation). The Laguna or Modesto Formation consists of older alluvial deposits of loosely to moderately compacted sand, silt, and gravel deposited in alluvial fans. These deposits are moderately permeable and have a thickness of about 100 to 650 feet. The deeper Mehrten Formation is a sequence of fragmented volcanic rocks which crops out in a discontinuous band along the eastern margin of the basin. It is composed of black volcanic sands, stream gravels, silt, and clay inter-bedded with intervals of dense tuff breccia. The sand and gravel intervals are highly permeable and the tuff breccia intervals act as confining layers. The thickness of the Mehrten Formation is between 200 and 1200 feet. Groundwater is located from 20 to 100 feet below the ground surface depending on when and where the measurement is taken. The base of the potable water portion of the deep aquifer is located approximately 1,400 feet below the ground surface.

Intensive use of groundwater over the past 60 years has resulted in a general lowering of groundwater elevations. Over time, isolated groundwater depressions have grown and coalesced into a single cone of depression that is centered in the southwestern portion of the basin, approximately 15 miles southwest of the project site. Groundwater level trends through much of the basin have generally declined consistently from the 1950s and 1960s to about 1980 by 20 to 30 feet. From 1980 through 1983, water levels recovered by about 10 feet and remained stable until the beginning of the 1987-1992 drought; however, wells in the vicinity of Rancho Cordova appear to have recovered less than other wells in the basin since 1995 (generally less than 10 feet). From 1995 to 2003 most groundwater levels recovered to levels that were generally higher than levels prior to the 1987 through 1992 drought. Much of this recovery can be attributed to the increased use of surface water in the Central Basin, and the fallowing of previously irrigated agricultural lands transitioning into new urban development areas. In the central portion of the Central Basin, where the Project site is located, groundwater level trends observed in California Department of Water Resources monitoring wells generally vary between 40 feet above to 40 feet below mean sea level over the period of the 1950's through the 2000's.

Recharge of the aquifer system occurs along active river and stream channels where extensive sand and gravel deposits exist, particularly along the American, Cosumnes, and Sacramento rivers. Additional recharge occurs along the eastern boundary of Sacramento County at the transition point from the consolidated rocks of the Sierra Nevada to the alluvial-deposited basin sediments. This recharge is classified as subsurface recharge along with underground flow into and out of the basin with adjacent groundwater basins. Other sources of recharge include deep percolation from applied surface water and precipitation.

As mentioned previously, the estimated long term annual sustainable yield of groundwater from the Central Basin is 273,000 AF/year. Currently, groundwater extractions are estimated to be 250,000 acre-feet per year (excluding remediation).

The determination of the sustainable yield of the Central Basin (273,000 acre-feet per year) was negotiated by the Water Forum Groundwater Negotiating Team (GWNT) and involved a complex process that developed the long-term average annual pumping limit of the basin. The long-term average annual pumping limit is described as the hydro-geologic process under which

groundwater can be pumped and not exceed average natural recharge over a long-term period of time. Under sustainable conditions, natural recharge is said to be able to make up for variations in the amount of pumping that occurs over the long-term, given wet and dry periods in the hydrologic record.

First, the GWNT developed future land and water use projections. Then the impacts associated with increased water demands, assuming that demand is met solely by groundwater, were described. These results were then compared with 1990 baseline conditions to provide the level of impact that could be expected if groundwater pumping were increased beyond baseline conditions.

Four quantifiable factors were used to determine the level of impact:

- Water quality degradation
- Dewatering of wells
- Higher cost of pumping
- Ground subsidence

Based on these four factors, a series of groundwater model runs quantified each condition in 10-year increments, beginning in 1990 and ending in 2030. Each model run was set up to reflect future land and water use conditions; then 70 years of historical hydrology were applied to each model run to determine how the aquifer might behave under wet and dry conditions.

After comprehensive review and analysis of the resulting data, the GWNT concluded that using 2005 levels of groundwater pumping (interpolated from the 2000 and 2010 modeling results) would provide the highest quantity of groundwater yield from the basin while minimizing impacts associated with the four factors of concern. Accordingly, the GWNT determined the 2005 pumping rates equated to a long-term pumping average annual pumping limit of approximately 273,000 acre-feet per year for the Central Basin.

Section 3.2 and Appendix E of the WSMP provide detailed descriptions of the Zone 40 conjunctive use program (see footnote 1). SCWA's operational approach for preventing overdraft of the groundwater basin underlying Zone 40 and optimizing the use of both groundwater and surface water is discussed in detail in these sections. The FEIR for 2002 Zone 40 Water Supply Master Plan (see footnote 1) includes an extensive analysis of the effects of the Zone 40 conjunctive use program on the groundwater basin and on various recharge sources. A summary of the conjunctive use program is as follows:

SCWA's conjunctive use program is a coordinated approach to manage surface water and groundwater supplies to maximize the yield of available water resources. The conjunctive use program for SCWA includes the use of groundwater, surface water, remediated water and recycled water supplies. The program also includes the construction of a surface water diversion structure, a surface-water treatment plant, water conveyance pipelines; and groundwater extraction, treatment and distribution facilities.

This conjunctive use program relies on an abundance of surface water in wet years when as much surface water as possible will be diverted, within entitlement limitations, minimizing the

use of groundwater. During these years the groundwater aquifer will be allowed to naturally replenish. In dry years, when surface water availability is reduced, SCWA will pump more groundwater from the replenished aquifer. Using surface water and groundwater conjunctively makes it easier for SCWA to meet demands in a single dry year or in multiple dry years. The goal of the conjunctive use program is to meet all demands during wet and dry years.

SCWA has adopted policies to insure systematic, incremental implementation of its conjunctive use program. These policies are also consistent with the terms of the WFA, which is intended to maintain a long-term sustainable groundwater supply. The policies are included in the SCWA's UWMP and WSMP, which include specific action items to assure implementation, specifically, development of additional surface water supply and treatment facilities to provide water during wet years, development of groundwater facilities to provide groundwater during dry years, in-lieu "banking" of groundwater during wet years, development and implementation of demand management and water conservation strategies, development of water reclamation facilities to meet non-potable demands, and development of a financing plan to implement these action items.

As a part of the Groundwater Authority, SCWA has committed to the implementation of the Central Basin GMP. The Central Basin GMP contains five basin management objectives (BMO) designed to maintain a safe, sustainable and high quality groundwater resource within the Central Basin. These BMOs, in conjunction with the program component action items, focus on managing and monitoring the basin to benefit all groundwater users in the basin and are intended to be specific enough to result in numerical criteria for the basin, but also flexible enough to be modified or adapted to new information on groundwater basin behavior over time. The five BMOs are summarized below:

1. Maintain the long-term average groundwater extraction rate at or below 273,000 acre-feet per year.
2. Maintain specific groundwater elevations within all areas of the basin consistent with the Water Forum "solution."
3. Protect against any potential inelastic land surface subsidence by limiting subsidence to no more than 0.007 feet per 1 foot of drawdown in the groundwater basin.
4. Protect against any adverse impacts to surface water flows in the American, Cosumnes and Sacramento rivers.
5. Water quality objectives:
  - a. Total dissolved solids (TDS) concentration of less than 1,000 milligrams per liter (mg/l).
  - b. Nitrate (NO<sub>3</sub>) concentration of less than 45 mg/l.
  - c. Volatile organic compounds (VOC).

The Groundwater Authority intends to achieve these objectives by implementing the following program component action items:

1. Stakeholder involvement; including public outreach, involving other agencies inside and adjacent to the basin, developing relationships with state and federal agencies, and pursuing partnership opportunities.
2. Monitoring program; including groundwater elevation, groundwater quality, land surface elevation, and surface water/groundwater interaction monitoring, as well as

- establishing protocols for collection of groundwater data and establishing a data management system.
3. Groundwater resource protection; including well construction policies, well abandonment and destruction policies, wellhead protection measures, protection of recharge areas, control of the migration and remediation of contaminated groundwater, and control of saline water intrusion.
  4. Groundwater sustainability; including demand reduction.
  5. Planning integration; including existing integrated planning efforts, urban water management planning, DWSAP program, land use planning, and integrated groundwater and surface water modeling.

The Central Basin GMP also has an implementation plan that defines specific actions or trigger points and associated remedy activities linked with each of the BMOs. Once a trigger point has been reached, the Groundwater Authority must decide on a course of action.

Water quality analysis of the aquifers underling the Central Basin has shown that groundwater quality found in the upper aquifer system is of higher quality than that found in the lower aquifer system. This is principally because the lower aquifer system (specifically the Mehrten Formation) contains higher concentrations of iron and manganese, and higher concentrations of total dissolved solids (TDS). Notwithstanding these findings, the lower aquifer typically meets water quality standards as a potable water source. Water from the upper aquifer (specifically the Laguna Formation) generally does not require treatment (unless high arsenic values are encountered), other than disinfection for public drinking water systems.

The UWMP addresses water supply and demand issues, water supply reliability, water conservation, water shortage contingencies, and recycled-water usage for the areas within Sacramento County where SCWA provides retail water services, including the Project site. Together, the WSMP and UWMP outline a comprehensive conjunctive use program. Many of the facilities required to implement this conjunctive use program are now, or soon will be, complete and operational.

**Section 10910(f)(3)**

Section 10910(f)(3) requires a description of the volume and geographic distribution of groundwater extractions from the basin for the last five years.

Table 7 identifies past volumes of groundwater extracted by SCWA in Zone 40 between 2000 – 2010.

Through the water supply master planning process, SCWA identified a system of sixteen separate well fields throughout Zone 40. A distributed groundwater extraction strategy was selected because it would minimize drawdown effects of pumping by spreading extraction over a wide geographic area. The spatial distribution of the SCWA's current and future well fields is shown in Figure 2.

**Table 7 Historical Groundwater Pumping in Zone 40, 2000 – 2010**

<b>Year</b>	<b>(Acre-Feet)</b>
2000	20,022
2001	22,306
2002	22,949
2003	22,745
2004	25,790
2005	29,184
2006	31,162
2007	31,249
2008	34,225
2009	34,249
2010	32,171

**Section 10910(f)(4)**

Section 10910(f)(4) requires a description of the projected volume and geographic distribution of groundwater extractions from the basin.

Groundwater use is projected to decrease from the current level once the VSWTP comes online, but it will increase over time as water demand continues to grow in Zone 40. In wet and normal years, groundwater pumping will be minimized because surface water becomes the major water supply source. In dry years, groundwater pumping will increase significantly as surface water availability is considerably reduced. Table 4 identifies projected groundwater pumping necessary to meet Zone 40's water demands from 2015-2035 in normal, single dry, and multiple dry years. Reduction in projected pumping in wet/normal years between 2010 and 2035 reflects the phasing and availability of surface water facilities and supplies from the VSWTP. Over time, groundwater production will stabilize as SCWA's conjunctive use program is fully implemented.

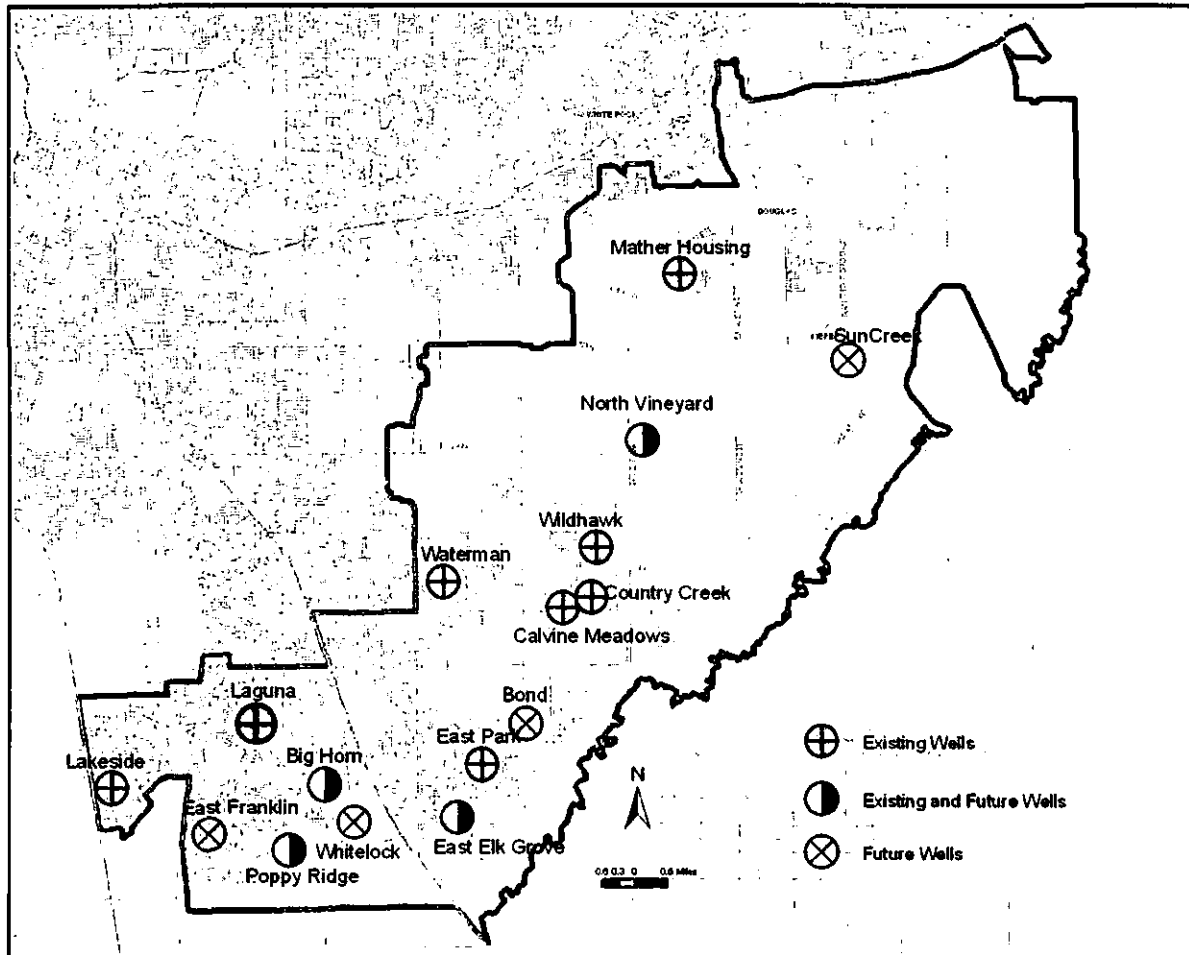


Figure 2 Spatial Distribution of SCWA's Existing and Future Well Fields

**Section 10910(f)(5)**

Section 10910(f)(5) requires an analysis of the sufficiency of the groundwater basin to meet the demands associated with the Project.

The WFA defined a long-term sustainable average annual yield of 273,000 AF/year for the Central Basin and provided for SCWA's groundwater needs as identified in the WSMP. The WSMP describes a conjunctive use program that identifies and projects a long-term sustainable average annual yield of 40,900 AF/year to meet identified water demands (including the demand associated with the Project).

SCWA's conjunctive use program has been extensively analyzed and documented in the WSMP, the FEIR for 2002 WSMP, certified in February 2006, the FEIR – WFA, certified in 1999, and the WFA (See footnote 1). All referenced documents have been subjected to thorough technical peer review and public scrutiny.

**DETERMINATION OF SUFFICIENCY**

SCWA determines that it has identified sufficient water supplies to meet the water demands of the Project.

SCWA makes this determination based on the information provided in this WSA and on the following specific facts:

- SCWA’s conjunctive use program is a sustainable water supply program that provides a 100-percent reliable water supply while protecting environmental values and stabilizing the groundwater basin underlying Zone 40.
- SCWA’s conjunctive use program has been extensively analyzed and documented in the WSMP, the FEIR for 2002 WSMP, certified in February 2006, the FEIR – WFA, certified in 1999, and the WFA (See footnote 1). All referenced documents have been subjected to thorough technical peer review and public scrutiny.
- The Project will be served by water supplies made available through SCWA’s conjunctive use program.
- A financing plan for SCWA’s conjunctive use program for constructing facilities required for delivering groundwater and surface water to the Project has been approved by the Board through its adoption of the WSMP, Bond Feasibility Reports, and the Sacramento County Water Agency Code.

The UWMP quantifies SCWA’s total projected water supplies during normal, single dry, and multiple dry water years over a 25-year projection in five-year intervals. A summary of the pertinent data from these tables as it applies to Zone 40 is presented in Table 8.

**Table 8      Zone 40 Water Supply in Five-Year Increments (AF/year)**

Water Year	2010	2015	2020	2025	2030	2035
Normal Year (Table 7-1, UWMP)	48,320	58,000	64,400	79,400	103,700	109,500
Single Dry Year (Table 7-2, UWMP)	48,320	58,000	64,400	79,400	103,700	109,500
Multiple Dry Year (1) (Table 7-3, UWMP)	48,320	58,000	64,400	79,400	103,700	109,500
Multiple Dry Year (2) (Table 7-3, UWMP)	48,320	58,000	64,400	79,400	103,700	109,500
Multiple Dry Year (3) (Table 7-3, UWMP)	48,320	58,000	64,400	79,400	103,700	109,500

Notes:

- (1) Normal/Average year is a year in the historical sequence that most closely represents median runoff levels and patterns. Average is defined as the median runoff over the previous 30 years or more. By this definition, 1993 is a normal/average year for the Sacramento River watershed.
- (2) Single-dry year is generally considered to be the lowest annual runoff for a watershed since the water year beginning in 1903. 1977 is a single-dry year for the Sacramento River watershed.
- (3) Multiple-dry year period is generally considered to be the lowest average runoff for a consecutive multiple year period (three years or more) for a watershed since 1903. 1989-1992 is a multiple-dry year period for the Sacramento River watershed.

The UWMP demonstrates that the total projected water supplies for Zone 40 under normal, single dry, and multiple dry years meet the proposed water demands (including existing and other projected future demands) over the next 25 years. A summary of the pertinent data from these tables is presented in Table 9.

**Table 9      Zone 40 Water Supply Sufficiency Analysis in Five-Year Increments  
(AF/year)**

Water Year	2010	2015	2020	2025	2030	2035
<b>Normal Year</b>						
Total Supply ( Table 7-1, UWMP )	48,320	58,000	64,400	79,400	103,700	109,500
Total Demand ( Table 7-1, UWMP )	34,511	44,425	50,662	57,583	67,565	77,712
Sufficiency (Supply Minus Demand)	13,809	13,575	13,738	21,817	36,135	31,788
<b>Single Dry Year</b>						
Total Supply ( Table 7-2, UWMP )	48,320	58,000	64,400	79,400	103,700	109,500
Total Demand ( Table 7-2, UWMP )	34,511	44,425	50,662	57,583	67,565	77,712
Sufficiency (Supply Minus Demand)	13,809	13,575	13,738	21,817	36,135	31,788
<b>Multiple Dry Year (1)</b>						
Total Supply ( Table 7-3, UWMP )	48,320	58,000	64,400	79,400	103,700	109,500
Total Demand ( Table 7-3, UWMP )	34,511	44,425	50,662	57,583	67,565	77,712
Sufficiency (Supply Minus Demand)	13,809	13,575	13,738	21,817	36,135	31,788
<b>Multiple Dry Year (2)</b>						
Total Supply ( Table 7-3, UWMP )	48,320	58,000	64,400	79,400	103,700	109,500
Total Demand ( Table 7-3, UWMP )	34,511	44,425	50,662	57,583	67,565	77,712
Sufficiency (Supply Minus Demand)	13,809	13,575	13,738	21,817	36,135	31,788
<b>Multiple Dry Year (3)</b>						
Total Supply ( Table 7-3, UWMP )	48,320	58,000	64,400	79,400	103,700	109,500
Total Demand ( Table 7-3, UWMP )	34,511	44,425	50,662	57,583	67,565	77,712
Sufficiency (Supply Minus Demand)	13,809	13,575	13,738	21,817	36,135	31,788



## **APPENDIX E – AIR QUALITY**

**Dignity Health Medical Campus - Phase 1 Construction  
Sacramento County, Summer**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric
Hospital	112.05	1000sqft
Helistop Surface	10	1000sqft

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	3.5	<b>Utility Company</b>	Sacramento Municipal Utility District
<b>Climate Zone</b>	6	<b>Precipitation Freq (Days)</b>	58		

**1.3 User Entered Comments**

Off-road Equipment - Diesel-fueled construction equipment load factors reduced 33% to account for offroad emission overestimation  
 Source: California Air Resources Board. 2010. "Staff Report: Proposed Amendments to the Regulation for In-Use Off Road Diesel-Fueled Fleets and the OFFROAD Large Spark-Ignition Fleet Requirements." October 2010

Architectural Coating - Grams of VOC per Liter reduced to account for SMAQMD Rule 442.

**2.0 Emissions Summary**

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**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	37.76	22.61	20.42	0.04	6.68	1.35	7.78	3.32	1.35	4.41						
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**3.0 Construction Detail**

**3.1 Mitigation Measures Construction**

None

**3.2 Grading - 2015**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.55	0.00	6.55	3.31	0.00	3.31						
Off-Road	2.82	21.72	13.94	0.02		1.09	1.09		1.09	1.09						
Total	2.82	21.72	13.94	0.02	6.55	1.09	7.64	3.31	1.09	4.40						

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Worker	0.06	0.05	0.53	0.00	0.13	0.00	0.13	0.00	0.00	0.01						
<b>Total</b>	<b>0.06</b>	<b>0.05</b>	<b>0.53</b>	<b>0.00</b>	<b>0.13</b>	<b>0.00</b>	<b>0.13</b>	<b>0.00</b>	<b>0.00</b>	<b>0.01</b>						

**3.3 Building Construction - 2015**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.76	19.91	16.17	0.03		1.26	1.26		1.26	1.26						
<b>Total</b>	<b>3.76</b>	<b>19.91</b>	<b>16.17</b>	<b>0.03</b>		<b>1.26</b>	<b>1.26</b>		<b>1.26</b>	<b>1.26</b>						

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						

Vendor	0.27	2.52	2.13	0.01	0.18	0.07	0.26	0.01	0.07	0.09						
Worker	0.23	0.19	2.12	0.00	0.52	0.01	0.54	0.02	0.01	0.03						
<b>Total</b>	<b>0.50</b>	<b>2.71</b>	<b>4.25</b>	<b>0.01</b>	<b>0.70</b>	<b>0.08</b>	<b>0.80</b>	<b>0.03</b>	<b>0.08</b>	<b>0.12</b>						

### 3.4 Paving - 2015

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.47	15.52	11.21	0.02		1.28	1.28		1.28	1.28						
Paving	0.03					0.00	0.00		0.00	0.00						
<b>Total</b>	<b>2.50</b>	<b>15.52</b>	<b>11.21</b>	<b>0.02</b>		<b>1.28</b>	<b>1.28</b>		<b>1.28</b>	<b>1.28</b>						

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Worker	0.09	0.07	0.80	0.00	0.20	0.01	0.20	0.01	0.01	0.01						
<b>Total</b>	<b>0.09</b>	<b>0.07</b>	<b>0.80</b>	<b>0.00</b>	<b>0.20</b>	<b>0.01</b>	<b>0.20</b>	<b>0.01</b>	<b>0.01</b>	<b>0.01</b>						

### 3.5 Architectural Coating - 2015

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	37.30					0.00	0.00		0.00	0.00						
Off-Road	0.41	2.57	1.90	0.00		0.22	0.22		0.22	0.22						
<b>Total</b>	<b>37.71</b>	<b>2.57</b>	<b>1.90</b>	<b>0.00</b>		<b>0.22</b>	<b>0.22</b>		<b>0.22</b>	<b>0.22</b>						

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Worker	0.05	0.04	0.42	0.00	0.10	0.00	0.11	0.00	0.00	0.01						
<b>Total</b>	<b>0.05</b>	<b>0.04</b>	<b>0.42</b>	<b>0.00</b>	<b>0.10</b>	<b>0.00</b>	<b>0.11</b>	<b>0.00</b>	<b>0.00</b>	<b>0.01</b>						

**Dignity Health Medical Campus - Phase 1 Construction  
Sacramento County, Winter**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric
Hospital	112.05	1000sqft
Helistop Surface	10	1000sqft

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>		<b>Utility Company</b>	Sacramento Municipal Utility District
<b>Climate Zone</b>	6		3.5		
		<b>Precipitation Freq (Days)</b>			

**1.3 User Entered Comments**

58

Off-road Equipment - Diesel-fueled construction equipment load factors reduced 33% to account for offroad emission overestimation  
 Source - California Air Resources Board. 2010. "Staff Report: Proposed Amendments to the Regulation for In-Use Off Road Diesel-Fueled Fleets and the OFFROAD Large Spark-Ignition Fleet Requirements." October 2010

Architectural Coating - Grams of VOC per Liter reduced to account for SMAQMD Rule 442.

**2.0 Emissions Summary**

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**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	37.76	22.67	20.61	0.04	6.68	1.35	7.78	3.32	1.35	4.41						
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**3.0 Construction Detail**

**3.1 Mitigation Measures Construction**

None

**3.2 Grading - 2015**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.55	0.00	6.55	3.31	0.00	3.31						
Off-Road	2.82	21.72	13.94	0.02		1.09	1.09		1.09	1.09						
Total	2.82	21.72	13.94	0.02	6.55	1.09	7.64	3.31	1.09	4.40						



**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Worker	0.06	0.05	0.47	0.00	0.13	0.00	0.13	0.00	0.00	0.01						
<b>Total</b>	<b>0.06</b>	<b>0.05</b>	<b>0.47</b>	<b>0.00</b>	<b>0.13</b>	<b>0.00</b>	<b>0.13</b>	<b>0.00</b>	<b>0.00</b>	<b>0.01</b>						

**3.3 Building Construction - 2015**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.76	19.91	16.17	0.03		1.26	1.26		1.26	1.26						
<b>Total</b>	<b>3.76</b>	<b>19.91</b>	<b>16.17</b>	<b>0.03</b>		<b>1.26</b>	<b>1.26</b>		<b>1.26</b>	<b>1.26</b>						

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						

Vendor	0.30	2.55	2.56	0.01	0.18	0.08	0.26	0.01	0.08	0.09						
Worker	0.23	0.20	1.89	0.00	0.52	0.01	0.54	0.02	0.01	0.03						
<b>Total</b>	<b>0.53</b>	<b>2.75</b>	<b>4.45</b>	<b>0.01</b>	<b>0.70</b>	<b>0.09</b>	<b>0.80</b>	<b>0.03</b>	<b>0.09</b>	<b>0.12</b>						

### 3.4 Paving - 2015

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.47	15.52	11.21	0.02		1.28	1.28		1.28	1.28						
Paving	0.03					0.00	0.00		0.00	0.00						
<b>Total</b>	<b>2.50</b>	<b>15.52</b>	<b>11.21</b>	<b>0.02</b>		<b>1.28</b>	<b>1.28</b>		<b>1.28</b>	<b>1.28</b>						

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Worker	0.09	0.08	0.71	0.00	0.20	0.01	0.20	0.01	0.01	0.01						
<b>Total</b>	<b>0.09</b>	<b>0.08</b>	<b>0.71</b>	<b>0.00</b>	<b>0.20</b>	<b>0.01</b>	<b>0.20</b>	<b>0.01</b>	<b>0.01</b>	<b>0.01</b>						

### 3.5 Architectural Coating - 2015

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	37.30					0.00	0.00		0.00	0.00						
Off-Road	0.41	2.57	1.90	0.00		0.22	0.22		0.22	0.22						
<b>Total</b>	<b>37.71</b>	<b>2.57</b>	<b>1.90</b>	<b>0.00</b>		<b>0.22</b>	<b>0.22</b>		<b>0.22</b>	<b>0.22</b>						

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Worker	0.05	0.04	0.38	0.00	0.10	0.00	0.11	0.00	0.00	0.01						
<b>Total</b>	<b>0.05</b>	<b>0.04</b>	<b>0.38</b>	<b>0.00</b>	<b>0.10</b>	<b>0.00</b>	<b>0.11</b>	<b>0.00</b>	<b>0.00</b>	<b>0.01</b>						

**Dignity Health Medical Campus - Phase 2 Construction  
Sacramento County, Summer**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric
Hospital	175.095	1000sqft

**1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)	3.5	Utility Company	Sacramento Municipal Utility District
Climate Zone	6	Precipitation Freq (Days)	58		

**1.3 User Entered Comments**

Off-road Equipment - Diesel-fueled construction equipment load factors reduced 33% to account for offroad emissions overestimation  
 Source - California Air Resources Board. 2010. "Staff Report: Proposed Amendments to the Regulation for In-Use Off Road Diesel-Fuled Fleets and the OFFROAD Large Spark-Ignition Fleet Requirements." October 2010.

Architectural Coating - VOC Grams per Liter reduced to account for SMAQMD Rule 442

**2.0 Emissions Summary**

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**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	56.41	26.08	24.05	0.05	6.75	1.39	8.10	3.32	1.39	4.67						
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**3.0 Construction Detail**

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**3.1 Mitigation Measures Construction**

None

**3.2 Grading - 2016**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.55	0.00	6.55	3.31	0.00	3.31						
Off-Road	3.54	26.01	19.45	0.03		1.35	1.35		1.35	1.35						
Total	3.54	26.01	19.45	0.03	6.55	1.35	7.90	3.31	1.35	4.66						

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Worker	0.08	0.06	0.73	0.00	0.20	0.01	0.20	0.01	0.01	0.01						
Total	0.08	0.06	0.73	0.00	0.20	0.01	0.20	0.01	0.01	0.01						

### 3.3 Building Construction - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.22	20.82	18.60	0.03		1.24	1.24		1.24	1.24						
Total	3.22	20.82	18.60	0.03		1.24	1.24		1.24	1.24						

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Vendor	0.36	3.36	2.73	0.01	0.27	0.10	0.36	0.02	0.10	0.12						
Worker	0.30	0.24	2.72	0.01	0.73	0.02	0.75	0.03	0.02	0.05						

Total	0.66	3.60	5.45	0.02	1.00	0.12	1.11	0.05	0.12	0.17						
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### 3.4 Paving - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.36	14.72	11.21	0.02		1.19	1.19		1.19	1.19						
Paving	0.00					0.00	0.00		0.00	0.00						
Total	2.36	14.72	11.21	0.02		1.19	1.19		1.19	1.19						

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Worker	0.11	0.08	0.97	0.00	0.26	0.01	0.27	0.01	0.01	0.02						
Total	0.11	0.08	0.97	0.00	0.26	0.01	0.27	0.01	0.01	0.02						

### 3.5 Architectural Coating - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	53.52					0.00	0.00		0.00	0.00						
Off-Road	0.37	2.37	1.88	0.00		0.20	0.20		0.20	0.20						
<b>Total</b>	<b>53.89</b>	<b>2.37</b>	<b>1.88</b>	<b>0.00</b>		<b>0.20</b>	<b>0.20</b>		<b>0.20</b>	<b>0.20</b>						

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Worker	0.06	0.05	0.53	0.00	0.14	0.00	0.15	0.01	0.00	0.01						
<b>Total</b>	<b>0.06</b>	<b>0.05</b>	<b>0.53</b>	<b>0.00</b>	<b>0.14</b>	<b>0.00</b>	<b>0.15</b>	<b>0.01</b>	<b>0.00</b>	<b>0.01</b>						



**Dignity Health Medical Campus - Phase 2 Construction**  
 Sacramento County, Winter

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric
Hospital	175.095	1000sqft

**1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)		Utility Company	Sacramento Municipal Utility District
Climate Zone	6		3.5		
		Precipitation Freq (Days)			
			58		

**1.3 User Entered Comments**

Off-road Equipment - Diesel-fueled construction equipment load factors reduced 33% to account for offroad emissions overestimation  
 Source - California Air Resources Board. 2010. "Staff Report: Proposed Amendments to the Regulation for In-Use Off Road Diesel-Fuled Fleets and the OFFROAD Large Spark-Ignition Fleet Requirements." October 2010.

