County of Los Angeles
CHIEF EXECUTIVE OFFICE
Kenneth Hahn Hall of Administration
500 West Temple Street, Room 713, Los Angeles, California 90012
(213) 974-1101
http://ceo.lacounty.gov

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Chief Executive Officer

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ADOPTED
BOARD OF SUPERVISORS
COUNTY OF LOS ANGELES

41 November 29, 2011

SACHI A. HAMAI
EXECUTIVE OFFICER

November 29, 2011

The Honorable Board of Supervisors
County of Los Angeles
383 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, CA 90012

Dear Supervisors:

DEPARTMENT OF PUBLIC WORKS:
HUBERT H. HUMPHREY URGENT CARE EXPANSION PROJECT
ADOPT MITIGATED NEGATIVE DECLARATION
AWARD DESIGN-BUILD CONSTRUCTION CONTRACT
APPROVE LOCAL WORKER HIRING PROGRAM
SPECS. 7074; CAPITAL PROJECT NO. 87092
(SECOND DISTRICT) (3 VOTES)

SUBJECT

The recommended action will adopt the Mitigated Negative Declaration and authorize the Department of Public Works to execute a design-build contract and approve related actions for the construction of the Hubert H. Humphrey Urgent Care Expansion Project.

IT IS RECOMMENDED THAT YOUR BOARD:

1. Consider the Mitigated Negative Declaration for the Hubert H. Humphrey Urgent Care Expansion Project with any comments received during the public review process; find that the Mitigated Negative Declaration reflects the independent judgment and analysis of your Board; adopt the Mitigation Monitoring and Reporting Program; find that the Mitigation Monitoring and Reporting Program is adequately designed to ensure compliance with the mitigation measures during Project implementation; find on the basis of the whole record before your Board that there is no substantial evidence that the Project will have a significant effect on the environment; and adopt the Mitigated Negative Declaration.

2. Find that J.R. Abbott Construction Inc., is the most advantageous and best value proposer; award a design-build contract to J.R. Abbott Construction Inc., for the contract sum of $3,721,779 and the maximum contract sum of $3,971,779 (inclusive of the design-completion allowance of $250,000); and authorize the Director of Public Works to execute the contract, upon receipt of acceptable and approved Faithful Performance and Payment of Labor and Materials Bonds and insurance certificates filed by the design-builder, and establish the contract effective date for the Hubert H. Humphrey Urgent Care Expansion Project.

3. Authorize the Director of Public Works, in coordination with the Chief Executive Officer, to control the use of the design-completion allowance of $250,000, including the authority to reallocate any portion or all of the allowance into the contract sum.

4. Approve the implementation of a Local Worker Hiring Program for the Hubert H. Humphrey Urgent Care Expansion Project, and find that the program furthers a legitimate governmental interest for the reasons stated in this letter and in the project files.

PURPOSE/JUSTIFICATION OF RECOMMENDED ACTION

Approval of the recommended actions will adopt the Mitigated Negative Declaration (MND), award the design-build contract of the Hubert H. Humphrey Urgent Care Expansion (Urgent Care Expansion) Project, authorize the Director of Public Works to execute the contract, and approve a Local Worker Hiring Program (LWHP).

Background

The Hubert H. Humphrey Comprehensive Health Center is an existing 143,000-square-foot building constructed in 1976. The facility operates as a satellite clinic within the Harbor-UCLA Metro Care service area to deliver health care to the local community.

On July 8, 2008, your Board approved the General Improvement Project (Capital Project No. 86949), which included upgrades to the existing 1st Floor entry and lobby, 2nd Floor waiting area, cafeteria, exterior facade, and exterior lighting; and Americans with Disabilities Act improvements to all restrooms, parking areas, and sidewalks. The work was substantially completed in November 2010.

On September 7, 2010, your Board authorized establishment of Capital Project No. 87092 for the Urgent Care Expansion Project, and authorized the Director of Public Works to execute an architectural/engineering agreement with Morris Architects.

The proposed Urgent Care Expansion Project includes a 2,000-square-foot expansion of the urgent care center waiting room; remodeling 6,000 square feet of the urgent care area by enhancing the existing exam room spaces to improve patient flow, and adding seven new exam rooms and phlebotomy stations; replacing a chiller; upgrading the existing security office; adding a main fire alarm panel in the existing security office; and adding a one-level parking deck to provide additional parking.

During the mechanical engineer's review of the facility's cooling towers, it was determined that the existing cooling towers had deteriorated beyond repair. Replacement of the cooling towers was subsequently added to the original scope. Replacement of both the chiller and cooling towers was performed using a Job Order Contract (JOC). The system commissioning was completed in August 2011.

Award Design-Build Contract/Design-Completion Allowance

On December 6, 2010, the Department of Public Works (Public Works) issued a Request for Proposals (RFP) for design-build services for the Project. A total of three firms submitted prequalification questionnaires in response to the RFP, and all three firms were determined to be prequalified and invited to participate in the second part of the RFP for submission of technical and cost proposals. Based on the criteria stated in the RFP, J.R. Abbott Construction, Inc. (Abbott) submitted the most advantageous and best value proposal for design and construction of the Urgent Care Expansion Project.

Abbott's cost proposal of $5,046,204 was $1,156,204 more than the Board-approved, design-build contract budget of $3,890,000. The proposal consisted of two components, including the Urgent Care Expansion Project and the parking structure. Public Works negotiated an alternate solution for the parking structure consisting of restriping the existing parking lot to provide the 50 additional parking stalls that were planned in the proposed parking structure.

The negotiations resulted in a $81,779 increase from $3,890,000 to $3,971,779, in the design-build recommended maximum contract sum (including a design-completion allowance of $250,000). Although there is an increase in the construction costs, there will be no impact on the overall Capital Project Budget as the additional funds will be shifted from the change order contingency funds to cover the difference.

In addition, funds have been reallocated from the change orders contingency and Telecom Equipment to the JOC category to cover the added cost of the cooling tower replacement.

The design-completion allowance of $250,000 is intended to facilitate the resolution of issues identified only during the design phase of the Urgent Care Expansion Project, including issues concerning the County's scoping documents or changes required by jurisdictional agencies or due to unforeseen conditions discovered during design, including any increased design and construction costs associated therewith. The inclusion of the design-completion allowance will facilitate the decision process during design and minimize potential delays that could occur while design phase issues are resolved. Control of the design-completion allowance will be exercised by Public Works, but Public Works will obtain written authorization from the Chief Executive Office before any reallocation of funds from the design-completion allowance into the contract sum. The design-completion allowance shall not be used to fund the resolution of issues, conditions, or changes encountered during the construction phase.

It is recommended that Abbott be awarded a design-build agreement to complete the design and construction of the Urgent Care Expansion Project.

Local Worker Hiring Program

On December 8, 2009, your Board approved a program to employ local workers on JOC projects managed by Public Works. On October 19, 2010, your Board also approved a LWHP for the Martin Luther King, Jr. (MLK) Inpatient Tower and Multi-Service Ambulatory Care Center Projects.

The proposed Urgent Care Expansion Project is approximately four miles from MLK. The Project site is located in zip code 90003, which is identified in the Factual Predicate Study for the MLK LWHP as having a rate of unemployment in excess of 150 percent of the County average, as well as other socio-economic factors that were used to justify the MLK LWHP. A review of the data from the MLK Factual Predicate Study confirmed that the same rationale applicable to the mandatory LWHP for the MLK project would fully apply to the Urgent Care Expansion Project and the 5-mile radius surrounding it (Attachment D).

Therefore, Public Works recommends implementing a similar program that would require the contractor to assure that a minimum of 30 percent of the labor hours performed by California residents be worked by qualified local residents residing in either zip codes within a 5-mile radius of the Project site, or within zip codes within the County where the unemployment rate is 150 percent of the County average, or that include a Bank Enterprise Award area (commonly referred to as a "BEA"). However, because of the relatively small nature of the Urgent Care Expansion Project, it is not proposed that a disadvantaged worker requirement be included as an additional component of the LWHP for this Project.

Green Building/Sustainable Design Policy

In accordance with your Board's Green Building/Sustainable Design Policy, Public Works incorporated sustainable design features as part of the Urgent Care Expansion Project to the greatest extent feasible. The Urgent Care Expansion Project design will reduce water consumption, address stormwater run-off, and allow building operators to make adjustments in building systems for thermal comfort and lighting needs.

Implementation of Strategic Plan Goals

The Countywide Strategic Plan directs the provision of Children, Family, and Adult Well-Being (Goal 2); Community and Municipal Services (Goal 3); and Health and Mental Health (Goal 4), by investing in public health infrastructure to enhance the safety of the patients and staff and by increasing job opportunities for high-risk youth, adults, and low to moderate-income residents.

FISCAL IMPACT/FINANCING

The total cost of the Urgent Care Expansion Project, including the preparation of scoping documents, plans and specifications, plan check, design and construction, design-completion allowance, change orders, civic art allocation, consultant services, miscellaneous expenditures, and County services, is estimated at $7,836,000.

Sufficient appropriation is available in the Fiscal Year 2011-12 in Capital Project No. 87092 to complete design and construction of the Urgent Care Expansion Project.

The proposed Urgent Care Expansion Project is funded with net County cost from the Second Supervisorial District and prior year fund balance.

The Project Schedule and Budget Summary are included in Attachment A.

Operating Budget Impact

The proposed Urgent Care Expansion Project will have no ongoing impact to Hubert H. Humphrey Comprehensive Health Center's operating budget. However, there is a one-time equipment cost of approximately $161,000, and funding for the equipment will be requested in a future fiscal year.

FACTS AND PROVISIONS/LEGAL REQUIREMENTS

On June 17, 2008, your Board approved the use of design-build contracting as an option to the traditional design-bid-build project delivery method of construction. It was determined that design-build is a more efficient and appropriate project delivery method for these projects.

The design-build construction contract will be in the form previously reviewed and approved as to form by County Counsel. The recommended contract was solicited on an open competitive basis and is in accordance with applicable Federal, State, and County requirements.

Pursuant to your Board's Civic Art Policy adopted on December 7, 2004, as amended on November 18, 2008, the Project budget allocates 1 percent of the design and construction costs to the Civic Art Fund.

This contract contains terms and conditions supporting your Board's ordinances, policies, and programs, including, but not limited to: County's Greater Avenues for Independence (GAIN) and General Relief Opportunities for Work (GROW) Programs, Board Policy No. 5.050; Contract Language to Assist in Placement of Displaced County Workers, Board Policy No. 5.110; Reporting of Improper Solicitations, Board Policy No. 5.060; Notice to Contract Employees of Newborn Abandonment Law (Safely Surrendered Baby Law), Board Policy No. 5.135; Contractor Employee Jury Service Program, Los Angeles County Code, Chapter 2.203; Notice to Employees Regarding the Federal Earned Income Credit (Federal Income Tax Law, Internal Revenue Service Notice 1015); Contractor Responsibility and Debarment, Los Angeles County Code, Chapter 2.202; and the Los Angeles County's Child Support Compliance Program, Los Angeles County Code, Chapter 2.200; and the standard Board-directed clauses that provide for contract termination or renegotiation.

ENVIRONMENTAL DOCUMENTATION

An Initial Study was prepared for this Urgent Care Expansion Project in compliance with the California Environmental Quality Act (CEQA). The Initial Study identified potentially significant effects of the project in the following areas: cultural resources, geology and soils, transportation/traffic, hazards and hazardous materials, and noise. However, prior to the release of the proposed MND and Initial Study for public review, revisions to the Urgent Care Expansion Project were made or agreed to that would avoid or mitigate the effects to a point where clearly no significant effects would occur, as follows:

- Cultural Resources: Any archaeological materials, paleontological materials, and human remains discovered during construction will be protected during periods of

planned ground disturbances; paleontological excavations below 10 feet will be monitored.

- Geology and Soils: Geotechnical recommendations by the soils engineer of record will be followed.

- Transportation/Traffic: Interim parking during construction will be provided.

- Hazards and Hazardous Materials: Final plans will be provided to Exxon Mobile Corporation West Coast/Rockies Pipeline Department for review, a minimum of 48 hours advance notice will be given prior to construction, and a soil management plan for inadvertent discovery of contaminated soils will be followed.

- Noise: Noise control and noise monitoring plans will be prepared and implemented during construction contractor to mitigate noise impacts.

The Initial Study and Project revisions determined that there is no substantial evidence, in light of the whole record before the County, that the Urgent Care Expansion Project as revised may have a significant effect on the environment. Based on the Initial Study and Project revisions, an MND was prepared for this Project. A copy of the MND is provided in Attachment C.

Public Notice was posted onsite, as well as offsite pursuant to the requirements of Section 21092.3 of the State CEQA Guidelines. During the public review period, no responses or comments were received from the members of the public. Two comment letters were received from public agencies. Responses to the comments are included in Appendix F of the MND and were sent to these agencies pursuant to Public Resources Code Section 21092.5.

The location of the documents and other materials constituting the record of the proceedings upon which your Board's decision is based in this matter are filed with the Public Works, Project Management Division I, 900 South Fremont Avenue, 5th Floor, Alhambra, California 91803. The custodian of such documents and materials is the Assistant Deputy Director for the Project Management Division I.

The Urgent Care Expansion Project is not exempt from payment of a fee to the California Department of Fish and Game pursuant to Section 711.4 of the Fish and Game Code to defray the costs of fish and wildlife protection and management incurred by the California Department of Fish and Game. Upon your Board's adoption of the MND, Public Works will file a Notice of Determination in accordance with Section

21152(a) of the California Public Resources Code and pay the required filing and processing fees with the Registrar-Recorder/County Clerk in the amount of $2,119.

CONTRACTING PROCESS

On June 17, 2008, your Board adopted the County policy for design-build project delivery. The RFP and evaluation process were conducted in accordance with the adopted policy.

On December 30, 2010, completed prequalification questionnaires were received from three design-build entities (1) KPRS-c/a Architects, (2) Abbott, and (3) Perera Construction-Langdon Wilson Architects. All three firms were determined to be prequalified and were requested to submit technical and cost proposals for the Urgent Care Expansion Project.

On July 5, 2011, all three design-build entities submitted a final proposal consisting of a technical submittal and a price proposal. The Evaluation Committee (Committee) scored and ranked each proposal based on the requirements and scoring criteria outlined in the RFP. The Committee ranked the proposals based on scoring in seven criteria categories, five of which are specified in the enabling legislation: technical design and construction expertise, life cycle cost analysis, skilled labor force availability, safety record, price, design-build team personnel and organization, and delivery plan. The three proposals were ranked in order from the highest averaged score to the lowest averaged score.

Abbott received the highest averaged score of 858 and was determined to be the apparent best value proposer by the Committee in accordance with provisions of the RFP. A summary reflecting the Committee's scoring of the proposals is included in Attachment B.

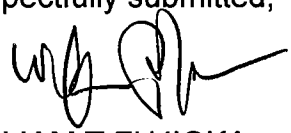
IMPACT ON CURRENT SERVICES (OR PROJECTS)

There will be no significant impact on current County services or projects during the performance of these recommended actions, and the facility will remain fully operational during the construction process. Public Works has coordinated with the Department of Health Services to phase the construction in order to minimize any inconvenience to patients and staff.

CONCLUSION

Please return an adopted copy of this Board letter to the Chief Executive Office, Capital Projects Division; the Department of Public Works, Project Management Division I; and the Department of Health Services.

Respectfully submitted,



WILLIAM T FUJIOKA
Chief Executive Officer

WTF:RLR:DJT
SW:TH:zu

Attachments

c: Executive Office, Board of Supervisors
County Counsel
Art Commission
Health Services
PublicWorks

ATTACHMENT A

DEPARTMENT OF PUBLIC WORKS:
HUBERT H. HUMPHREY URGENT CARE EXPANSION PROJECT
ADOPT MITIGATED NEGATIVE DECLARATION
AWARD DESIGN-BUILD CONSTRUCTION CONTRACT
APPROVE LOCAL WORKER HIRING PROGRAM
SPECS. 7074; CAPITAL PROJECT NO. 87092

I. PROJECT SCHEDULE

Project Activity	Board-Approved Completion Date	Revised Completion Date
Project Scoping Documents	01/31/11*	
Chiller Replacement (JOC)	05/01/11	07/29/11*
Award Design-Build Contract	08/02/11	12/15/11
Design	12/30/11	05/30/12
Jurisdictional Approval (Incremental)	05/15/12	01/15/13
Construction Substantial Completion	12/16/13	02/17/14
Acceptance of Project	04/15/14	06/16/14

* Actual completion date.