Architectural Coating - VOC Grams per Liter reduced to account for SMAQMD Rule 442

**2.0 Emissions Summary**

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**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	56.41	26.08	24.37	0.05	6.75	1.39	8.10	3.32	1.39	4.67						
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**3.0 Construction Detail**

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**3.1 Mitigation Measures Construction**

None

**3.2 Grading - 2016**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.55	0.00	6.55	3.31	0.00	3.31						
Off-Road	3.54	26.01	19.45	0.03		1.35	1.35		1.35	1.35						
Total	3.54	26.01	19.45	0.03	6.55	1.35	7.90	3.31	1.35	4.66						

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Worker	0.08	0.07	0.65	0.00	0.20	0.01	0.20	0.01	0.01	0.01						
Total	0.08	0.07	0.65	0.00	0.20	0.01	0.20	0.01	0.01	0.01						

### 3.3 Building Construction - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.22	20.82	18.60	0.03		1.24	1.24		1.24	1.24						
Total	3.22	20.82	18.60	0.03		1.24	1.24		1.24	1.24						

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Vendor	0.40	3.40	3.36	0.01	0.27	0.10	0.37	0.02	0.10	0.12						

Worker	0.30	0.26	2.41	0.01	0.73	0.02	0.75	0.03	0.02	0.05						
<b>Total</b>	<b>0.70</b>	<b>3.66</b>	<b>5.77</b>	<b>0.02</b>	<b>1.00</b>	<b>0.12</b>	<b>1.12</b>	<b>0.05</b>	<b>0.12</b>	<b>0.17</b>						

### 3.4 Paving - 2016

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.36	14.72	11.21	0.02		1.19	1.19		1.19	1.19						
Paving	0.00					0.00	0.00		0.00	0.00						
<b>Total</b>	<b>2.36</b>	<b>14.72</b>	<b>11.21</b>	<b>0.02</b>		<b>1.19</b>	<b>1.19</b>		<b>1.19</b>	<b>1.19</b>						

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Worker	0.11	0.09	0.86	0.00	0.26	0.01	0.27	0.01	0.01	0.02						
<b>Total</b>	<b>0.11</b>	<b>0.09</b>	<b>0.86</b>	<b>0.00</b>	<b>0.26</b>	<b>0.01</b>	<b>0.27</b>	<b>0.01</b>	<b>0.01</b>	<b>0.02</b>						

### 3.5 Architectural Coating - 2016

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	53.52					0.00	0.00		0.00	0.00						
Off-Road	0.37	2.37	1.88	0.00		0.20	0.20		0.20	0.20						
<b>Total</b>	<b>53.89</b>	<b>2.37</b>	<b>1.88</b>	<b>0.00</b>		<b>0.20</b>	<b>0.20</b>		<b>0.20</b>	<b>0.20</b>						

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Worker	0.06	0.05	0.47	0.00	0.14	0.00	0.15	0.01	0.00	0.01						
<b>Total</b>	<b>0.06</b>	<b>0.05</b>	<b>0.47</b>	<b>0.00</b>	<b>0.14</b>	<b>0.00</b>	<b>0.15</b>	<b>0.01</b>	<b>0.00</b>	<b>0.01</b>						

**Dignity Health Medical Campus - Construction Phase 3  
Sacramento County, Summer**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric
Hospital	169.574	1000sqft

**1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)		Utility Company	Sacramento Municipal Utility District
Climate Zone	6		3.5		
		Precipitation Freq (Days)			

**1.3 User Entered Comments**

58

Off-road Equipment - Diesel-fueled construction equipment load factors reduce 33% to account for offroad emission overestimation  
 Source - California Air Resources Board. 2010. "Staff Report: Proposed Amendments to the Regulation for In-Use Off Road Diesel-Fueled Fleets and the OFFROAD Large Spark-Ignition Fleet Requirements." October 2010

Architectural Coating - VOC grams per Liter reduced to account for SMAQMD Rule 442.

**2.0 Emissions Summary**

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**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	57.98	24.02	23.26	0.05	6.75	1.22	7.97	3.32	1.22	4.54						
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**3.0 Construction Detail**

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**3.1 Mitigation Measures Construction**

None

**3.2 Grading - 2017**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.55	0.00	6.55	3.31	0.00	3.31						
Off-Road	3.33	23.97	19.18	0.04		1.21	1.21		1.21	1.21						
Total	3.33	23.97	19.18	0.04	6.55	1.21	7.76	3.31	1.21	4.52						

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Worker	0.08	0.06	0.67	0.00	0.20	0.01	0.20	0.01	0.01	0.01						
Total	0.08	0.06	0.67	0.00	0.20	0.01	0.20	0.01	0.01	0.01						

### 3.3 Building Construction - 2017

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.96	18.88	18.47	0.03		1.09	1.09		1.09	1.09						
Total	2.96	18.88	18.47	0.03		1.09	1.09		1.09	1.09						

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Vendor	0.32	3.00	2.38	0.01	0.26	0.09	0.34	0.02	0.09	0.11						



Worker	0.27	0.21	2.40	0.01	0.70	0.02	0.72	0.03	0.02	0.04						
Total	0.59	3.21	4.78	0.02	0.96	0.11	1.06	0.05	0.11	0.15						

### 3.4 Paving - 2017

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.20	13.76	11.13	0.02		1.09	1.09		1.09	1.09						
Paving	0.00					0.00	0.00		0.00	0.00						
Total	2.20	13.76	11.13	0.02		1.09	1.09		1.09	1.09						

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Worker	0.10	0.08	0.89	0.00	0.26	0.01	0.27	0.01	0.01	0.02						
Total	0.10	0.08	0.89	0.00	0.26	0.01	0.27	0.01	0.01	0.02						

### 3.5 Architectural Coating - 2017

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	57.59					0.00	0.00		0.00	0.00						
Off-Road	0.33	2.18	1.87	0.00		0.17	0.17		0.17	0.17						
<b>Total</b>	<b>57.92</b>	<b>2.18</b>	<b>1.87</b>	<b>0.00</b>		<b>0.17</b>	<b>0.17</b>		<b>0.17</b>	<b>0.17</b>						

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Worker	0.06	0.04	0.49	0.00	0.14	0.00	0.15	0.01	0.00	0.01						
<b>Total</b>	<b>0.06</b>	<b>0.04</b>	<b>0.49</b>	<b>0.00</b>	<b>0.14</b>	<b>0.00</b>	<b>0.15</b>	<b>0.01</b>	<b>0.00</b>	<b>0.01</b>						

**Dignity Health Medical Campus - Construction Phase 3  
Sacramento County, Winter**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric
Hospital	169,574	1000sqft

**1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)		Utility Company	Sacramento Municipal Utility District
Climate Zone	6		3.5		
		Precipitation Freq (Days)			

**1.3 User Entered Comments**

58

Off-road Equipment - Diesel-fueled construction equipment load factors reduce 33% to account for offroad emission overestimation  
 Source - California Air Resources Board. 2010. "Staff Report: Proposed Amendments to the Regulation for In-Use Off Road Diesel-Fueled Fleets and the OFFROAD Large Spark-Ignition Fleet Requirements." October 2010

Architectural Coating - VOC grams per Liter reduced to account for SMAQMD Rule 442.

**2.0 Emissions Summary**

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**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	57.98	24.03	23.57	0.05	6.75	1.22	7.97	3.32	1.22	4.54						
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**3.0 Construction Detail**

**3.1 Mitigation Measures Construction**

None

**3.2 Grading - 2017**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.55	0.00	6.55	3.31	0.00	3.31						
Off-Road	3.33	23.97	19.18	0.04		1.21	1.21		1.21	1.21						
Total	3.33	23.97	19.18	0.04	6.55	1.21	7.76	3.31	1.21	4.52						

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Worker	0.07	0.06	0.59	0.00	0.20	0.01	0.20	0.01	0.01	0.01						
<b>Total</b>	<b>0.07</b>	<b>0.06</b>	<b>0.59</b>	<b>0.00</b>	<b>0.20</b>	<b>0.01</b>	<b>0.20</b>	<b>0.01</b>	<b>0.01</b>	<b>0.01</b>						

### 3.3 Building Construction - 2017

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.96	18.88	18.47	0.03		1.09	1.09		1.09	1.09						
<b>Total</b>	<b>2.96</b>	<b>18.88</b>	<b>18.47</b>	<b>0.03</b>		<b>1.09</b>	<b>1.09</b>		<b>1.09</b>	<b>1.09</b>						

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Vendor	0.36	3.03	2.98	0.01	0.26	0.09	0.34	0.02	0.09	0.11						
Worker	0.27	0.22	2.12	0.00	0.70	0.02	0.72	0.03	0.02	0.04						

Total	0.83	3.25	5.10	0.01	0.96	0.11	1.06	0.05	0.11	0.15						
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### 3.4 Paving - 2017

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.20	13.76	11.13	0.02		1.09	1.09		1.09	1.09						
Paving	0.00					0.00	0.00		0.00	0.00						
Total	2.20	13.76	11.13	0.02		1.09	1.09		1.09	1.09						

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Worker	0.10	0.08	0.79	0.00	0.26	0.01	0.27	0.01	0.01	0.02						
Total	0.10	0.08	0.79	0.00	0.26	0.01	0.27	0.01	0.01	0.02						

### 3.5 Architectural Coating - 2017

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	57.59					0.00	0.00		0.00	0.00						
Off-Road	0.33	2.18	1.87	0.00		0.17	0.17		0.17	0.17						
<b>Total</b>	<b>57.92</b>	<b>2.18</b>	<b>1.87</b>	<b>0.00</b>		<b>0.17</b>	<b>0.17</b>		<b>0.17</b>	<b>0.17</b>						

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Worker	0.05	0.05	0.43	0.00	0.14	0.00	0.15	0.01	0.00	0.01						
<b>Total</b>	<b>0.05</b>	<b>0.05</b>	<b>0.43</b>	<b>0.00</b>	<b>0.14</b>	<b>0.00</b>	<b>0.15</b>	<b>0.01</b>	<b>0.00</b>	<b>0.01</b>						

**Dignity Health Medical Campus - Construction Phase 4  
Sacramento County, Summer**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric
Medical Office Building	65	1000sqft
Parking Structure	169.52	1000sqft

**1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)		Utility Company	Sacramento Municipal Utility District
Climate Zone	6		3.5		
		Precipitation Freq (Days)			

**1.3 User Entered Comments**

58

Off-road Equipment - Diesel-fueled construction equipment load factors reduced 33% to account for offroad emission overestimation  
 Source - California Air Resources Board. 2010. "Staff Report: Proposed Amendments to the Regulation for In-Use Off Road Diesel-Fueled Fleets and the OFFROAD Large Spark-Ignition Fleet Requirements." October 2010

Architectural Coating - VOC grams per Liter reduced to account for SMAQMD Rule 442

**2.0 Emissions Summary**

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**2.1 Overall Construction (Maximum Daily Emission)**



**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	40.94	21.85	22.01	0.05	6.75	1.35	7.82	3.31	1.35	4.39						
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**3.0 Construction Detail**

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**3.1 Mitigation Measures Construction**

None

**3.2 Grading - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.55	0.00	6.55	3.31	0.00	3.31						
Off-Road	3.08	21.80	18.66	0.03		1.07	1.07		1.07	1.07						
Total	3.08	21.80	18.66	0.03	6.55	1.07	7.62	3.31	1.07	4.38						

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Worker	0.07	0.05	0.61	0.00	0.20	0.01	0.20	0.00	0.00	0.01						
<b>Total</b>	<b>0.07</b>	<b>0.05</b>	<b>0.61</b>	<b>0.00</b>	<b>0.20</b>	<b>0.01</b>	<b>0.20</b>	<b>0.00</b>	<b>0.00</b>	<b>0.01</b>						

### 3.3 Building Construction - 2018

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.70	17.03	18.36	0.03		0.94	0.94		0.94	0.94						
<b>Total</b>	<b>2.70</b>	<b>17.03</b>	<b>18.36</b>	<b>0.03</b>		<b>0.94</b>	<b>0.94</b>		<b>0.94</b>	<b>0.94</b>						

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Vendor	0.23	2.20	1.65	0.01	0.20	0.06	0.26	0.01	0.06	0.06						

Worker	0.23	0.17	2.00	0.00	0.64	0.02	0.66	0.01	0.02	0.02						
Total	0.46	2.37	3.85	0.01	0.84	0.08	0.92	0.02	0.08	0.08						

### 3.4 Paving - 2018

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.73	16.77	13.64	0.02		1.35	1.35		1.35	1.35						
Paving	0.00					0.00	0.00		0.00	0.00						
Total	2.73	16.77	13.64	0.02		1.35	1.35		1.35	1.35						

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Worker	0.07	0.05	0.61	0.00	0.20	0.01	0.20	0.00	0.00	0.01						
Total	0.07	0.05	0.61	0.00	0.20	0.01	0.20	0.00	0.00	0.01						

### 3.5 Architectural Coating - 2018

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	40.59					0.00	0.00		0.00	0.00						
Off-Road	0.30	2.00	1.85	0.00		0.15	0.15		0.15	0.15						
<b>Total</b>	<b>40.89</b>	<b>2.00</b>	<b>1.85</b>	<b>0.00</b>		<b>0.15</b>	<b>0.15</b>		<b>0.15</b>	<b>0.15</b>						

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Worker	0.05	0.03	0.41	0.00	0.13	0.00	0.13	0.00	0.00	0.00						
<b>Total</b>	<b>0.05</b>	<b>0.03</b>	<b>0.41</b>	<b>0.00</b>	<b>0.13</b>	<b>0.00</b>	<b>0.13</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>						

**Dignity Health Medical Campus - Construction Phase 4  
Sacramento County, Winter**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric
Medical Office Building	65	1000sqft
Parking Structure	169.52	1000sqft

**1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)		Utility Company	Sacramento Municipal Utility District
Climate Zone	6		3.5		
		Precipitation Freq (Days)			

**1.3 User Entered Comments**

58

Off-road Equipment - Diesel-fueled construction equipment load factors reduced 33% to account for offroad emission overestimation  
 Source - California Air Resources Board. 2010. "Staff Report: Proposed Amendments to the Regulation for In-Use Off Road Diesel-Fueled Fleets and the OFFROAD Large Spark-Ignition Fleet Requirements." October 2010

Architectural Coating - VOC grams per Liter reduced to account for SMAQMD Rule 442

**2.0 Emissions Summary**

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**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	40.94	21.86	22.23	0.04	6.75	1.35	7.82	3.31	1.35	4.39						
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**3.0 Construction Detail**

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**3.1 Mitigation Measures Construction**

None

**3.2 Grading - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.55	0.00	6.55	3.31	0.00	3.31						
Off-Road	3.08	21.80	18.66	0.03		1.07	1.07		1.07	1.07						
Total	3.08	21.80	18.66	0.03	6.55	1.07	7.62	3.31	1.07	4.38						

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Worker	0.07	0.06	0.54	0.00	0.20	0.01	0.20	0.00	0.00	0.01						
<b>Total</b>	<b>0.07</b>	<b>0.06</b>	<b>0.54</b>	<b>0.00</b>	<b>0.20</b>	<b>0.01</b>	<b>0.20</b>	<b>0.00</b>	<b>0.00</b>	<b>0.01</b>						

**3.3 Building Construction - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.70	17.03	18.36	0.03		0.94	0.94		0.94	0.94						
<b>Total</b>	<b>2.70</b>	<b>17.03</b>	<b>18.36</b>	<b>0.03</b>		<b>0.94</b>	<b>0.94</b>		<b>0.94</b>	<b>0.94</b>						

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						

Vendor	0.25	2.21	2.11	0.01	0.20	0.06	0.27	0.01	0.06	0.06						
Worker	0.23	0.18	1.76	0.00	0.64	0.02	0.66	0.01	0.02	0.02						
<b>Total</b>	<b>0.48</b>	<b>2.39</b>	<b>3.87</b>	<b>0.01</b>	<b>0.84</b>	<b>0.08</b>	<b>0.93</b>	<b>0.02</b>	<b>0.08</b>	<b>0.08</b>						

### 3.4 Paving - 2018

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.73	16.77	13.64	0.02		1.35	1.35		1.35	1.35						
Paving	0.00					0.00	0.00		0.00	0.00						
<b>Total</b>	<b>2.73</b>	<b>16.77</b>	<b>13.64</b>	<b>0.02</b>		<b>1.35</b>	<b>1.35</b>		<b>1.35</b>	<b>1.35</b>						

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Worker	0.07	0.06	0.54	0.00	0.20	0.01	0.20	0.00	0.00	0.01						
<b>Total</b>	<b>0.07</b>	<b>0.06</b>	<b>0.54</b>	<b>0.00</b>	<b>0.20</b>	<b>0.01</b>	<b>0.20</b>	<b>0.00</b>	<b>0.00</b>	<b>0.01</b>						



**3.5 Architectural Coating - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	40.59					0.00	0.00		0.00	0.00						
Off-Road	0.30	2.00	1.85	0.00		0.15	0.15		0.15	0.15						
<b>Total</b>	<b>40.89</b>	<b>2.00</b>	<b>1.85</b>	<b>0.00</b>		<b>0.15</b>	<b>0.15</b>		<b>0.15</b>	<b>0.15</b>						

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
Worker	0.05	0.04	0.36	0.00	0.13	0.00	0.13	0.00	0.00	0.00						
<b>Total</b>	<b>0.05</b>	<b>0.04</b>	<b>0.36</b>	<b>0.00</b>	<b>0.13</b>	<b>0.00</b>	<b>0.13</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>						

**Dignity Health Medical Campus - Operations at Buildout  
Sacramento County, Summer**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric
Hospital	330	Bed
Medical Office Building	68.19	1000sqft
Medical Office Building	65	1000sqft
Parking Structure	169.52	1000sqft

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>		<b>Utility Company</b>	Sacramento Municipal Utility District
<b>Climate Zone</b>	6		3.5		
		<b>Precipitation Freq (Days)</b>			

**1.3 User Entered Comments**

58

Land Use - Square footage per Section 2.0, Project Description

Energy Use - Lighting energy intensity reduced to account for energy efficient lighting requirement per mitigation measure MM 4.2.3 of the Laguna Ridge Town Center EIR. A 16% energy demand reduction is expected for installing metal halide post top lights as opposed to typical mercury cobrahead lights (CAPCOA, 2010. "Quantifying Greenhouse Gas Mitigation Measures." August 2010).

## 2.0 Emissions Summary

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### 2.1 Overall Operational

#### Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	18.25	0.00	0.00	0.00		0.00	0.00		0.00	0.00						
Energy	0.26	2.34	1.97	0.01		0.00	0.18		0.00	0.18						
Mobile	35.18	56.00	255.67	0.62	68.30	2.61	70.91	0.96	2.46	3.42						
Total	53.69	58.34	257.64	0.63	68.30	2.61	71.09	0.96	2.46	3.60						

## 3.0 Mobile Detail

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### 3.1 Mitigation Measures Mobile

None

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Mitigated	35.18	56.00	255.67	0.62	68.30	2.61	70.91	0.96	2.46	3.42						
Unmitigated	35.18	56.00	255.67	0.62	68.30	2.61	70.91	0.96	2.46	3.42						
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA						

### 3.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hospital	3,897.30	2,686.20	2372.70	9,684,277	9,684,277
Medical Office Building	2,463.70	610.98	105.69	3,820,795	3,820,795
Medical Office Building	2,348.45	582.40	100.75	3,642,054	3,642,054
Parking Structure	0.00	0.00	0.00		
Total	8,709.45	3,879.58	2,579.14	17,147,126	17,147,126

### 3.3 Trip Type Information

Land Use	Miles			Trip %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Hospital	10.80	7.30	7.30	64.90	16.10	19.00
Medical Office Building	10.80	7.30	7.30	29.60	51.40	19.00
Medical Office Building	10.80	7.30	7.30	29.60	51.40	19.00
Parking Structure	10.80	7.30	7.30	0.00	0.00	0.00

## 4.0 Energy Detail

### 4.1 Mitigation Measures Energy

None

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.26	2.34	1.97	0.01		0.00	0.18		0.00	0.18						
NaturalGas Unmitigated	0.26	2.34	1.97	0.01		0.00	0.18		0.00	0.18						
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA						

**4.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Hospital	22948.6	0.25	2.25	1.89	0.01		0.00	0.17		0.00	0.17						
Medical Office Building	471.918	0.01	0.05	0.04	0.00		0.00	0.00		0.00	0.00						
Medical Office Building	495.078	0.01	0.05	0.04	0.00		0.00	0.00		0.00	0.00						
Parking Structure	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						
Total		0.27	2.35	1.97	0.01		0.00	0.17		0.00	0.17						

**5.0 Area Detail**

**5.1 Mitigation Measures Area**

None

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Mitigated	18.25	0.00	0.00	0.00		0.00	0.00		0.00	0.00						
Unmitigated	18.25	0.00	0.00	0.00		0.00	0.00		0.00	0.00						
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA						

### 5.2 Area by SubCategory

#### Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	4.17					0.00	0.00		0.00	0.00						
Consumer Products	14.08					0.00	0.00		0.00	0.00						
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						
Total	18.25	0.00	0.00	0.00		0.00	0.00		0.00	0.00						



## 2.0 Emissions Summary

### 2.1 Overall Operational

#### Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	18.25	0.00	0.00	0.00		0.00	0.00		0.00	0.00						
Energy	0.26	2.34	1.97	0.01		0.00	0.18		0.00	0.18						
Mobile	33.78	57.64	252.53	0.56	68.30	2.62	70.92	0.96	2.47	3.43						
<b>Total</b>	<b>52.29</b>	<b>59.98</b>	<b>254.50</b>	<b>0.57</b>	<b>68.30</b>	<b>2.62</b>	<b>71.10</b>	<b>0.96</b>	<b>2.47</b>	<b>3.61</b>						

### 3.0 Mobile Detail

#### 3.1 Mitigation Measures Mobile

None

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	33.78	57.64	252.53	0.56	68.30	2.62	70.92	0.96	2.47	3.43						
Unmitigated	33.78	57.64	252.53	0.56	68.30	2.62	70.92	0.96	2.47	3.43						



Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA						
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### 3.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hospital	3,897.30	2,686.20	2372.70	9,684,277	9,684,277
Medical Office Building	2,463.70	610.98	105.69	3,820,795	3,820,795
Medical Office Building	2,348.45	582.40	100.75	3,642,054	3,642,054
Parking Structure	0.00	0.00	0.00		
<b>Total</b>	<b>8,709.45</b>	<b>3,879.58</b>	<b>2,579.14</b>	<b>17,147,126</b>	<b>17,147,126</b>

### 3.3 Trip Type Information

Land Use	Miles			Trip %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Hospital	10.80	7.30	7.30	64.90	16.10	19.00
Medical Office Building	10.80	7.30	7.30	29.60	51.40	19.00
Medical Office Building	10.80	7.30	7.30	29.60	51.40	19.00
Parking Structure	10.80	7.30	7.30	0.00	0.00	0.00

## 4.0 Energy Detail

### 4.1 Mitigation Measures Energy

None

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.26	2.34	1.97	0.01		0.00	0.18		0.00	0.18						
NaturalGas Unmitigated	0.26	2.34	1.97	0.01		0.00	0.18		0.00	0.18						
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA						

#### 4.2 Energy by Land Use - NaturalGas

##### Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Hospital	22948.6	0.25	2.25	1.89	0.01		0.00	0.17		0.00	0.17						
Medical Office Building	471.916	0.01	0.05	0.04	0.00		0.00	0.00		0.00	0.00						
Medical Office Building	495.078	0.01	0.05	0.04	0.00		0.00	0.00		0.00	0.00						
Parking Structure	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						
Total		0.27	2.35	1.97	0.01		0.00	0.17		0.00	0.17						

#### 5.0 Area Detail

##### 5.1 Mitigation Measures Area

None

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	18.25	0.00	0.00	0.00		0.00	0.00		0.00	0.00						
Unmitigated	18.25	0.00	0.00	0.00		0.00	0.00		0.00	0.00						
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA						

**5.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	4.17					0.00	0.00		0.00	0.00						
Consumer Products	14.08					0.00	0.00		0.00	0.00						
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00						
Total	18.25	0.00	0.00	0.00		0.00	0.00		0.00	0.00						

## **APPENDIX F – GREENHOUSE GASES**

**Dignity Health Medical Campus - Phase 1 Construction  
Sacramento County, Annual**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric
Hospital	112.05	1000sqft
Helistop Surface	10	1000sqft

**1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)		Utility Company	Sacramento Municipal Utility District
Climate Zone	6		3.5		
		Precipitation Freq (Days)			

**1.3 User Entered Comments**

58

Off-road Equipment - Diesel-fueled construction equipment load factors reduced 33% to account for offroad emission overestimation  
 Source - California Air Resources Board. 2010. "Staff Report: Proposed Amendments to the Regulation for In-Use Off Road Diesel-Fueled Fleets and the OFFROAD Large Spark-Ignition Fleet Requirements." October 2010

Architectural Coating - Grams of VOC per Liter reduced to account for SMAQMD Rule 442.

**2.0 Emissions Summary**

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**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015											0.00	313.93	313.93	0.03	0.00	314.63
Total											0.00	313.93	313.93	0.03	0.00	314.63

**3.0 Construction Detail**

**3.1 Mitigation Measures Construction**

None

**3.2 Grading - 2015**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust											0.00	0.00	0.00	0.00	0.00	0.00
Off-Road											0.00	7.03	7.03	0.00	0.00	7.05
Total											0.00	7.03	7.03	0.00	0.00	7.05

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	0.00	0.00	0.00	0.00	0.00
Worker											0.00	0.24	0.24	0.00	0.00	0.24
Total											0.00	0.24	0.24	0.00	0.00	0.24

**3.3 Building Construction - 2015**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road											0.00	215.34	215.34	0.03	0.00	215.92
Total											0.00	215.34	215.34	0.03	0.00	215.92

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	43.59	43.59	0.00	0.00	43.61

Worker												0.00	28.64	28.64	0.00	0.00	28.67
Total												0.00	72.23	72.23	0.00	0.00	72.28

### 3.4 Paving - 2015

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road											0.00	14.70	14.70	0.00	0.00	14.75
Paving											0.00	0.00	0.00	0.00	0.00	0.00
Total											0.00	14.70	14.70	0.00	0.00	14.75

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	0.00	0.00	0.00	0.00	0.00
Worker											0.00	1.19	1.19	0.00	0.00	1.19
Total											0.00	1.19	1.19	0.00	0.00	1.19

### 3.5 Architectural Coating - 2015



**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating											0.00	0.00	0.00	0.00	0.00	0.00
Off-Road											0.00	2.55	2.55	0.00	0.00	2.56
<b>Total</b>											<b>0.00</b>	<b>2.55</b>	<b>2.55</b>	<b>0.00</b>	<b>0.00</b>	<b>2.56</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	0.00	0.00	0.00	0.00	0.00
Worker											0.00	0.64	0.64	0.00	0.00	0.64
<b>Total</b>											<b>0.00</b>	<b>0.64</b>	<b>0.64</b>	<b>0.00</b>	<b>0.00</b>	<b>0.64</b>

**Dignity Health Medical Campus - Phase 2 Construction  
Sacramento County, Annual**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric
Hospital	175.095	1000sqft

**1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)		Utility Company	Sacramento Municipal Utility District
Climate Zone	6		3.5		
		Precipitation Freq (Days)			

**1.3 User Entered Comments**

58

Off-road Equipment - Diesel-fueled construction equipment load factors reduced 33% to account for offroad emissions overestimation  
 Source - California Air Resources Board. 2010. "Staff Report: Proposed Amendments to the Regulation for In-Use Off Road Diesel-Fueled Fleets and the OFFROAD Large Spark-Ignition Fleet Requirements." October 2010.  
Architectural Coating - VOC Grams per Liter reduced to account for SMAQMD Rule 442

**2.0 Emissions Summary**

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**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016											0.00	399.14	399.14	0.03	0.00	399.78
Total											0.00	399.14	399.14	0.03	0.00	399.78

**3.0 Construction Detail**

**3.1 Mitigation Measures Construction**

None

**3.2 Grading - 2016**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust											0.00	0.00	0.00	0.00	0.00	0.00
Off-Road											0.00	12.86	12.86	0.00	0.00	12.89
Total											0.00	12.86	12.86	0.00	0.00	12.89

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	0.00	0.00	0.00	0.00	0.00
Worker											0.00	0.47	0.47	0.00	0.00	0.47
<b>Total</b>											<b>0.00</b>	<b>0.47</b>	<b>0.47</b>	<b>0.00</b>	<b>0.00</b>	<b>0.47</b>

**3.3 Building Construction - 2016**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road											0.00	263.54	263.54	0.02	0.00	264.04
<b>Total</b>											<b>0.00</b>	<b>263.54</b>	<b>263.54</b>	<b>0.02</b>	<b>0.00</b>	<b>264.04</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.00	0.00	0.00	0.00	0.00	0.00

Vendor												0.00	63.42	63.42	0.00	0.00	63.45
Worker												0.00	39.14	39.14	0.00	0.00	39.18
Total												0.00	102.56	102.56	0.00	0.00	102.63

**3.4 Paving - 2016**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road											0.00	14.75	14.75	0.00	0.00	14.79
Paving											0.00	0.00	0.00	0.00	0.00	0.00
Total											0.00	14.75	14.75	0.00	0.00	14.79

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	0.00	0.00	0.00	0.00	0.00
Worker											0.00	1.55	1.55	0.00	0.00	1.55
Total											0.00	1.55	1.55	0.00	0.00	1.55

**3.5 Architectural Coating - 2016**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating											0.00	0.00	0.00	0.00	0.00	0.00
Off-Road											0.00	2.55	2.55	0.00	0.00	2.56
<b>Total</b>											<b>0.00</b>	<b>2.55</b>	<b>2.55</b>	<b>0.00</b>	<b>0.00</b>	<b>2.56</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	0.00	0.00	0.00	0.00	0.00
Worker											0.00	0.85	0.85	0.00	0.00	0.86
<b>Total</b>											<b>0.00</b>	<b>0.85</b>	<b>0.85</b>	<b>0.00</b>	<b>0.00</b>	<b>0.86</b>

**Dignity Health Medical Campus - Construction Phase 3  
Sacramento County, Annual**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric
Hospital	169.574	1000sqft

**1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)		Utility Company	Sacramento Municipal Utility District
Climate Zone	6		3.5		
		Precipitation Freq (Days)			

**1.3 User Entered Comments**

58

Off-road Equipment - Diesel-fueled construction equipment load factors reduce 33% to account for offroad emission overestimation  
 Source - California Air Resources Board. 2010. "Staff Report: Proposed Amendments to the Regulation for In-Use Off Road Diesel-Fueled Fleets and the OFFROAD Large Spark-Ignition Fleet Requirements." October 2010

Architectural Coating - VOC grams per Liter reduced to account for SMAQMD Rule 442.