II. PROJECT BUDGET SUMMARY

Budget Category	Board-Approved Budget 09/07/10	Impact of this Action	Revised Project Budget
Land Acquisition	$ 0	$ 0	$ 0
Construction			
Design-Build Contract	$3,890,000	$ 81,779	$ 3,971,779
Job Order Contract	560,000	552,384	1,112,384
Change Orders Contingency	723,700	(96,163)	627,537
Proposers Stipends	0	0	0
Builders Risk Insurance	0	0	0
Telecomm Equipment - Affixed to Building	210,000	(210,000)	0
Civic Arts	56,300	0	56,300
Subtotal	$5,440,000	$ 328,000	$5,768,000
Programming/Development	$ 15,000	$ (15,000)	$ 0
Plans and Specifications			
Architect/Engineer Fee	$ 375,000	$ 0	$ 375,000
Design Contingency	85,000	15,000	100,000
Subtotal	$ 460,000	$ 15,000	$ 475,000
Consultant Services			
Site Planning	$ 0	$ 0	$ 0
Hazardous Materials	20,000	0	20,000
Geotech/Soils Report and Soils Testing	0	74,450	74,450
Material Testing	100,000	(45,000)	55,000
Consultant Peer Review Services	0	0	0
Inspection Services	0	0	0
Topographic Surveys	0	24,000	24,000
Construction Management	0	0	0
Document and Project Controls	0	0	0
Labor/Outreach/LWHP	0	35,000	35,000
Environmental	0	92,050	92,050
Move Management (Move Manager Only)	150,000	(150,000)	0
Equipment Planning	70,000	(70,000)	0
Consultant Contingency	0	0	0
Subtotal	$ 340,000	$ (39,500)	$ 300,500
Miscellaneous Expenditures	$ 25,000	$ (15,000)	$ 10,000
Jurisdictional Review/Plan Check/Permit	$ 20,000	$ (20,000)	$ 0
County Services			
Code Compliance Inspection	$ 70,000	$ (70,000)	$ 0
Quality Control & Code Compliance Inspection	420,000	0	420,000
Design Review	0	0	0
Design Services	0	10,500	10,500
Contract Administration	50,000	10,000	60,000
Project Management	616,000	0	616,000
Project Management Support Services	70,000	(70,000)	0
ISD Equipment Procurement	0	0	0
DPW Job Order Contract Management	0	0	0
ID ITS Communications	80,000	0	80,000
Project Technical Support	100,000	(24,000)	76,000
Office of Affirmative Action	15,000	5,000	20,000
County Counsel	35,000	(35,000)	0
Other – Contract Management - LWHP	0	0	0
Other	80,000	(80,000)	0
Subtotal	$1,536,000	$ (253,500)	$1,282,500
TOTAL	**$7,836,000**	**$ 0**	**$7,836,000**

November 29, 2011

ATTACHMENT B

DEPARTMENT OF PUBLIC WORKS:
HUBERT H. HUMPHREY URGENT CARE EXPANSION PROJECT
ADOPT MITIGATED NEGATIVE DECLARATION
AWARD DESIGN-BUILD CONSTRUCTION CONTRACT
APPROVE LOCAL WORKER HIRING PROGRAM
SPECS. 7074; CAPITAL PROJECT NO. 87092

PROPOSAL SUMMARY

Proposer	**Best Value Average Score** (Max. Score = 1,000)	**Base Price Proposal**
Abbott	858	$5,046,204
Perera Construction and Design, Inc.,	715	$5,626,059
KPRS	698	$4,530,672

November 29, 2011

ATTACHMENT C

DEPARTMENT OF PUBLIC WORKS:
HUBERT H. HUMPHREY URGENT CARE EXPANSION PROJECT
ADOPT MITIGATED NEGATIVE DECLARATION
AWARD DESIGN-BUILD CONSTRUCTION CONTRACT
APPROVE LOCAL WORKER HIRING PROGRAM
SPECS. 7074; CAPITAL PROJECT NO. 87092

MITIGATED NEGATIVE DECLARATION
(See Attachment)

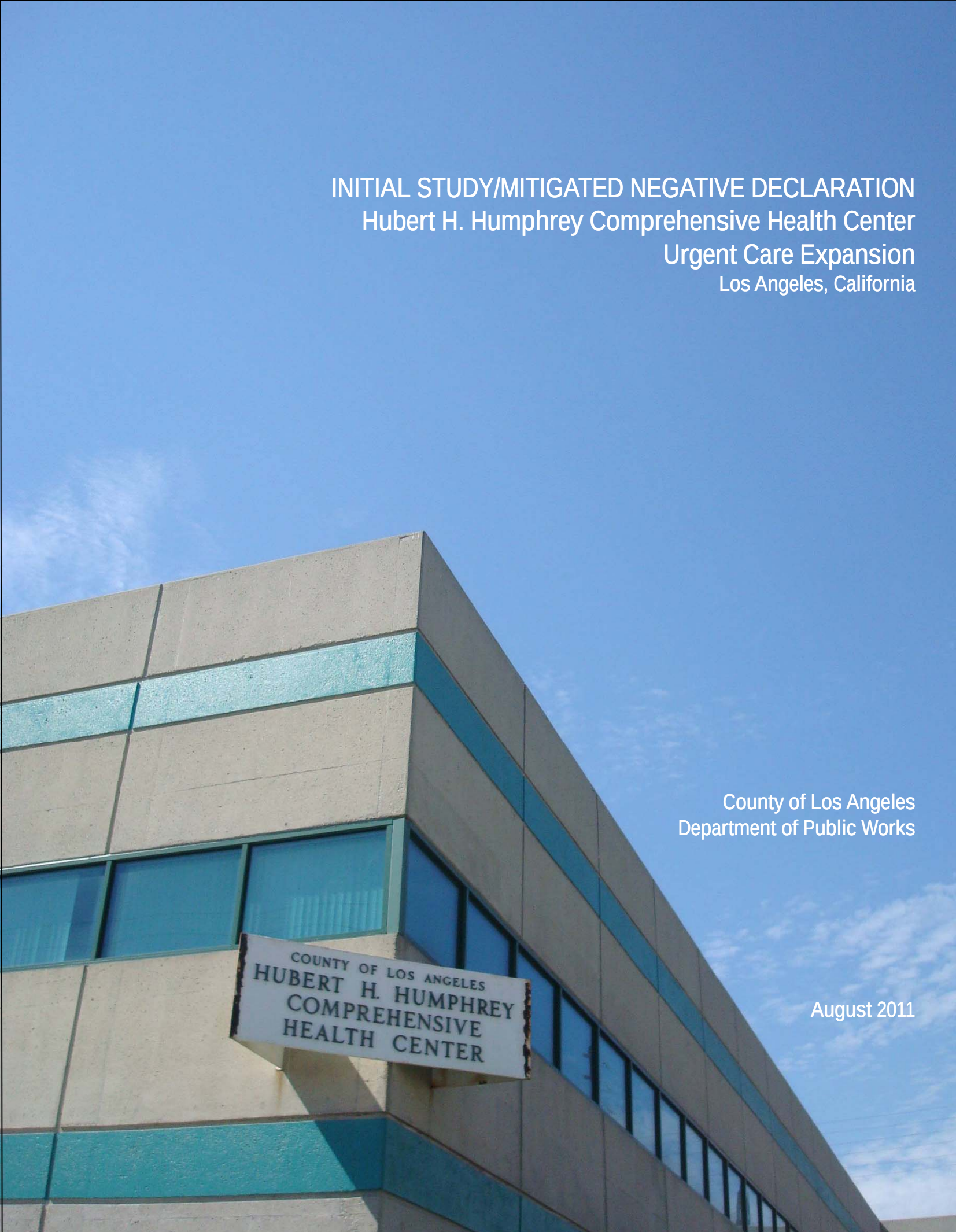
November 29, 2011

ATTACHMENT D

DEPARTMENT OF PUBLIC WORKS:
HUBERT H. HUMPHREY URGENT CARE EXPANSION PROJECT
ADOPT MITIGATED NEGATIVE DECLARATION
AWARD DESIGN-BUILD CONSTRUCTION CONTRACT
APPROVE LOCAL WORKER HIRING PROGRAM
SPECS. 7074; CAPITAL PROJECT NO. 87092

LOCAL WORK HIRING PROGRAM
(See Attachment)

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION
Hubert H. Humphrey Comprehensive Health Center
Urgent Care Expansion
Los Angeles, California



County of Los Angeles
Department of Public Works

August 2011

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

HUBERT H. HUMPHREY COMPREHENSIVE HEALTH CENTER URGENT CARE EXPANSION PROJECT

Prepared for

County of Los Angeles
Department of Public Works
900 South Fremont Avenue, 5th Floor
Alhambra, California 91803-1331

Prepared by

PARSONS
100 W. Walnut Street
Pasadena, California 91124

August 2011

COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

HUBERT H. HUMPHREY COMPREHENSIVE HEALTH CENTER URGENT CARE EXPANSION PROJECT

FINAL MITIGATED NEGATIVE DECLARATION

The Draft Initial Study/Mitigated Negative Declaration (Draft IS/MND) dated July 2011 for the Hubert H. Humphrey Comprehensive Health Center Urgent Care Expansion project was circulated for public review by the County of Los Angeles Department of Public Works between July 9, 2011 and August 9, 2011. During this review period, three letters of comment were received from public agencies and no letters of comment were received from private citizens or interested groups. All letters received and responses to comments are included in Appendix F (*Public Review of the Draft Initial Study/Mitigated Negative Declaration*). Only minor revisions were made to the text of the Draft IS/MND in response to comments, as follows:

(1.) Section 2.17.a, *Utilities and Service Systems,* the expected increase in wastewater to be generated by the proposed project has been revised;

(2.) Section 2.17.b, *Utilities and Service Systems,* sewage flow will continue to be conveyed to the Hyperion Treatment Plant which has sufficient capacity for this project.

The aforementioned changes have been incorporated directly into the Final IS/MND. These changes to the document are not considered to be substantial revisions to the IS/MND pursuant to CEQA Guidelines Section 15073.5. New information added to the IS/MND clarifies previous information and all modifications are considered to be minor. None of these changes have resulted in any change to CEQA findings or in the severity of a previously identified impact in the Draft IS/MND. A recirculation of the document for public review is not required.

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INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

HUBERT H. HUMPHREY COMPREHENSIVE HEALTH CENTER
URGENT CARE EXPANSION PROJECT
LOS ANGELES COUNTY, CALIFORNIA

The County of Los Angeles, Department of Public Works, proposes to expand the Urgent Care clinic at the Hubert H. Humphrey Comprehensive Health Center at the southeast corner of Slauson Avenue and Main Street in the City of Los Angeles (Los Angeles County), California.

The California Environmental Quality Act (CEQA), as established by the statute (Public Resources Code §§ 21000 *et seq.)*, requires that the environmental implications of an action by a local agency be estimated and evaluated before project approval. This Initial Study has been prepared in accordance with Section 15365 of the State CEQA Guidelines (14 Cal. Code Reg. 1500 *et seq.*). This Initial Study provides the assessment for a determination of whether the project may have a significant effect on the environment.

SECTION 1. PROJECT INFORMATION

1.1	**Project Title**	Hubert H. Humphrey Comprehensive Health Center Urgent Care Expansion
1.2	**Lead Agency Name and Address**	County of Los Angeles Department of Public Works 900 South Fremont Avenue, 5th Floor Alhambra, CA 91803-1331
1.3	**Contact Person and Phone Number**	Hoda El Sokkary, Project Manager Project Management Division I, Health Section II (626) 300-2367
1.4	**Project Location**	The address of the existing Hubert H. Humphrey Comprehensive Health Center is 5850 S. Main Street, Los Angeles, California 90003. The Health Center is located at the southeast corner of Slauson Avenue and Main Street, in the City of Los Angeles (Council District 9), in the County of Los Angeles. The site is approximately 4.5 miles southwest of downtown Los Angeles (Figure 1), and approximately 0.4 mile east of the Harbor Freeway (Interstate 110 [I-110]) (Figure 2). The Health Center is located upon eleven parcels of land owned by the County of Los Angeles: Assessor's Parcel Nos. 6006-001-900 through 6006-001-910 (Figure 3). The proposed project would occur upon up to seven of the eleven parcels.
1.5	**Project Sponsor's Name and Address**	County of Los Angeles Department of Public Works 900 South Fremont Avenue, 5th Floor Alhambra, CA 91803-1331
1.6	**General Plan Designation**	The General Plan Land Use Map for the Southeast Los Angeles Community Plan Area (a part of the General Plan of the City of Los Angeles), designates the land use for the site as Public Facilities (City of Los Angeles, 2009).
1.7	**Zoning**	The Hubert H. Humphrey Comprehensive Health Center is zoned as PF-1 (Public Facilities) in accordance with City of Los Angeles zoning regulations.

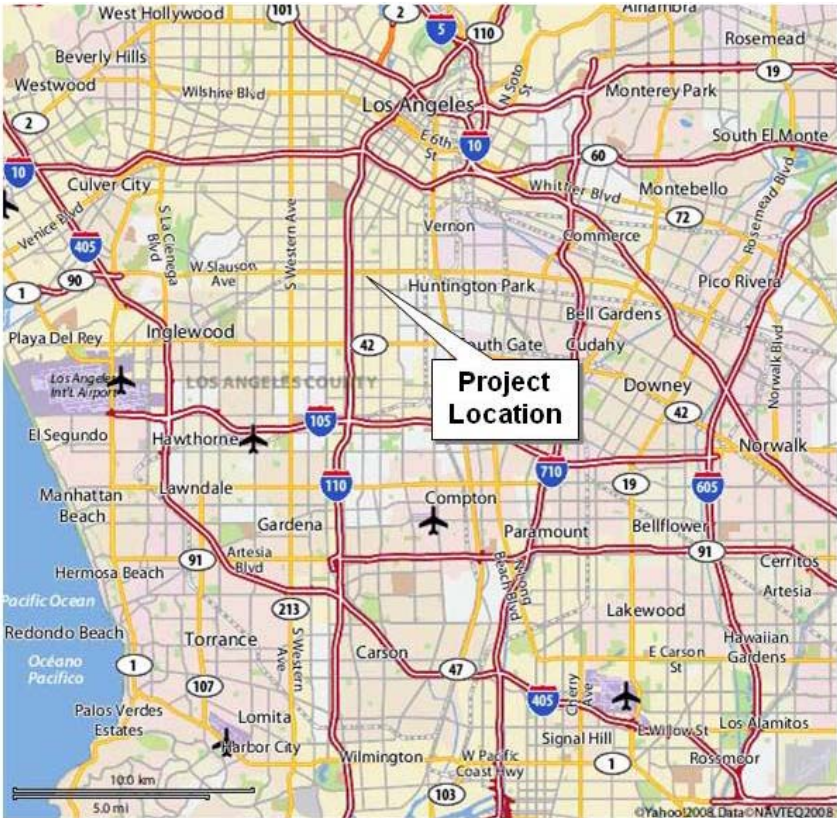

Figure 1. Location of the Proposed Project

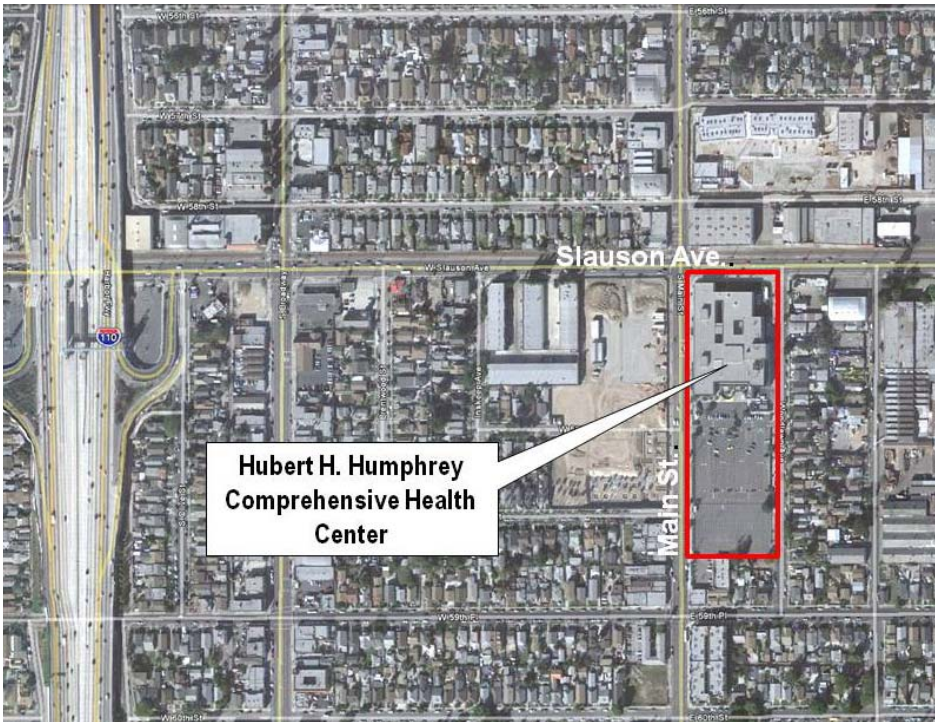

Figure 2. Proposed Expansion to Hubert H. Humphrey Comprehensive Health Center Urgent Care

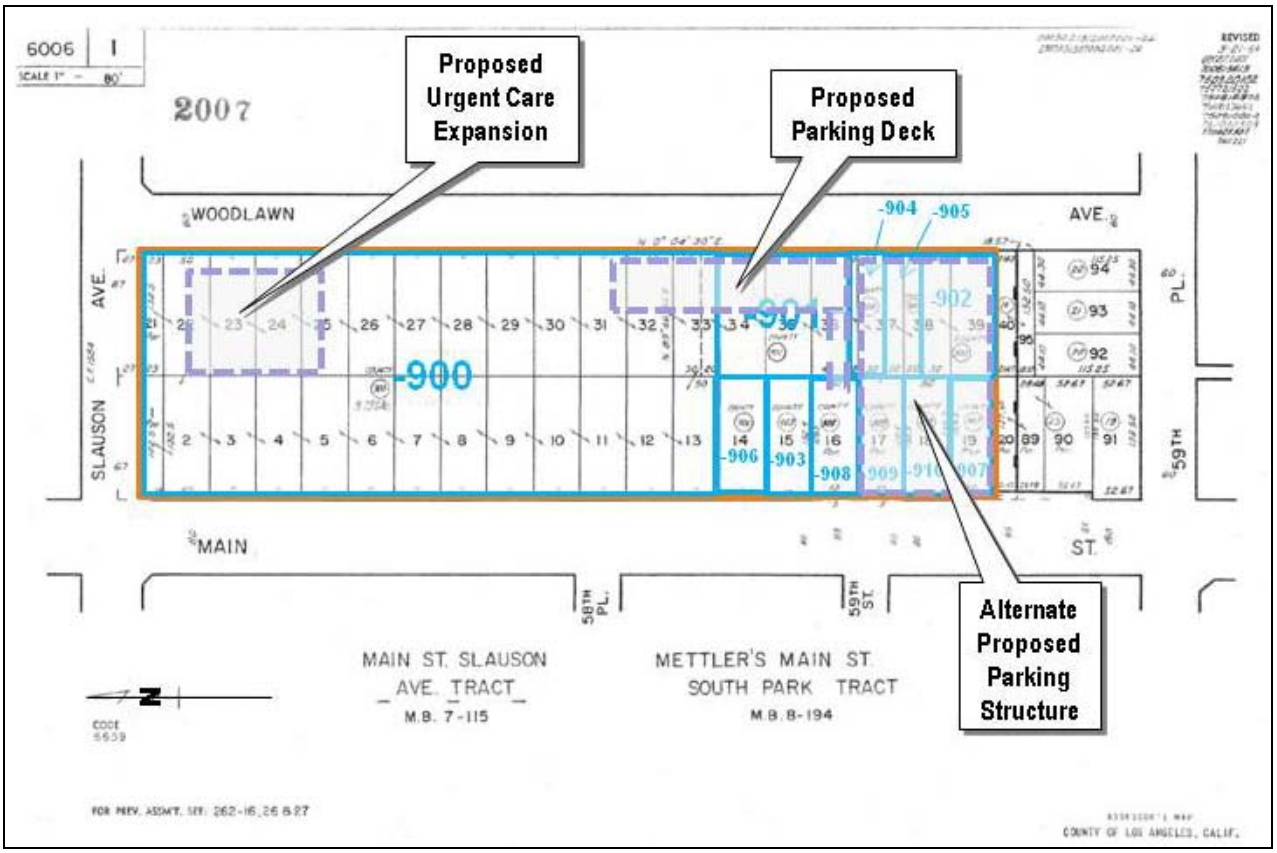

Figure 3. Parcel Map of Hubert H. Humphrey Comprehensive Health Center

1.8 Background

The mission of the Los Angeles County Department of Health Services (DHS) is to improve health through leadership, service, and education. DHS provides acute and rehabilitative patient care, trains physicians and other health care clinicians, and conducts patient care-related research. DHS serves as the major provider of health care for the more than two million Los Angeles County residents without health insurance and provides the majority of all uncompensated medical care in the county. DHS operates four hospitals, six comprehensive health centers and multiple health centers throughout Los Angeles County, many in partnership with private, community-based providers. The Hubert H. Humphrey Comprehensive Health Center is one of six comprehensive health centers in the county.

The Hubert H. Humphrey Comprehensive Health Center was established in 1976 as a satellite of the Martin Luther King, Jr. Multi-Service Ambulatory Care Center (MLK-MACC) (former King/Drew Medical Center) located approximately 5 miles southeast. The 125,770-sq ft Health Center is operated by DHS and is open Monday through Friday from 8:00 a.m. to 5:00 p.m. The 2-story Health Center consists of an Urgent Care clinic (6 examination rooms and 4-bed observation area), radiology and pediatric units complete with 68 examination rooms, dental clinic and cafeteria (Jenkins/Gales & Martinez, Inc., 2010). The 325-person capacity Baylark auditorium is also located within the health center; the auditorium is used once per week during weekdays only. A Food Inspection District Office operated by the County Department of Public Health (Bureau of District Surveillance and Enforcement) is located on the second floor of the Hubert H. Humphrey Comprehensive Health Center (this office will not be affected by the proposed project). The health center has surface parking for 355 standard and 13 handicapped vehicles (total of 368 parking spaces).

The existing Urgent Care clinic is approximately 12,500 sq ft in size and located on the first floor of the northeast portion of the Health Center. A temporary parking area (9 spaces) for emergency vehicles is located at the corner of East Slauson and Woodlawn avenues; this parking area is for Urgent Care clinic

use only. Patients visiting the Urgent Care clinic park in the existing open parking lot on the south side of the health center. The interior of the Urgent Care clinic consists of a reception room, six examination rooms, six offices, a consultation room, waiting area, a blood draw room, and storage areas. The Urgent Care clinic and its ancillary areas (laboratory, x-ray and pharmacy) are open from 8:00 a.m. to midnight seven days a week. The Urgent Care clinic operates with two shifts comprised of 25 nurses, four clerical and four contracted medical providers.

1.9 Purpose of the Project

The purpose of the project is to enable the County to meet the projected increasing need for comprehensive, quality primary health care services in the South Los Angeles community, as shown on Table 1.

Table 1. Patients Served at Hubert H. Humphrey Comprehensive Health Center

Timeframe	Health Center Total	Urgent Care Clinic
July 2009 to June 2010 (Actual)	119,643	33,437
Forecast/Target - July 2010 to June 2011	163,970	44,768
Increase in Daily Patients Expected	174	31
Anticipated Increase	37%	34%

Source: DHS, 2011

1.10 Description of the Proposed Project

The County of Los Angeles proposes to expand the Urgent Care clinic and construct a new parking deck or structure at the existing Hubert H. Humphrey Comprehensive Health Center in southeast Los Angeles. As shown on Figure 4, the proposed project would include: reconfiguration of existing clinic space to expand the Urgent Care clinic; and, construction of a parking deck or structure with ramp (Figure 5). The proposed project would be accomplished in two work packages as described in Table 2.

Table 2. Proposed Work Packages for Hubert H. Humphrey Comprehensive Health Center

Description		Dimensions
Package 1 - Remodel and Expand Medical Office Building		
Phase 1	Add new Urgent Care clinic waiting room, restrooms and reception desk. Convert covered walkway into interior space to link new waiting room and clinical spaces. New waiting room would include an accessible pedestrian link with sidewalk along East Slauson Avenue. Reconfigure parking area for emergency vehicles east of the new waiting room.	2,200 sq ft to be added
Phase 2	Remodel the existing waiting area into a Clinic Module that would include seven examination rooms, a nurse station and restrooms, a new phlebotomy station. Existing bulk storage area would be reconfigured to accommodate a triage area, an employee break room and a laboratory storage room. The cooling capacity of the Hematology Lab would be increased by adding fan coil units and connecting them to chilled water lines (no remodel of the Hematology Lab is required).	4,400 sq ft to be re-modeled
Package 2 - Parking Deck/Structure. A new deck or structure would be constructed to include lighting, drainage and parking for 50 to 200 vehicles.		17,940 to 70,000 sq ft to be added

Source: Morris Architects, 2010

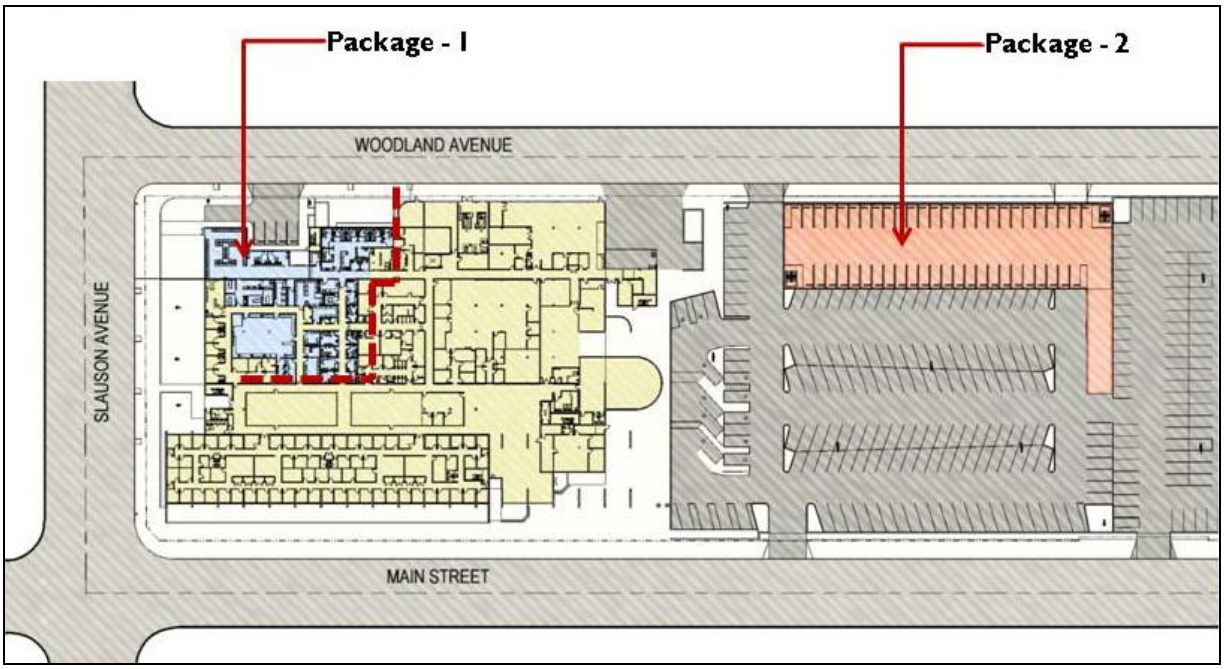

Figure 4. Proposed Layout for Urgent Care Expansion and Single-Level Parking Deck at the Hubert H. Humphrey Comprehensive Health Center

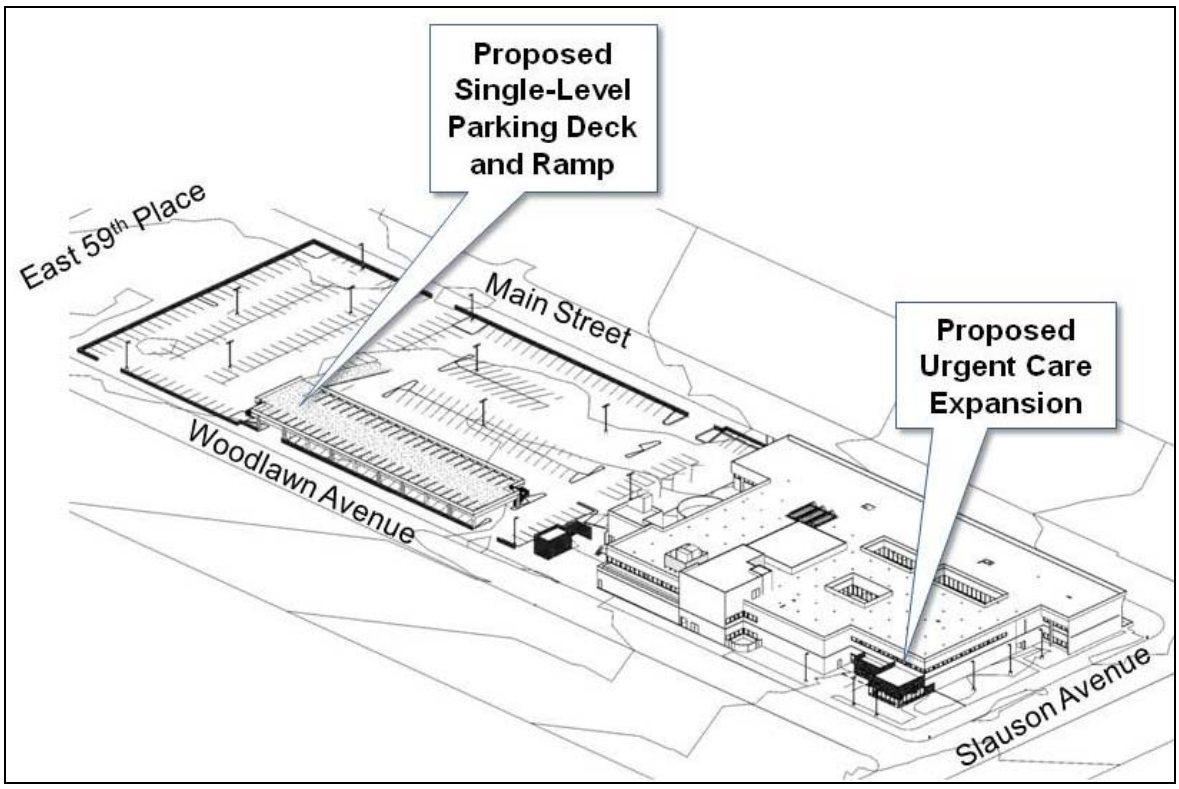

Figure 5. Reference View for Proposed New Parking Deck at the Hubert H. Humphrey Comprehensive Health Center

A total of 6,600 sq ft of space would be remodeled as a result of Phases 1 and 2 of Package 1. This remodeling will require demolition of concrete walls and other new construction. The Urgent Care Expansion would include Americans with Disabilities Act (ADA)-compliant features such as restrooms and paths of travel. Fire alarms and sprinkler systems would be included for all new spaces. A civic art design program will be incorporated into the overall building design and remodel.

Once Phase 2 is complete and the new clinic spaces and blood draw area can be used, cosmetic upgrades for finishes and equipment would occur at the existing Urgent Care clinic. A four-bay observation area, a security office, four examination rooms, four offices, a utility room and a patient consultation room would be added to the existing clinic. An enlarged waiting room would be remodeled from the existing blood draw space (which now has a waiting room within it). Privacy booths for drawing blood would be located in the expansion area. Figure 6 depicts an overview of the work to be accomplished in both phases of the project.

The proposed Urgent Care clinic expansion and new parking deck or structure would be constructed as a design-build project. For this reason, design details are not known at this time. As such, a single-level parking deck could be located on the eastern side of the parking lot (as shown in Figure 5) or a two-story structure could be situated at the southern portion of the parking lot (as shown in Figure 6). Both configurations are evaluated in this study.

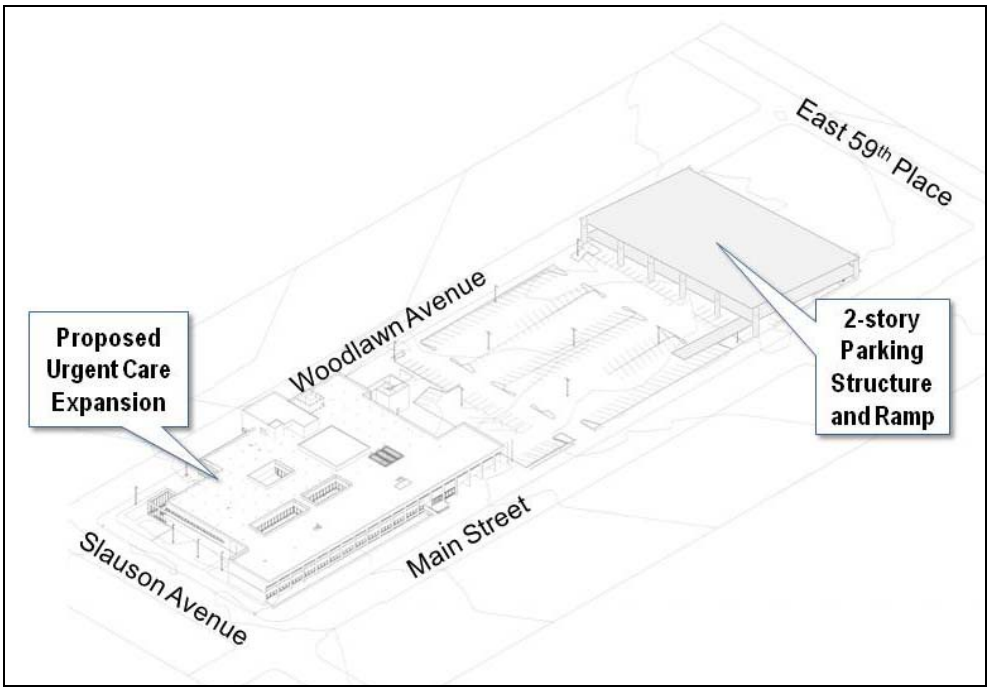

Figure 6. Alternate Location for 2-Story Parking Structure at the Hubert H. Humphrey Comprehensive Health Center

The overall building design and remodel will be accomplished as a Design/Build project. Although the project is not being designed to incorporate U.S. Green Building Council Leadership in Energy and Environmental Design for New Construction (LEED®-NC) requirements, design of the proposed Urgent Care Expansion and parking deck or structure will employ sustainable design practices in accordance with sustainability standards to be provided during the design process. These could include low-flow water fixtures, energy efficient appliances and lighting (e.g., compact fluorescent lighting), water-efficient landscaping, and alternative transportation features (e.g., bike racks).

Because the proposed Urgent Care clinic expansion and new parking deck or structure would be constructed as a design-build project, the description contained herein represents anticipated features

based on a preliminary concept package. Upon completion of design, the County of Los Angeles will determine whether any additional environmental evaluation and documentation is required under CEQA.

1.11 Construction

The proposed project would require construction on the southwest corner of Slauson and Woodlawn avenues as follows:

- Prior to reconfiguration, abatement of hazardous materials (i.e., asbestos and lead-based paint) in only the affected areas of the Urgent Care clinic would be conducted in accordance with regulatory requirements and the procedures defined in Appendix A.
- Reconfiguration of a portion of the building exterior and the adjoining parking area including the clearing of approximately 10,000 sq ft of exterior surfaces. Five of the nine parking spaces at the corner of East Slauson and Woodlawn avenues will be removed; two of the remaining spaces would be enlarged. Parking for the County health RV, official County vehicles (i.e., Sheriff's vehicles) and ambulances will continue to be available at East Slauson and Woodlawn avenues.
- No soil would be imported or removed from the site (concrete, asphalt and other construction debris would be removed from the site).
- Soil adjacent to the existing building and under its parking lot will be excavated and re-compacted in accordance with recommendations of the site-specific geotechnical investigation.
- Reconfiguration of interior space in the Health Center in order to remodel 6,600 sq ft of clinic space and expand the Urgent Care clinic.
- The construction area at this location would be fenced and secured during the construction work period.
- The existing health center and Urgent Care clinic would continue to be open during construction. Access to the parking lot would continue to be provided from existing driveways on South Main Street and Woodlawn Avenue. These are the two primary entrances into the parking lot. No roadway improvements for this project are planned at this time.
- Existing landscaping adjacent to the northern exterior wall of the health center along Slauson Avenue would be replaced by planting of trees and shrubs.

A new parking deck or structure would be constructed in the existing, at-grade health center parking lot adjacent to the health center. Construction would be required either west of Woodlawn Avenue or on the southern portion of the existing surface parking lot as follows:

- Removal of asphalt and excavation would be required for the foundations of a new parking deck or structure. It is estimated that the depth of excavation would be approximately 5 feet below ground surface.
- Four (4) pole lights, approximately 25 ft in height, within the existing parking lot would be removed.

- One podocarpus tree and a jasmine bush (in a planter) would be removed for construction of the parking deck or structure (none of the trees planted in sidewalk boxes in the Woodlawn Avenue sidewalk would be removed). New landscaping along Woodlawn Avenue and Main Street would include would planting of trees and shrubs.
- Design of the new parking deck or structure will take into account minimal disruption of parking flow during construction. A precast concrete, cast in place, or steel structure may be considered. Approximately 80 of the 368 existing parking spaces would be temporarily unavailable during the estimated 4-month construction of the single-level parking deck and ramp. Approximately 138 spaces would be temporarily unavailable during the estimated 8-month construction of the two-story parking structure and ramp.
- Fifty (50) new spaces, two stairwells and a ramp would be provided in a single-story parking deck would be provided on top of the existing surface parking lot. Up to 300 new spaces, two stairwells and a ramp would be provided for a two-story parking structure.
- Nine (9) new pole-mounted lights, approximately 25 ft in height, would be installed for security and pedestrian lighting.
- ADA-compliant concrete walkways and site drainage would be constructed for the parking deck or structure or structure.

Construction is anticipated to start in January 2012 and be completed by April 2014. Construction would be phased to enable the existing health center and Urgent Care clinic to remain open. Construction of the parking deck or structure will be overlap with remodel of the Urgent Care clinic. Construction is estimated to require approximately 22 months as shown on Table 3.

Table 3. Estimated Construction Schedule for Hubert H. Humphrey Comprehensive Health Center

Description		Construction Duration
Package 1 - Remodel and Expand Medical Office Building		
Phase 1	New Urgent Care Waiting Room; restrooms and reception desk. Convert covered walkway into interior space to serve as link between new waiting room and clinical spaces. New waiting room would include an accessible pedestrian link with sidewalk along East Slauson Avenue. Reconfigure parking area for emergency vehicles east of the new waiting room.	12 months
Phase 2	Remodel the existing waiting area into a Clinic Module. Upgrade cooling system in Hematology Lab.	10 months
Package 2 - Parking Deck or Structure		4 - 8 months
Total		22 months

Note: Parking deck or structure to be constructed concurrent with Phase 2.

While some temporary lane detours may be required during demolition and construction, closures of entire roads would not be expected. Construction vehicles and equipment would be staged onsite within the existing parking lot.

1.12 Operation

The proposed Hubert H. Humphrey Comprehensive Health Center would continue to be owned and operated by the County of Los Angeles Department of Health Services. The Urgent Care clinic would continue to be open daily from 8:00 a.m. to midnight. It is expected that the expanded Urgent Care clinic and new parking deck or structure would be open to the public in early 2014.

1.13 Related Projects

There are five ongoing or planned projects within a one-mile radius[1] of the Hubert H. Humphrey Comprehensive Health Center. The Los Angeles Unified School District (LAUSD) has three new schools under construction, all of which will have completed construction before construction of the proposed project. The Community Redevelopment Agency of Los Angeles (CRA/LA) is planning construction of two projects near the project site. Construction of 46 units of affordable rental housing in a commercial corridor is scheduled to start in February 2011. Construction of 76,300 sq ft of commercial and retail space on the former Goodyear Industrial Tract site is planned to start in May 2011. There are no Los Angeles County projects ongoing or planned in the project area. Related projects are summarized on Table 4 and depicted on Figure 7.