**2.0 Emissions Summary**

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**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017											0.00	392.84	392.84	0.03	0.00	393.42
Total											0.00	392.84	392.84	0.03	0.00	393.42

**3.0 Construction Detail**

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**3.1 Mitigation Measures Construction**

None

**3.2 Grading - 2017**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust											0.00	0.00	0.00	0.00	0.00	0.00
Off-Road											0.00	12.86	12.86	0.00	0.00	12.89
Total											0.00	12.86	12.86	0.00	0.00	12.89



**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	0.00	0.00	0.00	0.00	0.00
Worker											0.00	0.46	0.46	0.00	0.00	0.46
Total											0.00	0.46	0.46	0.00	0.00	0.46

**3.3 Building Construction - 2017**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road											0.00	263.54	263.54	0.02	0.00	263.99
Total											0.00	263.54	263.54	0.02	0.00	263.99

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.00	0.00	0.00	0.00	0.00	0.00

Vendor												0.00	61.39	61.39	0.00	0.00	61.42
Worker												0.00	36.89	36.89	0.00	0.00	36.93
<b>Total</b>												<b>0.00</b>	<b>98.28</b>	<b>98.28</b>	<b>0.00</b>	<b>0.00</b>	<b>98.35</b>

### 3.4 Paving - 2017

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road											0.00	13.28	13.28	0.00	0.00	13.31
Paving											0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>											<b>0.00</b>	<b>13.28</b>	<b>13.28</b>	<b>0.00</b>	<b>0.00</b>	<b>13.31</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	0.00	0.00	0.00	0.00	0.00
Worker											0.00	1.37	1.37	0.00	0.00	1.37
<b>Total</b>											<b>0.00</b>	<b>1.37</b>	<b>1.37</b>	<b>0.00</b>	<b>0.00</b>	<b>1.37</b>

### 3.5 Architectural Coating - 2017

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr										MT/yr						
Archit. Coating											0.00	0.00	0.00	0.00	0.00	0.00	
Off-Road											0.00	2.30	2.30	0.00	0.00		2.30
<b>Total</b>											<b>0.00</b>	<b>2.30</b>	<b>2.30</b>	<b>0.00</b>	<b>0.00</b>		<b>2.30</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr										MT/yr						
Hauling											0.00	0.00	0.00	0.00	0.00	0.00	
Vendor											0.00	0.00	0.00	0.00	0.00	0.00	
Worker											0.00	0.75	0.75	0.00	0.00		0.75
<b>Total</b>											<b>0.00</b>	<b>0.75</b>	<b>0.75</b>	<b>0.00</b>	<b>0.00</b>		<b>0.75</b>

**Dignity Health Medical Campus - Construction Phase 4  
Sacramento County, Annual**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric
Medical Office Building	65	1000sqft
Parking Structure	169.52	1000sqft

**1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)		Utility Company	Sacramento Municipal Utility District
Climate Zone	6		3.5		
		Precipitation Freq (Days)			

**1.3 User Entered Comments**

58

Off-road Equipment - Diesel-fueled construction equipment load factors reduced 33% to account for offroad emission overestimation  
 Source - California Air Resources Board, 2010. "Staff Report: Proposed Amendments to the Regulation for In-Use Off Road Diesel-Fueled Fleets and the OFFROAD Large Spark-Ignition Fleet Requirements." October 2010

Architectural Coating - VOC grams per Liter reduced to account for SMAQMD Rule 442

**2.0 Emissions Summary**

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**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018											0.00	400.32	400.32	0.03	0.00	400.89
Total											0.00	400.32	400.32	0.03	0.00	400.89

**3.0 Construction Detail**

**3.1 Mitigation Measures Construction**

None

**3.2 Grading - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust											0.00	0.00	0.00	0.00	0.00	0.00
Off-Road											0.00	32.16	32.16	0.00	0.00	32.21
Total											0.00	32.16	32.16	0.00	0.00	32.21

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	0.00	0.00	0.00	0.00	0.00
Worker											0.00	1.11	1.11	0.00	0.00	1.12
<b>Total</b>											<b>0.00</b>	<b>1.11</b>	<b>1.11</b>	<b>0.00</b>	<b>0.00</b>	<b>1.12</b>

**3.3 Building Construction - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road											0.00	263.54	263.54	0.02	0.00	263.95
<b>Total</b>											<b>0.00</b>	<b>263.54</b>	<b>263.54</b>	<b>0.02</b>	<b>0.00</b>	<b>263.95</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.00	0.00	0.00	0.00	0.00	0.00

Vendor												0.00	48.39	48.39	0.00	0.00	48.41
Worker												0.00	32.76	32.76	0.00	0.00	32.79
<b>Total</b>												<b>0.00</b>	<b>81.15</b>	<b>81.15</b>	<b>0.00</b>	<b>0.00</b>	<b>81.20</b>

### 3.4 Paving - 2018

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road											0.00	17.95	17.95	0.00	0.00	18.00
Paving											0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>											<b>0.00</b>	<b>17.95</b>	<b>17.95</b>	<b>0.00</b>	<b>0.00</b>	<b>18.00</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	0.00	0.00	0.00	0.00	0.00
Worker											0.00	1.11	1.11	0.00	0.00	1.12
<b>Total</b>											<b>0.00</b>	<b>1.11</b>	<b>1.11</b>	<b>0.00</b>	<b>0.00</b>	<b>1.12</b>

### 3.5 Architectural Coating - 2018

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating											0.00	0.00	0.00	0.00	0.00	0.00
Off-Road											0.00	2.55	2.55	0.00	0.00	2.56
<b>Total</b>											<b>0.00</b>	<b>2.55</b>	<b>2.55</b>	<b>0.00</b>	<b>0.00</b>	<b>2.56</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	0.00	0.00	0.00	0.00	0.00
Worker											0.00	0.74	0.74	0.00	0.00	0.74
<b>Total</b>											<b>0.00</b>	<b>0.74</b>	<b>0.74</b>	<b>0.00</b>	<b>0.00</b>	<b>0.74</b>



**Dignity Health Medical Campus - Operations at Buildout  
Sacramento County, Annual**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric
Hospital	330	Bed
Medical Office Building	68.19	1000sqft
Medical Office Building	65	1000sqft
Parking Structure	169.52	1000sqft

**1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)		Utility Company	Sacramento Municipal Utility District
Climate Zone	6		3.5		
		Precipitation Freq (Days)			

**1.3 User Entered Comments**

58  
Land Use - Square footage per Section 2.0, Project Description

**2.0 Emissions Summary**

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**2.1 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.00	0.00	0.00	0.00	0.00	0.00
Energy											0.00	3,303.87	3,303.87	0.16	0.06	3,327.25
Mobile											0.00	6,656.05	6,656.05	0.26	0.00	6,661.46
Waste											487.59	0.00	487.59	28.82	0.00	1,092.73
Water											0.00	71.47	71.47	1.42	0.04	112.57
<b>Total</b>											<b>487.59</b>	<b>10,031.39</b>	<b>10,518.98</b>	<b>30.66</b>	<b>0.10</b>	<b>11,194.01</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.00	0.00	0.00	0.00	0.00	0.00
Energy											0.00	3,073.27	3,073.27	0.15	0.06	3,095.02
Mobile											0.00	5,087.96	5,087.96	0.20	0.00	5,092.25
Waste											487.59	0.00	487.59	28.82	0.00	1,092.73
Water											0.00	58.26	58.26	1.13	0.03	91.15
<b>Total</b>											<b>487.59</b>	<b>8,219.49</b>	<b>8,707.08</b>	<b>30.30</b>	<b>0.09</b>	<b>9,371.15</b>

**2.3 Vegetation**

**Vegetation**

	ROG	NOx	CO	SO2	CO2e
Category	tons				MT
New Trees					187.62
Total					187.62

**3.0 Mobile Detail**

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**3.1 Mitigation Measures Mobile**

- Increase Density
- Increase Diversity
- Increase Transit Accessibility
- Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.00	5,087.96	5,087.96	0.20	0.00	5,092.25
Unmitigated											0.00	6,656.05	6,656.05	0.26	0.00	6,661.46
Total											NA	NA	NA	NA	NA	NA

**3.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hospital	3,897.30	2,686.20	2372.70	9,684,277	7,321,608
Medical Office Building	2,463.70	610.98	105.69	3,820,795	2,888,637
Medical Office Building	2,348.45	582.40	100.75	3,642,054	2,753,503
Parking Structure	0.00	0.00	0.00		
Total	8,709.45	3,879.58	2,579.14	17,147,126	12,963,749

### 3.3 Trip Type Information

Land Use	Miles			Trip %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
Hospital	10.80	7.30	7.30	64.90	16.10	19.00
Medical Office Building	10.80	7.30	7.30	29.60	51.40	19.00
Medical Office Building	10.80	7.30	7.30	29.60	51.40	19.00
Parking Structure	10.80	7.30	7.30	0.00	0.00	0.00

## 4.0 Energy Detail

### 4.1 Mitigation Measures Energy

Exceed Title 24

Install Energy Efficient Appliances

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Electricity Mitigated											0.00	2,641.47	2,641.47	0.14	0.05	2,660.59

Electricity Unmitigated																			0.00	2,838.05	2,838.05	0.15	0.06	2,858.59
NaturalGas Mitigated																			0.00	431.81	431.81	0.01	0.01	434.43
NaturalGas Unmitigated																			0.00	465.82	465.82	0.01	0.01	468.66
Total																			NA	NA	NA	NA	NA	NA

**4.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Hospital	8.37623e+006											0.00	446.99	446.99	0.01	0.01	449.71
Medical Office Building	172250											0.00	9.19	9.19	0.00	0.00	9.25
Medical Office Building	180704											0.00	9.64	9.64	0.00	0.00	9.70
Parking Structure	0											0.00	0.00	0.00	0.00	0.00	0.00
Total												0.00	465.82	465.82	0.01	0.01	468.66

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Hospital	7.77815e+006											0.00	415.07	415.07	0.01	0.01	417.60
Medical Office Building	153043											0.00	8.17	8.17	0.00	0.00	8.22
Medical Office Building	160553											0.00	8.57	8.57	0.00	0.00	8.62
Parking Structure	0											0.00	0.00	0.00	0.00	0.00	0.00



**5.0 Area Detail**

**5.1 Mitigation Measures Area**

None

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.00	0.00	0.00	0.00	0.00	0.00
Unmitigated											0.00	0.00	0.00	0.00	0.00	0.00
Total											NA	NA	NA	NA	NA	NA

**5.2 Area by SubCategory**

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating											0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products											0.00	0.00	0.00	0.00	0.00	0.00
Landscaping											0.00	0.00	0.00	0.00	0.00	0.00
Total											0.00	0.00	0.00	0.00	0.00	0.00

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating											0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products											0.00	0.00	0.00	0.00	0.00	0.00
Landscaping											0.00	0.00	0.00	0.00	0.00	0.00
Total											0.00	0.00	0.00	0.00	0.00	0.00

**6.0 Water Detail**

**6.1 Mitigation Measures Water**

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					58.26	1.13	0.03	91.15
Unmitigated					71.47	1.42	0.04	112.57
Total	NA	NA	NA	NA	NA	NA	NA	NA

**6.2 Water by Land Use**



**Unmitigated**

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr			MT/yr				
Hospital	29.6385 / 5.64543					45.70	0.91	0.02	71.98
Medical Office Building	16.7128 / 3.18338					25.77	0.51	0.01	40.59
Parking Structure	0 / 0					0.00	0.00	0.00	0.00
<b>Total</b>						<b>71.47</b>	<b>1.42</b>	<b>0.03</b>	<b>112.57</b>

**Mitigated**

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr			MT/yr				
Hospital	23.7108 / 5.30106					37.25	0.73	0.02	58.28
Medical Office Building	13.3702 / 2.9892					21.01	0.41	0.01	32.87
Parking Structure	0 / 0					0.00	0.00	0.00	0.00
<b>Total</b>						<b>58.26</b>	<b>1.14</b>	<b>0.03</b>	<b>91.15</b>

**7.0 Waste Detail**

---

**7.1 Mitigation Measures Waste**

None

**Category/Year**

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					487.59	28.82	0.00	1,092.73
Unmitigated					487.59	28.82	0.00	1,092.73
Total	NA	NA	NA	NA	NA	NA	NA	NA

## 8.2 Waste by Land Use

### Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Hospital	963.6					195.60	11.56	0.00	438.36
Medical Office Building	1438.45					291.99	17.26	0.00	654.37
Parking Structure	0					0.00	0.00	0.00	0.00
Total						487.59	28.82	0.00	1,092.73

## 9.0 Vegetation

---

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons				MT			
Unmitigated					187.62	0.00	0.00	187.62

Total	NA	NA	NA	NA	NA	NA	NA	NA
-------	----	----	----	----	----	----	----	----

**9.1 Net New Trees**

**Species Class**

	Number of Trees	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
		tons				MT			
Miscellaneous	265					187.62	0.00	0.00	187.62
Total						187.62	0.00	0.00	187.62

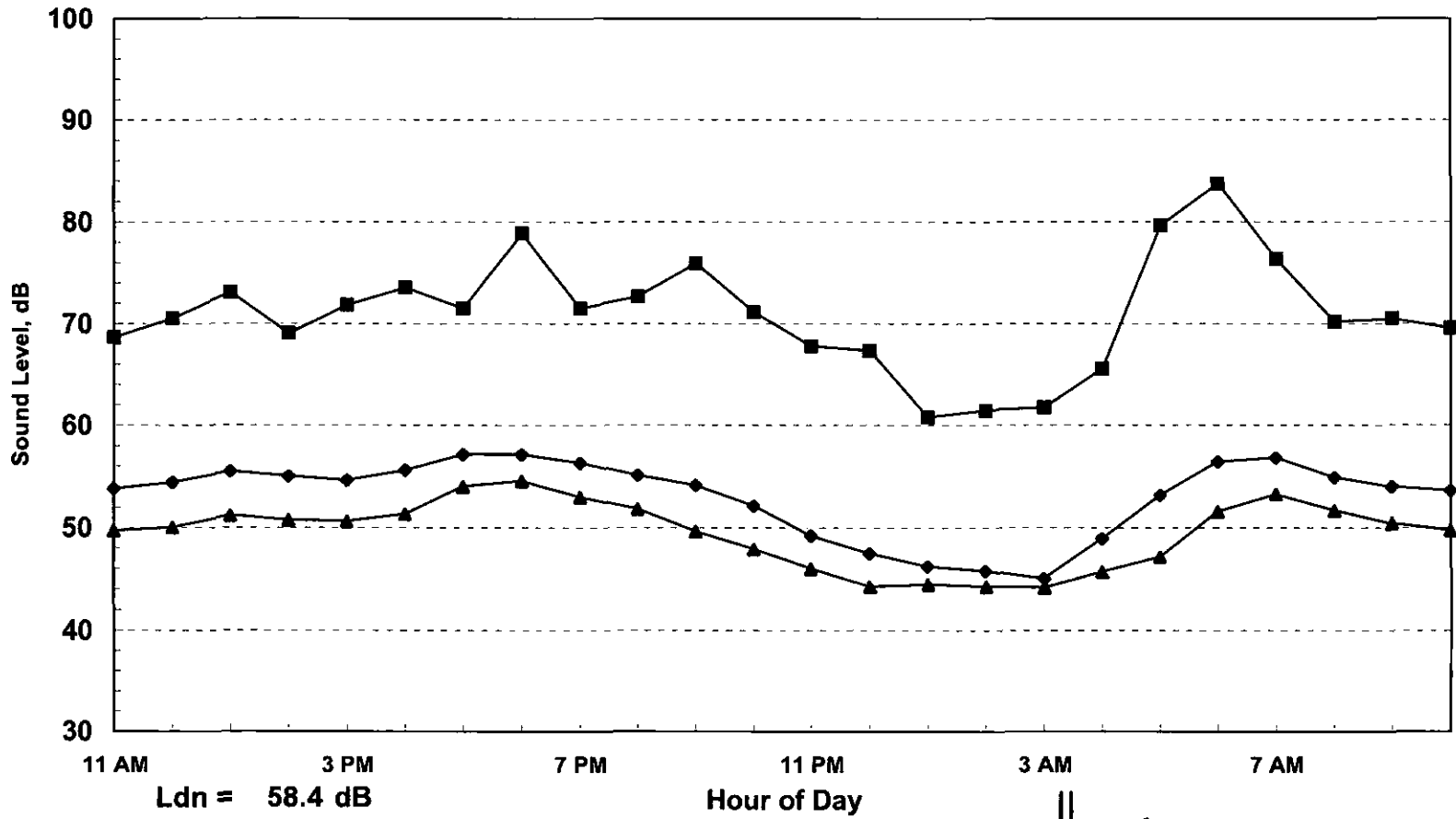
## **APPENDIX G - NOISE**

## Appendix A

### Acoustical Terminology

<b>Acoustics</b>	The science of sound.
<b>Ambient Noise</b>	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.
<b>Attenuation</b>	The reduction of an acoustic signal.
<b>A-Weighting</b>	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
<b>Decibel or dB</b>	Fundamental unit of sound, A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.
<b>CNEL</b>	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.
<b>Frequency</b>	The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz.
<b>Ldn</b>	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
<b>Leq</b>	Equivalent or energy-averaged sound level.
<b>Lmax</b>	The highest root-mean-square (RMS) sound level measured over a given period of time.
<b>L(n)</b>	The sound level exceeded a described percentile over a measurement period. For instance, an hourly L50 is the sound level exceeded 50% of the time during the one hour period.
<b>Loudness</b>	A subjective term for the sensation of the magnitude of sound.
<b>Noise</b>	Unwanted sound.
<b>Peak Noise</b>	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.
<b>RT<sub>60</sub></b>	The time it takes reverberant sound to decay by 60 dB once the source has been removed.
<b>Sabin</b>	The unit of sound absorption. One square foot of material absorbing 100% of incident sound has an absorption of 1 sabin.
<b>Threshold of Hearing</b>	The lowest sound that can be perceived by the human auditory system, generally considered to be 0 dB for persons with perfect hearing.
<b>Threshold of Pain</b>	Approximately 120 dB above the threshold of hearing.
<b>Impulsive</b>	Sound of short duration, usually less than one second, with an abrupt onset and rapid decay.
<b>Simple Tone</b>	Any sound which can be judged as audible as a single pitch or set of single pitches.

**Appendix B**  
 2012-149 Dignity Health Medical Campus  
 24hr Continuous Noise Monitoring - Site 1 6700 Cordially Way  
 Friday, February 17, 2012

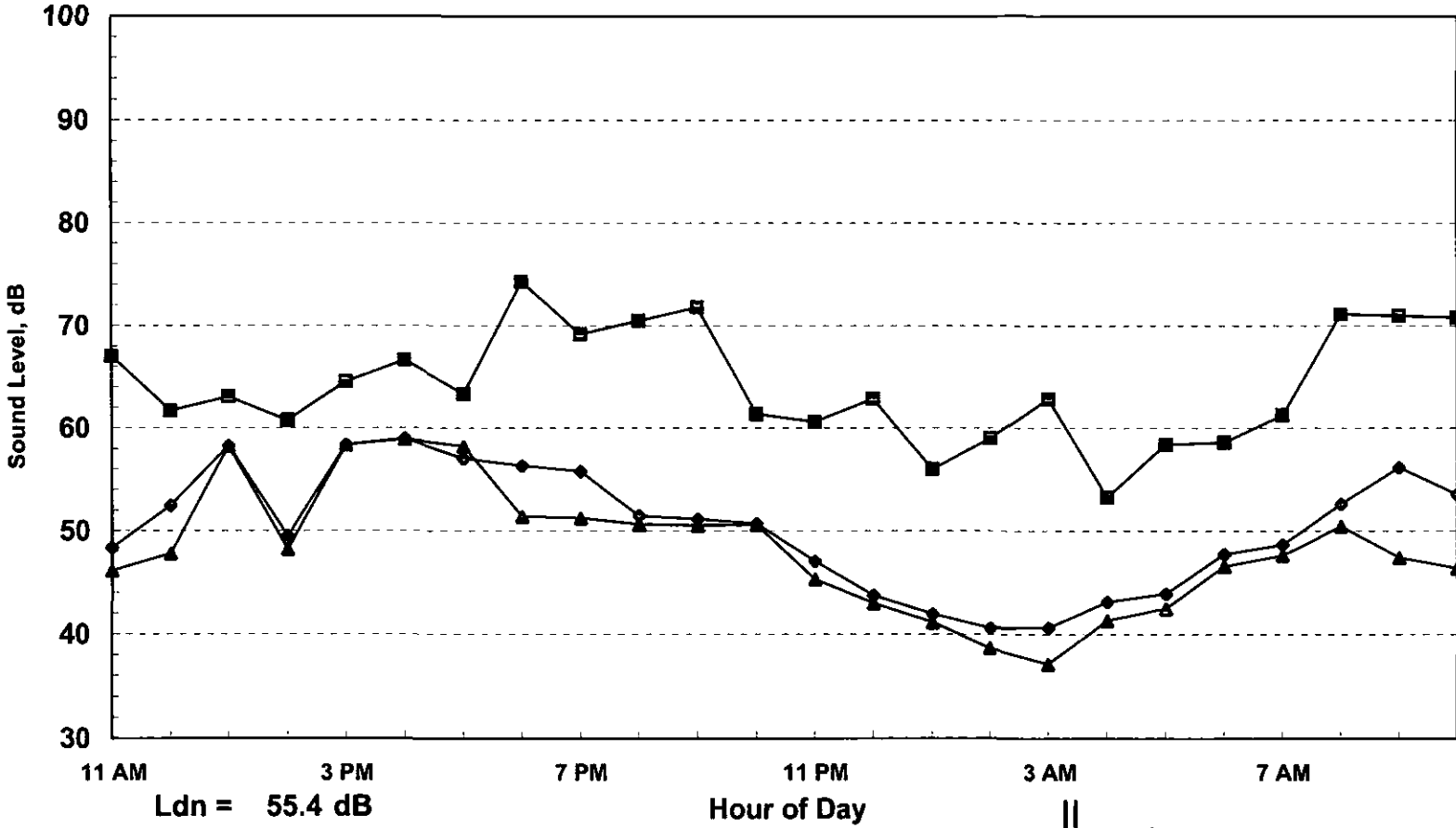


Ldn = 58.4 dB

—◆— Leq    —■— Lmax    —▲— L50

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

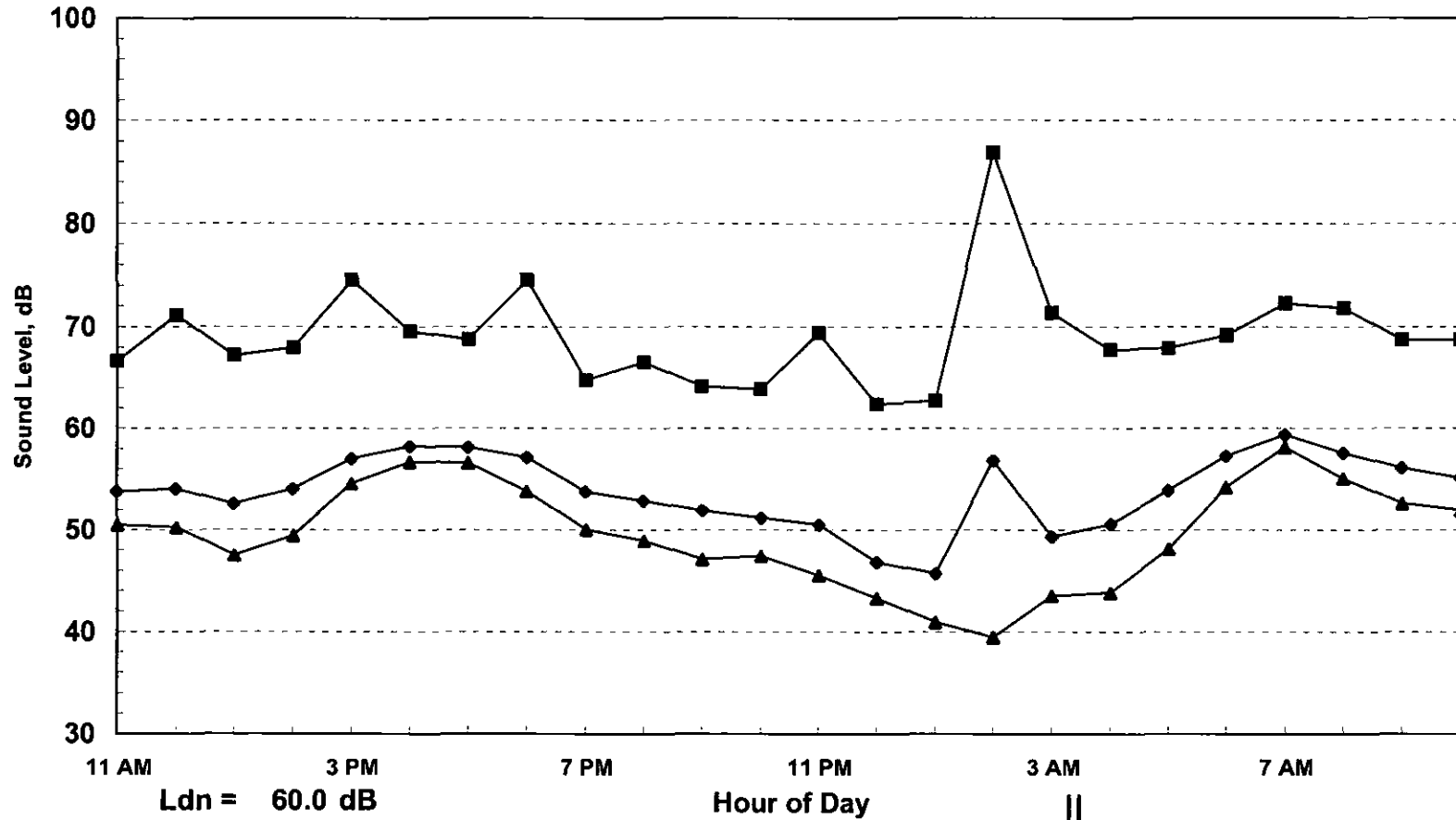
**Appendix B**  
 2012-149 Dignity Health Medical Campus  
 24hr Continuous Noise Monitoring - Site 2 9587 Prost Court  
 Friday, February 17, 2012



—●— Leq —■— Lmax —▲— L50



**Appendix B**  
2012-149 Dignity Health Medical Campus  
24hr Continuous Noise Monitoring - Site 3 East of Wymark Drive  
Friday, February 17, 2012



Ldn = 60.0 dB

◆ Leq    ■ Lmax    ▲ L50

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



**Appendix C**

**FHWA-RD-77-108 Highway Traffic Noise Prediction Model**

**Data Input Sheet**

Project #: 2012-149 Dignity Health Medical Campus

Description: Existing Conditions

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway Name - Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)
1	Bruceville Rd - Laguna Blvd to Elk Grove Blvd	21,700	85		15	2.5	1.5	45	100	
2	Bruceville Rd - Elk Grove Blvd to Whitlock Parkway	24,700	85		15	2.5	1.5	45	100	
3	Big Horn Blvd - Laguna Blvd to Elk Grove Blvd	8,500	85		15	2.5	1.5	45	100	
4	Elk Grove Blvd - Bruceville Rd to Wymark Dr	40,700	85		15	2.5	1.5	45	100	
5	Elk Grove Blvd - Wymark Dr to Big Horn Blvd	40,700	85		15	2.5	1.5	45	100	
6	Elk Grove Blvd - Big Horn Blvd to Laguna Springs Dr	39,500	85		15	2.5	1.5	45	100	
7	Elk Grove Blvd - Laguna Springs Dr to SR 99	42,000	85		15	2.5	1.5	45	100	

**Appendix C**

**FHWA-RD-77-108 Highway Traffic Noise Prediction Model**

**Predicted Levels**

Project #: 2012-149 Dignity Health Medical Campus  
Description: Existing Conditions  
Ldn/CNEL: Ldn  
Hard/Soft: Soft

Segment	Roadway Name - Segment	0	Autos	Medium Trucks	Heavy Trucks	Total
1	Bruceville Rd - Laguna Blvd to 0		64.8	57.2	59.5	66
2	Bruceville Rd - Elk Grove Blvd 0		65.4	57.8	60.0	67
3	Big Horn Blvd - Laguna Blvd to 0		60.7	53.1	55.4	62
4	Elk Grove Blvd - Bruceville Rd 0		67.5	59.9	62.2	69
5	Elk Grove Blvd - Wymark Dr to 0		67.5	59.9	62.2	69
6	Elk Grove Blvd - Big Horn Blvd 0		67.4	59.8	62.1	69
7	Elk Grove Blvd - Laguna Sprir 0		67.7	60.1	62.4	69

**Appendix C**

**FHWA-RD-77-108 Highway Traffic Noise Prediction Model**

**Noise Contour Output**

Project #: 2012-149 Dignity Health Medical Campus

Description: Existing Conditions

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway Name - Segment	----- Distances to Traffic Noise Contours -----					
		0	75	70	65	60	55
1	Bruceville Rd - Laguna Blvd to 0		27	58	125	270	581
2	Bruceville Rd - Elk Grove Blvd 0		29	63	137	294	634
3	Big Horn Blvd - Laguna Blvd to 0		14	31	67	144	311
4	Elk Grove Blvd - Bruceville Rd 0		41	88	191	410	884
5	Elk Grove Blvd - Wymark Dr to 0		41	88	191	410	884
6	Elk Grove Blvd - Big Horn Blvd 0		40	87	187	402	867
7	Elk Grove Blvd - Laguna Sprin: 0		42	90	195	419	903

**Appendix C**

**FHWA-RD-77-108 Highway Traffic Noise Prediction Model**

**Data Input Sheet**

Project #: 2012-149 Dignity Health Medical Campus

Description: Existing Plus Project Conditions

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway Name - Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)
1	Bruceville Rd - Laguna Blvd to Elk Grove Blvd	24,400	85		15	2.5	1.5	45	100	
2	Bruceville Rd - Elk Grove Blvd to Whitlock Parkway	28,300	85		15	2.5	1.5	45	100	
3	Big Horn Blvd - Laguna Blvd to Elk Grove Blvd	9,400	85		15	2.5	1.5	45	100	
4	Elk Grove Blvd - Bruceville Rd to Wymark Dr	42,700	85		15	2.5	1.5	45	100	
5	Elk Grove Blvd - Wymark Dr to Big Horn Blvd	44,000	85		15	2.5	1.5	45	100	
6	Elk Grove Blvd - Big Horn Blvd to Laguna Springs Dr	43,900	85		15	2.5	1.5	45	100	
7	Elk Grove Blvd - Laguna Springs Dr to SR 99	46,800	85		15	2.5	1.5	45	100	

**Appendix C**

**FHWA-RD-77-108 Highway Traffic Noise Prediction Model**

**Predicted Levels**

Project #: 2012-149 Dignity Health Medical Campus  
Description: Existing Plus Project Conditions  
Ldn/CNEL: Ldn  
Hard/Soft: Soft

Segment	Roadway Name - Segment	0	Autos	Medium Trucks	Heavy Trucks	Total
1	Bruceville Rd - Laguna Blvd to 0		65.3	57.7	60.0	67
2	Bruceville Rd - Elk Grove Blvd 0		66.0	58.4	60.6	68
3	Big Horn Blvd - Laguna Blvd to 0		61.2	53.6	55.9	63
4	Elk Grove Blvd - Bruceville Rd 0		67.7	60.1	62.4	69
5	Elk Grove Blvd - Wymark Dr to 0		67.9	60.3	62.6	70
6	Elk Grove Blvd - Big Horn Blvd 0		67.9	60.3	62.5	70
7	Elk Grove Blvd - Laguna Sprir 0		68.1	60.5	62.8	70