Table 4. Related Projects Within One Mile of the Project Site

No.	Project and Address	Lead Agency	Distance	Size
1	South Region Elem. School #6 (Juanita Tate Elementary School) 123 W. 59th Street Los Angeles, CA 90003	LAUSD	0.09 mile west	6 acres
	Construction: 7/09 – 6/11			
2	Central Region High School #16 300 E. 53rd Street Los Angeles, CA 90011	LAUSD	0.42 mile northeast	5.86 acres
	Construction: 10/08 – 6/11			
3	South Los Angeles Area New High School #3 825 W. 60th Street Los Angeles, CA 90044	LAUSD	0.87 mile southwest	15.37 acres
	Construction: 4/09 – 8/11			
4	Sunrise Apartments 5111, 5113 and 5125 S. Main St. Los Angeles, CA 90037	CRA/LA	0.53 mile north	28,522 sq ft
	Construction: 2/11 – 8/12			
5	Slauson/Central Retail Plaza 944 to 1040 E. Slauson Avenue Los Angeles, CA 90001	CRA/LA	0.85 mile east	76,300 sq ft
	Construction: 5/11 – 11/12			

Sources: LAUSD, 2010a and b; CRA, 2010; Mason, 2010.
Refer to Figure 7 for location of related projects.

Of the five projects shown in Table 4, only the Sunrise Apartments and the Slauson/Central Retail Plaza would have construction that overlaps with construction of the proposed project.

1.14 Surrounding Land Uses and Setting

The Burlington Northern and Santa Fe Railroad runs along Slauson Avenue immediately north of, and approximately 130 ft from, the Health Center. Industrial land uses (warehouses) are located along East Slauson Avenue to the north, with a construction yard at the southeast corner of Slauson Avenue and Woodlawn Avenue. Ongoing construction of a new school along Main Street is immediately west of the site. Commercial establishments are located along Main Street south of the Health Center. Residences are located on Woodlawn Avenue and 59th Place east and south, respectively, of the Health Center. Surrounding land uses are shown on Figure 8.

1.15 Other Agencies Whose Approval is Required

There are no agencies whose approval will be required for the proposed project.

[1] A distance of one mile was selected because it represents a reasonable area in which impacts of the proposed project, when combined with other projects, can be expected to be evident.

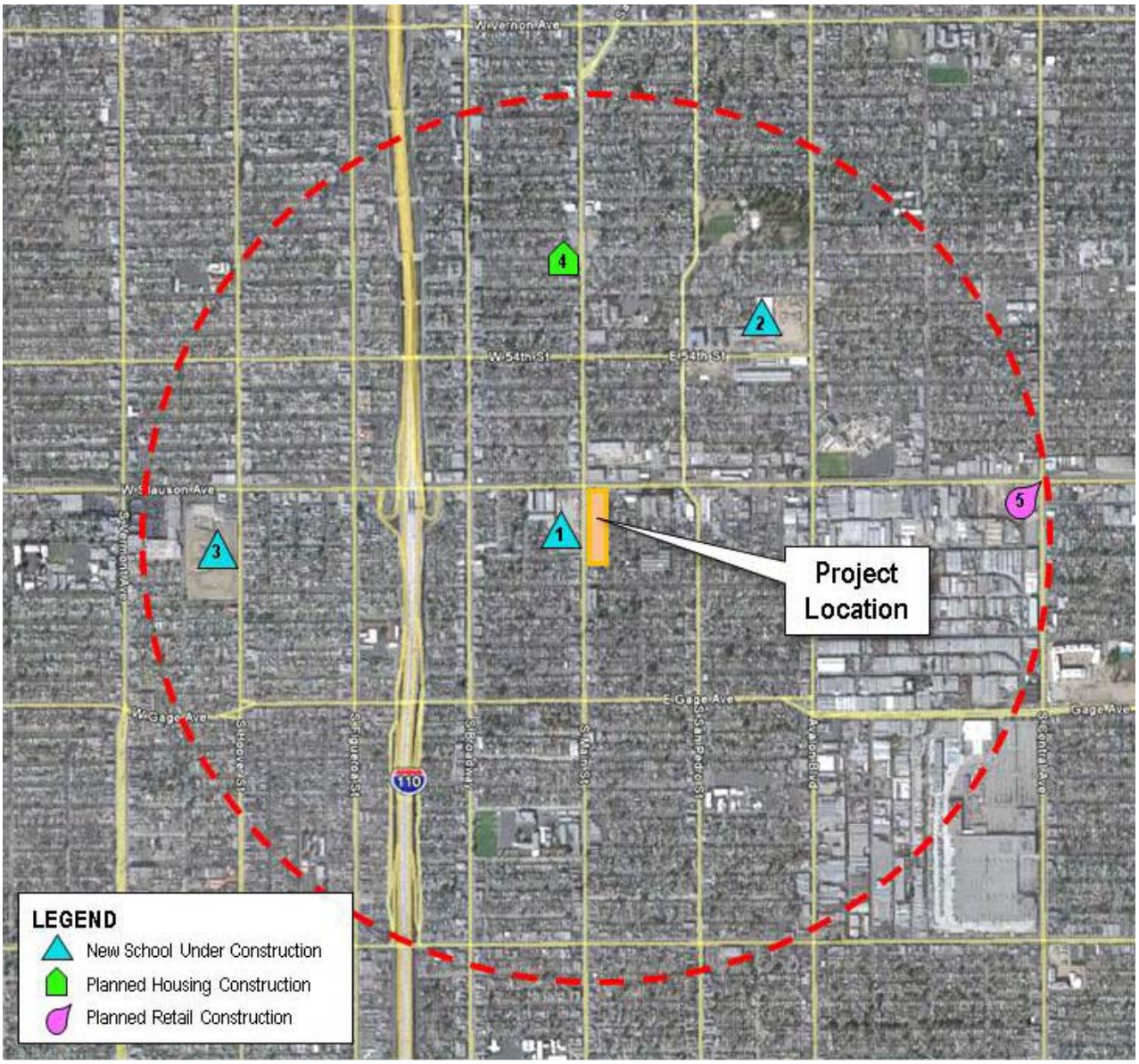

Figure 7. Related Projects Within One Mile of the Hubert H. Humphrey Comprehensive Health Center

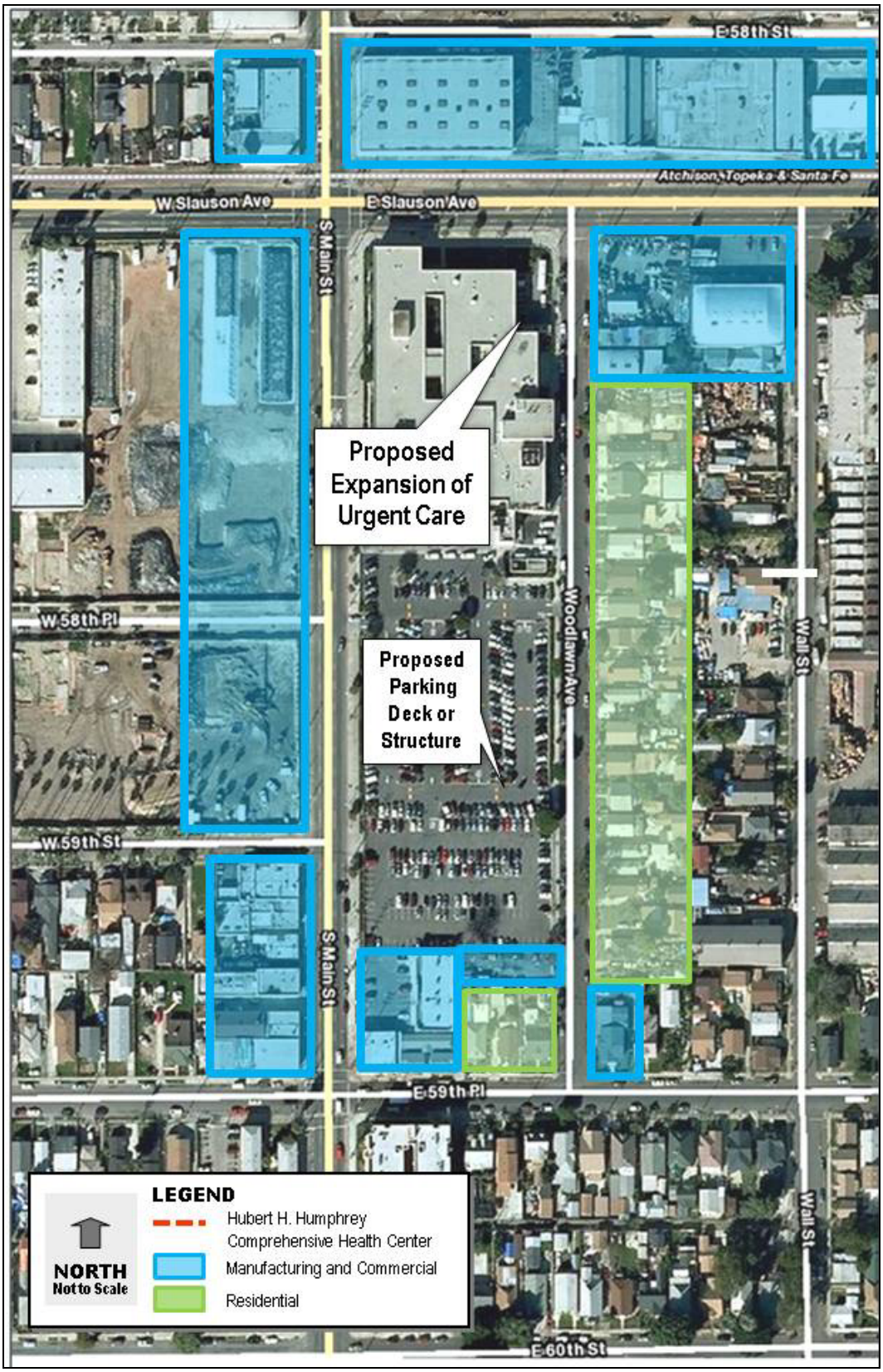

Figure 8. Surrounding Land Uses Near the Hubert H. Humphrey Comprehensive Health Center

Environmental Factors Potentially Affected:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agricultural and Forestry Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology /Soils
☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials	☐ Hydrology /Water Quality
☐ Land Use /Planning	☐ Mineral Resources	☐ Noise
☐ Population /Housing	☐ Public Services	☐ Recreation
☐ Transportation /Traffic	☐ Utilities /Service Systems	☐ 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.

H. El Sokkary
Signature

09/06/11
Date

Hoda El Sokkary
Printed Name

County of Los Angeles
Department of Public Works
For

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," <u>as described in (5) below,</u> may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
   a) Earlier Analysis Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:
   a) the significance criteria or threshold, if any, used to evaluate each question; and
   b) the mitigation measure identified, if any, to reduce the impact to less than significance

SECTION 2. CEQA ENVIRONMENTAL CHECKLIST

The Environmental Checklist and discussion of potential environmental effects were completed in accordance with Section 15063(d)3 of the California Environmental Quality Act Guidelines to determine if the proposed project may have any significant impacts on the environment.

A brief explanation is provided for all determinations. A "No Impact" or "Less Than Significant Impact" determination is made when the project would not have any impact or would not have a significant effect on the environment for that issue area, respectively, based on a project-specific analysis.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
2.1 Aesthetics Would the project:				
a) Have a substantial adverse effect on a scenic vista?			X	

There are no scenic vistas at, or visible from, the immediate area of the Hubert H. Humphrey Comprehensive Health Center; there are no scenic vistas within two miles of the project site. The proposed Urgent Care Expansion would not be visible from any scenic vistas in the area because of its scale relative to the existing two-story Health Center. The proposed single-level parking deck or 2-story structure would be a new visual element in the area with limited visibility from surrounding areas:

- The new single-level parking deck would be visible by residents along Woodlawn Avenue. These residents currently have a view of the existing surface parking lot adjacent to the health center. The proposed single-level parking deck would not obstruct views of any scenic aspects of the area because the existing terrain does not allow for any distant scenic views.
- The new 2-story parking structure would be visible to residents along Woodlawn Avenue and from the backyards of three residents on East 59th Place. These residents currently have an obscured view of the existing 2-story health center. The proposed 2-story parking structure would not obstruct views of any scenic aspects of the area because the existing terrain does not allow for any distant scenic views. The new parking structure would not be any taller than the existing health center.

Therefore, impacts to scenic vistas in the area would be considered less than significant.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			X	

There are no official State or County Scenic Highways in the project area. Although the proposed parking deck or structure would be visible in the immediate area, there would be no substantial damage to scenic resources within a state scenic highway. The nearest State scenic highway is the Arroyo Seco Historic Parkway known as the Pasadena Freeway (State Highway 110). This 6-mile historic parkway is over five miles, and not visible, from the proposed site. Landscaping at the Health Center is characterized by trees that have been planted along Woodlawn Avenue and around the main entrance and within the parking lot (Figure 9). The view of the proposed site does not include any scenic resources, rock outcroppings or historic buildings. Tree removal would be limited to one podocarpus trees within the parking lot. A row of podocarpus and carob trees are located along the east fence line of the parking lot (these trees are planted in the sidewalk and would not be removed). None of these trees are considered scenic resources. With addition of new landscaping along Woodlawn Avenue, the visual

appearance of the health center campus would be enhanced. Therefore, impacts from the proposed project on scenic resources would be considered less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			X	

The visual character of the project site is developed with surrounding manufacturing, commercial and residential land uses. The view from all four sides of the site includes one- and two-story buildings. The visual field at the site is undergoing a transformation with the ongoing construction of a new two-story elementary school on Main Street across the street from the Health Center (Figure 10).

Figure 9. View of Existing Trees in Health Center Parking Lot (Looking North from the Parking Lot)

Figure 10. View of New School Under Construction Along Main Street (Looking West from the Parking Lot)

The proposed Urgent Care Expansion would be limited to the first floor of the northeast corner of the Health Center. Exterior changes to the northeast corner would be limited to an extension of the building into the County vehicle parking area and modification of the ambulance loading area (removal of 5 of the 9 parking spaces and widening of 2 parking spaces) to include a turnaround area. These improvements would occur within the existing functional area of the existing Urgent Care clinic portion of the Health Center. The proposed expansion would not degrade the visual character of the site or its surroundings (Figures 11 and 12).

Figure 11. View of Site for Proposed Urgent Care Expansion Along Slauson and Woodlawn Avenues (Looking Southwest from Slauson Avenue)

Figure 12. View of Site for Proposed Urgent Care Expansion Along Slauson Avenue (Looking North from Woodlawn Avenue)

The new single-level parking deck or a two-story parking structure would be located within the existing parking lot of the Health Center. In accordance with the City of Los Angeles Southeast Los Angeles Community Plan (2000), the deck or structure would be designed: to integrate the design of the building it serves (i.e., style, material and color of the main building); and, to utilize landscaping and/or decorative walls to screen the structure from residential uses. This visual change resulting from presence of a new single-story parking deck or a two-story parking structure, including the removal of trees in this location, would not be considered a substantial degradation of the visual quality of the area because the new structure would provide a continuation of the visual character of the existing Health Center. With addition of new landscaping along Woodlawn Avenue and Main Street, the visual quality of the health center campus would be enhanced. The site and surroundings are characterized by modern, concrete structures and pavement. The proposed project would enhance the visual quality of the site or its surroundings.

The proposed project would not adversely impact the visual character and quality of the project area, nor will it substantially degrade the visual character of the site and its surroundings. Therefore, impacts to the visual character and quality of the area would be considered less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?			X	

The existing Health Center contains artificial lighting around its perimeter and within the parking lot. The surrounding area is characterized by typical urban sources of light and glare including street lighting along Slauson Avenue, Main Street and Woodlawn Avenue. Construction would not include the use of any reflective materials, and would not be expected to generate a substantial amount of light or glare in the surrounding community (the nearest residences along Woodlawn Avenue and East 59th Street are approximately 73 ft east and 40 ft south, respectively, of the existing parking lot). Construction activities

would occur during daylight hours; therefore, no new sources of artificial lighting would be necessary during construction at the Health Center.

The proposed Urgent Care Expansion and new parking deck or structure would increase the amount of artificial lighting for security. There would be no change to existing light standards within the parking lot. New security lighting would be added to the parking deck or structure. Security lighting of the parking deck or structure would be on during the entire night, and directed downward towards the interior of the deck or structure. This lighting would not adversely affect the day or nighttime views in the area. The security lighting would not be visible from any of the nearest residences to the parking deck or structure. The nearest residences along Woodlawn Avenue are approximately 73 ft east of the parking lot, while residences on East 59th Street are approximately 40 ft south of the parking lot. There would be no substantial increase in the amount of glare generated by cars entering and exiting the parking lot from the existing access on Woodlawn Avenue. This is because it is expected that approximately 23 additional vehicles would access the parking lot each day. Therefore, impacts from light and glare would be considered less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
2.2 Agriculture and Forest Resources In determining whether impacts to agriculture 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 forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
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 non-agricultural use?				X

The State of California Department of Conservation Division of Land Resources has surveyed land in Southern California as part of its Farmland Mapping and Monitoring Program (FMMP). The FMMP Geographic Information System (GIS) data shows that the project site has not been classified (FMMP, 2008). Because it is located in a developed metropolitan area, it does not contain farmland of unique or local importance. The site does not contain active farmland. The proposed project would not result in the conversion of farmland to non-agricultural use. Therefore, there would be no impacts to farmland.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X

Williamson Act contracts are applicable to land in agricultural preserves and restrict specific parcels of land to agriculture or related open space use. There are no Williamson Act contracts in effect for the project site or surrounding area. No portion of the site is zoned for agricultural use. Therefore, the proposed project will not result in any impacts to existing agricultural zoning or Williamson Act contracts.

c) Conflict with existing zoning for, or cause rezoning of, forest land (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))?				X

The proposed project would consist of an expanded Urgent Care clinic and new parking deck or structure on developed land that is currently zoned as Public Facilities (PF-1). There is no land within the boundaries of the proposed project site that is currently used as forest land, timberland or timberland production. The proposed project would not result in any conflict with existing zoning or cause rezoning of any forest land 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). Therefore, no impact to forest land would occur.

d) Result in the loss of forest land or conversion of forest land into non-forest use?				X

The proposed project is not located on any forest land. The project would not result in the loss of any forest land nor would it result in the conversion of any forest land into non-forest use. Therefore, there would be no impact to forest land.

e) Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				X

The proposed project would consist of expansion of the existing Urgent Care clinic and a new parking deck or structure on developed land. There is no land within the boundaries of the existing Health Center that is currently used as farmland or forest land. The proposed project would not result in the conversion of farmland into a non-agricultural use or conversion of forest land into non-forest use. Therefore, there would be no impacts to farmland and forest land.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
2.3 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:				
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	

The project area is located in the South Coast Air Basin (SCAB) and managed by the South Air Quality Management District (SCAQMD). The SCAQMD is required, pursuant to the Clean Air Act of 1988, to reduce emissions of criteria pollutants for which the basin is in non-attainment. Strategies to achieve these emissions reductions are included in the SCAQMD Air Quality Management Plan (AQMP) for the region. The AQMP is based on Southern California Association of Governments (SCAG) population projections for communities within the SCAB. Conformance with the AQMP for future development projects is determined by demonstrating compliance with local land use plans and/or population projections. The proposed Urgent Care Expansion would not conflict or obstruct implementation of the AQMP. No land uses are proposed that are different from those anticipated for the property in long range planning efforts by the City of Los Angeles. The proposed project would meet goals and objectives of the AQMP by minimizing vehicle miles traveled for health services, which consequently minimizes air pollutant emissions. Therefore, the project is in compliance with the AQMP and impacts would be less than significant.