**Appendix C**

**FHWA-RD-77-108 Highway Traffic Noise Prediction Model**

**Noise Contour Output**

Project #: 2012-149 Dignity Health Medical Campus

Description: Existing Plus Project Conditions

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway Name - Segment	----- Distances to Traffic Noise Contours -----					
		0	75	70	65	60	55
1	Bruceville Rd - Laguna Blvd tc 0		29	63	135	292	629
2	Bruceville Rd - Elk Grove Blvd 0		32	69	150	322	694
3	Big Horn Blvd - Laguna Blvd tr 0		15	33	72	155	333
4	Elk Grove Blvd - Bruceville Rd 0		42	91	197	424	913
5	Elk Grove Blvd - Wymark Dr tr 0		43	93	201	432	931
6	Elk Grove Blvd - Big Horn Blvd 0		43	93	200	432	930
7	Elk Grove Blvd - Laguna Sprin:0		45	97	209	450	971

Appendix C

**FHWA-RD-77-108 Highway Traffic Noise Prediction Model**

**Data Input Sheet**

Project #: 2012-149 Dignity Health Medical Campus

Description: Cumulative No Project Conditions

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway Name - Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)
1	Bruceville Rd - Laguna Blvd to Elk Grove Blvd	45,500	85		15	2	1	45	100	
2	Bruceville Rd - Elk Grove Blvd to Whitlock Parkway	28,400	85		15	2	1	45	100	
3	Big Horn Blvd - Laguna Blvd to Elk Grove Blvd	30,000	85		15	2	1	45	100	
4	Elk Grove Blvd - Bruceville Rd to Wymark Dr	61,500	85		15	2	1	45	100	
5	Elk Grove Blvd - Wymark Dr to Big Horn Blvd	60,000	85		15	2	1	45	100	
6	Elk Grove Blvd - Big Horn Blvd to Laguna Springs Dr	48,700	85		15	2	1	45	100	
7	Elk Grove Blvd - Laguna Springs Dr to SR 99	77,000	85		15	2	1	45	100	

**Appendix C**

**FHWA-RD-77-108 Highway Traffic Noise Prediction Model**

**Predicted Levels**

Project #: 2012-149 Dignity Health Medical Campus  
Description: Cumulative No Project Conditions  
Ldn/CNEL: Ldn  
Hard/Soft: Soft

Segment	Roadway Name - Segment	0	Autos	Medium Trucks	Heavy Trucks	Total
1	Bruceville Rd - Laguna Blvd to 0		68.1	59.5	60.9	69
2	Bruceville Rd - Elk Grove Blvd 0		66.0	57.4	58.9	67
3	Big Horn Blvd - Laguna Blvd to 0		66.3	57.6	59.1	67
4	Elk Grove Blvd - Bruceville Rd 0		69.4	60.8	62.2	71
5	Elk Grove Blvd - Wymark Dr to 0		69.3	60.7	62.1	71
6	Elk Grove Blvd - Big Horn Blvd 0		68.4	59.7	61.2	70
7	Elk Grove Blvd - Laguna Sprir 0		70.3	61.7	63.2	72



**Appendix C**

**FHWA-RD-77-108 Highway Traffic Noise Prediction Model**

**Noise Contour Output**

Project #: 2012-149 Dignity Health Medical Campus  
Description: Cumulative No Project Conditions  
Ldn/CNEL: Ldn  
Hard/Soft: Soft

Segment	Roadway Name - Segment	----- Distances to Traffic Noise Contours -----					
		0	75	70	65	60	55
1	Bruceville Rd - Laguna Blvd to 0		42	90	194	417	899
2	Bruceville Rd - Elk Grove Blvd 0		30	66	141	305	656
3	Big Horn Blvd - Laguna Blvd to 0		32	68	147	316	681
4	Elk Grove Blvd - Bruceville Rd 0		51	110	237	510	1099
5	Elk Grove Blvd - Wymark Dr to 0		50	108	233	502	1081
6	Elk Grove Blvd - Big Horn Blvd 0		44	94	203	437	940
7	Elk Grove Blvd - Laguna Sprin 0		59	128	275	592	1276

**Appendix C**

**FHWA-RD-77-108 Highway Traffic Noise Prediction Model**

**Data Input Sheet**

Project #: 2012-149 Dignity Health Medical Campus

Description: Cumulative Plus Project Conditions

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway Name - Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)
1	Bruceville Rd - Laguna Blvd to Elk Grove Blvd	47,600	85		15	2	1	45	100	
2	Bruceville Rd - Elk Grove Blvd to Whitlock Parkway	31,100	85		15	2	1	45	100	
3	Big Horn Blvd - Laguna Blvd to Elk Grove Blvd	31,700	85		15	2	1	45	100	
4	Elk Grove Blvd - Bruceville Rd to Wymark Dr	63,200	85		15	2	1	45	100	
5	Elk Grove Blvd - Wymark Dr to Big Horn Blvd	62,800	85		15	2	1	45	100	
6	Elk Grove Blvd - Big Horn Blvd to Laguna Springs Dr	51,100	85		15	2	1	45	100	
7	Elk Grove Blvd - Laguna Springs Dr to SR 99	79,800	85		15	2	1	45	100	

**Appendix C**

**FHWA-RD-77-108 Highway Traffic Noise Prediction Model**

**Predicted Levels**

Project #: 2012-149 Dignity Health Medical Campus  
Description: Cumulative Plus Project Conditions  
Ldn/CNEL: Ldn  
Hard/Soft: Soft

Segment	Roadway Name - Segment	0	Autos	Medium Trucks	Heavy Trucks	Total
1	Bruceville Rd - Laguna Blvd tc 0		68.3	59.6	61.1	70
2	Bruceville Rd - Elk Grove Blvd 0		66.4	57.8	59.3	68
3	Big Horn Blvd - Laguna Blvd tr 0		66.5	57.9	59.4	68
4	Elk Grove Blvd - Bruceville Rd 0		69.5	60.9	62.4	71
5	Elk Grove Blvd - Wymark Dr tc 0		69.5	60.9	62.3	71
6	Elk Grove Blvd - Big Horn Blvd 0		68.6	60.0	61.4	70
7	Elk Grove Blvd - Laguna Sprir 0		70.5	61.9	63.4	72

Appendix C

**FHWA-RD-77-108 Highway Traffic Noise Prediction Model**

**Noise Contour Output**

Project #: 2012-149 Dignity Health Medical Campus  
Description: Cumulative Plus Project Conditions  
Ldn/CNEL: Ldn  
Hard/Soft: Soft

Segment	Roadway Name - Segment	----- Distances to Traffic Noise Contours -----					
		0	75	70	65	60	55
1	Bruceville Rd - Laguna Blvd to 0		43	93	200	430	926
2	Bruceville Rd - Elk Grove Blvd 0		32	70	150	324	697
3	Big Horn Blvd - Laguna Blvd to 0		33	71	152	328	706
4	Elk Grove Blvd - Bruceville Rd 0		52	112	241	519	1119
5	Elk Grove Blvd - Wymark Dr to 0		52	111	240	517	1114
6	Elk Grove Blvd - Big Horn Blvd 0		45	97	209	451	971
7	Elk Grove Blvd - Laguna Sprir. 0		61	131	282	607	1307

EXHIBIT B

**DIGNITY HEALTH  
ELK GROVE MEDICAL CAMPUS  
FINAL SUBSEQUENT ENVIRONMENTAL IMPACT REPORT**

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SCH No. 2012082029



*Prepared by:*

CITY OF ELK GROVE  
8401 LAGUNA PALMS WAY  
ELK GROVE, CA 95758

**APRIL 2013**

**DIGNITY HEALTH ELK GROVE MEDICAL CAMPUS  
FINAL SUBSEQUENT ENVIRONMENTAL IMPACT REPORT**

---

SCH No. 2012082029

*Prepared by:*  
CITY OF ELK GROVE  
8401 LAGUNA PALMS WAY  
ELK GROVE, CA 95758

**APRIL 2013**

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# **1.0 INTRODUCTION**

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### 1.1 PURPOSE AND BACKGROUND

This document contains public comments received on the Draft Subsequent Environmental Impact Report (Draft SEIR; SCH# 2012082029) for the Dignity Health Elk Grove Medical Campus Project (Project). Written comments were received by the City of Elk Grove during the public comment period from January 11, 2013, through February 27, 2013. This Final SEIR includes written responses to environmental issues raised in comments on the Draft SEIR. The responses in the Final SEIR clarify, correct, and amplify text in the Draft SEIR, as appropriate. Also included are text changes made at the initiative of the lead Agency (City of Elk Grove). These changes do not alter the conclusions of the Draft SEIR. This document has been prepared in accordance with the California Environmental Quality Act (CEQA; Public Resources Code Sections 21000–21177).

In accordance with CEQA regulations, the City released a Notice of Preparation (NOP) on August 8, 2012, with a comment period from August 8, 2012, to September 7, 2012. The City distributed the NOP to responsible agencies, interested parties and organizations, as well as to private organizations and individuals that have stated an interest in the project. The purpose of the NOP was to provide notification that an EIR for the project was being prepared and to solicit guidance on the scope and content of the document. A copy of the NOP, as well as public and agency responses to the NOP, is included in Appendix B of the Draft SEIR in accordance with CEQA. The City held a scoping meeting on August 23, 2012. There were no public or agency comments submitted at the scoping meeting.

The Draft SEIR was circulated for public review and comment for a period of 45 days from January 11, 2013, through February 27, 2013. A public hearing was held on the Draft SEIR for this Project on February 21, 2013.

### 1.2 PROJECT UNDER REVIEW

#### 1.2.1 PROJECT ANALYZED IN THE DRAFT SEIR

The Project analyzed in Draft SEIR includes the construction of a six-story, 456,719-square-foot, 330-bed hospital; a three-story, 65,000-square-foot medical office building (referred to as MOB #2); and a five-level, 169,520-square-foot parking structure. The project would be constructed in a total of four phases, with the first three phases associated with the hospital building and the last phase associated with the medical office building and parking structure. The three hospital phases to be built in succession are a four-story, 112,050-square-foot Surgery and Maternity Hospital building section; a six-story, 175,095-square-foot Hospital Expansion #1 building section; and a six-story, 169,574-square-foot Hospital Expansion #2 building section. The number of beds associated with each building section is 106 beds, 112 beds, and 112 beds, respectively. The Draft SEIR also analyzed a ground-level helistop to the west of the Hospital Expansion #1 building.

The following objectives have been identified for the proposed Project:

- Continue Dignity Health's long-standing commitment to providing high quality healthcare services to the City of Elk Grove and its residents, based upon projected healthcare demands for the area.
- Offer comprehensive, convenient services closer to Elk Grove residents, thereby reducing the distance patients have to travel in order to receive quality health care.
- Design facilities to enhance the comfort and healing of patients and the productive care-giving and general welfare of staff and visitors.

## 1.0 INTRODUCTION

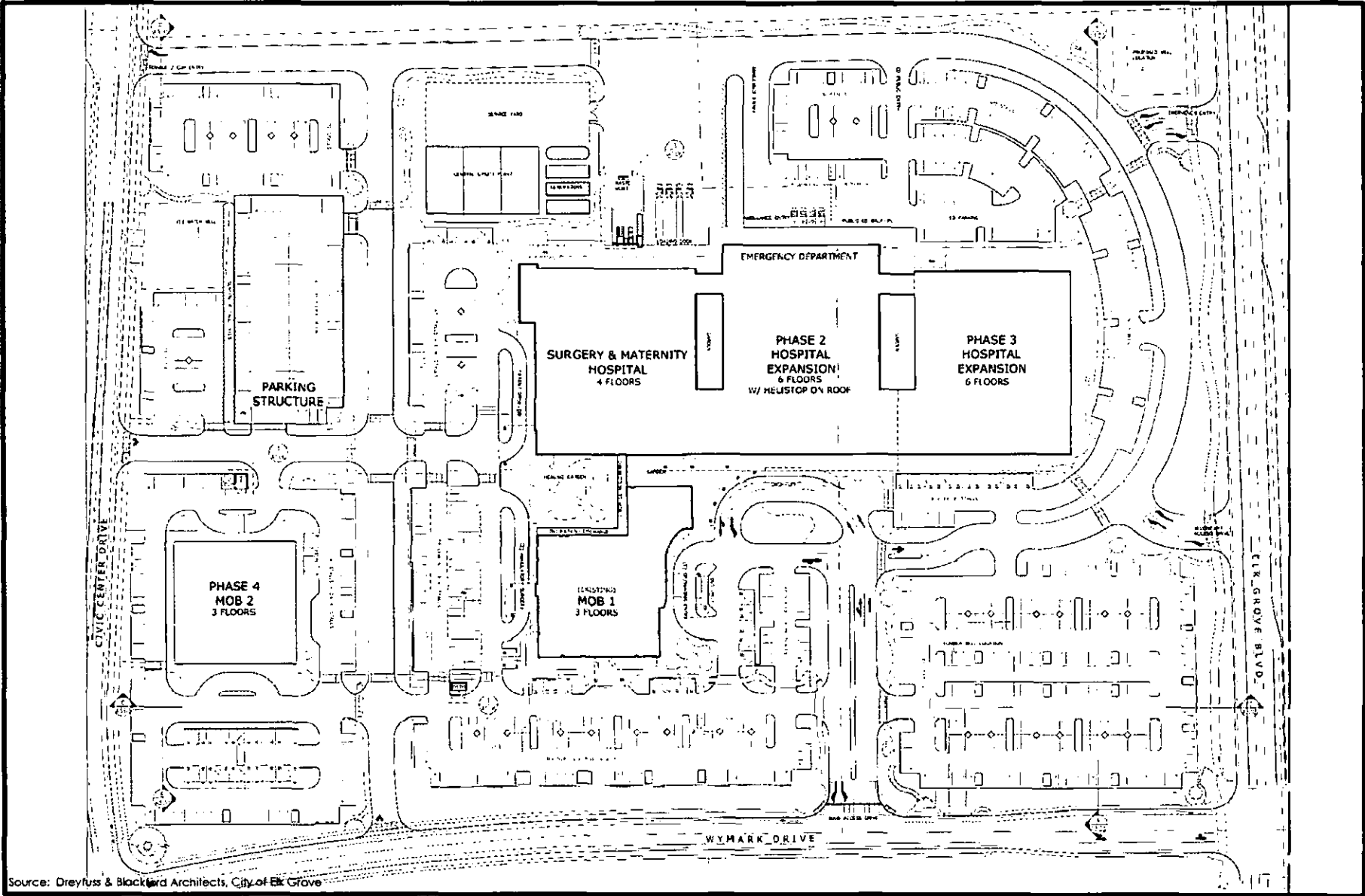
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- Meet current hospital planning guidelines by providing space to accommodate patients in single-bed rooms, as appropriate, including adequate space for treatment by healthcare providers, equipment, and support by family members.
- Provide the optimum height for quality and efficient operations and patient care that maximizes proximity of internal departments by taking full advantage of the efficiency of vertical circulation within the hospital buildings.
- Bring high paying jobs and vital services just west of the new Civic Center. Provide the height and density that would be a catalyst for the new civic center area, as well as support the City's economic development goals.
- Provide for helicopter access directly to the facility to accept hospital-to-hospital patient transfers when warranted by medical necessity to be used occasionally, not routinely, primarily for transporting critically injured patients away from this hospital to higher-level trauma care facilities. Design the helistop to:
  - meet the functional needs of the hospital;
  - maximize safety by locating the helistop on the ground;
  - comply with all applicable regulatory and life safety requirements for helistops and helicopter travel, including but not limited to Federal Aviation Administration (FAA) requirements for flight path obstruction clearance, to ensure public safety during helicopter landings and takeoffs; and
  - allow a visually unobtrusive helistop, integrating into the design of the campus.
- Design facilities to create an attractive "campus" appearance with pedestrian-friendly circulation. Use materials and colors that are complementary to the existing MOB and the neighboring community.
- Promote use of alternative transportation modes by creating connections to the existing bike path along Elk Grove Boulevard, providing more bicycle storage facilities than required by City code, and allowing for a bus stop on campus.

### 1.2.2 PROJECT CHANGES SINCE DRAFT

Based on comments received on the Draft SEIR, which stated that locating the helistop on one of the proposed buildings may reduce noise impacts, additional noise analysis was conducted to determine if locating the helistop on the roof of the Hospital Expansion #1 building would result in lower noise levels for helicopter arrivals and departures. J. C. Brennan and Associates conducted updated modeling for a nighttime helicopter flight with the helistop on the Hospital Expansion #1 building (see **Figure 1-1**, Revised Site Plan). Based on the new location of the helistop, the 65 dBA Community Noise Equivalent Level (CNEL) noise contour is entirely within the project boundaries, and the degree to which the 60 dBA CNEL noise contour extends off the project site is substantially reduced compared to the ground-level location (see **Figure 1-2** for revised CNEL contours; **Figure 1-3** reproduces Draft SEIR Figure 3.5-4a for comparison). With the rooftop location, the 60 dBA CNEL noise contour does not extend onto residential property. Because the relocation of the site for the helistop would reduce project impacts compared to that analyzed in the Draft SEIR, the Project applicant has amended the Project to place the helistop on the Hospital Expansion #1 building.

T:\GIS\Elk\_Grove\MXDs\Density\_Health\Figure 1-1.mxd - 4/5/2013 @ 4:29:23 PM



Source: Dreyfuss & Blockard Architects, City of Elk Grove

Figure 1-1



City of Elk Grove  
Development Services

Revised Site Plan with Rooftop Helistop

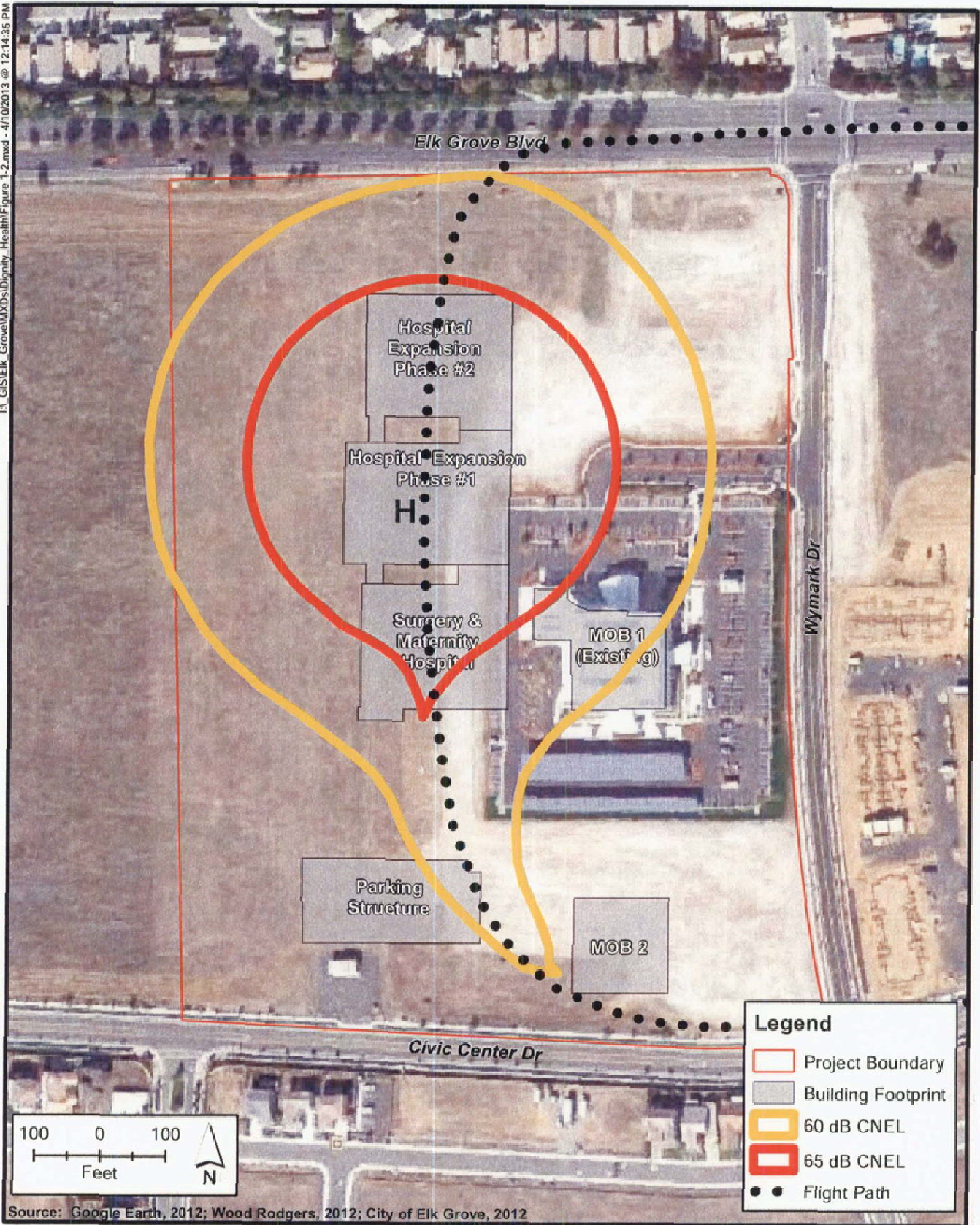
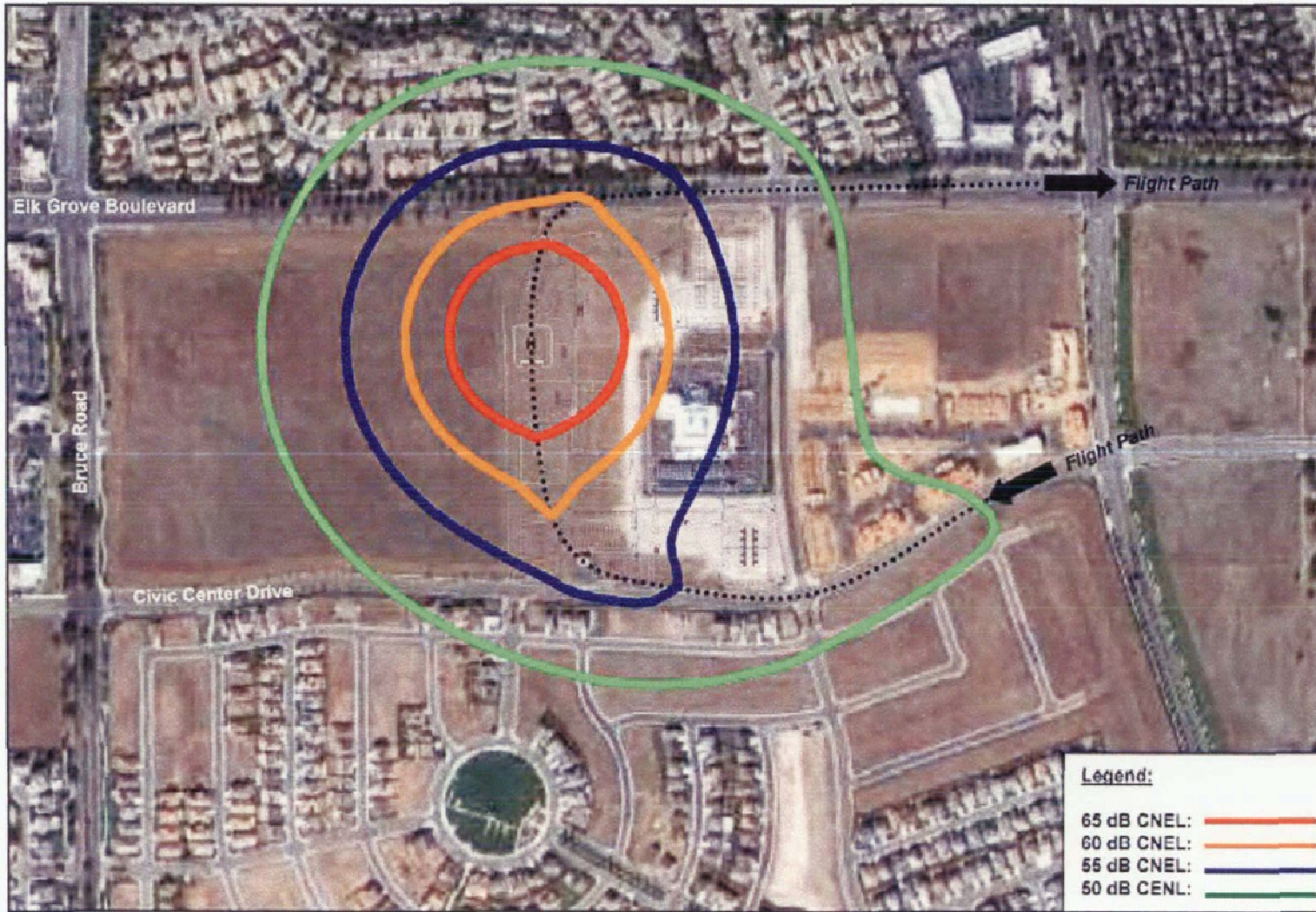


Figure 1-2  
CNEL Contours for Nighttime Helicopter Operations  
with Rooftop Helistop

T:\GIS\ELK\_Groves\MXD\Demov. Health\Elmore\_1-3.mxd - 4/5/2013 @ 4:26:18 PM



Source: J.C. Brennan & Associates INC., City of Elk Grove



City of Elk Grove  
Development Services

Figure 1-3  
CNEL Contours for Nighttime Helicopter Operations  
with Ground-Level Helistop

In addition to updating the site plan to show the new location of the helistop, the text of the seventh project objective (see above and Draft SEIR page 2.0-5) is amended as follows:

- maximize safety by ~~locating for~~ locating the helistop ~~on the ground~~;

### 1.2.2.1 Environmental Effects Associated with Rooftop Helistop Location

#### Aesthetics

The Draft SEIR considered the changes associated with the massing of the buildings relative to the setbacks included for the Project site. As the change of location of the helistop would not alter the height or massing of any Project buildings, there would be no change related to alterations to the character of the area compared to that disclosed in the Draft SEIR. With regard to lighting changes, the Draft SEIR identifies flush-mounted perimeter lights on the landing area that would not be visible horizontally. The perimeter lights would be radio controlled by pilots upon approach to the helistop and would operate by timer, turning off after three to five minutes. Locating these lights on the roof of a hospital building would not increase the light intensity in the area. The Draft SEIR also assumed red obstruction lights on the adjacent structures and an illuminated wind cone. These features were previously assumed to be located on a rooftop, so there would be no change in impact compared to that disclosed in the Draft SEIR. Helicopter running lights would be used in either helistop location, so there would not be a substantial change related to running lights. Because some exterior lighting would have been required to facilitate safe transport of patients between the hospital and a ground-level helistop at night, the placement of the helistop on the roof could reduce the lighting impacts because a rooftop helistop would be accessed via elevator in the building and would not require travel for the same horizontal distance as would be required at ground level.

#### Air Quality and Greenhouse Gases

The location of the helistop would have an insignificant change on the amount of criteria air pollutants and greenhouse gases generated by the Project. Changes to the Project for construction of the helistop would be minimal in terms of emissions. Similarly, there would be an insignificant change in operational emissions related to ground-level landings versus rooftop landings.

#### Hazards and Hazardous Materials

There would be no operational changes associated with the helistop that would alter the transport, use, storage, or disposal of hazardous materials or waste with a change in location of the helistop. Caltrans Aeronautics (see Comment Letter C in Section 4.0 of this Final SEIR) indicated that the rooftop site for the helistop could "still meet the [helistop] safety objective stated in the Project Objectives." As discussed in Impact 3.4.3 on Draft SEIR page 3.4-14, design of the helistop and the flight paths to and from the project site would be regulated by the Federal Aviation Administration (FAA). The helistop would be designed as required by the FAA, Helicopter Design Advisory Circular 150/5390-2C, and be designed to support the dynamic loads of the design helicopter. As noted in Caltrans Aeronautics' letter, a helistop on top of a building could be less disruptive to activities on the ground and reduce blowing debris. In addition, a rooftop helistop would allow better control of access by pedestrians in the landing area, as well as eliminate access by automobiles. Because any helistop would be subject to regulation by the FAA, as well as by Caltrans, for design and operation, the safety aspects of a rooftop helistop would not differ substantially from that of a ground-level helistop, and no change to the Draft SEIR is required.

## **1.0 INTRODUCTION**

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### Noise

As discussed above, with the helistop located on the Hospital Expansion #1 building, the 60 dBA CNEL noise contour would not extend onto any residential property and the Project would not exceed the City's standard of 60 dBA CNEL for residential uses. While the Sound Exposure Level (SEL) contours would also shift eastward like those for the CNEL, residents in the project vicinity would still be exposed to events ranging from 85 to 95 dBA SEL. Although there are no established criteria that determine the point at which sleep disturbance is considered unacceptable, exposure to these noise levels was considered significant in the Draft SEIR and would also be significant with the helistop on the Hospital Expansion #1 building. The level of exposure would not, however, be increased with the change in location of the helistop.

### **1.3 TYPE OF DOCUMENT**

The CEQA Guidelines identify several types of EIRs, each applicable to different project circumstances. As described in CEQA Guidelines Section 15162(a), "when an EIR has been certified no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, that substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects." This EIR has been prepared as a Subsequent EIR to the Laguna Ridge Specific Plan (LRSP) EIR and Laguna Ridge Town Center (LRTC) EIR, pursuant to CEQA Guidelines Section 15162. The City determined that because the proposed Project requests changes to land uses previously analyzed for environmental effects in the LRSP EIR and the LRTC EIR, a Subsequent EIR was necessary for the proposed Project.

The analysis associated with a Subsequent EIR focuses on substantial changes proposed in a project that require major revisions of a previous EIR due to either the identification of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. The subsequent analysis addresses impacts resulting from the development of a surgery and maternity hospital and medical office buildings, as they differ from the analysis in the certified Laguna Ridge Specific Plan EIR and Laguna Ridge Town Center Subsequent EIR. The revisions to the Laguna Ridge Specific Plan and Laguna Ridge Town Center as proposed by the Project could result in new significant impacts or increase the severity of previously identified significant impacts, which this EIR addresses.

The Laguna Ridge Specific Plan EIR is a program EIR, which is an EIR that may be prepared for a series of actions that can be characterized as one large project and are related. A program EIR, such as the LRSP EIR, is appropriate for land use decision-making at a broad level that contemplates further site-specific review of individual development proposals. According to CEQA Guidelines Section 15168(d), a program EIR can be used to simplify the task of preparing environmental documents on later parts of the program.

The Laguna Ridge Town Center Subsequent EIR is a project-level EIR that assessed the environmental impacts resulting from the construction and operation of the Laguna Ridge Town Center project and identified mitigation measures to minimize potential adverse environmental impacts.

As noted above, this is a Subsequent EIR and provides an analysis of environmental effects specifically associated with the proposed Project, in light of the environmental analysis provided in the Laguna Ridge Specific Plan program EIR and the Laguna Ridge Town Center Subsequent

EIR. Consistent with CEQA Guidelines Section 15162, this EIR addresses environmental effects that are particular to the Project and utilizes mitigation measures that are based on adopted Laguna Ridge Specific Plan and Laguna Ridge Town Center development policies and standards to mitigate anticipated impacts (see Draft SEIR Appendix A).

This Subsequent EIR will be used by the City as a tool in evaluating the environmental impacts of the proposed Project. As the lead agency under the provisions of CEQA, the City of Elk Grove has discretionary approval authority and the responsibility to consider the environmental effects of the Project. This EIR is intended to evaluate the environmental impacts of the Project to the greatest extent possible. This EIR, in accordance with CEQA Guidelines Section 15126, should be used as the primary environmental document to evaluate all subsequent planning and permitting actions associated with the Project. Subsequent actions may include, but are not limited to, the following:

- Approval of a Tentative Parcel Map.
- Approval of an Amendment to the Laguna Ridge Specific Plan to establish a maximum building height limit of 120 feet for the project site.
- Amendment to the Elk Grove Town Center Design Guidelines to eliminate the requirement for a joint shared driveway between the hospital district and commercial district.
- Approval of a Conditional Use Permit to allow hospital use in the Shopping Center (SC) district and allow establishment of a helistop.
- Design Review of the Dignity Health Elk Grove Medical Campus Master Development Plan, consisting of the overall site plan and facility layout.
- Design Review of the Surgery and Maternity Hospital building and associated site improvements.
- Approval of a Uniform Sign Program to establish sign criteria for the Project.
- Subsequent Design Review approvals for buildings and associated site improvements in future phases.

### **1.4 RELATIONSHIP TO THE CITY OF ELK GROVE GENERAL PLAN, LAGUNA RIDGE SPECIFIC PLAN, AND LAGUNA RIDGE TOWN CENTER**

The City adopted the City of Elk Grove General Plan (General Plan) in November 2003. The General Plan is the City's overall guide for the use of the City's resources, expresses the development goals of the community, and is the foundation upon which all land use decisions are made.

The proposed project site has two different levels of land use designation: those land uses identified in the Elk Grove General Plan Land Use Policy Map and those identified in the Laguna Ridge Specific Plan Land Use Map, as revised by the Laguna Ridge Town Center project. The City's General Plan currently designates the project site as Commercial (C).



## 1.0 INTRODUCTION

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The proposed Project site also has an LRSP land use designation of Shopping Commercial.<sup>1</sup> The Project includes uses that are conditionally permitted under the LRSP and LRTC, and the Project includes a request for approval of a Conditional Use Permit as a Project component.

The General Plan EIR (SCH# 2002062082) analyzed the environmental impacts associated with buildout of the City under the land uses and densities allowed by the General Plan. Where feasible, the City has adopted mitigation measures to reduce impacts to an acceptable level of significance. In addition, significant and unavoidable impacts identified in the General Plan EIR were addressed by the City in the General Plan EIR, and a Statement of Overriding Considerations was adopted with the approval of the General Plan EIR.

Sections 3.1 through 3.5 in the Draft SEIR provide the setting, environmental impacts, and mitigation measures for each of the environmental issue areas addressed. Potential effects of implementing the proposed Project are identified, including cumulative effects, along with mitigation measures recommended to reduce identified impacts. The SEIR provides an analysis of environmental effects specifically associated with the proposed Project, as well as an evaluation of Project impacts in light of the environmental analysis provided in the LRSP EIR and LRTC EIR. Consistent with CEQA Guidelines Section 151862, this EIR focuses on changes in the project that require major revisions to the previous EIR due to the involvement of potentially new significant environmental effects or a substantial increase in the severity of previously identified significant effects. The SEIR utilizes mitigation measures adopted as part of the LRSP EIR and LRTC EIR, which are based on adopted City development policies and standards to mitigate anticipated impacts.

Cumulative environmental effects of the Project are generally based on information provided in the Laguna Ridge Town Center project EIR with identification of the Project's contribution to the cumulative condition and updated information on the cumulative setting based on currently approved and proposed development projects in the City.

## 1.5 ORGANIZATION OF THIS DOCUMENT

For this Final SEIR, comments and responses are grouped by comment letter. As the subject matter of one topic may overlap between letters, the reader must occasionally refer to one or more responses to review all the information on a given subject. To assist the reader, cross-references are provided. The comments and responses that make up the Final SEIR, in conjunction with the Draft SEIR, as amended by the text changes, constitute the EIR that will be considered for certification by the City of Elk Grove.

The Final SEIR is organized as follows:

**Section 1 – Introduction:** This section includes a summary of the project description and the process and requirements of a Final EIR.

**Section 2 – Errata:** This section lists the text changes to the Draft SEIR.

**Section 3 – List of Agencies and Persons Commenting:** This section contains a list of all of the agencies or persons who submitted comments on the Draft SEIR during the public review period.

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<sup>1</sup> The land uses identified on the Laguna Ridge Specific Plan Land Use Map represent the zoning for that area.

**Section 4 – Comments and Responses:** This section contains the comment letters received on the Draft SEIR and the corresponding response to each comment. Each letter and each comment in a letter has been given a number. Responses are provided after the letter in the order in which the comments appear. Where appropriate, responses are cross-referenced between letters. The responses following each comment letter are intended to supplement, clarify, or amend information provided in the Draft SEIR or refer the commenter to the appropriate place in the document where the requested information can be found. Those comments not directly related to environmental issues may be discussed or noted for the record.

## 1.6 PUBLIC PARTICIPATION AND REVIEW PROCESS

The City of Elk Grove notified all responsible and trustee agencies and interested groups, organizations, and individuals that the Draft SEIR on the proposed project was available for review. The following list of actions took place during the preparation, distribution, and review of the Draft SEIR:

### NOTICE OF PREPARATION AND INITIAL STUDY

In accordance with Section 15082 of the CEQA Guidelines, the City prepared a Notice of Preparation of an EIR for the Project on August 8, 2012. This notice was circulated to the public, local, state, and federal agencies, and other interested parties to solicit comments on the Project. An Initial Study for the Project was prepared and released for public review along with the NOP. Its conclusions supported preparation of an EIR for the Project. The NOP and Initial Study are presented in Appendix B of the Draft SEIR. The City held a scoping meeting on August 23, 2012.

### DRAFT SEIR PUBLIC NOTICE/PUBLIC REVIEW

The Draft SEIR was circulated for public review and comment for a period of 45 days from January 11, 2013, through February 27, 2013. A public hearing was held on the Draft SEIR for this project on February 21, 2013.

Copies of the Draft SEIR were available for review at the following locations:

- The City of Elk Grove City Hall, Planning Division, 8401 Laguna Palms Way;
- The Elk Grove Branch of the Sacramento Public Library at 8962 Elk Grove Boulevard;
- The City's Planning Department web site at [www.egplanning.org/environmental/](http://www.egplanning.org/environmental/).

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## **2.0 ERRATA**

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## 2.1 INTRODUCTION

This chapter presents minor corrections and revisions made to the Draft EIR initiated by the public, the lead agency, and/or consultants based on their ongoing review. Revisions herein do not result in new significant environmental impacts, do not constitute significant new information, and do not alter the conclusions of the environmental analysis. New text is indicated in underline, and text to be deleted is reflected by a strikethrough unless otherwise noted in the introduction preceding the text change. Text changes are presented in the page order in which they appear in the Draft EIR.

## 2.2 CHANGES AND EDITS TO THE DRAFT EIR

### 1.0 INTRODUCTION

No changes were made to this section.

### 2.0 PROJECT DESCRIPTION

The text on page 2.2-5 of the Draft SEIR has been revised as follows:

- o maximize safety ~~by locating for~~ the helistop ~~on the ground;~~

### 3.0 INTRODUCTION TO THE ENVIRONMENTAL ANALYSIS AND ASSUMPTIONS USED

No changes were made to this section.

### 3.1 AESTHETICS

No changes were made to this section.

### 3.2 AIR QUALITY

No changes were made to this section.

### 3.3 GREENHOUSE GASES AND CLIMATE CHANGE

No changes were made to this section.

### 3.4 HAZARDS AND HAZARDOUS MATERIALS

The text on page 3.4-8 is revised as follows:

#### **California Uniform Fire Code**

The ~~Uniform~~ California Fire Code contains regulations relating to construction and maintenance of buildings and the use of premises. The code includes specification for fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and premises.

## 2.0 ERRATA

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The text in the first paragraph on page 3.4-12 is revised as follows:

Compliance with applicable federal, state, and local regulations including, but not limited to, Titles 8 and 22 of the California Code of Regulations (CCR), the California Uniform Fire Code, and Chapter 6.95 of the California Health and Safety Code would ensure that the Project would not create a significant hazard to the public or to the environment through the routine transport, use, or disposal of hazardous materials.

The text in the first partial paragraph on page 3.4-13 is revised as follows:

The oxygen would be contained in pressurized tanks with leak control devices and would be surrounded by a concrete wall. Tank design, installation, and operation would be subject to review by the (CCSD) Fire Department to ensure compliance with applicable California Uniform Fire Code requirements.

The text in the second paragraph under Impact 3.4.3 on page 3.4-14 is revised as follows:

Helistop design standards are specified in Chapter 4 of the FAA Advisory Circular 150/5390-2BC (FAA ~~2004~~2012).

The reference on page 3.4-17 is revised as follows:

FAA (Federal Aviation Administration). ~~2004~~2012. FAA Advisory Circular 150/5390-2BC.

### 3.5 NOISE

No changes were made to this section.

### 4.0 CUMULATIVE IMPACTS SUMMARY

No changes were made to this section.

### 5.0 PROJECT ALTERNATIVES

No changes were made to this section.

### 6.0 OTHER CEQA CONSIDERATIONS

No changes were made to this section.

### 7.0 REPORT PREPARERS

No changes were made to this section.

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## **3.0 LIST OF AGENCIES AND PERSONS COMMENTING**

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### 3.0 LIST OF AGENCIES AND PERSONS COMMENTING

#### 3.1 LIST OF COMMENTERS

The following individuals and representatives of organizations and agencies submitted comments on the Draft EIR:

Letter	Individual or Signatory	Affiliation	Date
A	Chad Riding	California Department of Transportation (Caltrans)	January 29, 2013
B	Donald Kennedy	Pacific Gas and Electric Company (PG&E)	January 30, 2013
C	Phillip Crimmins	Caltrans Division of Aeronautics	February 15, 2013
D	Kevin Combo	Sacramento-Yolo Mosquito & Vector Control District	February 26, 2013
E	Barbara Easter	Cosumnes Fire Department	January 31, 2013
1	Mr. and Mrs. Jeffrey Masterson	Resident	NA
2	Sherrie Nameth	Resident	January 11, 2013
3	Thomas A. Enslow	Adams Broadwell Joseph & Cardozo	January 18, 2013
4	Tim Rymel	Resident	January 22, 2013
5	Various	Laguna Ridge Residents and Other Interested Parties	February 21, 2013
6	Various	Petition	February 21, 2013
7	Michael Smith	Resident	February 25, 2013
8	Barbara Rippel	Resident	February 26, 2013
9	Emmett O'Sullivan	Resident	February 26, 2013

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## **4.0 COMMENTS AND RESPONSES**

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### 4.1 COMMENTS AND RESPONSES

#### 4.1.1 REQUIREMENTS FOR RESPONDING TO COMMENTS ON A DRAFT EIR

CEQA Guidelines Section 15088 requires the lead agency to evaluate all comments on environmental issues received on the Draft Subsequent Environmental Impact Report (SEIR) and prepare a written response. The written response must address the significant environmental issue raised and must provide a detailed response, especially when specific comments or suggestions (e.g., additional mitigation measures) are not accepted. In addition, the written response must be a good faith and reasoned analysis. However, lead agencies need only to respond to significant environmental issues associated with the project and do not need to provide all the information requested by comment, as long as a good faith effort at full disclosure is made in the EIR (CEQA Guidelines Section 15204).

CEQA Guidelines Section 15204 recommends that commenters provide detailed comments that focus on the sufficiency of the Draft SEIR in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated. CEQA Guidelines Section 15204 also notes that commenters should provide an explanation and evidence supporting their comments. Pursuant to CEQA Guidelines Section 15064, an effect shall not be considered significant in the absence of substantial evidence.

CEQA Guidelines Section 15088 also recommends that where the response to comments results in revisions to the Draft SEIR, those revisions be noted as a revision to the Draft SEIR or in a separate section of the Final SEIR.

#### 4.1.2 COMMENTS RECEIVED AT THE HEARING FOR THE DRAFT SEIR

The City of Elk Grove Planning Commission held a public hearing on the Draft SEIR for the Project on February 21, 2013. Oral comments on the project were related to additional traffic on local roads, traffic hazards, noise from ambulances, noise from helicopters, height of the proposed buildings, and hazardous materials use at the facility. Each of these topics has been included in written comments on the Draft SEIR; therefore, those topics are addressed in the responses to comments below.

#### 4.1.3 RESPONSES TO COMMENT LETTERS

Written comments on the Draft SEIR are reproduced on the following pages, along with responses to those comments. To assist in referencing comments and responses, the following coding system is used:

Public agency comment letters are coded by letters and each issue raised in the comment letter is assigned a number (e.g., Comment Letter A, comment 1: A-1).

Individual and interest group comment letters are coded by numbers and each issue raised in the comment letter is assigned a number (e.g., Comment Letter 1, comment 1: 1-1).

Where changes to the Draft SEIR text result from responding to comments, those changes are included in the response and demarcated with revision marks (underline for new text, ~~strikeout~~ for deleted text). Comment-initiated text revisions to the Draft SEIR and minor staff-initiated changes are also provided and are demarcated with revision marks in Section 3.0, Errata, of this Final SEIR.

## Letter A

Gerald Park

RECEIVED

**From:** Chad Riding [chad.riding@dot.ca.gov]  
**Sent:** Tuesday, January 29, 2013 1:32 PM  
**To:** Gerald Park  
**Cc:** Eric Fredericks  
**Subject:** Dignity Health Elk Grove Medical Campus - Draft Subsequent EIR

JAN 29 2013  
CITY OF ELK GROVE  
PLANNING

Good Afternoon, Gerry-

Thank you for the opportunity to review the Draft Subsequent EIR for the Dignity Health Elk Grove Medical Campus project. After reviewing the document and the Traffic Volume Verification sent to us on November 14, 2012, we feel that our comments from the previous letters have been addressed.

A-1

We request that we be copied on future actions regarding this project.

Regards,

Chad Riding  
Calttrans, District 3, Planning & Local Assistance  
(916) 274-0566

**Letter A – Chad Riding, Caltrans, District 3**

**Response A-1:** The comment states that Caltrans' previous comments (see Caltrans' comments on the Notice of Preparation in Draft SEIR Appendix B) are adequately addressed in the Draft SEIR. No further response is required.

## Letter B

Gerald Park

RECEIVED

**From:** Kennedy, Donald [DLKn@pge.com]  
**Sent:** Wednesday, January 30, 2013 1:16 PM  
**To:** Gerald Park  
**Cc:** Sandy Kyles  
**Subject:** RE: Dignity Health - Notice of Availability Draft Subsequent EIR

JAN 30 2013

CITY OF ELK GROVE  
PLANNING

Dear City of Elk Grove,

Below are PG&E's comments in regards to the Notice of Availability for the **Dignity Health Elk Grove Medical Campus Project**.

PG&E owns and operates gas transmission and distribution facilities within and adjacent to Elk Grove Boulevard. To promote the safe and reliable maintenance and operation of utility facilities, the California Public Utilities Commission (CPUC) has mandated specific clearance requirements between utility facilities and surrounding objects or construction activities. To ensure compliance with these standards, the project proponent will need to coordinate with PG&E early in the development of their plans. Proposed development plans shall provide unrestricted utility access and prevent encroachments that might impair the safe and reliable maintenance and operation of PG&E's facilities.

To minimize potential impacts, PG&E requests that the Project Proponent work closely with PG&E to obtain a **"No Objection" Letter** from PG&E for this project prior to any construction activities taking place around PG&E's gas lines. Please have the project proponent send me a set of plans to the address in my signature block for PG&E's review and comment. Below I have also provided a few examples of restrictions within around PG&E's gas lines, but shall not be limited to the following:

- Buildings, Structures, and Wells are restricted near PG&E's gas lines. Structures includes, but shall not be limited to Light Fixtures, Block Walls, Trash Enclosures, etc.
- No grading cuts or fills are allowed around PG&E's facilities without prior written approval from PG&E.
- Trees are not a compatible use around gas lines and there are restrictions with regards to the placement of trees in the vicinity of gas pipe lines.
- There are minimum clearances to be maintained for 3<sup>rd</sup> party crossings or longitudinal encroachments.
- There are restrictions with heavy equipment crossing over PG&E's high pressure gas lines. PG&E may need to provide wheel loading requirements over the gas facilities during construction activities in the event heavy equipment may need to cross over the pipeline.

Please note that PG&E standby personnel is required when potholing gas transmission facilities to confirm depths and/or when construction activities are taking place within 5 feet of the gas line. Prior to potholing or any excavation near the gas transmission facilities;

1. Excavator to call USA when requesting PG&E to locate and mark gas pipe. Request field meeting with PG&E Locator (via the USA comment section) to discuss the proposed work and to confirm PG&E contact number for standby.

B-1

## Letter B Continued

2. A PG&E standby person is required to be on site whenever excavation is within 5-foot from the edge of the pipe. Excavator to call PG&E at (916) 386-5153, 48-hours in advance to request inspector to standby.
3. Prior to using any power operated equipment, the approximate location of the pipe must first be determined by hand excavation or careful probing. Probe at right angles to the pipe at a depth of 24 inches and at spacing no greater than 5 inches. If it is determined that the depth of the pipeline is greater than the initial probing or hand excavation, then excavation by power-operated equipment will be permitted to a depth 12 inches less than the actual probing or hand dug depth. Hand digging is required within 12 inches from the pipe. Please note that PG&E standby must be present.

B-1  
cont.

We would like to recommend that environmental documents for proposed project include adequate evaluation of cumulative impacts to utility systems and any possible relocations. This will assure the projects compliance with CEQA and reduce potential delays to the project schedule.

Should gas service be desired for this project, the project proponent should contact PG&E's Service Planning Department at 1-877-743-7782 as soon as possible to coordinate construction so as not to delay the project.

B-2

Please contact me with any questions.

Sincerely,

**Donny Kennedy**  
Pacific Gas & Electric Company  
343 Sacramento Street  
Auburn, CA 95603  
Internal: (8) 889-5089  
External: (530) 889-5089  
Fax: (530) 889-3392

**From:** Sandy Kyles [mailto:skyles@elkgrovecity.org]  
**Sent:** Friday, January 11, 2013 12:47 PM  
**Subject:** Dignity Health - Notice of Availability Draft Subsequent EIR

**NOTICE OF AVAILABILITY  
DIGNITY HEALTH ELK GROVE MEDICAL CAMPUS  
DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT  
JANUARY 11, 2013**

**LEAD AGENCY:** City of Elk Grove  
8401 Laguna Palms Way  
Elk Grove, CA 95758

**CONTACT PERSON:** Gerald Park, Senior Planner  
Email: [gpark@elkgrovecity.org](mailto:gpark@elkgrovecity.org)  
Fax: (916) 478-3671

**PROJECT TITLE:** Dignity Health Elk Grove Medical Campus

**PROJECT LOCATION:** Southwest corner of Elk Grove Boulevard and Wymark Drive (within the Laguna Ridge Specific Plan), City of Elk Grove

## Letter B Continued

**PROJECT DESCRIPTION:** The proposed Dignity Health Elk Grove Medical Campus Project (hereinafter the Project) would include the construction of up to a six-story, 456,719-square-foot, 330-bed hospital; a three-story, 65,000-square-foot medical office building (referred to as MOB #2); and a five-level, 169,520-square-foot parking structure. The project would be constructed in a total of four or more phases, with the first three phases associated with the hospital building and the last phase associated with the medical office building (MOB) and parking structure. The three hospital phases to be built in succession are the following: four-story, 112,050-square-foot Surgery and Maternity Hospital building section; six-story, 175,095-square-foot Hospital Expansion #1 building section; and six-story, 169,574-square-foot Hospital Expansion #2 building section. The number of beds associated with each building section is 106 beds, 112 beds, and 112 beds, respectively. The Surgery and Maternity building section could start construction in 2017, with the remaining phases to be completed within a 20-plus year build out timeframe. The Project would also include a helistop that would be used for transporting patients away from the hospital, but there would be no storage, repair, or fueling of any helicopters on site. The 500-stall parking garage is proposed for construction during the final phase of the project, at the time MOB #2 is constructed; however, surface parking would be constructed per City code with each phase of development to ensure adequate parking is provided for uses on site. The Draft Subsequent Environmental Impact Report (Draft SEIR) analyzes impacts associated with the medical campus development.

**POTENTIALLY SIGNIFICANT ENVIRONMENTAL EFFECTS:** The Draft SEIR has identified the following environmental issue areas as having potentially significant environmental impacts from implementation of the project:

- Aesthetics
- Air Quality
- Greenhouse Gas Emissions
- Hazards & Hazardous Materials
- Noise

**PUBLIC REVIEW PERIOD:** The 45-day public review period for the Draft SEIR will commence on January 11, 2013 and end on February 27, 2013 for interested individuals and public agencies to submit written comments on the document. Any written comments on the Draft SEIR must be received at the above address within the public review period. Copies of the Draft SEIR are available for review at the City of Elk Grove City Hall, Planning Division, 8401 Laguna Palms Way, and at the Elk Grove Branch of the Sacramento Public Library at 8962 Elk Grove Boulevard. The Draft SEIR also may be reviewed at the City's Planning Department web site at [www.egplanning.org/environmental/](http://www.egplanning.org/environmental/). Referenced technical reports used in the preparation of the Draft SEIR that are not included as appendices may be reviewed at City Hall upon request.

**PUBLIC MEETING:** The City of Elk Grove will receive public comments on the Draft SEIR at the regularly scheduled Elk Grove Planning Commission meeting on February 21, 2013, at 6:30 p.m. at the City Council Chambers, 8400 Laguna Palms Way, Elk Grove, CA.

### **Sandy Kyles**

Planning Commission Secretary  
Planning Specialist

### **City of Elk Grove**

8401 Laguna Palms Way  
Elk Grove, CA 95758

916.478.3620 (office)  
916.691.3168 (fax)

[skyles@elkgrovecity.org](mailto:skyles@elkgrovecity.org)

## Letter B Continued

---

By sending us an email (electronic mail message) or filling out a web form, you are sending us personal information (i.e. your name, address, email address or other information). We store this information in order to respond to or process your request or otherwise resolve the subject matter of your submission.

Certain information that you provide us is subject to disclosure under the California Public Records Act or other legal requirements. This means that if it is specifically requested by a member of the public, we are required to provide the information to the person requesting it. We may share personally identifying information with other City of Elk Grove departments or agencies in order to respond to your request. In some circumstances we also may be required by law to disclose information in accordance with the California Public Records Act or other legal requirements.

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PG&E is committed to protecting our customers' privacy.

To learn more, please visit <http://www.pge.com/about/company/privacy/customer/>

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## 4.0 COMMENTS AND RESPONSES

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### Letter B – Donald Kennedy, Pacific Gas & Electric Company

**Response B-1:** The comment states that Pacific Gas & Electric (PG&E) owns and operates gas transmission and distribution facilities in and adjacent to Elk Grove Boulevard, which is adjacent to the Project site to the north. The comment notes standards mandated by the California Public Utilities Commission (CPUC) regarding specific clearance requirements between utility facilities and surrounding objects or construction activities. The comment then details procedures for coordination with PG&E staff to ensure the Project complies with applicable CPUC standards. The Project applicant will comply with all applicable regulations regarding utility clearance requirements and will coordinate with PG&E prior to construction activities. The Laguna Ridge Specific Plan EIR addressed utilities and service system issues related to the development of the entire Laguna Ridge Specific Plan planning area, and also considered the cumulative impacts on utilities. The Project would be subject to the MMRPs adopted for both the Laguna Ridge Specific Plan and Laguna Ridge Town Center, including implementation of mitigation measures required to reduce utilities and service system impacts. As discussed in Section XVI of the Initial Study (see Draft SEIR Appendix B), the proposed Project would not increase intensity of uses assumed in the previous EIRs, so the Project's contribution to cumulative impacts on utilities would not exceed the levels previously disclosed.

**Response B-2:** The comment states that the Project proponent should contact PG&E regarding natural gas service. The comment is noted. No response is required.



# Letter C

STATE OF CALIFORNIA — BUSINESS, TRANSPORTATION AND HOUSING AGENCY

EDMUND G. BROWN JR., Governor

**DEPARTMENT OF TRANSPORTATION**  
DIVISION OF AERONAUTICS - M.S.#40  
1120 N STREET  
P. O. BOX 942874  
SACRAMENTO, CA 94274-0001  
PHONE (916) 654-4959  
FAX (916) 653-9531  
TTY 711  
www.dot.ca.gov



*Flex your power!  
Be energy efficient!*

February 15, 2013

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FEB 20 2013

CITY OF ELK GROVE  
PLANNING

Mr. Gerald Park  
City of Elk Grove  
8401 Laguna Palms Way  
Elk Grove, CA 95758

Dear Mr. Park:

Re: Draft Subsequent Environmental Impact Report for the Dignity Health Medical Campus;  
SCH# 2012082029

The California Department of Transportation (Caltrans), Division of Aeronautics (Division), reviewed the above-referenced document with respect to airport-related noise and safety impacts and regional aviation land use planning issues pursuant to the California Environmental Quality Act (CEQA). The Division has technical expertise in the areas of airport operations safety and airport land use compatibility. We are a funding agency for airport projects and we have permit authority for public-use and special-use airports and heliports. The following comments are offered for your consideration.

The project is the proposed Dignity Health Elk Grove Medical Campus in the City of Elk Grove in Sacramento County. The project includes construction of a hospital building with three sections, a medical office building and a parking structure. A heliport will also be constructed at ground level adjacent to the new hospital building. The heliport site is approximately 600 feet south and 900 feet north of established residential neighborhoods and about 200 feet east of vacant land that is zoned for high density residential and shopping.

C-1

The proposed heliport will require the issuance of a State heliport permit by the Division. Among the items required for issuance of the permit is the approved heliport plan of construction by the Elk Grove City Council, in accordance with California Public Utilities Code (PUC) section 21661.5. State permit requirements refer only to a heliport as it is defined in California Code of Regulations, Title 21, section 3527 (2) (j), and not a helistop as it is defined on page 2.0-10 of the Draft Subsequent Environmental Impact Report (DSEIR). The applicant should also be advised to contact the Division's Aviation Safety Officer for Sacramento County, Amy Choi, at (916) 654-5450, for assistance with the State permit requirements. Information regarding the State heliport permit process is available on-line at: <http://www.dot.ca.gov/hq/planning/aeronaut/helipads/documents/helipermit.htm>

Prior to issuing a State heliport permit, the Division, as responsible agency, must be assured that the proposal is in full compliance with CEQA. The issues of primary concern include heliport-related noise and safety impacts on the surrounding community. To ensure that the community will not be adversely impacted by helicopter operations, flight paths should avoid noise-sensitive and people intensive uses. Environmental documentation should include the anticipated number of operations, daytime and/or nighttime use, a noise study with heliport noise contours, diagrams showing the proposed landing site and the approach/departure flight paths. The diagrams should also depict the proximity of the proposed flight paths to any existing or proposed noise sensitive or people intensive uses. Consideration given to the issue of compatible land uses in the vicinity of a heliport should help to relieve future conflicts between the heliport and its neighbors.

C-2

*"Caltrans improves mobility across California"*

## Letter C Continued

Mr. Gerald Park  
February 15, 2013  
Page 2

On page 3.5-41 of the DSEIR significant and unavoidable noise impacts due to helicopter operations are identified despite implementation of Mitigation Measure 3.3.5 which is described on the same page. It may be possible to lessen the identified noise impacts by studying a heliport constructed in a different location on the project site such as on top of one of the new buildings being proposed for construction. If feasible, this alternate site for the heliport could still meet the heliport safety objective stated in the Project Objectives on page 2.0-5. When compared to the proposed ground-level landing area, a heliport on top of a building could also be less disruptive to activities on the ground during helicopter operations and could reduce the possibility of blowing loose debris from the parking lot during helicopter takeoffs and landings.

C-3

Before the Division can issue the State heliport permit, we require verification from the Sacramento County Airport Land Use Commission (ALUC) indicating that they have, at a minimum, considered the proposed heliport.

C-4

Section 21659 of the PUC prohibits structural hazards near airports and heliports. Structures should not be at a height that will result in penetration of the approach imaginary surfaces. If the heliport is planned for operation prior to completion of the later phases of construction activities, impacts to the heliport imaginary surfaces from temporary construction-related impacts (e.g. construction cranes, etc.) should be identified. Federal Aviation Administration (FAA) Advisory Circular 150/5370-2E "Operational Safety on Airports During Construction," available at <http://faa.gov>, can be incorporated into the project design in order to identify any permanent or temporary construction-related impacts (e.g. construction cranes, etc.) to the heliport imaginary surfaces. The FAA may also require the filing of a Notice of Proposed Construction or Alteration (Form 7460-1) for certain project-specific activities in accordance with Federal Aviation Regulations Part 77 "Objects Affecting Navigable Airspace." Form 7460-1 is available at <https://oeaaa.faa.gov/oeaaa/cxternal/portal.jsp> and should be submitted electronically.

C-5

The FAA will require the filing of a Notice of Landing Area Proposal (Form 7480-1). A copy of the form is available on the FAA website at:  
<http://www.faa.gov/forms/index.cfm/go/document.information/documentID/185334>

C-6

These comments reflect the areas of concern to the Division with respect to airport and heliport-related noise, safety, and regional land use planning issues. Please contact the Caltrans District 3 office concerning additional surface transportation issues.

Thank you for the opportunity to review and comment on this proposal. If you have any questions, please contact me at (916) 654-6223 or by email at [philip\\_crimmins@dot.ca.gov](mailto:philip_crimmins@dot.ca.gov).

Sincerely,



PHILIP CRIMMINS  
Aviation Environmental Specialist

c: State Clearinghouse, Sacramento County ALUC

*"Caltrans improves mobility across California"*

**Letter C – Phillip Crimmins, Caltrans, Division of Aeronautics**

**Response C-1:** The comment describes the Caltrans Division of Aeronautics (Division) requirements for issuance of a state heliport permit. The Project applicant will obtain the required permits prior to construction or operation of the helistop. The contact information provided in the comment has been forwarded to the Project applicant.

**Response C-2:** The comment notes issues of primary concern with regard to helicopter-related activity, including noise and safety. The Draft SEIR provides information on the anticipated number of annual flights and flight paths in the context of the surrounding development. Potential noise impacts associated with helicopter operations are discussed on pages 3.5-27 and -28 of the Draft SEIR. Community noise equivalent level (CNEL) contours are shown for nighttime and daytime helicopter operations on Figures 3.5-4a and 3.5-4b, respectively, on Draft SEIR pages 3.5-29 and -31. The Draft SEIR also provides sound exposure level (SEL) noise contours associated with approaches from the southeast, northeast, northwest, and southwest in Figures 3.5-5, 3.5-6, 3.5-7, and 3.5-8, respectively. However, as discussed in Chapter 1.0, Introduction, of this Final SEIR, the project applicant has amended the application to include the helistop on top of Hospital Expansion #1. Based on noise modeling prepared for the helistop at this location, the 60 dBA Community Noise Equivalent Level (CNEL) noise contour would not extend onto any residential property and the project would not exceed the City's standard of 60 dBA CNEL for residential uses. However, while the Sound Exposure Level (SEL) contours would also shift eastward like those for the CNEL, residents in the project vicinity would still be exposed to events ranging from 85 to 95 dBA SEL, which, like the ground-level helistop analyzed in the Draft SEIR, would also be significant.

Regarding safety, as discussed on Draft SEIR page 3.4-14, the design of the helistop and the flight paths to and from the Project site are regulated by the Federal Aviation Administration (FAA). Helistop design must comply with standards specified in Chapter 4 of the FAA Advisory Circular 150/5390-2C (FAA 2012), as well as with Federal Aviation Regulations (FAR) prescriptive standards for flight paths and other safety requirements. The Project will be required to submit a Notice of Landing Area Proposal to the FAA, which will consider the effects the helistop would have on existing or planned traffic patterns of neighboring airports, existing structures and programs of the FAA, safety of persons or property on the ground, existing and proposed man-made objects on file with the FAA, and known natural objects in the affected area.