The proposed project will result in temporary air pollutant emissions during reconfiguration of the Urgent Care clinic and construction of the parking deck or structure. Table 5 provides a summary of the maximum estimated daily air pollutant emissions that would occur during construction with simultaneous use of a variety of heavy equipment on the site.

Emissions on Table 5 reflect the maximum daily emissions over the course of demolition, grading, building construction and architectural treatments of the Urgent Care clinic within the Health Center. For parking deck or structure construction, emissions on Table 5 reflect maximum daily emissions over the course of demolition and asphalt/concrete paving activities that would occur simultaneously with Urgent Care Expansion. The values on Table 5 reflect the maximum daily (mitigated) emissions based on an estimated mix of construction equipment in use at the site for the specific activity (refer to assumptions at bottom of Table 5). Dust and exhaust emissions are reflected in particulate matter emission rates. These estimated emissions would be less than SCAQMD significance thresholds. Construction-related air pollutant emissions will not result in any conflict with objectives or implementation of the SCAQMD AQMP. Impacts to air quality from construction are considered to be less than significant.

The proposed project will generate air pollutant emissions from the use of construction equipment and construction worker vehicles (one vehicle per worker and an estimated 25 workers per day). These emissions will not exceed SCAQMD significance thresholds. Construction activities will be temporary and will not be expected to result in any adverse, long-term effects on air quality because the generation of air pollutants will be limited to the 16-month construction period. Impacts to air quality from construction of the proposed project will be considered less than significant.

Table 5. Estimated Air Pollutant Emissions from Construction of Urgent Care Expansion

Activity		Duration	Emissions (lb/day) [a]					
			CO	ROG	NOX	SOX	PM_{10}	$PM_{2.5}$
1	Reconfiguration of Urgent Care Waiting Room, Restrooms and Reception; Conversion of Covered Walkway into Interior Space; Reconfiguration of Emergency Parking Area	12 months	8.95	1.83	15.29	0.00	0.74	0.68
	SCAQMD Significance Threshold[b]		550.0	75.0	100.0	150.0	150.0	55.0
	Exceed Threshold?		No	No	No	No	No	No
2	Remodel Existing Waiting Area into Clinic Module	10 months	4.75	0.96	7.33	0.00	0.43	0.40
	SCAQMD Significance Threshold[b]		550.0	75.0	100.0	150.0	150.0	55.0
	Exceed Threshold?		No	No	No	No	No	No
3	Construction of Single-Level Parking Deck or 2-Story Parking Structure	4 months	8.34	1.69	10.21	0.00	0.85	0.78
	SCAQMD Significance Threshold[b]		550.0	75.0	100.0	150.0	150.0	55.0
	Exceed Threshold?		No	No	No	No	No	No
4	Concurrent Construction at Urgent Care and Single-Level Parking Deck or 2-Story Parking Structure	10 months	13.09	3.65	17.54	0.00	1.28	1.18
	SCAQMD Significance Threshold[b]		550.0	75.0	100.0	150.0	150.0	55.0
	Exceed Threshold?		No	No	No	No	No	No

Assumptions: Heavy equipment that likely could be used simultaneously during Urgent Care Expansion is as follows: (a) One concrete industrial saw, 2 tractor/loader/backhoes, 2 dump trucks, and 1 rubber-tired dozer during site preparation/demolition; (b) Two excavators, 1 tractor/loader/backhoe, and 1 other general industrial equipment during trenching; and, (c) 1 crane, 2 forklifts, 2 dump trucks, and 1 tractor/loader/backhoe during building construction. Heavy equipment that likely would be used for construction of the parking deck or structure is: (a) One concrete industrial saw, 2 tractor/loader/backhoes, 1 dump truck, and 1 rubber-tired dozer during site preparation/demolition; and, (b) 1 tractor/loader/backhoe, 2 cement/mortar mixers, 1 paver, and 1 roller during asphalt/concrete paving.

[a] Source: URBEMIS model output for 6,600 sq ft of medical office and parking deck or structure using composite emissions for estimated heavy equipment mix for each activity.

[b] Source: SCAQMD, 2008

CO = carbon monoxide
ROG = reactive organic gases
NO_X = nitrogen oxides
SO_X = sulfur oxides
PM_{10} = particulate matter less than or equal to 10 microns in diameter
$PM_{2.5}$ = particulate matter less than or equal to 2.5 microns in diameter

Once the Urgent Care clinic is expanded and the parking deck or structure is completed, operational emissions would consist of vehicular emissions (from visitors and maintenance personnel) and from energy usage (i.e., lighting). It is estimated that operation of the expanded Urgent Care would result in: (a) an increase of 31 Urgent Care clinic patients per day; (b) an increase of 23 vehicles per day based on vehicle trip generation rates for a facility of this type; and, (c) continued employee vehicle trips at the same level; and, (d) maintenance activities that generate approximately five (5) vehicles at the site per day (no new maintenance vehicle trips). Table 6 provides a summary of estimated air pollutant emissions during operation of the expanded Urgent Care clinic (operational emissions would result from patients, employees and maintenance personnel vehicle exhaust only).

Table 6. Estimated Air Pollutant Emissions from Operation of Urgent Care Expansion

Source	Emissions (lb/day) [a]					
	CO	ROG	NOX	SOX	PM_{10}	$PM_{2.5}$
Urgent Care Expansion and Parking Deck/Structure	26.52	2.38	2.97	0.03	4.38	0. 58
SCAQMD Significance Threshold[b]	550.0	55.0	55.0	150.0	150.0	55.0
Exceed Threshold?	No	No	No	No	No	No

[a] Source: URBEMIS model output for 6,600 sq ft of medical office
[b] Source: SCAQMD, 2008

The values on Table 6 reflect the maximum daily (mitigated) emissions associated with operation of the expanded Urgent Care clinic. Emissions from operations would not exceed SCAQMD significance thresholds. For these reasons, impacts to air quality associated with operation of the proposed project would be considered less than significant.

No mitigation measures are required because impacts to air quality are not considered significant. The proposed project will incorporate the following construction best management practices to reduce air pollutant emissions during the construction period:

- *During construction, emissions of particulate matter can be reduced by approximately 50 percent with watering for dust control. All disturbed areas, including storage piles which are not being actively used for construction, shall be effectively stabilized for dust emissions using water, chemical stabilizer or suppressants, covered with a tarp or other suitable cover. Unpaved surfaces will be effectively stabilized of dust emissions using water, chemical stabilizer or suppressant. The construction contractor will conduct site watering on a daily basis or as appropriate depending on weather conditions.*
- *During construction, traffic speeds for vehicles and construction equipment on unpaved areas shall be limited to 15 miles per hour (mph).*
- *During construction, excavation and grading activities shall be suspended when winds exceed 20 mph.*
- *During construction, the construction contractor will be responsible for ensuring that: equipment idling time is limited to 15 minutes maximum; equipment is shut off if idling exceeds 15 minutes; and, hours of operation for heavy duty equipment will not exceed 8 hours per day.*

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			X	

The proposed project will generate air pollutant emissions during construction and operations. These emissions will not exceed SCAQMD significance thresholds. The proposed project will not violate any air quality standard or contribute substantially to an existing or projected air quality violation. There is one open case with a SCAQMD violation in south Los Angeles (zip code 90003) as of the date of this document (SCAQMD, 2010). This case is a violation of emissions from a dry cleaning operation located approximately 0.7 mile southwest of the project site (west of the Harbor Freeway). The proposed project would not contribute in any way to this air quality violation because the nature of the violation is not related to the proposed project in any way. Therefore, impacts to air quality from construction of the proposed project will be considered less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?			X	

The project area is located in the South Coast Air Basin (SCAB) and managed by the South Coast Air Quality Management District. The project site is located in SCAQMD's Metropolitan air monitoring area and Source Receptor Area (SRA) 1 which is served by an air monitoring station at 1630 North Main Street (90012). The South Coast Air Basin is classified as a non-attainment area for ozone (O_3) and particulate matter (PM_{10} and $PM_{2.5}$), and is in attainment status for nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur oxides (SOx) and lead (Pb). The net increase in emissions of these pollutants from construction of the proposed project, or its operation, would not exceed federal or state standards. In 2012, two other projects within 1.0 mile of the site would be under construction at the same time as the first phase of the proposed project (the proposed parking deck or structure would not be constructed until 2013). Table 7 provides an estimate of the air pollutant emissions that would occur from each of these projects.

Table 7. Estimated Air Pollutant Emissions from Cumulative Projects, 2012

Source	Emissions (lb/day) [a]					
	CO	ROG	NOX	SOX	PM_{10}	$PM_{2.5}$
Urgent Care Expansion	8.95	1.83	15.29	0.00	0.74	0.68
Construction Projects Planned Within One-Mile of the Proposed Project						
- Sunrise Apartments	12.98	2.86	23.49	0.00	2.58	1.37
- Slauson/Central Retail Plaza	9.64	1.22	8.63	0.01	0.55	0.49
Total, Cumulative Projects Plus Proposed Project	31.57	5.91	47.41	0.01	3.87	2.54
SCAQMD Significance Threshold[b]	550.0	55.0	55.0	150.0	150.0	55.0
Exceed Threshold?	No	No	No	No	No	No

[a] Source: URBEMIS model output for each project
[b] Source: SCAQMD, 2008

As shown on Table 7, emissions from construction of the other projects, when added to emissions from the proposed project, would not exceed SCAQMD significance thresholds. Therefore, impacts from cumulatively considerable air pollutant emissions would be considered less than significant.

d) Expose sensitive receptors to substantial pollutant concentrations?			X	

Sensitive receptors near the proposed site include residences, child care centers, the future Juanita Tate Elementary School, and the employees and patients at the health center. The nearest residences along Woodlawn Avenue and 59th Place are approximately 73 and 40 ft feet from the existing parking lot, respectively. The nearest two child care centers within a one-mile radius of the project are both approximately 0.35 mile northwest of the site. The nearest public parks are South Park approximately 0.6 mile northeast, Bethune Park approximately 1.2 miles southeast and Mount Carmel Park approximately 1.2 miles southwest, of the site. Due to the localized nature of construction activities and the pollution control measures that would be conducted as described in Section 2.3.a), persons in the area would not be expected to be exposed to substantial construction-related pollutants as a result of the proposed

project. As shown on Tables 5 and 6, construction and operational emissions will be lower than the SCAQMD significance thresholds. Therefore, impacts to sensitive receptors will be considered less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Create objectionable odors affecting a substantial number of people?			X	

No activities would occur, and no materials or chemicals would be stored on-site, that would have the potential to cause odor impacts during project activities at the site. Painting would be limited to surface coatings and parking lot restriping, and would not be expected to generate odors discernible to any residents along Woodlawn Avenue or 59th Place because of distance from the site. With the exception of temporary painting activities and construction vehicle exhaust (including hauling of materials off-site during construction) that may be discernible to employees, patients and visitors at the health center, no odor-generating activities will occur at the site. These odors are not expected to be discernible to the nearest residences because odors would be localized on the immediate site and dissipate rapidly. The use of water-based paints as required by the SCAQMD will limit the generation of odors. Adverse odor impacts affecting a substantial number of people will not be expected. Therefore, impacts from odors are considered less than significant.

2.4 Biological Resources Would the project:				
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 U.S. Fish and Wildlife Service?			X	

An impact to candidate, sensitive or special status plant and animal species would be considered significant if such species were to be subjected to direct or indirect habitat modification. A review of the California Department of Fish and Game (CDFG) California Natural Diversity Database (CNDDB) indicates that three listed species have been recorded in the project vicinity, as shown on Table 8. Each of these species has formal protection either under the federal Endangered Species Act and/or the California Endangered Species Act of 1984.

The proposed site for the park was surveyed by a terrestrial ecologist on September 30, 2010. Neither direct sightings nor indirect evidence of species considered sensitive by the State of California, and no Federal- or State-listed threatened or endangered species, were observed in the vicinity of the proposed site or would be expected to inhabit the study area.

Table 8. Listed Species Recorded in the Project Vicinity

No.	Common and *Scientific* Name	Federal Status	State Status	Description
Birds				
1	Burrowing owl (Athene cunicularia)	(none)	Species of Special Concern	This small owl favors flat, open grassland and sparse shrubland ecosystems, typically characterized by absence of tree canopy. Burrowing owls in California are found in association with ground squirrels and often use their burrows for shelter and nesting. The nesting season for this species is from February 1 to August 31. Burrowing owls were last sighted on May 5, 1921 in "Hermon Hills", (a presumed topographic feature no longer present in the project area).
2	Southwestern willow flycatcher (*Empidonax traillii extimus*)	Endangered	Endangered	Nests in riparian woodlands in southern California; breeds in relatively dense riparian tree and shrub communities associated with rivers, swamps, and other wetlands, including lakes (e.g., reservoirs). Most of these habitats are classified as forested wetlands or scrub-shrub wetlands. Habitat requirements include brushy savanna edges, second growth, shrubby clearings and pastures, and woodlands near water. The southwestern willow flycatcher has experienced extensive loss and modification of breeding habitat, with consequent reductions in population levels (USFWS, 2002). Southwest willow flycatchers were last noted in the area on May 20,1894 (CNDDB, 2010).
Mammals				
3	American badger (*Taxidea taxus*)	(none)	Species of Special Concern	This species is most abundant in drier open stages of most shrub, forest and herbaceous habitats. The American badger preys on burrowing rodents and digs burrows in the soil. No information on last observation of this species in this area (CNDDB, 2010).

Source: CNDDB, 2010

The proposed Urgent Care Expansion and parking deck or structure would be constructed entirely within the developed property where no native biotic communities remain on any portion of the site. This is because the site has previously been modified during construction of the Health Center. None of the species previously recorded in the project area are expected to inhabit the project area because no suitable habitat is present.

The site is generally flat on entirely developed land portions of which are planted with decorative horticultural landscaping including natal plum [*Carissa macrocarpa*], heavenly bamboo [*Nandina domestica*], star jasmine (*Trachelospermum jasminoides*), and gazania [*Gazania rigens*]). Approximately 35 trees are found on the health center property: Japanese maple (*Acer palmatum*), Chinese elm (*Ulmus parvifolia*), orchid tree (*Bauhinia variegata*), 'California' pepper (*Schinus molle*), India hawthorn (*Raphiolepsis indica*), vinca (*Vinca minor*), lemonwood (*Pittosporum eugenioides*), loquat (*Eriobotrya japonica*), magnolia (*Magnolia* cf. *grandiflora*), and carob (*Ceratonia siliqua*).

Planting wells on the sidewalk along Woodlawn Avenue each contain a *Podocarpus* tree, some of which have uprooted the concrete walkway. None of these *Podocarpus* trees would be removed for construction of the parking lot. At the southern extent of the parking lot, a large China berry (*Melia azedarach*) tree was planted in the southeast corner just beyond the fence line (this tree will not be removed). Similarly, a mature tree of heaven (*Ailanthus altissima*) is near the center, and immediately south, of the southern fence in the parking lot (this tree will not be removed). It is expected that one carob tree within the parking lot would be removed in order to place a column footing for the new parking deck or structure. Two orchid trees on either side of the existing handicapped parking would be removed in order to reconfigure the parking lot.

Wildlife observed at the site included common species of birds and insects. Other urbanized species of birds and small mammals would also be expected to occur on the site.

Based on the above analysis, impacts to biological resources from construction and operation of the proposed project would not adversely affect listed and sensitive species of plants or animals. The proposed project would result in removal of only horticulturally planted species in order to expand the Urgent Care clinic and construct a new parking deck or structure. None of the existing vegetation serves

as habitat for any listed species of wildlife. Impacts to sensitive species of native plants would be considered less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?				X

The project site does not contain riparian habitat. The proposed site for the Urgent Care Expansion and parking deck or structure is developed and does not contain any watercourses. The nearest watercourse is the Los Angeles River, approximately 3.4 miles northeast of the project site. Therefore, the project would result in no impacts to riparian habitat or other sensitive natural communities.

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?				X

There are no federally protected wetlands on the project site or within 0.5 mile of the proposed site for the Urgent Care Expansion and parking deck or structure (Track Info Services, 2010). The proposed project would not result in physical modifications or placement of facilities in, or adjacent to, wetlands. Therefore, there would be no impact to federally protected wetlands.

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?			X	

The proposed construction for the Urgent Care Expansion and parking deck or structure would occur entirely on previously disturbed ground. Although the potential exists for limited effects on native wildlife that may be present in the construction area, the proposed project would not interfere substantially with movement of wildlife because no wildlife corridors are present on the site. Therefore, impacts to wildlife movement would be considered less than significant.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X	

The proposed project may require removal of one tree however, this tree is not protected nor are any of the existing trees on the property. Depending of final siting of the parking deck or structure, it is possible that additional removal of trees may be required. Therefore, the proposed project would not conflict with any policies or ordinances protecting biological resources and impacts to biological resources would be considered less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Conflict with the provision of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

Based on a review of planning and conservation plan documents, the proposed project is not located in the planning area of any Habitat Conservation Plan or Natural Community Conservation Plan (the nearest conservation area is in Rancho Palos Verdes approximately 15 miles southwest of the site). The project site is not located within or near any Los Angeles County Significant Ecological Area (SEA). The nearest SEAs to the project site are: the Griffith Park SEA approximately 9 miles north; the Ballona Creek SEA approximately 9.5 miles west; the El Segundo Dunes SEA approximately 9.8 miles southwest; and, the Whittier Narrows SEA approximately 11.5 miles east. The proposed project would not conflict with any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, there will be no impact to habitat or conservation plans.