**Response C-3:** The comment notes the possibility of reducing noise impacts by placing the helistop in a different location, specifically on a rooftop. Since circulation of the Draft SEIR, the project applicant has amended the application to locate the helistop on the Hospital Expansion #1 building, approximately 240 feet west of the ground-level location. As discussed in Section 1.0, Introduction, of this Final SEIR and Response to Comment C-2, impacts of this helistop location would be less than those disclosed in the Draft SEIR, as the 60 dBA CNEL noise contour would not extend onto any residential property and the project would not exceed the City's standard of 60 dBA CNEL for residential uses.

#### 4.0 COMMENTS AND RESPONSES

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- Response C-4:** The comment states that the Division will require verification from the Sacramento County Airport Land Use Commission prior to issuance of the state heliport permit. The comment is noted.
- Response C-5:** The comment discusses the potential for structural hazards near airports and heliports. Draft SEIR page 3.4-14 acknowledges that flight paths must meet FAR Part 77 obstruction clearance standards, including "imaginary surfaces" in the airspace surrounding landing areas. Considerations include a "primary surface" (a horizontal plane at landing pad elevation), "approach surfaces" (shallow, inclined planes along each designated flight path), and "transition surfaces" (steeper inclined planes to the sides of flight paths). The Project applicant has considered these surfaces in the design of the Project. The Draft SEIR also discloses that flight paths are reviewed by the FAA when conducting airspace studies for landing sites and takes into account the airspace of other existing facilities (e.g., Sacramento International Airport and Sacramento Executive Airport) and whether there are any conditions or structures that would make a new landing site infeasible.
- Response C-6:** The comment states the FAA will require a Notice of Landing Area Proposal (Form 7480-1). The comment is noted.

# Letter D

SACRAMENTO-YOLO  
**MOSQUITO  
& VECTOR  
CONTROL  
DISTRICT**

RECEIVED  
FEB 26 2013  
CITY OF ELK GROVE  
PLANNING

**MAILING ADDRESS**  
SACRAMENTO COUNTY  
5541 ROLF ROAD  
ELK GROVE, CA 95704  
  
YOLO COUNTY  
2011 PRIMA AVE  
WOODLAND, CA 95692

1-800-429-1022  
FIGHTTHEBITE.org

City of Elk Grove  
8401 Laguna Palms Way  
Elk Grove, Ca. 95758

26 February 2013

Attn: Gerald Park

**Re: Dignity Health Elk Grove Medical Campus (DSEIR)**

The Sacramento-Yolo Mosquito and Vector Control District (District) appreciates the opportunity to review and comment on the Draft Subsequent Environmental Impact Statement (DSEIS) for the Dignity Health Elk Grove Medical Campus.

**General Comment:** The Sacramento Yolo Mosquito and Abatement District mission is "To provide safe, effective and economical mosquito and vector control for Sacramento and Yolo counties". To accomplish this, we provide ongoing surveillance of mosquitoes and other vectors to determine the threat of disease transmission and lower annoyance levels. As a District we promote cooperation and communication with property owners, residents, social and political groups as well as other governmental agencies to help in these efforts. Our ultimate goal is to protect public health and welfare from diseases transmitted by mosquitoes such as West Nile virus, Western Equine Encephalitis, canine heartworm, malaria and others.

D-1

The District requires that any policy or practice for aquatic sites including but not limited to; (stormwater master plans, drainage, hydro-modification, low impact development (LID) or any green infrastructure that may have aquatic features must explicitly recognize the obligations imposed on land-owners and managers to avoid creating public health threats through the establishment or maintenance of mosquito and other vector breeding habitats that can impact public health and welfare.

The District requires that any proposed project or mitigation must consider and utilize measures to avoid and minimize impacts to mosquito control activities in regards to public health and welfare. To the extent that the management of any private, state, or federal lands may produce mosquitoes, the responsible party must recognize and comply with its obligations under state law to not develop or keep mosquito breeding sources on its property.

PROVIDING SAFE, EFFECTIVE AND ECONOMICAL MOSQUITO AND VECTOR CONTROL

## Letter D Continued

If not properly constructed, managed or maintained, poorly designed and maintained facilities and systems may breed mosquitoes or provide harborage which can have an adverse effect on public health and welfare and may have a direct impact to local economies.

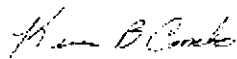
The District has developed and adopted a Mosquito Reducing Best Management Practices (BMP) Manual which can be downloaded from the District's website at: [http://www.fightthebite.net/download/ecomangement/SYMVCD\\_BMP\\_Manual.pdf](http://www.fightthebite.net/download/ecomangement/SYMVCD_BMP_Manual.pdf). Please review and implement the District's BMPs for design and maintenance guidelines of all proposed projects to reduce or prevent the breeding of mosquitoes.

The District is facing new challenges with shrinking revenues, coupled with the costs of National Pollutant Discharge Elimination System (NPDES) permits, Endangered Species Act (ESA), and other environmental compliancy and regulatory issues.

Failure to address these issues and potential mosquito breeding sources during the planning and construction process may result in enforcement actions to the landowner after the project has been completed. The District has the authority to abate a public nuisance as defined in the California Health and Safety Code (HSC) Section § 2010 and may pursue enforcement actions pursuant to Sections § 2060 of the (HSC) which can involve civil fines of up to \$1000/per day.

Should you have any questions or concerns please feel free to contact me at (916) 405-2093.

Sincerely,



Kevin Combo  
Ecological Management Department  
Sacramento Yolo Mosquito and Vector Control District  
kcombo@FightTheBite.net

D-1  
cont.

**Letter D – Kevin Combo, Sacramento-Yolo Mosquito and Vector Control District**

**Response D-1:** The comment describes the Sacramento-Yolo Mosquito and Vector Control District's mission and requirements for development to minimize the potential for mosquito breeding sources on the property. The comment is noted. The Project will comply with all existing regulations regarding design features to reduce potential mosquito breeding sources.

## Letter E

### Gerald Park

---

**From:** Sandy Kyles  
**Sent:** Thursday, January 31, 2013 11:57 AM  
**To:** Gerald Park  
**Subject:** FW: Dignity Health - Notice of Availability Draft Subsequent EIR

RECEIVED

JAN 31 2013

CITY OF ELK GROVE  
PLANNING

*Sandy*

---

**From:** Barbara Easter [mailto:BarbaraEaster@csdfire.com]  
**Sent:** Thursday, January 31, 2013 11:54 AM  
**To:** Sandy Kyles  
**Subject:** RE: Dignity Health - Notice of Availability Draft Subsequent EIR

Hi Sandy,

I have review the EIR for the project above and just want to let you know where it states UNIFORM fire code needs to be change to California as there is no uniform. Thank you for your time in this matter.

E-1

**Barbara Easter**, Fire Inspector  
**Cosumnes Fire Department ~ Serving Elk Grove & Galt**  
Fire Prevention Bureau  
10573 East Stockton Blvd., Elk Grove, CA 95624  
Phone: (916) 405-7113 Fax: (916) 685-6622  
[barbaraeaster@csdfire.com](mailto:barbaraeaster@csdfire.com)  
[www.yourcsd.com](http://www.yourcsd.com)

*Enriching Community Saving Lives*

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**From:** Sandy Kyles [mailto:skyles@elkgrovecity.org]  
**Sent:** Friday, January 11, 2013 12:48 PM  
**Subject:** FW: Dignity Health - Notice of Availability Draft Subsequent EIR

*Sandy*

---

**From:** Sandy Kyles  
**Sent:** Friday, January 11, 2013 12:47 PM  
**Subject:** Dignity Health - Notice of Availability Draft Subsequent EIR



**Letter E – Barbara Easter, Cosumnes Fire Department**

**Response E-1:** The comment notes the references to the Uniform Fire Code in the Draft SEIR need to be changed to California Fire Code. The comment is noted. Please refer to Chapter 2.0, Errata, for changes to the Draft SEIR text.

## Letter 1

City of Elk Grove

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JAN 22 2013

CITY OF ELK GROVE  
PLANNING

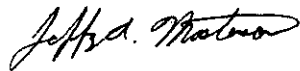
My wife and I are very much in favor of the Dignity  
Health Elk Grove Medical Campus EG-12-014.

1-1

Please add this letter to the public record.

Sincerely,

Mr. and Mrs. Jeffrey A. Masterson



685-3504

**Letter 1 – Mr. and Mrs. Jeffrey Masterson**

**Response 1-1:** The comment expresses support for the Project. This is a comment on the merits of the Project, not a comment on the adequacy of the SEIR. No response is required.

## Letter 2

**From:** Sherrie Nameth [mailto:shehat@surewest.net]  
**Sent:** Friday, January 11, 2013 5:42 PM  
**To:** Gerald Park  
**Subject:** Dignity Health Project

Dear Mr. Park,

In briefly looking at the various paperwork attached to this project it looks like there was *not* another traffic study done other than the original one in 2008. Is this correct?

2-1

Sherrie Nameth

**Letter 2 – Sherrie Nameth**

**Response 2-1:** The comment requests confirmation as to whether a traffic study has been done since the 2008 traffic study (prepared for the Laguna Ridge Town Center EIR). Although a full traffic study was not prepared for the proposed Project, an analysis was prepared to determine if the traffic analysis in the Laguna Ridge Town Center EIR adequately addresses the potential traffic generated by the proposed Project. As discussed on pages 32 through 34 of the Initial Study (see Draft SEIR Appendix B), because the land uses assumed in the Laguna Ridge Town Center EIR account for greater trip generation than proposed for the Dignity Health Campus (the equivalent of about 53 percent more medical office building square feet and 6 percent more hospital beds), the previous analysis is adequate and the proposed Project would not result in any new or more severe impacts than previously disclosed.

## Letter 3

### ADAMS BROADWELL JOSEPH & CARDOZO

DANIEL L. CARDOZO  
THOMAS A. ENSLOW  
PAMELA N. EPSTEIN  
TANYA A. GULESSERIAN  
MARC D. JOSEPH  
ELIZABETH KLEBNER  
RACHAEL E. KOSS  
JAMIE L. MAULDIN  
ROBYN C. PURCHIA  
ELLEN L. TRESCOTT

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SACRAMENTO, CA 95814-4721

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FAX: (916) 444-8209  
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SO. SAN FRANCISCO OFFICE  
401 GATEWAY BLVD., SUITE 1000  
SO. SAN FRANCISCO, CA 94080  
TEL: (650) 589-1880  
FAX: (650) 589-5062

January 18, 2013

Taro Echiburu  
Planning Director  
Planning Division  
City of Elk Grove  
8401 Laguna Palms Way  
Elk Grove, CA 95758  
Email: [c2gpl@elkgrovecity.org](mailto:c2gpl@elkgrovecity.org)

RECEIVED

JAN 18 2013  
CITY OF ELK GROVE  
PLANNING

Jason Lindgren  
Clerk  
Office of the City Clerk  
City of Elk Grove  
8401 Laguna Palms Way  
Elk Grove, CA 95758  
Email: [jlindgren@elkgrovecity.org](mailto:jlindgren@elkgrovecity.org)

Re: Request for Documents Referenced in the Draft Subsequent Environmental Impact Report for the Dignity Health Elk Grove Medical Campus Project

Dear Mr. Echiburu and Mr. Lindgren:

We are writing on behalf of Plumbers & Pipefitters Local 447, International Brotherhood of Electrical Workers Local 340, and Sheet Metal Workers Local 162 to request *immediate access* to any and all documents referenced or relied upon in the City of Elk Grove's ("City") Draft Subsequent Environmental Impact Report ("DSEIR") for the Dignity Health Elk Grove Medical Campus Project ("Project"). This request is made pursuant to the California Environmental Quality Act ("CEQA"), which requires that all documents referenced or relied on in a DEIR be made available to the public for the entire comment period.<sup>1</sup> Accordingly, these documents must be made available immediately and are not subject to the time limits of the Public Records Act.

3-1

<sup>1</sup> See Pub. Resources Code, § 21092, subd. (b)(1); 14 Cal. Code Reg. § 15072(g)(4).  
2052-0609

## Letter 3 Continued

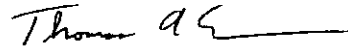
January 18, 2013  
Page 2

We are also writing to request separately, pursuant to the Public Records Act, any other applications, staff reports or other public records referring or related to the Project.

If any of the requested items are available on the Internet, we request that the County direct us to the appropriate site for accessing the documents. Pursuant to Government Code section 6253.9, if the requested documents are in electronic format, please provide them to us on a cd-rom or email them if they are 10 MB or less (or can be easily broken into chunks of 10 MB or less).

Thank you for your assistance with this matter.

Sincerely,



Thomas A. Enslow

TAE:ljf

cc: Gerald Park, Senior Planner  
[gpark@elkgrovecity.org](mailto:gpark@elkgrovecity.org)

3-1  
cont.

2052-0699

## 4.0 COMMENTS AND RESPONSES

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### Letter 3 – Thomas A. Enslow, Adams Broadwell Joseph & Cardozo

**Response 3-1:** The comment requests access to all documents referenced in the Draft SEIR. The documents were provided to the commenter. The comment raises no concerns regarding the content of the EIR. No response is required.



Letter 4

RECEIVED

JAN 22 2013

Gerald Park

CITY OF ELK GROVE  
PLANNING

**From:** tim@corporatekindergarten.com  
**Sent:** Tuesday, January 22, 2013 12:06 PM  
**To:** Gerald Park  
**Subject:** Dignity Health Elk Grove Medical Campus EG-12-014  
**Importance:** Low

Mr. Park,

I received another letter in the mail regarding the Dignity Health Complex scheduled to be built in Elk Grove, near my home. As I have stated in the past, I am opposed to the development of this project. Elk Grove traffic is out of hand, and Elk Grove Blvd is not designed to accomodate the increased traffic this medical complex will bring.

4-1

I have lived in Elk Grove for over 12 years and run my business from my home. The population has multiplied exponentially during this time, as has the the noise and traffic. It's become nearly impossible to drive to locations that are conveniently located simply because of road congestion. Adding a complex as large as the one proposed at this location will only make matters worse.

4-2

I am all for economic growth in Elk Grove, but not at the expense of the quality of life. I request that the city planners consider a different location for this complex.

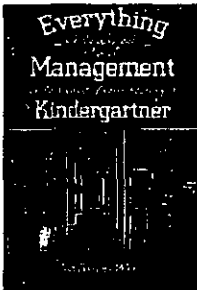
4-3

Sincerely,

Tim Rymel, M.Ed.  
CEO|Author|Speaker  
Corporate Kindergarten  
[CorporateKindergarten.com](http://CorporateKindergarten.com)  
[TimRymel.Com](http://TimRymel.Com)  
916-690-3204

*"Education should not be the filling of a pail, but the lighting of a fire." - William Butler Yeats*  
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## 4.0 COMMENTS AND RESPONSES

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### Letter 4 – Tim Rymel

**Response 4-1:** The comment expresses opposition to the Project and states Elk Grove Boulevard is not designed to accommodate the traffic generated by the proposed Project. Elk Grove Boulevard is a four- to six-lane, east–west arterial with six lanes adjacent to the Project site. The Laguna Ridge Town Center EIR (page 4.4-11) found that the addition of the Laguna Ridge Town Center Project traffic would cause the Elk Grove/East Stockton Boulevard intersection to worsen from level of service (LOS) C to LOS D in the AM peak hour (City of Elk Grove General Plan Policy CI-13 provides for a minimum LOS D for intersections and road segments in the City), but all other Elk Grove Boulevard intersections studied would continue to operate in both the AM and PM peak hours at the same level of service as with the existing conditions studied. As noted in Response to Comment 2-1, the proposed Project would generate fewer trips than assumed in the Laguna Ridge Town Center EIR. Therefore, the proposed Project would not exceed the capacity of Elk Grove Boulevard, as noted in the comment.

**Response 4-2:** The comment states that with the growth in the City of Elk Grove, traffic conditions have worsened and the Project will contribute to this traffic congestion and noise. The effects of cumulative traffic impacts in the City are discussed in the Laguna Ridge Town Center EIR (pages 4.4-14 through -21). The Laguna Ridge Town Center EIR acknowledges the increases in traffic in the cumulative condition. As noted in Responses to Comments 2-1 and 4-1, the proposed Project would generate fewer trips than assumed in the Laguna Ridge Town Center EIR; therefore, the cumulative traffic conditions, and associated traffic noise, would be less than disclosed in that document and the Project's contribution to cumulative conditions would be less. Noise effects of the proposed Project, including traffic noise, are addressed in Draft SEIR Section 3.5.

**Response 4-3:** The comment expresses opposition to the Project and suggests the Project be constructed at another location. As noted on page 2.0-5, one of the objectives of the Project is to provide, near the new Civic Center, a catalyst for the new Civic Center area and support the City's economic development goals. As discussed in Section 2.0, Project Description, of the Draft SEIR, there is an existing medical office building on the Project site that would be an integral part of the campus. A different location for the campus would not support development goals for the Civic Center area and would not take advantage of the efficiencies that would be provided by the collocation of the remainder of the medical campus with the existing medical office building.

# Letter 5

## INTERESTED PARTY COMMENTS

Date: February 21, 2012

To: City of Elk Grove  
 Contact: Gerald Park  
 8401 Laguna Palms Way  
 Elk Grove, CA 95758

Submitted by: Laguna Ridge Residents and Other Interested Parties:  
 Gabor Maghera  
 Jennifer Maghera  
 Alex Dela Cruz  
 Louise Dela Cruz  
 Noah Hawkins  
 Annake Hawkins  
 Lynn Wheat  
 Elaine Macko  
 Jack Lee  
 Norma Lee  
 Sandy White

Subject: Draft Subsequent Environmental Impact Report (SEIR) for the  
 Dignity Health Elk Grove Medical Campus Project

RECEIVED  
 FEB 25 2013  
 CITY OF ELK GROVE  
 PLANNING

With regard to the Dignity Health Elk Grove Medical Campus Project, we believe that the Draft Subsequent Environmental Impact Report (SEIR), the Laguna Ridge Specific Plans, and other documents related to the project do not adequately address the issues of transportation and traffic, aesthetics, and noise.

We submitted comments regarding the Subsequent EIR Initial Study that were largely ignored in the response from the City of Elk Grove, or at best dismissed without any substantial proof. Therefore, we are resubmitting and reiterating our comments about some of the issues that we feel require further analysis and consideration.

5-1

### Transportation/Traffic

The previous EIRs and Laguna Ridge Specific Plans did not include all of the components of the proposed medical campus, including, but not limited to, the helistop, three buildings over the 60-foot height restriction, a total of 330 hospital beds, and a total of 1,330 parking spaces.

Because we are concerned about the resulting environmental impacts caused by the construction and operation of all of the components of the project, we demand to see proof that the traffic impact is not significant, and that hazards and traffic congestion will not be increased. As it is, Elk Grove Blvd. is at capacity.

5-2

Our families, children, and friends walk, jog, and bicycle in this neighborhood and cross intersections on Civic Center Drive, Wymark Drive, Big Horn Blvd., Bruceville, and Elk Grove Blvd and we are concerned for their safety.

Likewise, we are concerned about the negative impacts that an increase in traffic, and a potential of 1,330 or more cars visiting the project location at any time, will

## Letter 5 Continued

have on the quality of our lives as residents. Not only are we concerned about safety; we are also concerned about the hazards to our health and the environment. The previous EIRs and Laguna Ridge Specific Plans did not take into account the traffic and circulation impacts of a medical campus that includes 24-hour service, which translates into 24-hour traffic to and from the location. Nor did they take into account traffic congestion caused by ambulances that would be travelling to the ER hospital.

We believe the project would significantly impact the following traffic and circulation issues:

- Substantially increase hazards due to a design feature (ex: dangerous intersections)
- Result in inadequate emergency access to both the project site and other parts of the city due to traffic congestion
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities
- Significantly increase the traffic congestion on the streets around the medical complex, including Elk Grove Blvd., Civic Center Drive, Wymark Drive, Big Horn Blvd., and Bruceville

5-2  
cont.

We ask that you adequately address the transportation and traffic impacts on the environment in the EIR, provide more detailed studies and reports, and provide acceptable mitigations, specifically with regard to the Dignity Health Elk Grove Medical Campus Project.

5-3

Other transportation/traffic considerations:

- Move the parking structure to be adjacent to Elk Grove Blvd. since it should be on a major thoroughfare due to 24-hour use
- To reduce traffic congestion along Civic Center Drive, which is two lanes and adjacent to single family homes, do not allow for an entrance to the medical campus on that road

5-4

### Aesthetics

We are also opposed to allowing for the current 60-foot building height restriction to be increased for three of the proposed buildings. We do not believe the customer demand is high enough to support the need for any of the buildings in the complex to be taller than 60 feet. We also believe that having three buildings above the current 60-foot height restriction would negatively impact the aesthetics of the area.

5-5

Aesthetics considerations:

- Move the location of the Medical Office Building 2 (MOB2) to the corner of Elk Grove Blvd. and Wymark Drive (switch the location of MOB2 with the surface parking area)
- Move the location of the parking structure to be adjacent to Elk Grove Blvd., a major thoroughfare that can better handle 24-hour use
- Design the parking structure with a natural-looking facade that blends into the surroundings and is pleasant to the eye
- Make the overall design of the project "neighborhood-friendly" through the use of natural-looking facades, landscaping, and maintaining a 60-foot height restriction for all buildings
- Start planting tall-growing, bushy trees now to block residents' views of the medical campus, especially along Civic Center Drive and Wymark Drive

5-6

## Letter 5 Continued

**Noise**

Please also include an analysis of the impact of 24-hour noise from the construction and operation of a Maternity & Surgery Center, two hospitals with 24-hour emergency room service, ambulance traffic, a parking garage, additional surface parking, and a helistop on the environment and nearby residents.

5-7

Additionally, provide an analysis of the cumulative effects of 24-hour noise from the construction and operation of a Maternity & Surgery Center, two hospitals with 24-hour emergency room service, ambulance traffic, a parking garage, additional surface parking, and a helistop over a 20-year period. We are not convinced that noise pollution from the site will always be instantaneous.

5-8

This is our neighborhood and our city, so we hope that you—our city representatives and advocates—take our comments and concerns into serious consideration and follow through with providing a detailed response, along with the requested analyses. Thank you.

Please send response and analyses to:

Laguna Ridge Residents and Other Interested Parties  
c/o Gabor & Jennifer Maghera  
6528 Cordially Way  
Elk Grove, CA 95757  
Email: lagunaridge@groups.facebook.com

## 4.0 COMMENTS AND RESPONSES

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### Letter 5 – Laguna Ridge Residents and Other Interested Parties

**Response 5-1:** The comment states the Draft SEIR and other related documents, including the Laguna Ridge Specific Plan EIR and the Laguna Ridge Town Center EIR, do not thoroughly address traffic, aesthetics, and noise associated with the Project. The comment continues that these concerns were expressed in comments on the NOP and were ignored in the Draft SEIR. The comment then notes that the previous EIRs did not include all components of the proposed medical campus, including a helistop, buildings exceeding 60 feet, 330 hospital beds, and 1,330 parking spaces.

While the previous EIRs did not consider 330 hospital beds for the Project site, as discussed on page 33 of the Initial Study (see Draft SEIR Appendix B), the hospital uses associated with the Project as currently proposed would generate fewer trips than the medical office uses analyzed in the Laguna Ridge Town Center EIR. For this reason, traffic impacts of the proposed Project would be less than those previously disclosed, and further analysis is not warranted.

The Initial Study acknowledges that the changes in building height compared to that previously analyzed could result in changes to aesthetics and that helicopter operations could result in noise not previously considered. Each of these topics was addressed in the Draft SEIR. Draft SEIR Section 3.1, Aesthetics, considers the changes to building heights on pages 3.1-3 and -4. The Draft SEIR found that although heights would be increased from the previous analysis, the Project would be within the parameters set by City of Elk Grove Zoning Code Section 23.32.040, which allows the maximum height in a commercial district to be increased up to 150 feet, provided that all buildings are set back from the ultimate right-of-way line of all abutting streets and freeways a distance at least equal to the height of the building. Because the height-to-setback ratio is within that allowed by the City's Zoning Code, this was not considered a substantial negative change in an area described in the Laguna Ridge Specific Plan EIR as "a portion of the City previously planned for, and currently experiencing, urban growth and development." Therefore, although the building height was not considered in the Laguna Ridge Town Center EIR, this impact was adequately addressed in the Draft SEIR.

Similarly, although the effects of helicopter noise were not considered in the previous analysis, the Draft SEIR discusses these effects on pages 3.5-27 and 3.5-28. As discussed, the analysis in the Draft SEIR is conservative in that the determination for significance is based on noise levels from a night flight, which includes a penalty in the model for night noise, notwithstanding information from the applicant that most flights would likely occur during the day as that is more beneficial for the patient being transferred. As discussed in Response to Comment C-2, the project applicant has amended the Project application to change the location of the helistop to the roof of Hospital Expansion #1. As discussed above and in Chapter 1, Introduction, of this Final SEIR, additional modeling was conducted that determined the noise levels with the rooftop location would be reduced compared to that disclosed in the Draft SEIR. Therefore, while helicopter operations were not considered in

the Laguna Ridge Town Center EIR, this impact was adequately addressed in the SEIR.

**Response 5-2:** The comment expresses concern about the amount of traffic generated by the Project and potential safety concerns associated with traffic and congestion caused by ambulances. The comment does not, however, provide any specifics with regard to how the analysis is inadequate. The bulleted points included in the comment (taken from the CEQA Appendix G checklist) are addressed in the Initial Study (see Draft SEIR Appendix B). As discussed above, a traffic analysis was prepared for the Laguna Ridge Town Center project that included land uses with a higher trip generation than the Project currently proposed. Therefore, the traffic analysis in the Laguna Ridge Town Center EIR overstated the potential traffic impacts that would be generated on the Project site under the current Project. While the hospital would operate 24 hours per day, traffic generated by the Project in off-peak hours would be substantially less than that disclosed in the Laguna Ridge Town Center EIR. Trip generation for the Project assumed operation of a hospital, including ambulance trips. Those ambulance trips would be intermittent and would represent a small portion of the overall trip generation for the Project and would not contribute substantially to congestion on local roads. No additional analysis is required.

With regard to safety, the comment provides no details on specific safety concerns. However, there are no design features associated with the Project that would result in conditions culminating in safety concerns.

**Response 5-3:** The comment asks that the EIR address the traffic impacts and provide more detailed studies and reports for the Project. As discussed in the Initial Study (see Draft SEIR Appendix B), the previous analysis overstates the traffic impacts that would be generated by the Project as currently proposed. Additional studies are not required. See also Response to Comment 5-2.

**Response 5-4:** The comment suggests locating the parking structure to the north portion of the site "due to 24-hour use." As discussed in Draft SEIR Section 2.0, Project Description (page 2.0-6), the parking garage is proposed for construction during the final phase of the project, at the time Medical Office Building #2 is constructed, to meet the parking demand when the medical office buildings are open, which would typically be traditional business hours. As discussed in the Initial Study, the medical office use generates more traffic than the hospital use. Therefore, the hospital portion of the Project would generate proportionately less traffic than the medical office uses and the Project would not generate substantial traffic after visiting hours, which typically end at 9 p.m. Because the parking structure is not, in and of itself, a generator of traffic, moving the parking structure to the north portion of the Project site would not reduce a Project impact.

The comment also requests eliminating Project access from the south "to reduce traffic congestion along Civic Center Drive." However, the Laguna Ridge Town Center EIR identifies access to the Project site via Wymark Drive (east), Civic Center Drive (south), and a right-in/right-out access via Elk Grove Boulevard, but does not identify Civic Center Drive as being impacted by traffic. As noted previously, the proposed Project would generate less peak-

## 4.0 COMMENTS AND RESPONSES

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hour and overall traffic than previously disclosed, so eliminating the southern driveway would not reduce an impact identified for the Project.

**Response 5-5:** The comment expresses opposition to allowing the proposed height limit increases proposed by the Project, as customer demand may not be high enough to support buildings taller than 60 feet and such buildings would negatively impact aesthetics in the area. See Response to Comment 5-1.

**Response 5-6:** The comment provides a list of recommended aesthetics considerations, including moving the location of Medical Office Building #2 to the corner of Elk Grove Boulevard and Wymark Drive, moving the parking structure adjacent to Elk Grove Boulevard, using natural-looking façades and landscaping for the parking structure, maintaining the 60-foot height limit, and starting to plan for tall trees. See Responses to Comments 5-1 and 5-5 regarding building heights. Regarding other recommended changes, the Project will include landscaping that, at a minimum, meets City requirements. It should be noted that as a hospital use with a desire to provide a pleasant experience for patients and visitors, the landscape plan will be designed to reduce the potential for a negative experience, which would benefit hospital users as well as the surrounding neighbors. Regarding moving project buildings, the location of the buildings as requested in the comment would not reduce any impacts identified for the project. Regarding other design features noted in the comment, such as façade details, the project requires design review for architecture and it must comply with the applicable design guidelines.

**Response 5-7:** The comment requests a noise analysis of the impact of construction and operation of all the proposed buildings, traffic, parking, and helistop associated with the Project.

Construction noise is addressed in Impact 3.5.1 of the Draft SEIR (see page 3.5-23). As noted in this impact analysis, the City of Elk Grove Noise Ordinance exempts construction activities from the specified noise ordinance standards during the hours of 6:00 a.m. to 8:00 p.m. Monday through Friday and from 7:00 a.m. to 8:00 p.m. on Saturday and Sunday. Construction would not occur 24 hours per day.

Parking lot noise is addressed in Impact 3.5.8 of the Draft SEIR. As noted in the impact analysis, peak-hour use would occur during the daytime hours, and nighttime hourly trip generation is expected to be approximately one-quarter of the daytime peak hour, so the parking lot noise levels will comply with the City of Elk Grove noise level criteria during the daytime and nighttime periods.

Emergency vehicle noise is addressed in Impact 3.5.8 of the Draft SEIR. As noted in this impact analysis, although Section 6.32.100D of the City of Elk Grove Code of Ordinances exempts any mechanical device, apparatus, or equipment related to or connected with emergency activities, this impact is considered potentially significant. There is no practical mitigation for this impact except for urging emergency response personnel to avoid using sirens. Because a prohibition on the use of sirens cannot be enforced, this impact would remain significant and unavoidable.



As discussed in Response to Comment 5-4, the medical office buildings would operate during traditional business hours. The hospital portion of the Project would generate proportionately less traffic than the medical office uses and the project would not generate substantial traffic after visiting hours, which typically end at 9 p.m. There would be very little other exterior noise generated at the project site, with the exception of periodic ambulance and helicopter noise, which are addressed separately in the Draft SEIR and, as discussed above, were found to be significant and unavoidable.

Potential noise impacts associated with helicopter operations, which were determined to be significant and unavoidable, are discussed on pages 3.5-27 and -28 of the Draft SEIR. However, as discussed in Section 1.0, Introduction, of this Final SEIR and Response to Comment C-2, the applicant has amended the application to include the helistop on Hospital Expansion #1. Noise modeling for this location shows the 60 dBA CNEL noise contour would not extend onto any residential property and the Project would not exceed the City's standard of 60 dBA CNEL for residential uses. While the SEL contours would shift eastward like those for the CNEL, residents in the project vicinity would still be exposed to events ranging from 85 to 95 dBA SEL, which would also be significant and unavoidable with the helistop on Hospital Expansion #1.

**Response 5-8:** The comment requests an analysis of cumulative noise effects of the proposed Project. Cumulative traffic and operational noise is addressed in Impacts 3.5.9 and 3.5.10 of the Draft SEIR. As previously discussed, the proposed Project would generate fewer peak-hour and total vehicle trips than assumed for the site in the Laguna Ridge Town Center EIR. Consequently, the future traffic noise levels generated by the Project would be less than that assumed in the Laguna Ridge Town Center EIR. Construction of future phases of the campus would also contribute to the noise environment in the Project vicinity, but this would be a temporary increase that would not add a permanent increase to the long-term noise environment.

The Project would also include the intermittent use of a helicopter and ambulances with sirens. These intermittent noise sources would contribute to a substantial periodic increase in ambient noise levels in the Project vicinity. Implementation of mitigation measure MM 3.3.5 would minimize helicopter sleep disturbance noise impacts, but certain conditions may preclude implementation of the measure. Because there is no practical mitigation for siren noise except for urging emergency response personnel to avoid using sirens, a prohibition on the use of sirens cannot be enforced. Therefore, night flights and siren noise could still occur, and the Project's contribution to noise levels in the Project vicinity was considered cumulatively considerable.

# Letter 6

RECEIVED

FEB 21 2013

PETITION REGARDING

CITY OF ELK GROVE  
PLANNING

Dignity Health Elk Grove Medical Campus Project

The following members of the Madeira Community of the City of Elk Grove, California, object to this project exceeding a 3-story height. We support the development of a small community hospital that blends in and benefits the community it has joined. We oppose the idea of a 6-story major medical center.

6-1

- | Date          | Name                     | Address                               | Signature                |
|---------------|--------------------------|---------------------------------------|--------------------------|
| 1) 1/25/13    | Sherrine Nameth          | 9824 Kugler Way E.G. CA 95757         | Sherrine Nameth          |
| 2) 1/25/13    | Bryan Nameth             | 9824 Kugler Way E.G. CA 95757         | Bryan Nameth             |
| (2) 3) 1/25   | Riche Alicia Daniel      | 9777 Kugler Way EG 95759              | Alicia Daniel            |
| (2) 4) 1/25   | BROUKE & JUSTIN CUMMINGS | 9792 Kugler Way, EG, CA 95757         | Brouke & Justin Cummings |
| 5) 1/25       | Tracey Anderson          | 9817 Kugler Way 95757                 | Tracey Anderson          |
| 6) 1/27       | ETAN JACKSON             | 7810 CELLANA DRIVE ELK GROVE CA 95757 | Etan Jackson             |
| 7) 1/27       | Judy Kelley              | 7712 NASSA Circle, ELK GROVE 95757    | Judy Kelley              |
| 8) 1/27       | JOHN MCNALLY             | 7704 NASSA CIRCLE ELK GROVE 95757     | John McNally             |
| 9) 1/27       | Alex Vela Cruz           | 6524 Cordially Way ELK GROVE CA 95757 | Alex Vela Cruz           |
| 10) 1/27      | Louise DeLo              | 6524 Cordially Way ELK GROVE CA 95757 | Louise DeLo              |
| 11) 1/27      | Jennifer Maghera         | 6528 Cordially Way ELK GROVE CA 95757 | Jennifer Maghera         |
| 12) 1/27      | GABOR MAGHERA            | 6528 Cordially Way ELK GROVE CA 95757 | Gabor Maghera            |
| 13) 1/27      | WHITE, Sidney            | 6520 Cordially Way, EG CA 95757       | Sidney White             |
| 14) 1/27      | Bayer Michele            | 9747 Clementia Way EG 95757           | Michele Bayer            |
| 15) 1/27      | KEVIN KERIMPE            | 7801 Cellana Dr EG 95757              | Kevin Kerimpe            |
| 16) 1/16/13   | Lor. Composed            | 9823 Kugler way 95757                 | Lor. Composed            |
| 17) 2/16/2013 | MIKE SMITH               | 9813 KUGLER WAY ELK GROVE CA 95757    | Mike Smith               |
| 18) 2/16/13   | Doreen Smith             | 9813 Kugler Way Elk Grove 95757       | Doreen Smith             |

Total = 23 signatures



## 4.0 COMMENTS AND RESPONSES

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### Letter 6 – Petition

**Response 6-1:** The comment expresses opposition to the proposed Project exceeding a three-story height limit and instead supports development of “a small community hospital that blends in and benefits the community.” This is a comment on the merits of the Project, not the adequacy of the EIR. The comment is forwarded to the decision-makers for their consideration. Refer also to Impact 3.1.1 (Draft SEIR Section 3.1, Aesthetics, pages 3.1-3 and -4), which considers the changes to building heights.

## Letter 7

Gerald Park  
Elk Grove Planning Dept.

**RECEIVED**

**FEB 26 2013**

February 25, 2013

RE: Dignity Health Elk Grove Medical Campus Project

**CITY OF ELK GROVE  
PLANNING**

Dear Mr. Park,

I did not attend the public meeting on February 21, 2013, but would like to voice my encouragement for the overall facility proposal. This facility will be a benefit to our community. Our family, friends and neighbors live nearby and would benefit from this facility.

7-1

The proposed project is planned well into the future but I would like to ask if the hospital has considered a more optimal placement of the helistop. From the flyer received in the mail about the outreach meeting it appears that the helistop will be located on the ground west of the hospital. I suggest an elevated helistop be considered for several reasons, including optimizing land use, noise complaints, and operational safety.

The at-grade helistop converts valuable parking, patient routing areas and landscaping into a dedicated helicopter landing area. The actual helistop pad must be secured as well as safety areas surrounding the pad. Fences need to be erected to keep pedestrians & vehicle traffic off the helistop. Also, land adjacent to the helistop (and possibly not on hospital property) must be kept free of trees, fences, buildings, light poles and other structures so the helicopter approach and departure surfaces are not obstructed. Helicopter approach & departure paths with obstructions do not meet Federal Aviation Administration standards and subject the operating permit to suspension until corrected.

Helicopter rotor wash is a powerful force which can pick up debris and damage vehicles, property and possibly injure pedestrians. The risk of damage to people and property is reduced when a helistop is located on a roof. I suggest that a rooftop helistop is more secure, frees up valuable ground-level real estate and is safer for the public and patient care.

7-2

A helistop located on a rooftop would allow helicopters on approach and departure to be higher above the neighborhood. This reduces the noise effect of the helicopter. From the literature provided, only occasional use of the helistop is planned. Future needs may dictate increased flight frequency and a rooftop helistop would allow options a ground-based helistop would not. Also, a rooftop helistop would tangibly show that the hospital is concerned with being a good neighbor related to noise.

It is advantageous and safer for helicopters to land and take-off into the wind. The proposed helistop appears to have north/south approach and departure paths. The prevailing wind in our area is from the west to southwest. North and south oriented approach and departure paths limit the pilot's ability to take necessary advantage of the prevailing wind. A rooftop based helistop would have fewer current and future obstructions which would allow a wider degree of flexibility for approach and departure directions. A rooftop helistop could also double as a building evacuation facility in case of fire or other catastrophe within the building.

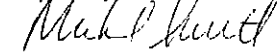
A rooftop helistop and elevator system would allow for a more direct & secure access to emergency room facilities versus wheeling patients across a parking lot or roadway in the weather.

I also believe the zoning should NOT be changed to allow a 6 story hospital structure. The project area is mostly residential and retail of much lower height. A 6 story structure does not fit into the overall look and temperament of the area. I encourage the city to NOT change the current zoning to allow more than a 3-4 story structure.

7-3

I appreciate the opportunity to comment on this proposed facility. This new facility will be a huge benefit to the community and I sure will be welcomed as a new neighbor.

Respectfully,



Michael Smith  
9813 Kugler Way  
Elk Grove, CA 95757

## 4.0 COMMENTS AND RESPONSES

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### Letter 7 – Michael Smith

- Response 7-1:** The comment expresses support for the overall facility proposal. This is a comment on the merits of the Project, not a comment on the adequacy of the SEIR. No response is required.
- Response 7-2:** The comment asks if the Project has considered a rooftop helistop and goes on to provide various reasons why such a helistop would be optimal. See Response to Comment C-2.
- Response 7-3:** The comment expresses opposition to allowing a six-story hospital structure and expresses a preference for only a three- to four-story structure. The comment also states a six-story structure does not fit the “look and temperament of the area.” See Response to Comment 5-1.

Letter 8

RECEIVED

FEB 27 2013

CITY OF ELK GROVE  
PLANNING

Feb. 26, 2013

City of Elk Grove  
8481 Laguna Palms Way  
Elk Grove, CA 95758

Attn: Gerald Park, Senior Planner

As a resident of 7701 Hazenmore Court, I would like to voice my opposition to the proposed Dignity Health Elk Grove Medical Campus - EG-12-014. Referencing the potential environmental issues identified, these are my comments:

#1. Aesthetics: The buildings in the proposed area, which are already finished, are ugly and present an eyesore. Additional buildings as described will do little to add beauty to the area.

8-1

#2. Air quality: It will be adversely affected by additional traffic along Elk Grove Boulevard. Speeding on the street is a common problem, while exiting from Wymark often takes a very long time. I have personally witnessed

8-2

## Letter 8 Continued

2

accidents at Big Horn and Elk Grove Blvd which is a short distance from Wymark Dr.

8-3

#3. Greenhouse gas emissions: The preceding comments about traffic indicate there will be increased amounts of auto emissions which are heavy now. In addition, if the hospital burns their hazardous materials, there will be increased pollution.

8-4

8-5

#4. Hazards & Hazardous Materials: The equipment used for construction will present potential driving hazards and noise over a long period of time. As mentioned above, hospitals produce much hazardous waste which may be disposed of by burning.

8-6

8-7

#5. Noise: In addition to traffic and construction noise, there will be the added noise of emergency vehicles, and on occasion that of helicopters.

8-8



Letter 8 Continued

3

While I have no expectations that my objections will help to stop this project, I, as a longtime, nearby resident (16 years) want to register my protest.

8-9

Sincerely,

Barbara A. Rippel  
7701 Hazenmore Ct.  
Elk Grove, CA 95758  
Phone number: 916-684-7735

## 4.0 COMMENTS AND RESPONSES

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### Letter 8 – Barbara Rippel

- Response 8-1:** The comment states that existing buildings in the area are unattractive and that the additional buildings associated with the proposed Project would not have a positive aesthetic effect on the area. This is a comment on the merits of the Project, not a comment on the adequacy of the SEIR. The opinion is noted and will be forwarded to the decision-makers for their consideration.
- Response 8-2:** The comment states that air quality would be adversely affected by additional traffic along Elk Grove Boulevard. As discussed in Impact 3.2.2 (Draft SEIR pages 3.2-17 through -20), the operational emissions of the proposed Project, including mobile sources (traffic), would not exceed the Sacramento Metropolitan Air Quality Management District significance criteria of 65 pounds per day of either reactive organic gases or oxides of nitrogen. Therefore, while the Project would contribute to air emissions from traffic on Elk Grove Boulevard, no significance criteria would be exceeded and this would not be a significant effect.
- Response 8-3:** The comment states that speeding on Elk Grove Boulevard is a common problem, exiting from Wymark often takes a long time, and the commenter has witnessed accidents in the area. The observations noted in the comment refer to existing conditions and not conditions resulting from the proposed Project. While the Project would contribute to the overall traffic volumes for future conditions on the roads referenced in the comment, those roads are designed to City standards and are not inherently unsafe. However, the comment has been forwarded to Public Works staff to determine if a disproportionate number of accidents occur in the area.
- Response 8-4:** The comment states that increased traffic associated with the proposed Project would lead to increased auto emissions of greenhouse gases. As noted on Draft SEIR page 3.3-13, greenhouse gases were not addressed in the previous EIRs, so the Draft SEIR analyzed the potential increases associated with development of the site with the proposed Project using existing conditions as the baseline. As shown in Table 3.3-5 (Draft SEIR page 3.3-14) and Table 3.3-8 (page 3.3-16), mobile emissions of greenhouse gases (GHG) are considered in the analysis. Although GHG-reducing features incorporated into the Project and implementation of mitigation measure MM 3.3.1 would decrease Project-related GHG emissions by 2,011 metric tons annually, the Project would still exceed the annual 1,100 metric ton threshold, so this impact was considered significant and unavoidable.
- Response 8-5:** The comment states that if the hospital burns its hazardous materials, there will be increased pollution. Dignity Health has not proposed burning of any hazardous materials on site and Sacramento Metropolitan Air Quality Management District Rule 408 restricts the burning of any combustible refuse in any incinerator or other enclosure except for refuse generated and burned on the premises of a single or two-family dwelling in the unincorporated area of the County of Sacramento. Therefore, there would be no increase in air emissions (including greenhouse gases) as a result of burning hazardous materials at the Project site.

- Response 8-6:** The comment states that construction equipment would present long-term driving hazards and noise. Construction equipment would be brought to the site on trucks, which would be required to comply with all existing regulations for transport of such equipment on public streets. There is no specific hazard related to the construction equipment referenced in the comment; a specific response is not available. Construction noise is addressed in Impact 3.5.1 of the Draft SEIR. See also Response to Comment 5-7.
- Response 8-7:** The comment reiterates that hazardous hospital waste may be burned. See Response to Comment 8-5 regarding burning of hospital waste. The Draft SEIR addresses the transport, use, storage, and disposal of hazardous materials, which is governed by a substantial body of existing regulations with which the Project would be required to comply. See Draft SEIR Section 3.4, Hazards and Hazardous Materials, regarding the regulations that control use, handling, and disposal of hazardous materials.
- Response 8-8:** The comment states that the Project would result in additional emergency vehicle and helicopter noise. The Draft SEIR considered the potential noise effects of emergency vehicles and helicopters. Emergency vehicle noise is addressed in Impact 3.5.8 on page 3.5-42 of the Draft SEIR. Potential noise impacts associated with helicopter operations are discussed on pages 3.5-27 and -28 of the Draft SEIR.
- Response 8-9:** The comment reiterates opposition to the proposed Project. This is a comment on the merits of the Project, not a comment on the adequacy of the SEIR. The opinion is noted and will be forwarded to the decision-makers for their consideration.

Letter 9

RECEIVED  
FEB 27 2013  
CITY OF ELK GROVE  
PLANNING

Emmett O'Sullivan  
7701 Hazenmore Court  
Elk Grove, CA 95758-1004  
2/26/2013

City of Elk Grove  
Attn: Mr. Gerald Park, Senior Planner  
8401 Laguna Palms Way  
Elk Grove, CA 95758

Mr. Park:

Regarding the proposed Dignity Health Elk Grove Medical Campus Project, I would imagine that much planning has gone into providing medical care for proposed patients, and such a campus would have to be built somewhere, just not in my backyard!

9-1

Something tells me that Dignity Health is an HMO, a Health Management Organization, a for-profit company. I have a low regard for HMOs. Have you seen Michael Moore's film "Sicko?"

9-2

The Elk Grove area is already home to Kaiser facility on Laguna Blvd., a Kaiser hospital on Bruceville Rd in South Sacramento, and there's a Kaiser sports clinic next to Highway 99. There is a Methodist Hospital near the Bruceville Rd. Kaiser building. Sutter Health has a building on Laguna Blvd. It does not seem that we need another health facility here.

9-3

This Dignity Health Campus appears to be a monster in size and in construction time, from 2017 to 2037, with 20 years of construction noise.

9-4



Letter 9 Continued

-2-

The 500 parking spaces would be filled with air polluting automobiles on a daily basis. Have you noticed the daily traffic jams on Elk Grove Blvd. eastbound toward Highway 99? How do you think this extra traffic will add to that?

9-5

When I moved into this area in 1997 there was a beautiful open green meadow that extended as far as the eye could see south of Elk Grove Blvd.

9-6

Bales of hay were harvested there.

9-7

Within a year or so, the farmer sold out to the developers. He got his million dollars. We got lots of noisy construction, ugly buildings that contain who knows what for whom. I know not, street lights that must be consuming gobs of power, causing unneeded air pollution at some power plant, an unneeded shopping center of Kohl's, World Market, Vnquoit Bank, a tire store, a dental office, a Trader Joe's, a fat lady's dress shop, a vitamin shop, some restaurants, all of which we do not need, and which compare poorly with the original pristine land.

9-8

It was at that time that the toads that used to populate this area stopped croaking and just plain croaked. I suspect that there was a connection between their disappearance and the onslaught of construction.

9-9

Letter 9 Continued

- 3 -

I recall being serenaded by jack hammers on Elk Grove Blvd. during hot summer nights a few years ago. I don't want these sounds to return. 9-10

How about building this campus at the languishing partly-built shopping mall that never should have been started? It, too, was built on a beautiful meadow. 9-11

If you want to plan on some construction, how about a light rail train? One train could eliminate much of the current automobile traffic. 9-12

Why are all the streets black when a study many years ago indicated that white colored asphalt reflects sunlight, while black colored asphalt absorbs the sun's heat? 9-13

Don't we have enough noisy disturbances from aircraft at any hour of the day or night without adding a helicopter destination within blocks of my house? 9-14

Have I layed it on thickly enough that I am against this intrusion of my peace and quiet, what little there is currently? I hope so. 9-15

Yours Truly,  
Emmett O'Sullivan

**Letter 9 – Emmett O’Sullivan**

**Response 9-1:** The comment states that the proposed medical campus should not be located at the location proposed by the Project. As noted on page 2.0-5 of the Draft SEIR, one of the objectives of the Project is to provide jobs and vital services near the new Civic Center to provide a catalyst for the new Civic Center area and support the City’s economic development goals. As discussed in Section 2.0, Project Description, there is an existing medical office building on the Project site that would be an integral part of the campus. A different location for the campus would not support development goals for the Civic Center area and would not take advantage of the efficiencies that would be provided by the collocation of the remainder of the medical campus with the existing medical office building.

**Response 9-2:** The comment asks if Dignity Health is a Health Management Organization (HMO) and is for profit. This is not a comment on the adequacy of the SEIR and would not alter the conclusions regarding the physical environmental effects of the Project. No response is required.

**Response 9-3:** The comment notes five existing hospitals in the vicinity of Elk Grove and states that it seems that another health facility is not needed in the area. This is a comment on the merits of the Project, not a comment on the adequacy of the SEIR. No response is required.

**Response 9-4:** The comment states that the Project would result in 20 years of construction noise. Construction noise is addressed in Impact 3.5.1 of the Draft SEIR. While the project has an estimated a 20-plus year buildout time frame, Project construction would occur in phases over the course of buildout, so noise related to construction would be temporary. As discussed in Response to Comment 5-7, construction would be limited to occur between the hours of 6:00 a.m. to 8:00 p.m. Monday through Friday and from 7:00 a.m. to 8:00 p.m. on Saturday and Sunday. Therefore, construction would not occur 24 hours per day. See also Impact 3.5.1 in the Draft SEIR on page 3.5-23.

**Response 9-5:** The comment states that the 500 parking spaces associated with the proposed Project would be filled with air-polluting automobiles on a daily basis. The parking structure and the vehicles that would occupy the structure are taken into account in the air quality analysis in Section 3.2 of the Draft SEIR. This analysis determined that the proposed Project would not result in an increase in the severity of air quality impacts beyond what was considered in the Laguna Ridge Town Center EIR, and there is not a new or substantially more severe significant impact.

**Response 9-6:** The comment asks how the extra traffic associated with the proposed Project would add to the daily traffic on Elk Grove Boulevard eastbound toward Highway 99.

Elk Grove Boulevard is a four- to six-lane, east–west arterial with six lanes adjacent to the Project site. The Laguna Ridge Town Center EIR (page 4.4-11) found that the addition of Laguna Ridge Town Center project traffic would cause the Elk Grove/East Stockton Boulevard intersection to worsen from level of service (LOS) C to a LOS D in the AM peak hour, but all other Elk Grove

#### 4.0 COMMENTS AND RESPONSES

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Boulevard intersections studied would continue to operate in both the AM and PM peak hours at the same level of service as with the existing conditions studied. As noted in Response to Comment 2-1, the proposed Project would generate fewer trips than assumed in the Laguna Ridge Town Center EIR. Therefore, the proposed Project would not exceed the capacity of Elk Grove Boulevard.

**Response 9-7:** The comment states that the Project area previously consisted of an open green meadow where hay was harvested. This is not a comment on the adequacy of the SEIR, and no response is required. Aesthetics impacts are addressed in Section 3.1 of the Draft SEIR.

**Response 9-8:** The comment states that the area around the Project now contains noisy construction, unattractive buildings that consume lots of power and generate air pollution, and an unnecessary shopping center (Elk Grove Commons). This is not a comment on the adequacy of the SEIR, and no response is required. However, aesthetics impacts are addressed in Section 3.1 of the Draft SEIR and were found to have been adequately addressed in the Laguna Ridge Town Center EIR. Noise impacts are addressed in Section 3.5 of the Draft SEIR. The air quality and greenhouse gas effects of the Project are addressed in Sections 3.2 and 3.3, respectively.

**Response 9-9:** The comment states that upon construction of the shopping center referenced above, toads in the area seemed to disappear. This is not a comment on the adequacy of the SEIR and is not related to effects of the proposed Project. No response is required. However, potential impacts on biological resources are discussed in Section IV of the proposed Project's Initial Study (see Draft SEIR Appendix B) and were found to have been adequately addressed in the Laguna Ridge Town Center EIR.

**Response 9-10:** The comment expresses a desire to not hear jackhammers on Elk Grove Boulevard during Project construction as has happened in the past during other construction. See Response to Comment 9-4 above regarding construction noise.

**Response 9-11:** The comment recommends that the proposed campus should be built at the partially constructed shopping center. As noted in Response to Comment 4-3, a different location for the campus would not support development goals for the Civic Center area and would not take advantage of the efficiencies that would be provided by the collocation of the remainder of the medical campus with the existing medical office building.

**Response 9-12:** The comment states that a light rail train would be a better use of construction and would eliminate much of the existing auto traffic. This is a comment on the merits of the Project, not a comment on the adequacy of the SEIR. No response is required.

**Response 9-13:** The comment asks why the streets are black when studies indicate that white-colored asphalt is better at reflecting sunlight. The commenter does not specify the studies to which he refers. However, light and glare impacts are discussed in Impact 3.1.2 of the Draft SEIR. The Project would not change the surfaces of the public streets, but would require paving of the site, some of



which would be asphalt. The Project site would also include light-colored concrete and landscaping, including trees that provide shade and reduce the heat absorption referenced in the comment.

**Response 9-14:** The comment states that the helicopter pad would add noise to an area already noisy from existing aircraft. Potential noise impacts associated with helicopter operations are discussed on pages 3.5-27 and -28 of the Draft SEIR. See also Response to Comment C-2.

**Response 9-15:** The comment expresses opposition to the proposed Project. This is a comment on the merits of the Project, not a comment on the adequacy of the SEIR. No response is required. The comment is forwarded to the decision-makers for their consideration.

**EXHIBIT C**

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FINDINGS OF FACT  
AND  
STATEMENT OF OVERRIDING CONSIDERATIONS

FOR THE  
DIGNITY HEALTH ELK GROVE MEDICAL CAMPUS SEIR

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SCH# 2012082029

PREPARED BY:

CITY OF ELK GROVE  
DEVELOPMENT SERVICES, PLANNING  
8401 LAGUNA PALMS WAY  
ELK GROVE, CA 95758

**THE CITY OF ELK GROVE FINDINGS REQUIRED UNDER  
THE CALIFORNIA ENVIRONMENTAL QUALITY ACT  
(Public Resources Code Section 21000 et seq.)**

**I. INTRODUCTION**

The City of Elk Grove ("City") prepared a Final Subsequent Environmental Impact Report ("Final SEIR") for the proposed Dignity Health Elk Grove Medical Campus Project ("Project") and other related entitlements including a Specific Plan Amendment, Amendment to the Elk Grove Town Center Design Guidelines, Conditional Use Permit, Tentative Parcel Map, Design Review, and Uniform Sign Program.

The Final SEIR addresses the potential environmental effects associated with the development of the Project site with hospital and medical office uses constructed in four phases on an approximately 27.8-acre site located at 8220 Wymark Drive, on the southwest corner of Elk Grove Boulevard, in the Laguna Ridge Specific Plan (LRSP) area. The Project includes the construction of a six-story, 456,719-square-foot, 330-bed hospital; a three-story, 65,000-square-foot medical office building (referred to as MOB #2); and a five-level, 169,520-square-foot parking structure. The Project applicant is requesting a building height limit amendment for the Project site and approval of a Conditional Use Permit to allow hospital use in the Shopping Center (SC) district and allow establishment of a helistop.

The Findings and Statement of Overriding Considerations set forth below ("Findings") are presented for adoption by the City Council, as the City's findings under the California Environmental Quality Act ("CEQA") (Public Resources Code Section 21000 et seq.) and the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 et seq.) relating to the Project. The Findings provide the written analysis and conclusions of this Council regarding the Project's environmental impacts, mitigation measures, alternatives to the Project, and the overriding considerations, which in this Council's view, justify approval of the Dignity Health Elk Grove Medical Campus Project, despite its environmental effects.

**II. GENERAL FINDINGS AND OVERVIEW**

**A. Relationship to the City of Elk Grove General Plan and the Laguna Ridge Specific Plan**

The Dignity Health Elk Grove Medical Campus Project is located in the Laguna Ridge Specific Plan area as designated in the City's General Plan. The General Plan provides the long-term vision or blueprint for development of the City; all subsequent land use approvals are required to be consistent with the goals, objectives, and policies embodied in the General Plan. The land uses included in the Project are consistent with the land use designations in the Laguna Ridge Specific Plan.

**B. Procedural Background**

The City prepared a Notice of Preparation (NOP) on August 8, 2012, stating that an EIR for the Project would be prepared. This notice was circulated to the public, local, state, and federal agencies, and other interested parties to solicit comments on the Project. Concerns raised in response to the NOP were considered during preparation of the Draft Subsequent Environmental Impact Report (referred to as the "Draft SEIR" or the "DSEIR"). The Notice of Availability for the DSEIR was published on January 11, 2013. The DSEIR was published for public review and comment on January 11, 2013, and was filed with the State Office of Planning & Research under State Clearinghouse No. 2012082029. The review period for the DSEIR ended on February 27, 2013.

The City prepared written responses to the comments received during the comment period and included these responses in a separate volume entitled "Dignity Health Elk Grove Medical Campus Final Subsequent Environmental Impact Report." The Final SEIR provides a list of those who commented on the DSEIR, copies of written comments (coded for reference), written responses to comments regarding the environmental review, and an errata with minor text changes made to the DSEIR as a result of comments on the DSEIR. The Final SEIR was made available for public review on June 7, 2013.

### **C. Project History**

The Project is located in the Laguna Ridge Specific Plan area. The Laguna Ridge Specific Plan Environmental Impact Report (LRSP EIR) was certified and the Laguna Ridge Specific Plan approved by the City Council on June 16, 2004. The LRSP EIR (SCH #2000082139) assessed the expected environmental impacts resulting from the construction and operation of the LRSP and identified mitigation measures to minimize potential adverse environmental impacts. The EIR identified significant and unavoidable impacts related to agricultural resources, transportation and circulation, air quality, noise, public utilities, and visual resources. A Statement of Overriding Considerations (SCH #2000082139) was adopted for these significant and unavoidable impacts. A Mitigation Monitoring and Reporting Program (MMRP) was prepared and adopted with the Laguna Ridge Specific Plan. The MMRP is a binding document that runs with the land.

In 2008, the City approved the Laguna Ridge Town Center (also referred to as "Elk Grove Town Center") project, which included a 23.3-acre increase in the area designated for commercial land uses and a corresponding reduction in residential uses on a 95.3-acre portion of the Laguna Ridge Specific Plan. The Laguna Ridge Town Center Subsequent EIR (a Subsequent EIR to the LRSP EIR; SCH #2007082169) analyzed development of up to 364,000 square feet of medical offices on approximately 30 acres of Shopping Center-(SC) designated land in the Laguna Ridge Specific Plan area. The Laguna Ridge Town Center project was subject to the MMRP for the Laguna Ridge Specific Plan, and a Mitigation Monitoring and Reporting Program was also prepared and adopted with the Laguna Ridge Town Center project. The Laguna Ridge Town Center SEIR identified significant and unavoidable impacts related to air quality, long-term noise levels, traffic operations on portions of Elk Grove Boulevard, and cumulative traffic operations at intersections in the vicinity. A Statement of Overriding Considerations was adopted for these significant and unavoidable impacts.

The proposed Dignity Health Elk Grove Medical Campus Project was submitted to the City of Elk Grove for consideration in 2012. A Notice of Preparation (NOP) of a Draft Subsequent Environmental Impact Report (SEIR) was prepared and circulated. The City then proceeded with environmental review as described in Section B above.

### **D. Record of Proceedings and Custodian of Record**

For purposes of CEQA and the findings set forth herein, the record of proceedings for the City of Elk Grove's findings and determinations consists of the following documents and testimony, at a minimum:

- The NOP, comments received on the NOP, and all other public notices issued by the City in relation to the Dignity Health Elk Grove Medical Campus Project SEIR (e.g., Notice of Availability).

- The 2003 General Plan Draft EIR, associated appendices to the Draft EIR, and technical materials cited in the Draft EIR.
- The 2003 General Plan Final EIR, associated appendices to the Final EIR, and technical materials cited in the Final EIR
- The Laguna Ridge Specific Plan Draft EIR, associated appendices to the Draft EIR, and technical materials cited in the Draft EIR.
- The Laguna Ridge Specific Plan Final EIR, including comment letters, and technical materials cited in the document.
- The Laguna Ridge Town Center Draft SEIR, associated appendices to the Draft SEIR, and technical materials cited in the Draft SEIR.
- The Laguna Ridge Town Center Final SEIR, including comment letters, and technical materials cited in the document.
- The Dignity Health Elk Grove Medical Campus Project Draft SEIR, associated appendices to the Draft SEIR, and technical materials cited in the Draft SEIR.
- The Dignity Health Elk Grove Medical Campus Project Final SEIR, including comment letters, and technical materials cited in the document.
- All non-draft and/or non-confidential reports and memoranda prepared by the City of Elk Grove and consultants related to the Project or any of the above-associated environmental documents.
- Minutes and transcripts of the discussions regarding the Project and/or Project components at public hearings held by the City of Elk Grove Planning Commission and City Council.
- Staff reports associated with Planning Commission and City Council meetings on the Project.
- Those categories of materials identified in Public Resources Code Section 21167.6.

The City Clerk is the custodian of the administrative record. The documents and materials that constitute the administrative record are available for review at the City of Elk Grove offices located at 8401 Laguna Palms Way, Elk Grove, California, 95758.

#### **E. Consideration of the Environmental Impact Report**

In adopting these Findings, the City Council finds that the Final SEIR was presented to this Council, the decision-making body of the lead agency, which reviewed and considered the information in the Final EIR prior to approving the Dignity Health Elk Grove Medical Campus Project, including the Tentative Parcel Map, Conditional Use Permit, Uniform Sign Program, and Design Review. By these findings, the Council ratifies, adopts, and incorporates the analysis, explanations, findings, responses to comments, and conclusions of the Final SEIR. The City Council finds that the Final SEIR was completed in compliance with the California Environmental Quality Act. The Final SEIR represents the independent judgment of the City.

## **F. Severability**

If any term, provision, or portion of these Findings or the application of these Findings to a particular situation is held by a court to be invalid, void, or unenforceable, the remaining provisions of these Findings, or their application to other actions related to the Dignity Health Elk Grove Medical Campus Project, shall continue in full force and effect unless amended or modified by the City.