2.5 Cultural Resources Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?				X

An evaluation of historic resources for the proposed site for the Urgent Care Expansion and parking deck or structure was conducted in November 2010 (Appendix B). There are no historic sites listed on the National Register of Historic Places (NRHP) within one mile of the site. The Kerkoff Building and Annex at 558 – 564 South Main Street, listed on the NRHP in 2005 (Track Info Services, 2010), is 4.2 miles northeast of the site. The existing Health Center at 5850 S. Main Street and its adjacent parking lot do not meet any of the criteria for eligibility for listing on the National or California register of historic places nor does it qualify for any local designation (SWCA, 2010a). The proposed project will not result in any adverse change to historical resources.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?		X		

An archaeological survey of the proposed site for the Urgent Care Expansion and new parking deck or structure was conducted in November 2010. No prehistoric or historic archaeological resources or historic-era built-environment resources were identified during the survey. A check of the Native American Heritage Commission (NAHC) Sacred Lands File did not identify any Native American cultural resources or sacred sites in the project area that would be impacted by the proposed project. Notification letters regarding the proposed project were sent to nine Native American tribal contacts identified by the Native American Heritage Commission. One response from the Shoshoneon Gabrieleno Band of Mission Indians was received; this group requested that the site be monitored in order to protect any cultural resources that may be present. Although the proposed project site is expected to have a low sensitivity for encountering subsurface archaeological deposits, ground disturbing activities will extend below the existing ground surface.

Although no archaeological resources were identified within or immediately adjacent to the project area and the results of the archaeological survey were negative, the proposed project has a potential to

encounter subsurface archaeological material due to the need for ground disturbance up to 5 ft below the surface. Excavation may extend up to 5 ft below existing ground surface for foundations of the parking deck or structure. To avoid potential impacts to archaeological resources that may be buried beneath the project site, the County of Los Angeles Department of Public Works would ensure that the following mitigation measure is implemented:

- ***Cultural 1.*** *In the event any archaeological materials or subsurface deposits are exposed during ground disturbance, the construction contractor would cease activity in the affected area (e.g., redirect activities into another area) until the discovery can be evaluated by a qualified archaeologist or historic resources specialist, as required, and appropriate treatment measures implemented. If the discovery proves to be significant pursuant to § 15064.5(c) of CEQA Guidelines, additional work such as testing or data recovery will be conducted as warranted. Methods during monitoring and/or recovery of archaeological resources shall be documented in a report of findings.*

With incorporation of this mitigation measure, impacts to archaeological resources would be considered less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Directly or indirectly destroy a unique paleontological resource or site of unique geologic feature?		X		

A paleontological resources study of the proposed site for the Urgent Care Expansion and new parking deck or structure was conducted in November 2010. The project area is underlain by younger Quaternary alluvium of Holocene age. These young sediments overlie older alluvium of Pleistocene age at unknown but potentially shallow depths. Numerous fossil localities in Pleistocene-age alluvial and fluvial deposits throughout southern California have yielded fossilized terrestrial vertebrates such as mammoths, mastodons, saber-toothed cats and camels. The Holocene-age alluvial deposits that immediately underlie the project area are too young to contain fossils, although they may contain cultural and biological remains. For this reason, the site has a paleontological sensitivity that ranges from low to high increasing with depth. Museum records indicate that four vertebrate fossil localities yielding scientifically significant vertebrate specimens (i.e., bison, camel, coot, ground sloth, weasel, sabre-tooth cat, horse, peccary, and deer) have been documented in the project vicinity within older Quaternary alluvium (SWCA, 2010b). Destruction of fossils as a result of human-caused ground disturbance has a significant cumulative impact, as it makes biological records of ancient life permanently unavailable for study by scientists. To avoid potential impacts to nonrenewable paleontological resources, the County of Los Angeles will ensure that the following mitigation measures will be implemented during construction activities:

- ***Cultural 2.*** *All project-related ground disturbances in Quaternary older alluvium, any previously undisturbed older alluvial deposits, and all excavation exceeding 10 feet below the surface will be monitored by a qualified paleontological monitor on a full-time basis. A qualified paleontologist will be retained to supervise monitoring of construction excavations (see Mitigation Monitoring and Reporting Program in Appendix C).*

- ***Cultural 3.*** *In the event paleontological resources are encountered during earthwork, the paleontological monitor will have the authority to cease activity in the affected area (e.g., divert grading away from exposed fossils and redirect activities into another area) until the resources can be evaluated, and the appropriate treatment measures implemented. The paleontologist will determine if the paleontological material should be salvaged, identified and permanently preserved. Recovered fossils will be prepared to the point of curation, identified by qualified experts, listed in a database to facilitate analysis, and reposited in a designated paleontological curation facility.*

With incorporation of these mitigation measures, impacts to nonrenewable paleontologic resources will be considered less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Disturb any human remains, including those interred outside of formal cemeteries?		X		

The proposed project is not expected to encounter any human remains as a result of earthmoving activities. The project area is not otherwise known to be a previous cemetery or burial site. Therefore, the probability of encountering human remains during project construction is unlikely. To avoid potential impacts to human remains that may be buried beneath the surface in the work area, the County of Los Angeles would ensure that the following mitigation measure is implemented:

- ***Cultural 4.*** *In the event human remains are encountered during project construction, the Los Angeles County Coroner shall be immediately contacted to determine whether or not investigation of the cause of death is required. The Coroner shall make a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The Coroner will be notified of the find immediately. In the event the remains are Native American in origin, the Native American Heritage Commission shall be contacted to determine necessary procedures for protection and preservation of remains, including reburial, as provided in the CEQA Guidelines, Section 15064.5(e).*

With incorporation of this mitigation measure, impacts to human remains would be considered less than significant.

2.6 Geology and Soils Would the project:				
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.			X	

The project site is not located within an Alquist-Priolo special studies zone (State of California Fault Rupture Hazard Zone) (City of Los Angeles, 1996). Structures within the Health Center would be designed and constructed to resist damage from an earthquake, and would conform to the appropriate Earthquake Design Regulations of Chapter 16, Section 1613, of the 2007 California Building Code. Therefore, the potential impact from rupture of an earthquake fault is considered less than significant.

ii) Strong seismic ground shaking?			X	

The closest active earthquake fault to the project site is the Newport-Inglewood Fault Zone, located approximately 3.6 miles west of the site (GEOCON West, Inc., 2010). Ground shaking from earthquakes associated with nearby and distant faults may occur during the lifetime of the project. Because earthquake-related hazards cannot be avoided in the southern California region, the project site could be subjected to strong seismic ground shaking. The proposed project would be designed and constructed to resist damage from an earthquake in accordance with requirements of the 2010 California Building Code.

Therefore, the potential impact from strong seismic ground shaking would be considered less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
iii) Seismic-related ground failure, including liquefaction?			X	

Liquefaction occurs when loose sand and silt that is saturated with water can behave like a liquid when shaken by an earthquake. For liquefaction to occur, there must be: (1) loose, granular sediment; (2) saturation of the sediment by ground water; and, (3) strong shaking (USGS, 2008).

The proposed site is not located in an area susceptible to liquefaction according to the Safety Element of the Los Angeles City General Plan (City of Los Angeles, 1996). Based on recent exploration and data from nearby wells in the vicinity of the site, as well as the absence of groundwater 50 feet from the surface, the potential for liquefaction of site soils is considered to be very low (GEOCON West, Inc., 2010). The impact from seismic ground failure is considered to be less than significant.

iv) Landslides?			X	

The project site is not located in a landslide hazard zone (GEOCON West, Inc., 2010). The proposed Urgent Care Expansion and parking deck or structure are not expected to result in exposure of people or structures to substantial adverse effects, including the risk of loss, injury, or death involving landslides. Therefore, the impact from landslides would be considered less than significant.

b) Result in substantial soil erosion or the loss of topsoil?			X	

The proposed project would not result in removal of topsoil from the site. To prevent or minimize the potential for erosion and loss of topsoil, the following construction best management practices will be included in plans and specifications:

- *Standard erosion control measures, such as scheduling to avoid work during rainy season/monitoring of weather, use of soil binders, straw much, earth dikes and drainage swales, would be implemented during any ground disturbing activities (e.g., excavation and/or grading operations).*
- *For excavations that occur during the rainy season (November through April), installation of berms or plastic sheeting should be utilized.*
- *Earthwork will be planned and conducted in such a manner as to minimize the duration of exposure of unprotected soils.*
- *In order to minimize soil loss, earthwork will include watering for dust control.*

With incorporation of these best management practices, impacts from erosion and loss of topsoil would be considered less than significant.

c) Be located on a geological 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?		X		

The project site is not located in a landslide hazard, subsidence or liquefaction zone. The upper 10.5 ft of soil beneath the Urgent Care Expansion area, and the upper 3 ft of soil beneath the parking deck or structure location, are composed of artificial fill. The artificial fill beneath the Urgent Care Expansion area exhibits density, moisture and consolidation characteristics which are considered competent and suitable to be utilized for support of proposed foundations. The artificial fill beneath the parking deck or structure

is not considered to be suitable for direct support of proposed foundations or slabs. At either location, fill soils would be excavated, well blended and properly compacted for support of the foundations or slabs (GEOCON West, Inc., 2010).

The proposed Urgent Care Expansion and parking deck or structure would be designed and constructed to ensure stability and integrity of the ground surface. To prevent or reduce the potential for adverse effects from unstable soil conditions, the following mitigation measure will be included in project planning:

- ***Soils 1.*** *The proposed project would be designed and constructed in accordance with the recommendations of the project-specific geotechnical investigation (refer to Appendix D of this document) including, but not limited to: (a) excavation and proper compaction of the upper 18 inches of existing site soils at the Urgent Care Expansion area for support of concrete slab-on-grade; (b) excavation and proper compaction of the upper 4 feet of existing site soils at the parking deck or structure site; and, (c) review and approval of grading and foundation plans before construction.*

With incorporation of the above mitigation measure, construction of the Urgent Care Expansion and parking deck or structure would not be expected to result in on- or off-site landslides, lateral spreading, subsiding or collapse. Impacts from unstable soils would be considered less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?			X	

Expansive soil, also called shrink-swell soil, is a very common cause of foundation problems. Depending upon moisture in the ground, shrink-swell soils will experience changes in volume of up to thirty percent or more. Foundation soils which are expansive can cause lifting of a building or other structure during periods of high moisture. Conversely during periods of falling soil moisture, expansive soil will collapse and can result in building settlement. Expansive soil will also exert pressure on the vertical face of a foundation, basement or retaining wall resulting in lateral movement. Shrink-swell soils which have expanded due to high ground moisture experience a loss of soil strength or "capacity" and the resulting instability can result in various forms of foundation problems and slope failure. The American Society of Testing Materials has published an expansion index (ASTM D 4829) to quantify the results (FRG, 2010). The expansion index range and classification of potential soil expansion is shown on Table 9.

Table 9. Classification of Potential Expansion of Soils Using the Expansion Index

Expansion Index	Potential Soil Expansion
0–20	Very Low
21–50	Low
51–90	Medium
91–130	High
>130	Very High

Source: ASTM, 2010

Based on sampling conducted in 2010, soil on the proposed site has an expansion index of 2 which corresponds to a very low expansive potential. Soils of this type are classified as non-expansive based on the 2010 California Building Code (GEOCON West, Inc., 2010). Therefore, impacts from expansive soils would be considered less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?				X

The proposed Urgent Care Expansion would not include any requirement for use of septic tanks or alternative wastewater disposal systems. Therefore, impacts to soils from the use of septic tanks or alternative wastewater disposal systems would not occur as a result of the proposed project.

2.7 Greenhouse Gases

On December 30, 2009, the State of California Natural Resources Agency adopted amendments to Section 15064.4 of California Environmental Quality Act (CEQA) Guidelines that require the evaluation of greenhouse gases and a determination of significance of impacts. This evaluation is included to describe, calculate or estimate the amount of greenhouse gas emissions associated with the proposed construction and operation of the Urgent Care Expansion and new parking deck or structure at the Hubert H. Humphrey Comprehensive Health Center in Los Angeles.

Background

Global climate change is caused by the addition of massive quantities of greenhouse gas emissions to the atmosphere due primarily to human activities in the last 150 years from all over the world. It has been estimated that 29 billion metric tons of CO_2 were added to the Earth's atmosphere in the year 2006. Assembly Bill 32 established the goal of limiting the State of California's greenhouse gas emissions to 1990 levels by the year 2020. The California Air Resources Board has determined that level to be 427 million metric tons per year.

In response to the growing concern about greenhouse gas emissions and recognition of their significant adverse impacts on climate and the environment, and the passage of the Global Warming Act of 2006 (Assembly Bill 32), this project is being evaluated for its impacts (including cumulative impacts) to the environment from greenhouse gas emissions. CEQA requires public agencies to refrain from approving projects with significant adverse environmental impacts if there are feasible alternatives or mitigation measures that can substantially reduce or avoid those impacts.

Greenhouse gases (GHG) are gases that trap heat in the atmosphere; GHG are emitted by natural processes and human activities. Emissions from human activities such as electricity production and internal combustion vehicle use have elevated the concentration of these gases in the atmosphere. It is estimated that approximately 40 percent of GHG in the State of California are produced by passenger vehicles and light-duty trucks. GHG generated by human activities include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), chlorofluorocarbons (CFC), hydrofluorocarbons (HFC), perfluorocarbons (PFC), sulfur hexafluoride (SF_6), and ozone (O_3). Table 10 provides a summary of greenhouse gases.

Table 10. Greenhouse Gases in the Atmosphere

Gas	Description	Source(s)
Water Vapor	Of all greenhouse gases in the atmosphere, water vapor is the most abundant, important, and variable. It is not considered a pollutant; in the atmosphere, it maintains a climate necessary for life.	The main source of water vapor is evaporation from the oceans (approximately 85 percent). Other sources include evaporation from other water bodies, sublimation (change from solid to gas) from ice and snow, and transpiration from plant leaves.
Ozone	Ozone is a gas that occurs both in the Earth's upper atmosphere and at ground level. Ozone can be "good" or "bad" for people's health and for the environment, depending on its location in the atmosphere. Unlike other GHG, ozone in the troposphere is relatively short-lived and, therefore, is not global in nature.	Ozone is not usually emitted directly into the air, but at ground-level is created by a chemical reaction between oxides of nitrogen and volatile organic compounds in the presence of sunlight. It is difficult to make an accurate determination of the contribution of ozone precursors (nitrogen oxides and volatile organic compounds) to global climate change.
Aerosols	Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light. Cloud formation can also be affected by aerosols.	Aerosols are suspensions of particulate matter in a gas emitted into the air through burning biomass (plant material) and fossil fuels. Sulfate aerosols are emitted when fuel containing sulfur is burned. Black carbon (or soot) is emitted during biomass burning or incomplete combustion of fossil fuels.
Carbon Dioxide (CO_2)	An odorless, colorless gas.	CO_2 has both natural and anthropogenic sources. Natural sources include: decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and, volcanic outgassing. Anthropogenic sources of carbon dioxide are from burning coal, oil, natural gas, and wood.
Methane	Methane is a flammable gas and is the main component of natural gas. When one molecule of methane is burned in the presence of oxygen, one molecule of carbon dioxide and two molecules of water are released. There are no ill health effects from methane.	A natural source of methane is from the anaerobic decay of organic matter. Geological deposits, known as natural gas fields, also contain methane, which is extracted for fuel. Other sources are from landfills, fermentation of manure, and cattle.
Nitrous Oxide (N_2O)	Also known as laughing gas, N_2O is a colorless greenhouse gas. Higher concentrations can cause dizziness, euphoria, and sometimes slight hallucinations.	Nitrous oxide is produced by microbial processes in soil and water, including those reactions that occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used in rocket engines, racecars, and as an aerosol spray propellant.
Chlorofluorocarbons (CFC)	CFC are formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface).	CFC were first synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. They destroy stratospheric ozone; therefore, their production was stopped as required by the Montreal Protocol in 1987.
Hydrofluorocarbons (HFC)	HFCs are synthetic man-made chemicals that are used as a substitute for CFCs.	Automobile air conditioners and refrigerants.
Perfluorocarbons (PFC)	PFC have stable molecular structures and do not break down though the chemical processes in the lower atmosphere. High-energy ultraviolet rays about 60 kilometers above the earth's surface are able to destroy the compounds. PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane and hexafluoroethane.	Primary aluminum production and semiconductor manufacture.
Sulfur Hexafluoride (SF6)	An inorganic, odorless, colorless, nontoxic, nonflammable gas with the highest global warming potential of any gas evaluated.	Used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

Source: Hendrix and Wilson, 2007

Greenhouse gas emissions are primarily related to fossil fuel combustion for energy use. These are driven largely by economic growth and fuel used for power generation, transportation, heating, and cooling. Greenhouse gas emissions come from a variety of sources including carbon dioxide emissions from the combustion of fossil fuels (i.e., automobile driving, electricity production, and industrial sources). Transportation (38%) and electricity production (25% - both in-state and imported) combined make up nearly two-thirds of greenhouse gas emissions in the state (State of California, 2009a).

GHGs have varying global warming potentials (GWP). The GWP is the potential of a gas to trap heat in the atmosphere. The reference gas for GWP is CO_2, which has a GWP of one. Methane has a GWP of 21, which means that it has a 21-times greater global warming effect than CO_2 on a mass basis. N_2O has a GWP of 310. The GWP of greenhouse gases are shown on Table 11.

Table 11. Global Warming Potential of Greenhouse Gases

Gas	Atmospheric Lifetime (yrs)	Global Warming Potential (100 year time horizon)
Carbon Dioxide	50 to 200	1
Methane	9 to 15	21
Nitrous Oxide	120	310
HFC-23	264	11,700
HFC-134a	14.6	1,300
HFC-152a	1.5	140
PFC: Tetrafluoromethane (CF_4)	50,000	6,500
PFC: Hexafluoromethane (C_2F_6)	10,000	9,200
Sulfur Hexafluoride (SF_6)	3,200	23,900

Source: Hendrix, 2008
HFC = hydroflurorocarbons
PFC = perflurorocarbons

Regulatory Framework

Although the Supreme Court had determined that GHG are pollutants that can be regulated under the Clean Air Act, the U.S. Environmental Protection Agency (EPA) is in the process of evaluating comments from other federal agencies on the full range of issues raised. California has passed laws directing the Air Resources Board (ARB) to develop actions to reduce GHG emissions.

Assembly Bill 1493 - Vehicular Emissions of Greenhouse Gases. In 2002, with the passage of AB 1493 (Pavely), California launched an innovative and proactive approach for managing GHG emissions and climate change at the state level. AB 1493 required ARB to develop and implement regulations to reduce GHG emitted by passenger vehicles and light duty trucks; these regulations would apply to 2009 and later model year vehicles.

Executive Order S-20-04 - California Green Building Initiative. E.O. S-20-04 signed by the Governor of California on December 14, 2004 calls for public buildings to be 20 percent more energy efficient by 2015 and encourages the private sector to do the same. The State of California Green Building Order directs that future construction and renovation projects larger than 10,000 square feet meet Leadership in Energy and Environmental Design (LEED®)-New Construction Silver criteria in order to assure their energy and environmental performance. The same criteria are to be met for buildings smaller than 10,000 square feet, but certification is not required. The California Building Standards Commission has developed green building standards to reduce greenhouse gas emissions from structures. The code includes mandatory features with a delayed effective date for housing, and voluntary standards for hospitals and other non-residential occupancies. California green building standards were adopted by the California Building Standards Commission on July 17, 2008, as amended, for publication in the 2007 California Green Building Standards Code, CCR, Title 24, Part 11 (State of California, 2009b).