## **G. Summary of Environmental Findings**

The City Council has determined that based on all of the evidence presented, including, but not limited to, the EIR, written and oral testimony given at meetings and hearings, and submission of comments from the public, organizations, and regulatory agencies, and the responses prepared to the public comments, the following environmental impacts associated with the Project are:

### **1. Potentially Significant and Cannot be Avoided or Reduced to a Less Than Significant Level**

- Net increases in greenhouse gas emissions that will conflict with the goals of AB 32
- Exposure of sensitive receptors to helicopter noise
- Exposure of sensitive receptors to emergency vehicle siren noise
- Cumulative operational, siren, and helicopter noise

### **2. Potentially Significant Impacts That Can be Avoided or Reduced to a Less Than Significant Level Through Implementation of Mitigation Measures**

- Exposure of sensitive receptors to central plant and emergency generator noise

### **3. Impacts Addressed Adequately in the Previously Certified Laguna Ridge Specific Plan EIR and/or Laguna Ridge Town Center SEIR**

- **EFFECTS ON SCENIC VISTAS AND SCENIC RESOURCES; CHANGES TO VISUAL CHARACTER; AND INCREASES IN LIGHT OR GLARE**
- Conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance; conflicts with agricultural zoning or a Williamson Act contract
- Conflicts with applicable air quality plans; violations of air quality standards or contributions to violations; increases in criteria pollutants; construction-related emissions; exposure of people to substantial pollutant concentrations or odors
- Effects on special-status species, riparian habitat or sensitive natural communities, wetlands, or migratory fish or wildlife species
- Adverse effects on historical resources; adverse effects on archaeological resources; disturbance of human remains

- Exposure to hazards related to rupture of a known earthquake fault, seismic ground shaking, seismic-related ground failure, liquefaction, soil erosion, unstable soils, or expansive soils
- Significant risk of loss, injury, or death involving wildland fires
- Exposure of the public, including schools, to hazardous materials through routine use or due to accident or upset, or due to being located on a listed hazardous site
- Violations of water quality standards
- Effects on groundwater supplies or groundwater recharge; erosion, siltation, or flooding due to alteration of drainage patterns; polluted runoff
- Placement of housing or structures in a 100-year floodplain
- Exposure to risk due to inundation by seiche, tsunami, or mudflow, or failure of a levee or dam
- Conflicts with land use plans or policies
- Exposure of sensitive receptors to construction noise, construction vibration, or traffic noise
- Inducement of population growth
- Adverse effects associated with the construction of new or altered governmental facilities for fire protection, police protection, schools, parks, or other public facilities
- Deterioration of park or recreation facilities
- Conflicts with measures established for the performance of the circulation system, public transit, bicycle, or pedestrian facilities, or applicable congestion management program
- Increases in traffic hazards or effects on emergency access or an adopted emergency response plan or emergency evacuation plan
- Exceeds wastewater treatment requirements or the capacity of the wastewater treatment provider
- Requirements for new or expanded water, wastewater, or stormwater facilities
- Effects related to solid waste
- Impacts related to water supply

#### 4. Less Than Significant and No Impacts That Do Not Require Mitigation

- CONFLICTS WITH ZONING FOR FORESTLAND; CONVERSION OF FORESTLAND TO NON-FOREST USE
- Conflicts with an adopted habitat conservation plan or natural community conservation plan
- Adverse effects on paleontological resources
- Hazards associated with air traffic and cumulative contribution to air traffic
- Effects related to septic tanks or alternative wastewater disposal systems
- Exposure of hospital patients to traffic noise
- Exposure of sensitive receptors to parking lot noise
- Physically divides a community
- Loss of mineral resources or loss of a mineral recovery site
- Displacement of housing or people
- Changes in air traffic patterns

### III. FINDINGS AND RECOMMENDATIONS REGARDING SIGNIFICANT AND UNAVOIDABLE IMPACTS

#### A. Greenhouse Gases and Climate Change

##### 1. Greenhouse Gas Emissions Impacts (SEIR Impact 3.1.1)

**(a) Potential Impact.** The proposed Project will generate 9,183 metric tons of CO<sub>2</sub>e annually, which exceeds the annual 1,100 metric ton threshold. The potential impact of a cumulatively considerable net increase of greenhouse gas emissions is discussed at pages 3.3-14 through -16 of the DSEIR.

**(b) Mitigation Measures.** Dignity Health Elk Grove Medical Campus mitigation measure MM 3.3.1 is hereby adopted and will be implemented as provided by the Mitigation Monitoring and Reporting Program.

**(c) Findings.** Based upon the DSEIR and the entire record before this City Council, this City Council finds that:

**(1) Effects of Mitigation.** Implementation of the mitigation measure indicated above would reduce greenhouse gas emissions by 1,823 metric tons of CO<sub>2</sub>e annually, or 16.3 percent, compared with baseline emissions estimates. The Project's proposed landscaping would achieve a greenhouse gas sequestration rate of 188 metric tons of CO<sub>2</sub>e annually. Although the mitigation measure would reduce emissions from the Project, it would not reduce the impact to a level of insignificance. There is no other feasible mitigation measure available.



**(2) Remaining Impacts.** Although the implementation of the mitigation measure described above would substantially reduce the Project's contribution to the net increase of greenhouse gas emissions, the Project would still generate greenhouse gas emissions in excess of the annual 1,100 metric ton threshold. This would represent a significant impact of the Project.

**(3) Overriding Considerations.** The environmental, economic, social, and other benefits of the Project override any remaining significant adverse impact of the Project contributing to greenhouse gas emissions, as more fully stated in the Statement of Overriding Considerations in Section VII, below.

## **B. Noise**

### **1. Emergency Helicopter Noise (SEIR Impact 3.5.5)**

**(a) Potential Impact.** Helistop operations would generate noise at sensitive receptors and could expose existing and future residences adjacent to and in the vicinity of the Project site to sound exposure levels (SEL) between 85 dBA and 95 dBA, which could result in sleep disturbance, as discussed on pages 3.5-27 through -41 of the DSEIR. The General Plan Noise Element establishes a land use compatibility standard of 60 dB  $L_{dn}$  in outdoor activity areas of residential land uses; where it is not possible (reasonable or feasible) to reduce noise in outdoor activity areas to 60 dB  $L_{dn}$  or less using a practical application of the best available noise reduction measures, an exterior noise level of up to 65 dB  $L_{dn}$  may be allowed. With the helistop located on the rooftop of Hospital Expansion #1, the 65 dBA Community Noise Equivalent Level (CNEL) noise contour is entirely within the Project boundaries, and the degree to which the 60 dBA CNEL noise contour extends off the project site is substantially reduced compared to the ground-level location and with the rooftop location, the 60 dBA CNEL noise contour does not extend onto residential property (Final SEIR page 1.0-2).

**(b) Mitigation Measures:** Dignity Health Elk Grove Medical Campus mitigation measure MM 3.5.5 is hereby adopted and will be implemented as provided by the Mitigation Monitoring and Reporting Program.

**(c) Findings.** Based upon the DSEIR and the entire record before this City Council, this City Council finds that:

**(1) Effects of Mitigation.** Implementation of the identified mitigation measure requires the Project applicant to provide information to emergency service providers (i.e., helicopter operators) that, to the extent possible, helicopters shall implement noise abatement flight procedures, such as maintaining as high an altitude as possible, flying at normal cruising speed or slower, observing low-noise speed and descent recommendations, avoiding sharp maneuvers, and using steep take-off and descent profiles. The measure also requires, when possible, that helicopter arrivals and departures be scheduled to occur during the daytime periods, to reduce the potential for sleep disturbance. However, while off-site residential land uses would not be exposed to 65 dBA CNEL noise levels (Final SEIR page 1.0-2), helicopter operations could still result in sleep disturbance from SEL noise levels between 85 dBA and 95 dBA. Therefore, the impact remains significant and unavoidable.

**(2) Remaining Impacts.** Implementation of this mitigation measure would minimize helicopter sleep disturbance noise impacts. While mitigation to reduce noise associated with helicopter operations would be sufficient to allow application of a 65 dB L<sub>dn</sub>/CNEL standard, certain conditions may preclude implementation of the measure. For instance, a critical patient may require a night transfer, and weather or other conditions may preclude the application of noise abatement flight procedures due to safety concerns. Therefore, night flights and the potential for sleep disturbance could still occur. For these reasons, the impact would remain significant and unavoidable. This would represent a significant impact of the Project.

**(3) Overriding Considerations.** The environmental, economic, social, and other benefits of the Project override any remaining significant adverse impact of the Project resulting from exposure to helicopter noise, as more fully stated in the Statement of Overriding Considerations in Section VII, below.

## **2. Emergency Vehicle Siren Noise (SEIR Impact 3.5.7)**

**(a) Potential Impact.** Emergency vehicles will utilize sirens while transporting patients to the hospital, which can occur at any time of the day and could affect sensitive receptors in the project vicinity, as discussed on page 3.5-42 of the DSEIR.

**(b) Mitigation Measures.** There are no feasible mitigation measures to fully mitigate this impact. There is no practical mitigation for this impact except for urging emergency response personnel to avoid using sirens, but a prohibition on the use of sirens cannot be enforced. Therefore, this mitigation is considered infeasible.

**(c) Findings.** Based upon the DSEIR and the entire record before this City Council, this City Council finds that:

**(1) Mitigation is infeasible.**

**(2) Resulting Impacts.** Siren noise resulting from the Project could generate sound power levels of approximately 125 dBA. In many instances, sirens will not be activated, but when sirens are activated, the noise level would be approximately 85 dBA at a distance of 100 feet and approximately 79 dBA at 200 feet. Although Section 6.32.100D of the City of Elk Grove Code of Ordinances exempts noise generated by any mechanical device, apparatus, or equipment related to or connected with emergency activities, nearby residences would be exposed to substantial noise levels from this source. Therefore, this impact was considered significant and unavoidable.

**(3) Overriding Considerations.** The environmental, economic, social, and other benefits of the Project override any remaining significant adverse impacts related to emergency vehicle sirens, as more fully stated in the Statement of Overriding Considerations in Section VII, below.

## **3. Cumulative Operational and Helicopter Noise (SEIR Impact 3.5.10)**

**(a) Potential Impact.** The Project would include the intermittent use of a helicopter and ambulances with sirens. These intermittent noise sources would contribute to substantial periodic increase in ambient noise levels in the Project vicinity, as discussed on page 3.5-44 of the DSEIR.

**(b) Mitigation Measures.** Dignity Health Elk Grove Medical Campus mitigation measure MM 3.5.10 is hereby adopted and will be implemented as provided by the Mitigation Monitoring and Reporting Program.

**(c) Findings.** Based upon the DSEIR and the entire record before this City Council, this City Council finds that:

**(1) Effects of Mitigation.** The mitigation measure indicated above requires the applicant to request that pilots implement noise abatement flight procedures, such as maintaining as high an altitude as possible, flying at normal cruising speed or slower, observing low-noise speed and descent recommendations, avoiding sharp maneuvers, and using steep take-off and descent profiles; and when possible, the hospital schedule helicopter arrivals and departures to occur during the daytime periods. However, certain conditions, such as a critical patient requiring a night transfer, or weather or other conditions, may preclude implementation of the measure, so these impacts cannot be reduced to a less than significant level.

**(2) Remaining Impacts.** Although the implementation of the mitigation measure described above would minimize helicopter sleep disturbance noise impacts, a critical patient could require a night transfer, and weather or other conditions may preclude the application of noise abatement flight procedures due to safety concerns. Therefore, night flights and the potential for sleep disturbance could still occur. There is no practical mitigation for siren noise except for urging emergency response personnel to avoid using sirens, and a prohibition on the use of sirens cannot be enforced. Therefore, night flights and siren noise could still occur, and this would be a significant and unavoidable impact.

**(3) Overriding Considerations.** The environmental, economic, social, and other benefits of the Project override any remaining significant adverse impacts related to cumulative operational and helicopter noise impacts, as described in Section VII below.

#### **IV. FINDINGS AND RECOMMENDATIONS REGARDING SIGNIFICANT IMPACTS WHICH ARE AVOIDED OR MITIGATED TO A LESS THAN SIGNIFICANT LEVEL**

##### **A. Noise**

###### **1. Central Plant and Emergency Generator Noise (SEIR Impact 3.5.6)**

**(a) Potential Impact.** The Project proposes a central plant that will include chillers, boilers, cooling towers, and emergency diesel generators, which, without accounting for shielding from buildings or upgraded acoustical enclosures or upgraded mufflers, could result in noise levels that range between 70 dBA and 75 dBA at the nearest residences. This impact is discussed on pages 3.5-41 through -42 of the DSEIR.

**(b) Mitigation Measures.** Dignity Health Elk Grove Medical Campus mitigation measure MM 3.5.6 is hereby adopted and will be implemented as provided by the Mitigation Monitoring and Reporting Program.

**(c) Findings.** Based upon the SEIR and the entire record before this City Council, this City Council finds that:

**(1) Effects of Mitigation.** The impacts related to central plant operation will be mitigated to a less than significant level by locating chillers, boilers, and emergency generators inside of a block building to minimize noise impacts; fitting generators with factory "hospital grade" mufflers and including factory acoustical enclosures if emergency generators are located outside of the central plant area; and restricting the exercising of emergency generators to daytime hours between 8:00 AM and 5:00 PM. Implementation of these measures would ensure that noise levels at off-site locations do not exceed General Plan standards.

**(2) Remaining Impacts.** Any remaining impacts related to central plant operation would not be significant.

## V. PROJECT ALTERNATIVES

### A. Background – Legal Requirements

CEQA requires that environmental impact reports assess feasible alternatives or mitigation measures that may substantially lessen the significant effects of a project prior to approval (Public Resources Code Section 21002). With the exception of the "no project" alternative, the specific alternatives or types of alternatives that must be assessed are not specified. CEQA "establishes no categorical legal imperative as to the scope of alternatives to be analyzed in an EIR. Each case must be evaluated on its own facts, which in turn must be reviewed in light of the statutory purpose" (*Citizens of Goleta Valley v. Board of Supervisors*, 52 Cal.3d. 553, 556 [1990]). The legislative purpose of CEQA is to protect public health, welfare, and the environment from significant impacts associated with all types of development, by ensuring that agencies regulate activities so that major consideration is given to preventing environmental damage while providing a decent home and satisfying living environment for every Californian (Public Resources Code Section 21000). In short, the objective of CEQA is to avoid or mitigate environmental damage associated with development. This objective has been largely accomplished in the Project through the inclusion of Project modifications and mitigation measures that reduce the potentially significant impacts to an acceptable level. The courts have held that a public agency "may approve a developer's choice of a project once its significant adverse environment effects have been reduced to an acceptable level—that is, all avoidable significant damage to the environment has been eliminated and that which remains is otherwise acceptable" (*Laurel Hills Homeowners Assoc. v. City*, 83 Cal.App.3d 515, 521 [1978]).

### B. IDENTIFICATION OF PROJECT OBJECTIVES

The CEQA Guidelines state that the "range of potential alternatives to the project shall include those that could feasibly accomplish most of the basic purposes of the project and could avoid or substantially lessen one of more of the significant effects" of the project (CEQA Guidelines Section 15126.6(c)). Thus, consideration of the Project objectives is important to determining which alternatives should be assessed in the SEIR.

The DSEIR identified the following objectives for the Dignity Health Elk Grove Medical Campus Project:

- Continue Dignity Health's long-standing commitment to providing high quality healthcare services to the City of Elk Grove and its residents, based upon projected healthcare demands for the area.
- Offer comprehensive, convenient services closer to Elk Grove residents, thereby reducing the distance patients have to travel in order to receive quality health care.
- Design facilities to enhance the comfort and healing of patients and the productive care-giving and general welfare of staff and visitors.
- Meet current hospital planning guidelines by providing space to accommodate patients in single-bed rooms, as appropriate, including adequate space for treatment by healthcare providers, equipment, and support by family members.
- Provide the optimum height for quality and efficient operations and patient care that maximizes proximity of internal departments by taking full advantage of the efficiency of vertical circulation within the hospital buildings.
- Bring high paying jobs and vital services just west of the new Civic Center. Provide the height and density that would be a catalyst for the new civic center area, as well as support the City's economic development goals.
- Provide for helicopter access directly to the facility to accept hospital-to-hospital patient transfers when warranted by medical necessity to be used occasionally, not routinely, primarily for transporting critically injured patients away from this hospital to higher-level trauma care facilities. Design the helistop to:
  - meet the functional needs of the hospital;
  - maximize safety for the helistop;
  - comply with all applicable regulatory and life safety requirements for helistops and helicopter travel, including but not limited to Federal Aviation Administration (FAA) requirements for flight path obstruction clearance, to ensure public safety during helicopter landings and takeoffs; and
  - allow a visually unobtrusive helistop, integrating into the design of the campus.
- Design facilities to create an attractive "campus" appearance with pedestrian-friendly circulation. Use materials and colors that are complementary to the existing MOB and the neighboring community.
- Promote use of alternative transportation modes by creating connections to the existing bike path along Elk Grove Boulevard, providing more bicycle storage facilities than required by City code, and allowing for a bus stop on campus.

The Project would provide for medical uses that generate employment and high quality healthcare services to the residents of the City of Elk Grove in a manner generally consistent with policies of the City, the Laguna Ridge Specific Plan, and the characteristics and natural features of the land.

## VI. ALTERNATIVES ANALYSIS IN SEIR

### 1. Alternatives Considered But Rejected

Alternatives considered but rejected from further consideration include an additional non-hospital alternative (i.e., in addition to the No Project/No Action Alternative) and an off-site alternative.

**(a) Findings.** An additional non-hospital alternative was rejected from further consideration because the DSEIR analyzes proposed non-hospital uses on the site. Additional non-hospital uses would be inconsistent with previously approved uses on the site (medical office). An off-site alternative would not be consistent with the Project objectives.

**(b) Explanation.** The no project/no action alternative analyzes the development of the site as approved for a non-hospital use. Therefore, it was not necessary to analyze an additional no-hospital alternative in order to determine how eliminating the hospital would reduce the significant and unavoidable impacts to noise and greenhouse gas. (See DSEIR page [5.0-3]). Furthermore, a no-hospital alternative would be inconsistent with the Project objectives to provide comprehensive convenient health services closer to Elk Grove residents and provide helicopter access to accept hospital-to-hospital transfers. An off-site alternative would not be consistent with the Project objectives in that it would not support development goals for the Civic Center area and would not take advantage of the efficiencies that would be provided by the collocation of the remainder of the medical campus with the existing medical office building on the Project site (Final SEIR page 4.0-47).

### Alternatives Analyzed in the DSEIR

The CEQA Guidelines state that the "range of potential alternatives to the project shall include those that could feasibly accomplish most of the basic purposes of the project and could avoid or substantially lessen one or more of the significant effects" of the project. The City evaluated the alternatives listed below.

### 2. No Project Alternative

The DSEIR considers the potential effects of a No Project/No Development Alternative and a No Project/No Action Alternative on pages 5.0-4 through -6. The No Project/No Development Alternative assumes the Project would not occur and there would be no development of the site. Under this scenario, there would be no impacts and the physical conditions on the site would be those described under the existing conditions in the technical sections of the DSEIR. The No Project/No Action Alternative assumes development consistent with the existing land use and zoning designations on the project site, which would allow for development under the Laguna Ridge Town Center project.

**(a) Findings:** The No Project/No Development Alternative and No Project No Action Alternative are rejected as alternatives because neither would achieve the Project's objectives.

**(b) Explanation:** This alternative would not realize the benefits of the Project or achieve the Project objectives. If development were to proceed under the

Laguna Ridge Town Center land use designations without the Project, the No Project Alternative would not provide healthcare services to meet projected healthcare demands closer to Elk Grove residents that meet current hospital planning guidelines, such as single-bed rooms and space for treatment by healthcare providers, equipment, and support by family members.

### **3. No Helicopter Operations Alternative:**

The No Helicopter Operations Alternative is discussed on pages 5.0-6 through -7 of the DSEIR. The No Helicopter Operations Alternative assumes development of a hospital of the same size, configuration, and operations as the proposed Project, but without the helistop. This alternative would have the same footprint as the Project. Because only 10 helicopter trips per year are assumed for the proposed Project, operational differences would be limited to the reduction in helicopter trips and the increase in ambulance trips that would be required to transport patients who under the proposed Project would otherwise be transported with a helicopter.

**(a) Findings:** The No Helicopter Operations Alternative is rejected because it would not be consistent with the objective to provide on-site helicopter transport capability for critical patients away from this hospital to higher-level trauma care facilities, which would be detrimental to patient care.

**(b) Explanation:** Draft SEIR pages 5.0-6 through -7 provide an analysis of the No Helicopter Operations Alternative as compared to the proposed Project. Periodic helicopter flights would not occur under this alternative, so the overall noise associated with this alternative would be less than that of the proposed Project and the significant impact related to helicopter noise would not occur under this alternative. However, this alternative would not be consistent with the objective to provide on-site helicopter transport capability for critical patients away from this hospital to higher-level trauma care facilities. Without helicopter operations on-site, critical patients at the facility would be required to travel from the Project site to a higher-level care facility via ambulance, which increases travel time and could be detrimental to patient care. Critical patient transport from the proposed Project via ambulance to another facility that has helicopter transport would require an additional patient transfer from the ambulance to the helicopter, which could also be detrimental to patient care.

### **4. Reduced Hospital Alternative:**

The Reduced Hospital Alternative is discussed on pages 5.0-7 through -9 of the DSEIR. The Reduced Hospital Alternative is limited to the Surgery and Maternity Hospital and the two medical office buildings. This alternative assumes construction of the 112,050-square-foot Surgery and Maternity Hospital and the 65,000-square-foot medical office building (MOB), for a total of 245,240 square feet of structures on the site. This alternative would serve to reduce both ambulance noise and helicopter noise by not providing an emergency department (ED). The Reduced Hospital Alternative would eliminate the emergency department, which would eliminate not only ambulance trips associated with the emergency department, but also the need for the helicopter operations. Therefore, significant impacts related to ambulance and helicopter noise would not occur under this alternative.

**(a) Findings:** The Reduced Hospital Alternative is rejected as an alternative because it would be inconsistent with many of the Project objectives.

**(b) Explanation:** Draft SEIR pages 5.0-7 through -9 provide an analysis of the Reduced Hospital Alternative as compared to the proposed Project. The proposed Project is sized to expand as the demand grows for healthcare services in the City and the region. Because the Reduced Hospital Alternative is limited to only the Surgery and Maternity Hospital and medical offices, the ability to serve a growing population is limited under this alternative, as is the ability to offer comprehensive health care, including emergency services. For services beyond those offered under this alternative, patients would be required to go to other hospitals whose capacity may not be adequate to provide service at current standards, such as single-bed rooms. The limited operations under this alternative would provide high paying jobs in the area, but to a lesser extent than the proposed Project. As population and hospital demand increases, helicopter operations at other hospitals would have to increase as critical patients are treated at other area hospitals.

## **5. Environmentally Superior Alternative**

The environmentally superior alternative is discussed on pages 5.0-9 through -10 of the DSEIR. Under CEQA Guidelines Section 15126.6(e)(2), if the environmentally superior alternative is the No Project Alternative, another environmentally superior alternative must be identified. For the DSEIR analysis, after the No Project Alternative, the Reduced Hospital Alternative was found to be the environmentally superior alternative. Due to the reduced size of the development under this alternative, there would be reduced impacts at the Project site for each of the issue areas discussed. [However, the Reduced Hospital Alternative would be inconsistent with the Project objectives, in that is the reduced services provided under this alternative, including elimination of the emergency department, would not provide healthcare services to the City of Elk Grove and its residents, based upon projected health care demands for the area .]]

Because the Reduced Hospital Alternative includes substantially less development than the proposed Project, a reconfigured site plan could allow this alternative to be built on only a portion of the Project site, so the remaining area could be developed with other uses consistent with the designations for the site. Any additional uses on the site would contribute to site-specific effects, such as increases in density (affecting visual quality) and additional trip generation, which would contribute to additional emissions of criteria air pollutants and greenhouse gases.

## **VII. STATEMENTS OF OVERRIDING CONSIDERATIONS RELATED TO THE DIGNITY HEALTH ELK GROVE MEDICAL CAMPUS PROJECT FINDINGS**

**A. Employment Opportunities.** The proposed Project would provide adequate land to support a medical campus that provides high-quality healthcare services to the residents of Elk Grove and meets current hospital planning guidelines for space and treatment. The Project would increase employment opportunities and provide professional and technical job opportunities that are not associated with typical commercial and retail developments. An increase in employment opportunities will improve the jobs/housing balance, and the potential professional and technical jobs associated with the medical campus may increase the number of trained workers in Elk Grove who currently commute away from the City to work in the medical field.

**B. Support the City's Economic Development Goals.** The proposed Dignity Health Elk Grove Medical Campus would promote the economic development goals established in the City's General Plan Economic Development Element, and provide



for high-paying jobs near the City's Civic Center area as envisioned for the Elk Grove Town Center. Such promoted General Plan economic goals include:

- ED-7** Maximize the use of non-residential land for employment-generating and revenue-generating uses.
- ED-8** Support the creation and retention of jobs that provide sustainable wages and benefits.
- ED-9** Provide sufficient land for business expansion and attraction of new employers that utilize the City's existing labor pool.
- ED-16** Attract and expand industrial, high technology, regional-serving office development that diversifies the local economy and produces higher-wage jobs.

**C. Provision of Public Facilities.** Through payment of development impact fees, the Project would contribute to the development of public facilities and improvements planned for the City. The Project would also provide a full-service hospital care facility, which the City currently lacks full-time hospital care.. The proposed Project would provide for high-quality healthcare services as Elk Grove continues to grow. The facilities would meet current hospital planning guidelines for space and treatment methods and provide options for critical patients. Thus, the establishment of a full-service hospital care facility would benefit the City residents and surrounding community by reducing travel times, providing a wider range of medical services, and offering an additional alternative for medical services within the City boundaries.

**D. Increased Tax Revenues.** The Project would increase tax revenues, as development of the uses proposed on the site would result in increased property tax values. In addition, the Project would assist in creating more sales tax revenue as the creation of new jobs by the Project would result in additional local spending for retail and service goods (i.e. gas, meals, hotels, etc.).

Based on the objectives identified for the Project, review of the Project, review of the SEIR, and consideration of public and agency comments, the City has determined that the Project should be approved and that any remaining unmitigated environmental impacts attributable to the Project are outweighed by the specific social, environmental, land use, and other overriding considerations.

The City has determined that any environmental detriment caused by the Dignity Health Elk Grove Medical Campus Project has been minimized to the extent feasible through the mitigation measures identified herein, and, where mitigation is not feasible, has been outweighed and counterbalanced by the significant social, environmental, and land use benefits to be generated to the City.

**EXHIBIT D**

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MITIGATION MONITORING  
AND  
REPORTING PROGRAM

FOR THE

DIGNITY HEALTH ELK GROVE MEDICAL CAMPUS

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SCH# 2012082029

PREPARED BY:

CITY OF ELK GROVE  
DEVELOPMENT SERVICES, PLANNING  
8401 LAGUNA PALMS WAY  
ELK GROVE, CA 95758

**EXHIBIT "D" – MITIGATION MEASURES**

<b>MM Number</b>	<b>Mitigation Measure</b>	<b>Timing/ Implementation</b>	<b>Enforcement/ Monitoring</b>	<b>Verification (date and Signature)</b>
<p><b>MM 3.3.1</b></p>	<p>Prior to building permit approval, the City of Elk Grove Planning Department shall require that the project applicant implement the following measures to reduce emissions of GHGs associated with the proposed Project:</p> <ul style="list-style-type: none"> <li>• The proposed Project shall be designed to exceed state energy efficiency standards by 15 percent (to Tier 1 Title 24 Standards) as directed by Appendix A5 of the 2010 California Green Building Standards (CBSC 2011). This measure helps to reduce emissions associated with energy consumption.</li> <li>• Indoor water conservation measures shall be incorporated, such as use of low-flow toilets, urinals, and faucets.</li> <li>• The Project shall ensure that low-water-use landscaping (i.e., drought-tolerant plants and drip irrigation) is installed. At least 75 percent of all landscaping plants shall be drought tolerant as determined by a licensed landscape architect or contractor and in conformance with Chapter 23.54 of the Elk Grove Municipal Code.</li> </ul> <p>The Project shall provide interior and exterior storage areas for recyclables and green waste and adequate recycling containers located in public areas. Composting of a limited amount of food waste that may be generated as a byproduct of on-site food preparation shall be completed by agreement with a waste hauler. Cooking oils shall be directed off site for reuse, and leftover food shall be donated to a local charity/shelter.</p>	<p><i>Prior to issuance of building permits.</i></p>	<p><i>City of Elk Grove Development Services</i></p>	

**EXHIBIT "D" – MITIGATION MEASURES**

<p><b>MM 3.5.6</b></p>	<p>During the design of the central plant, and when central plant equipment has been selected, a detailed noise analysis of the equipment noise levels and noise control measures shall be completed by a qualified acoustical consultant. Central plant noise levels shall not exceed the noise level standards contained in Table NO-A of the City of Elk Grove General Plan Noise Element. The plant design shall include the following:</p> <ul style="list-style-type: none"> <li>• Chillers, boilers, and emergency generators shall be located inside of a block building to minimize noise impacts.</li> <li>• Emergency generators shall be fitted with factory "hospital grade" mufflers. If emergency generators are located outside of the central plant area, the generators shall be fitted with factory acoustical enclosures.</li> <li>• Emergency generators shall be exercised during the daytime hours, between 8:00 a.m. and 5:00 p.m., to minimize annoyance at neighboring residences</li> </ul>	<p><i>Prior to approval of central plant design</i></p>	<p><i>City of Elk Grove Development Services</i></p>	
<p><b>MM 3.5.5</b></p>	<p>Provide information to emergency service providers (i.e., helicopter operators) that, to the extent possible, helicopters shall implement noise abatement flight procedures, such as maintaining as high an altitude as possible, flying at normal cruising speed or slower, observing low-noise speed and descent recommendations, avoiding sharp maneuvers, and using steep take-off and descent profiles. When possible, helicopter arrivals and departures shall be scheduled to occur during the daytime periods, to reduce the potential for sleep disturbance.</p>	<p><i>Prior to operation of helistop</i></p>	<p><i>City of Elk Grove Development Services</i></p>	

**CERTIFICATION  
ELK GROVE CITY COUNCIL RESOLUTION NO. 2013-124**

STATE OF CALIFORNIA        )  
COUNTY OF SACRAMENTO    )     ss  
CITY OF ELK GROVE         )

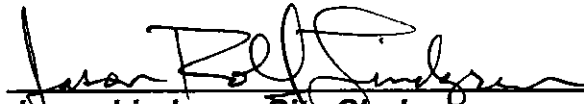
*I, Jason Lindgren, City Clerk of the City of Elk Grove, California, do hereby certify that the foregoing resolution was duly introduced, approved, and adopted by the City Council of the City of Elk Grove at a regular meeting of said Council held on July 10, 2013 by the following vote:*

**AYES :**        **COUNCILMEMBERS:**    *Davis, Detrick, Cooper, Hume, Trigg*

**NOES:**       **COUNCILMEMBERS:**    *None*

**ABSTAIN :**   **COUNCILMEMBERS:**    *None*

**ABSENT:**     **COUNCILMEMBERS:**    *None*

  
**Jason Lindgren, City Clerk**  
**City of Elk Grove, California**