Assembly Bill 32 - California Global Warming Solution Act of 2006. On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order S-3-05. The goal of this Executive Order is to reduce

California's GHG emissions to: (1) 2000 levels by 2010; (2) 1990 levels by 2020; and, (3) 80 percent below the 1990 levels by 2050. In 2006, this goal was further reinforced with the passage of AB 32, the California Global Warming Solutions Act of 2006. AB 32 sets the same overall GHG emissions reduction goals while further mandating that ARB create a plan, which includes market mechanisms, and implement rules to achieve "real, quantifiable, cost-effective reductions of GHG." On December 11, 2008 the ARB approved a scoping plan for reducing California's GHG emissions.

Executive Order S-01-07. E.O. S-01-07 was enacted by Governor Schwarzenegger on January 18, 2007. The order: 1) establishes a statewide goal to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020; and, 2) establishes a Low Carbon Fuel Standard for transportation fuels for California.

Senate Bill 97. Senate Bill 97, enacted in 2007, amends the CEQA statute to clearly establish that GHG emissions and the effects of GHG emissions are appropriate subjects for CEQA analysis. It directs the Governor's Office of Planning and Research (OPR) to develop draft CEQA Guidelines "for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions" by July 1, 2009 and directs the Resources Agency to certify and adopt the CEQA Guidelines by January 1, 2010. These amendments to CEQA Guidelines were adopted on December 30, 2009.

California Climate Action Registry. Established by the California Legislature in 2000, the California Climate Action Registry (CCAR) is a nonprofit public-private partnership that maintains a voluntary registry for GHG emissions. The purpose of the Registry is to help companies, organizations, and local agencies establish GHG emissions baselines for purposes of complying with future GHG emission reduction requirements. It provides leadership on climate change by developing and promoting credible, accurate, and consistent GHG reporting standards and tools for organizations to measure, monitor, verify and reduce their GHG emissions consistently across industry sectors and geographical borders.

AB 32 requires the ARB to incorporate the standards and protocols developed by CCAR into the state's future GHG emissions reporting program, to the maximum extent feasible. The current GHG emission calculation methods used by CCAR are contained in California Climate Action Registry - General Reporting Protocol (CCAR Protocol – V2.2). This protocol categorizes GHG emission sources as: (1) direct (vehicles, onsite combustion, fugitive, and process emissions); and, (2) indirect (from offsite electricity, steam, and co-generation).

Western Regional Climate Action Initiative. In 2007, the states of California, Arizona, New Mexico, Oregon, Washington, Utah, and Montana, and Canadian provinces of British Colombia, Manitoba, Ontario and Quebec signed the Western Regional Climate Action Initiative. This initiative is a collaboration of seven U.S. governors and four Canadian Premiers and was created to identify, evaluate, and implement collective and cooperative ways to reduce greenhouse gases in the region, focusing on a market-based cap-and-trade system. In addition, a multi-state registry will track, manage, and credit entities that reduce GHG emissions. The initiative has set a goal of reducing greenhouse gas emissions by 15 percent from 2005 levels by the year 2020 (WCI, 2009).

Los Angeles County Greenhouse Gas Emissions Reduction Plan. In anticipation of future regulatory measures, the draft Los Angeles County General Plan (County of Los Angeles, 2008) may result in implementation of a number of policies related to greenhouse gas emissions and global warming, as demonstrated in its draft goals and policies. In addition, the County understands that global warming is not just about mitigation, but also adaptation. The County has already initiated several programs specifically designed to reduce greenhouse gas emissions. As these programs are further developed, the County will continue to participate in providing both regulatory and market strategies to meet the objectives established in the AB 32 law.

Los Angeles County Energy and Environmental Policy. In addition to the current State regulations developed to reduce air pollution and global climate change, the County of Los Angeles Board of Supervisors adopted on January 16, 2007 a comprehensive, County-wide Energy and Environmental Policy (Policy No. 3.045) which became effective on December 19, 2006. This policy provides guidelines for the development, implementation and enhancement of energy conservation and environmental programs within County departments.

The policy mandates that all County departments implement the County Energy and Environmental programs for development of innovative energy technologies and programs to achieve environmental stewardship throughout the County. This policy also establishes a multi-departmental Energy and Environmental Team to coordinate these efforts, develop goals and objectives, and monitor and provide periodic reports to the Board of Supervisors on the status of the program. Through this program, the County expects to achieve a 20 percent reduction of energy consumption by the year 2015, consistent with the Governor's Green Building Initiative, Executive Order (S-20-04). The current policy includes four elements and includes initiatives that include specific methods to reach these goals:

(1) Energy and Water Efficiency Program

- Implementing and monitoring energy and water conservation practices
- Implementing energy and water efficiency projects
- Enhancing employee energy and water conservation awareness through education and promotions

(2) Environmental Stewardship Program

- Environmentally Responsible Purchasing Standards
- Recycling Programs
- Environmentally Friendly Products
- Support environmental initiatives by researching existing County operations

(3) Public Outreach and Education Program

Utilizing public outreach and education channels to share utility industry information, facilitate implementation of assistance programs, and spread information and education on energy conservation practices through the region. Through coordination with regional utility companies, this program will provide County residents with energy related information including, energy and water conservation practices, utility rates and changes, rotating power outage information, emergency power outage information, and energy efficiency incentives.

(4) Sustainable Design Program

The Sustainable Design Program is intended to optimize the performance and useful life of County buildings through the integration of green features into the design of new and renovated County facilities. Building sustainability will be enhanced through the integration of green, sustainable principles into the planning, design and construction of County capital projects which:

- Complement the functional objectives of the project;
- Extend the functional life cycle/useful life of buildings and sites;
- Optimize energy and water use efficiency;
- Improve indoor air quality and provide healthy work environments;
- Reduce ongoing building maintenance requirements;
- Encourage use and reuse of environmentally friendly materials and resources;
- Establish a management approach that instills and reinforces the integration of sustainable design principles into the core competency skill set of the County's planners, architects, engineers, and project managers; and,
- Establish practical performance measures to determine the level of sustainability achieved relative to the objectives targeted for the individual project and overall capital program.

Additional methods of integrating sustainable design features into each County capital improvement project that is 10,000 sq ft or greater in size will be based on the following criteria:

- Consistency with project objectives

- Design innovation
- Potential environmental benefit
- Development and implementation costs
- Potential economic benefit/cost avoidance
- Available funding

Since adoption of the Countywide Energy and Environmental Policy in 2007, the County has achieved several goals necessary to meet compliance with the Policy. In order to meet the goal of reducing energy consumption by 20 percent in County facilities by the year 2015, the County has already begun to implement energy efficient projects, such as replacing inefficient building lighting systems and air conditioning equipment. Thus, annual electrical energy consumption in County facilities was reduced by 0.8 percent in 2007 and 1.5 percent in 2008; annual gas consumption was reduced by 1.9 percent in 2007 and 2.1 percent in 2008 (County of Los Angeles, 2009h).

City of Los Angeles Climate Action Plan and Green Building Program. In 2007 the City of Los Angeles issued a Climate Action Plan to reduce greenhouse gas emissions 35 percent below 1990 levels by 2030. The program addresses: site planning; water efficiency; energy and atmosphere; materials and resources; and, indoor environmental quality. The Green Building Program, approved in 2008, includes mandatory Standards of Sustainability for large non-residential projects at or above 50,000 sq ft of floor area (and existing buildings of this size when redevelopment construction costs exceed a valuation of 50 percent of the existing building's replacement cost) to meet the intent of LEED® Certified level. A voluntary Standard of Sustainable Excellence for projects of any size establishes an incentive program that provides expedited service with the Department of City Planning and Bureau of Engineering.

Significance Criteria for Greenhouse Gases

CEQA requires that lead agencies inform decision-makers and the public about potentially significant environmental impacts of proposed projects. While linking the projected greenhouse gas emissions of a project to a direct influence on climate change would be considered only speculative at this time, conclusions of significance must be based on scientific and factual data. Climate change, as it relates to man-made greenhouse gas emissions, is by nature a global and cumulative impact. According to the Association of Environmental Professionals (AEP), in its paper titled *Alternative Approaches to Analyzing Greenhouse Gas Emissions and Global Climate Change in CEQA Documents* (Hendrix and Wilson, 2007), "an individual project does not generate enough greenhouse gas emissions to significantly influence global climate change. Global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of greenhouse gases."

Significance criteria for evaluating the impact of greenhouse gases have not been established at this time. CEQA Guidelines Section 15064.4 allows the Lead Agency to have discretion to determine, in the context of a particular project, whether to use a model or methodology to quantify greenhouse gas emissions resulting from a project or to rely on a qualitative analysis or performance based standards. When assessing the significance of impacts from greenhouse gas emissions on the environment, the Lead Agency should consider: (a) the extent to which the project may increase or reduce greenhouse gas emissions as compared to the environmental setting; (b) whether the project emissions exceeds a threshold of significance that the Lead Agency determines applies to the project; and, (c) the extent to which the project complies with regulations and requirements adopted to implement a statewide, regional or local plan for reduction of greenhouse gas emissions.

Significance criteria for evaluating the impact of greenhouse gases have been proposed as follows:

- The SCAQMD has proposed a screening level of 3,000 metric tons of CO_2 per year for commercial or residential projects, under which project impacts are considered less than significant. This screening level was developed to achieve the policy objective of capturing 90 percent of greenhouse gas emissions from new development projects in the residential/commercial sector.

- The California Air Pollution Control Officers Association (CAPCOA) has identified two potential quantitative criteria for determining significance of GHG emissions from a project: (1) a 900 metric ton annual threshold that corresponds to office projects of approximately 35,000 sq ft; and, (2) a 25,000 ton threshold applicable to emissions from approximately 1,400 residential units.

At this time, two agencies have adopted a significance criterion for operational emissions of greenhouse gases:

- On June 10, 2010, the Bay Area Air Quality Management District adopted an operational threshold of 10,000 metric tons of CO_2 per year for stationary sources.
- In December 2009, the San Joaquin Valley Air Pollution Control District adopted: *Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA and the policy: District Policy – Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency*. This guidance and policy rely on the use of performance based standards, otherwise known as Best Performance Standards (BPS) to assess significance of project specific greenhouse gas emissions on global climate change during the environmental review process, as required by CEQA. Use of BPS is a method of streamlining the CEQA process of determining significance and is not a required emission reduction measure. Projects implementing BPS would be determined to have a less than cumulatively significant impact. Otherwise, demonstration of a 29 percent reduction in GHG emissions, from business-as-usual, is required to determine that a project would have a less than cumulatively significant impact. The guidance does not limit a lead agency's authority in establishing its own process and guidance for determining significance of project related impacts on global climate change (SJVAPCD, 2010).

Neither of the above significance criteria would be applicable to the proposed project because of their jurisdiction.

The County of Los Angeles has not adopted significance thresholds for greenhouse gases. In lieu of applicable significance criteria, the County will evaluate the proposed project against the CAPCOA threshold of 900 metric tons per year of carbon dioxide equivalent for office buildings. Although not directly applicable to the proposed Urgent Care Expansion or parking deck or structure, this threshold is the most stringent of available thresholds proposed by agencies with jurisdiction over the proposed project at this time (and no thresholds have been adopted by agencies with jurisdiction over the proposed project). In addition, the County will also consider the extent to which the project may increase or reduce greenhouse gas emissions as compared to the environmental setting, and, the extent to which the project complies with regulations and requirements adopted to implement a statewide, regional or local plan for reduction of greenhouse gas emissions.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	

Greenhouse gases are calculated in emissions of three pollutants: carbon monoxide (CO_2); methane (CH_4); and, nitrous oxides (N_2O). Because other greenhouse gases represent a small fraction of emissions, a carbon dioxide equivalent (CO_2e) of the combined emissions of all greenhouse gases is computed to indicate the anticipated amount of greenhouse gases from an activity.

The proposed Urgent Care Expansion and parking deck or structure will result in direct emissions of greenhouse gases during construction and operation. Emissions would be generated by workers and heavy equipment during the construction period. Project-related emissions for construction and operation of the proposed Urgent Care Expansion and new parking deck or structure were calculated using the

URBEMIS air pollutant modeling program as shown in Tables 5 and 6. The URBEMIS model also calculates the amount of construction-related CO_2 in pounds per day as shown in Table 12.

Table 12. Estimated Carbon Dioxide Emissions from Construction of the Proposed Project

	Activity[1]	Duration	CO_2 Emissions (lb per day)[2]
1	Reconfiguration of Urgent Care Waiting Room, Restrooms and Reception; Conversion of Covered Walkway into Interior Space; Reconfiguration of Emergency Parking Area	12 months	1,816.86
2	Remodel Existing Waiting Area into Clinic Module	10 months	929.29
3	Construction of Single-Level Parking Deck or 2-Story Parking Structure	4 or 8 months (concurrent)	1,169.03
	Total		3,915.18

Notes: [1] Refer to Table 5 for assumptions concerning equipment use for various construction activities.
[2] Values shown include worker vehicle and truck emissions generated during each construction phase.
Source: URBEMIS model output for construction of a proposed medical clinic expansion and parking deck or structure.
CO_2 = carbon dioxide

Construction-related CO_2 in pounds per day are converted into metric tons per day by applying the conversion factor of 2,204.6 pounds per metric ton to derive the number of metric tons of CO_2 generated per day. Methane and nitrous oxide emissions that would be generated during construction were estimated by applying emission factors as set forth by the Air Resources Board of the California Environmental Protection Agency (ARB, 2008).

The combined emissions of various GHG from the project are presented as a CO_2 equivalent (CO_2e). The total CO_2e is calculated by multiplying the amount of each GHG emitted from the project by its GWP (shown on Table 11), and adding each gas value to derive a total. Construction emissions of greenhouse gases were estimated as shown in Table 13.

Table 13. Estimated Construction–Related Greenhouse Gas Emissions from the Proposed Project

Activity[1]	Duration	Emissions (Metric Tons Per Year)[1]			
		CO_2	CH_4	N_2O	CO_2e
Reconfiguration of Urgent Care Waiting Room, Restrooms and Reception; Conversion of Covered Walkway into Interior Space; Reconfiguration of Emergency Parking Area	12 months	158.23	0.016	0.016	163.71
Remodel Existing Waiting Area into Clinic Module	10 months	67.44	0.014	0.014	72.24
Construction of Single-Level Parking Deck	4 months	33.96	0.009	0.009	37.09
Construction of 2-Story Parking Structure	8 months				
				Total, Year 1 (2012)	163.71
				Total, Year 2 (2013)	109.33

Note: [1] Values shown include worker vehicle and truck emissions generated during each construction phase.
The CO2-equivalent emission of each GHG is the emission rate multiplied by its corresponding global warming potential (GWP).
One metric ton equals 2,204.6 lbs
CO_2 = carbon dioxide CH_4 = methane
N_2O = nitrous oxides CO_2e = carbon dioxide equivalent of combined emissions of all GHG

Construction-related emissions of greenhouse gases would result from construction equipment and on-road vehicles used for site preparation, building construction, paving and architectural coatings during both the Urgent Care Expansion and parking deck or structure construction. Estimated construction-related greenhouse gas emissions from the proposed project would total approximately 273.04 metric tons.

Operation of the proposed project will result in air pollutant emissions from vehicular traffic by patients traveling to and from the Urgent Care (estimated at an additional 23 vehicle trips per day[2]). Long-term operational sources of greenhouse gas emissions would be generated by vehicles driven by health care patients and visitors and the energy use associated with operation of the Health Center. Greenhouse gas emissions from vehicles would result from combustion of gasoline or diesel fuel in the vehicles. Emissions of CO_2 from vehicles were estimated in the URBEMIS 2007 computer program. Greenhouse gas emissions from annual operations are summarized on Table 14.

Table 14. Estimated Operational Greenhouse Gas Emissions from the Proposed Project

Source	CO_2e Emissions (Metric Tons Per Year)[1]
Urgent Care Expansion and New Parking Deck or Structure	423.03

Note: [1] Values shown include visitors and maintenance vehicle emissions generated during each operational phase.

Long term operation of the Urgent Care clinic and new parking deck or structure would include security lighting. For purposes of greenhouse gas emissions, the indirect emissions from electricity consumption from use of lighting in the Urgent Care clinic and at the parking deck or structure are estimated to be approximately 11 MWhr per year (or approximately 4.8 metric tons of CO_2e per year). This would represent approximately 1.5 percent of total (construction and operational) greenhouse gas emissions from the project. Electricity consumption from use of lighting would be reduced with the use of energy efficient compact fluorescent and/or solar powered fixtures. In accordance with CCAR reporting protocol (2009), these emissions may be considered de minimis because they represent less than 5 percent of the total emissions.

When construction and operational emissions from the project, as shown on Tables 10 and 11, respectively) are compared to the proposed CAPCOA threshold of 900 tons per year of CO_2e, these values are considerably below the criterion. Although the proposed CAPCOA threshold of 900 metric tons per year of CO_2e is an annual threshold that corresponds to office projects of approximately 35,000 sq ft in size, this is the threshold that is most suitable for the proposed project at this time. This value is considered to be the most conservative threshold for comparison purposes. Project emissions of greenhouse gases are also below the Bay Area Air Quality Management District's operational threshold of 10,000 metric tons of CO_2 per year for stationary sources, although this threshold was not selected for this project. For this reason, direct and indirect impacts of greenhouse gas emissions from construction and operation of the proposed project are considered to be less than significant.

A total of 22 months is required for construction of the Urgent Care Expansion and new parking deck or structure. The maximum emissions of greenhouse gases in a calendar year from construction would be 163.71 metric tons. These emissions are considerably below the the proposed CAPCOA threshold of 900 tons per year of CO_2e.

The highest annual amount of greenhouse gas emissions calculated for the proposed project (423.03 metric tons per year from operational emissions) would represent 0.0000015 percent of year 2006 global emissions and 0.00010019 percent of the targeted California emissions per AB 32. The project would incorporate low energy light fixtures and support the use of alternative transportation by providing bicycle racks. When this individual project's contribution to greenhouse gas emissions is compared to that produced by activities elsewhere in the world, the mass of greenhouse gas emissions generated by the construction and operation of an individual project such as the proposed project would be so small that the concentration of greenhouse gas emissions in the atmosphere would not change. For this reason, the project's individual impact to global climate change is considered less than significant.

The contribution of the proposed project to greenhouse gases would not exceed the proposed CAPCOA threshold of 900 metric tons per year nor the proposed SCAQMD screening level of 3,000 metric tons per

[2] This number represents a total number of vehicles trips per day that would result from the expansion of the existing Urgent Care.

year. The proposed project would comply with the County's Energy and Environmental Policy. This project's individual impact to global climate change is considered less than significant. Therefore, direct and indirect impacts of greenhouse gas emissions from construction and operation of the proposed project are considered to be less than significant.

Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, wildfires, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems (OPR, 2008). While it is difficult to predict the precise effects or timing of such effects, adverse impacts associated with global climate change could have a common and widespread impact on communities including southeast Los Angeles and the proposed Urgent Care Expansion and parking deck or structure at the Health Center.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?			X	

In accordance with the County of Los Angeles Energy and Environmental Policy, the proposed project will be designed to incorporate sustainable energy efficient features for sustainable site development, water savings, energy efficiency, and materials and resources selection and be consistent the overall greenhouse gas emissions reductions set forth in Assembly Bill 32. With incorporation of energy efficiency features, carbon dioxide (CO_2) emissions from the Urgent Care clinic expansion and new parking deck or structure would be reduced. The project will not conflict with the County of Los Angeles Energy and Environmental Policy which serves as the basis for efforts to coordinate energy efficiency, conservation, and sustainability programs within the County and the region. Therefore, impacts from greenhouse gases will be less than significant.

2.8 Hazards and Hazardous Materials Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	

The proposed project would not involve any routine transport, use or disposal of hazardous materials. Project-related construction would entail the use of small quantities of hazardous materials such as diesel fuel, paints and solvents. Transport of these materials is regulated by the State and transport to the site would comply with these regulations. Best management practices would be used during construction to prevent and control spills and leaks of these substances. No use or disposal of hazardous materials would occur during operations. The use and disposal of hazardous materials at the Urgent Care clinic would involve use of commercial solvents and cleaners for normal maintenance. During operations, cleaning products and solvents would continue to be stored in a secure area. The proposed project would not result in a substantial increase in routine transport of medical wastes generated at the Urgent Care clinic. These wastes would continue to be transported by licensed carriers to permitted waste transfer or disposal sites in compliance with regulatory requirements. Clinic operations and maintenance activities would not create a significant hazard to the public. Therefore, the impact of the proposed project from hazardous materials would be considered less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?			X	

The construction and operation of the Urgent Care Expansion and the new parking deck or structure would not involve the use, transport or storage of hazardous materials. The project would require routine use of household cleaning materials including solvents; however, the potential for an unforeseen upset or accident involving hazardous materials would be minimal and the impact from release of hazardous materials into the environment would be considered less than significant. The proposed project would not result in a substantial increase in the generation or transport of medical wastes. Therefore, hazards to the public from the release of hazardous materials into the environment would be considered less than significant.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	

There are two schools within 0.25 mile of the project site. Central Region Elementary School No. 16 is located approximately 0.15 mile north of the site. South Region Elementary School No. 6 (Juanita Tate Elementary School) is under construction approximately 0.1 mile west of the site. The proposed project would not use or store hazardous substances in quantities that could result in a significant hazard to the public. Chemicals that would be stored at the site would be limited to cleaners and bleach stored in the Urgent Care clinic. An accidental explosion or release of toxic or hazardous substances at the Urgent Care clinic would not be expected to occur near an existing or proposed school.

Through the 1970s, asbestos was used to fireproof roofing and flooring, for heat insulation, and for a variety of other purposes. Lead-based paint was also used until it was banned in 1978. Because the existing Health Center was constructed in the late 1970s, asbestos-containing material is present in some areas of the Urgent Care clinic to be expanded. Abatement of these construction materials from the affected work area will be accomplished prior to construction of the project. Abatement of asbestos-containing material will follow specifications that include worker respiratory protection, emergency planning and procedures, prevention of asbestos fibers, inspections, air clearance sampling, and disposal of hazardous materials (CTL Environmental Services, 2007). These specifications are described in Appendix A. Therefore, the impact from hazardous emissions from the proposed project would be considered less than significant.

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?		X		

Section 65962.5(a)(4) requires that the State of California Department of Toxic Substances Control (DTSC) compile and update as appropriate, but at least annually, a list of all sites listed pursuant to Section 25356 of the Health and Safety Code (HSC). HSC § 25356(b)(1) requires a listing of hazardous substance release sites selected for, and subject to, a response action under this chapter. HSC § 25356(b)(2) requires DTSC to update the list of sites at least annually to reflect new information regarding previously listed sites or the addition of new sites requiring response action. The implementing regulations provide that sites may be listed pursuant to HSC § 25356 if: (a) they are not owned by the

Federal Government; and, (b) a release or threatened release of hazardous substances has been confirmed by on-site sampling.

The DTSC list of sites that meet those criteria as well as the criteria in HSC § 25356(c), is reported in the DTSC Envirostor database. A search of the DTSC Envirostor database was conducted on April 22, 2011 to identify properties that have had known releases of regulated substances, or which have had histories involving the use, storage, treatment, generation, disposal, or handling of hazardous substances. A review of this database did not reveal any DTSC sites located on or immediately adjacent to the proposed site for the expanded Urgent Care clinic and new parking deck or structure. There are six contaminated or formerly contaminated properties, including one leaking underground fuel tank (LUFT) site, reported within a distance of 0.25 mile of the site, as summarized on Table 15. Four of the six contaminated sites have been remediated.

Table 15. Contaminated Properties in the Immediate Project Area

No.	Owner/Site	Location	Distance from Proposed Site	Status
1	ExxonMobil Pipeline M-5	Main Street/Slauson Avenue Los Angeles, CA 90003	70 ft west	Site characterization and investigation are occurring at this site. Potential soil contamination from benzene, diesel, gasoline, heating oil and fuel oil. Open Site Assessment as of February 1, 2011.
2	Jackson, DeMarco & Peckenpaugh	5843 – 5851 Wall Street Los Angeles, CA 90003	405 ft east	LUFT Site; leak discovered in July 1996, soil affected by petroleum hydrocarbons, benzene, toluene and xylene from one UST. Site was a former electrical appliance manufacturing facility. Open Site Assessment since January 1998. LA City Fire Department file indicates that UST has not yet been properly abandoned. LA City Fire Dept has not granted closure of this site.
3	LAUSD/South Region Elementary School #6 (Area 15)	125 58th Place Los Angeles, CA 90003	512 ft west	Past manufacturing, dry cleaning, machine shop and service station uses. Indoor air, soil and soil vapor affected; metals, pesticides, petroleum, PCB, PAH and VOC. Removal Action Completion Report was approved by DTSC with a No Further Action determination in September 2009.
4	Antes Columbus Youth Football Club	120 W. Slauson Avenue Los Angeles, CA 90003	503 ft west	This soccer field, contaminated by lead-based paint, pesticides and arsenic, was acquired by LAUSD and is part of South Region Elementary School #6. Remediation of this site was completed in June 2009.
5	LAUSD Central Region Elementary School #16	57th Street and Main Street Los Angeles, CA 90003	789 ft north	As a Voluntary Cleanup Program site, past manufacturing and industrial machinery use at this location resulted in arsenic, lead and tetrachloroethylene (PCE) contamination of the soil. Approximately 2,700 cubic yards of metal and VOC-contaminated soils was excavated and disposed of offsite in July 2008. Removal Action Completion Report was approved by DTSC with a No Further Action determination in September 2009.
6	FG & C Enterprises	5228 - 5936 Wall Street S Los Angeles, CA 90003	777 ft southeast	LUST Cleanup Site; soil contaminated by gasoline; case closed as of Sept 2008.

Sources: Envirostor, 2011; Geotracker, 2011; LAUSD, 2010b and c.
LUFT leaking underground fuel tank
UST underground storage tank

The proposed site for the Urgent Care Expansion and new parking deck or structure is located in the vicinity of underground oil pipelines (M-5) maintained by ExxonMobil Corporation West Coast/Rockies Pipeline Department (ExxonMobil, 2010). An idle, 10-inch diameter pipeline runs along Woodlawn Avenue, and an 8-inch pipeline buried under Slauson Avenue extends onto Main Street. Depth of the pipelines can vary along the length of either street. It is believed that a segment of the M-5 abandoned,

buried petroleum pipeline under Main Street approximately 70 ft west of the Health Center released petroleum hydrocarbons and volatile organic compounds along South Main Street (DTSC, 2009).

In 2010, four representative samples of soil collected from 8 to 8.5 ft below the Urgent Care Expansion and new parking deck or structure site were tested for metals, total petroleum hydrocarbons, pesticides and semivolatile organic compounds. The concentrations of these constituents were either not detected or did not exceed regulatory screening levels for residential uses which have been established for most of these constituents (refer to Appendix D). In March 2011, a subsurface soil and soil-gas investigation of the site was conducted to identify potential impacts from artificial fill and oil pipelines adjacent to the site. Soil vapor sampled in March 2011 detected volatile organic compounds (VOC) including benzene and chlorinated solvents at levels that exceed reportable limits. These constituents in soil gas may pose a human health risk from vapor intrusion to building occupants and construction workers (Coffey Environments, 2011a). To evaluate the risk, the County of Los Angeles conducted a screening level risk evaluation (SLRE) to determine risk to human receptors on the property and offsite (Appendix E). The SLRE found that the estimated cancer and non-cancer hazards posed by chemicals of potential concern detected in soil gas sampled beneath the site would not represent a significant health risk to onsite workers and occasional visitors/customers, including children, at the health care facility to be constructed at the site (Coffey Environments, 2011b).

During construction, there would be a potential for encountering contaminated soils based on the proximity of the site to areas of past contamination, proximity of the site to buried petroleum pipelines, and constituents reported in soil sampled at the site. For these reasons, the following mitigation measures will be accomplished:

- ***Hazards 1.*** *The County of Los Angeles will provide a detailed set of final plans to the ExxonMobil Corporation West Coast/Rockies Pipeline Department for review to determine if there is a conflict with any of their facilities.*
- ***Hazards 2.*** *The contractor will ensure that a minimum 48-hour notification to the ExxonMobil Corporation West Coast/Rockies Pipeline Department and/or Underground Service Alert (USA) is made before construction of the Urgent Care Expansion and new parking deck or structure initiates.*
- ***Hazards 3.*** *The contractor shall also contact the ExxonMobil's designated contact at (310) 782-0799 or (562) 921-7150 between the hours of 6:30 a.m. and 3:00 p.m. Monday through Friday, at least 48 hours before commencing construction. An ExxonMobil representative is required to be on site during any construction activities in the vicinity of the pipelines.*
- ***Hazards 4.*** *The County of Los Angeles Department of Public Works will ensure that design and construction plans include a soil management plan before initiation of construction and earthmoving activities on the site. The plan will address potentially impacted soils that may be encountered on the site during construction. The soil management plan will identify potential chemicals of concern, a health and safety plan, identify individuals responsible for implementation of the plan, dust and odor suppression control methods, procedures for notification and identification of unknown environmental features, site specific soil management protocols, cleanup criteria, and soil reuse options. Any soil generated during construction activities would be characterized for appropriate disposal based on results of laboratory testing. In the event any stained soil or soils appearing to be contaminated are exposed during earthwork, the construction contractor would cease activity in the affected area (e.g., redirect activities into another area) until the soil can be further evaluated. The contractor shall follow the procedures in the soil management plan as approved by the County of Los Angeles Department of Public Works.*

With incorporation of these mitigation measures, impacts from hazardous materials and wastes would be considered less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X

There are no airports located within five miles of the proposed project. The closest public airport is the Hawthorne Municipal Airport located approximately 5.7 miles southwest of the Health Center. The proposed project area is not within the planning boundary or airport influence area of the Hawthorne Municipal Airport (ALUC, 2004). The proposed project would not result in any safety hazard for aircraft or interfere with operations or plans relating to this public airport. Therefore, the project would not create a safety hazard for people residing or working near an airport.

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?				X

The proposed project is not within the vicinity of a private airstrip. The closest private airstrips to the site are the Randy Champ-gary Howe Memorial and the Sfi-Vernon heliports approximately 2.0 and 3.6 miles south and east, respectively, of the site. There would be no safety hazard or impacts to people working or residing in the project area. Therefore, the project would not create a safety hazard for people residing or working near an airport.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	

The proposed project would not result in any interference with existing emergency response or emergency evacuation plans for local, state or federal agencies. Emergency access will not be restricted during construction. All emergency procedures would be implemented within local, state, and federal guidelines. Therefore, impacts to emergency response or evacuation plans would be considered less than significant.

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?			X	

The construction and operation of the proposed project would not result in any increase in the fire hazard at or near the project site. There are no wildlands, areas adjacent to wildlands, or residences intermixed with wildlands within the project area. The proposed project would not result in any increase in exposure of people or structures to risk from wildland fires. Therefore, no impact from wildland fires would occur.

2.9 Hydrology and Water Quality Would the project:				
a) Violate any water quality standards or waste discharge requirements?			X	

There are no surface water bodies on the site. The nearest watercourses are over three miles from the site. Construction activities are not likely to extend outside of the Health Center boundaries and would not be expected to reach either water body.

As described in Section 2.6.(b), standard erosion control measures will be incorporated into project design and construction to prevent or reduce impacts to water quality (i.e., water pollution from runoff or erosion). With incorporation of these best management practices for erosion control and storm water management during construction, these activities would not be expected to violate any applicable water quality standards or waste discharge requirements. Therefore, impacts to water quality standards or waste discharge requirements would be considered less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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 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)?			X	

Southeast Los Angeles is within the boundaries of the Los Angeles River watershed. The Los Angeles River watershed is highly modified, having been lined with concrete along most of its entire length by the U.S. Army Corps of Engineers from the 1930s to the 1960s. One 7-mile reach in the narrows area (middle portion of the river system) where groundwater rises into the streambed, is mostly unlined along the stream bottom and provides natural habitat for fish and other wildlife in an otherwise concrete conveyance. The upper reaches of the river carry urban runoff and flood flow from the San Fernando Valley. Below Sepulveda Basin, flows are dominated by tertiary-treated effluent from municipal wastewater treatment plants. Because the watershed is highly urbanized, urban runoff and illegal dumping are major contributors to impaired water quality in the Los Angeles River and tributaries (LARWQCB, 1994). The proposed site is located approximately 3.3 miles west of the Los Angeles River and approximately 3.5 miles north of Compton Creek, a tributary to the Los Angeles River (LARWQCB, 1994).

Water use at the Health Center would be limited to site watering for dust control during the construction phase. The Urgent Care Expansion would result in an increase in water use associated with the additional 31 daily patients that would be served. This increase represents approximately 4.8 percent of the number of patients served at the health center. No substantial change to water use from operation of the expanded Urgent Care clinic or landscape irrigation would occur.

The proposed project would not result in any change to the amount of runoff from impervious surfaces on the site because the entire site is paved. The proposed project would not result in substantial depletion of ground water supplies from the basin or interference with groundwater recharge. The project would not result in a net deficit in aquifer volume or a lowering of the local groundwater table level. The proposed Urgent Care Expansion and parking deck or structure would not substantially contribute to depletion of groundwater. Therefore, impacts to groundwater supplies would be considered less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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 that would result in substantial erosion or siltation on- or off-site?			X	

The existing site topography is approximately 4 ft lower on the south portion of the site. The proposed project would be designed to provide adequate on-site drainage for the new parking deck or structure which would be constructed above a portion of the existing surface parking lot. The new parking deck or structure and Urgent Care expansion would be designed to direct all surface drainage away from proposed structures so that ponding of water does not occur, especially near foundations. No streams or rivers would be altered. During construction, the following best management practices would be in place to prevent erosion and siltation:

- *Erosion control measures will be implemented during construction to minimize the potential for sediment to be picked up and transported off-site, or by runoff.*
- *Construction equipment will not be rinsed off on the site in a manner that would allow washwater to enter nearby drainageways.*
- *Construction materials will be covered and stored in contained areas.*
- *Cleaning and maintenance procedures for the park will include prohibiting any contaminated water or waste materials from entering storm drains.*

With incorporation of these best management practices, impacts to drainage from the proposed project would be considered less than significant.

d) Substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off- site?			X	

The site is located within a 500-year floodplain (Track Info Services, 2010) and a potential inundation hazard area (City of Los Angeles, 1996). This floodplain runs the length of Main Street from Slauson to Florence avenues. The project would not substantially alter the existing drainage pattern of the site or surrounding area. The proposed project would not result in any alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off- site. Therefore, impacts to drainage relative to flooding would be considered less than significant.

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?			X	

The proposed project would not result in any change to stormwater runoff because there would be no net change to the amount of impervious surface area. The Urgent Care Expansion and new parking deck or structure would be constructed with adequate storm water drainage systems to accommodate runoff. The project will comply with National Pollutant Discharge Elimination System (NPDES) and its Standard Urban Stormwater Mitigation Plan (SUSMP) requirements. With proper design, impacts from increased runoff would be considered less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Otherwise substantially degrade water quality?			X	

The proposed project would not result in any other effects that could substantially degrade water quality. The proposed project would be designed and constructed with all applicable and/or mandated best management practices and Storm Water Pollution Prevention Plan requirements including, but not limited to, sandbags to prevent and or minimize wastewater from entering into the existing storm drain system. Therefore, impacts to water quality from the proposed project would be considered less than significant.

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?				X

The proposed project would not result in the placement of housing in the 100-year flood hazard area. Therefore, the project would not result in impacts from flooding.

h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?			X	

The proposed project would not result in the placement of structures within any 100-year flood hazard area. With incorporation of drainage improvements, runoff from the project site would not be expected to impede flood flows in the area. Therefore, impacts associated with construction within a 100-year flood hazard area would be considered less than significant.

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?			X	

The proposed project consists of expanding an existing Urgent Care clinic and constructing a new parking deck or structure neither of which would expose people or property to an increase in flood-related hazards. Erosion control measures will be in place during construction. Therefore, the impact from flooding would be considered less than significant.

j) Inundation by seiche, tsunami, or mudflow?				X

Flooding associated with seiches (wave-like oscillations of water in an enclosed basin caused by earthquakes, high winds or other atmospheric conditions) is not anticipated at the project site due to its distance from enclosed bodies of water. The project site is located southeast Los Angeles over 10 miles from the Pacific Ocean; therefore, the potential for inundation by a tsunami is expected to be a rare occurrence. The proposed project would not result in any increased risk for inundation by mudflow. Therefore, there would be no impacts related to seiche, tsunami or mudflow.

2.10 Land Use and Planning Would the project:				
a) Physically divide an established community?				X

The proposed project would consist of expanding an existing Urgent Care clinic and constructing a new parking deck or structure on land owned by the County of Los Angeles. No additional land would be required. Therefore, the proposed project would not result in any impacts from physical division of the community.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?			X	

The proposed project would be located in the Southeast Los Angeles planning area of the City of Los Angeles General Plan. The goal of this community plan is to set forth objectives, policies and programs to guide development within the neighborhoods within the plan area.

The Southeast Los Angeles Community Plan designation for the proposed project site is Public Facilities (PF). The future land use at the site would continue to be Public Facilities. Impacts to land use plans and policies from the proposed project would be considered less than significant.

The proposed site for the Urgent Care Expansion and parking deck or structure is zoned as Public Facilities (PF-1) by the City of Los Angeles. There are no height restrictions for this zoning. The proposed Urgent Care Expansion would be consistent with current zoning for this site. Therefore, impacts to zoning designations from the proposed project would be considered less than significant.

The project site is located in a State Enterprise Zone (ZI No. 2374 Employment and Economic Incentive Program Area). As a public facility owned by the County of Los Angeles, the proposed Urgent Care Expansion and parking deck or structure will not be subject to permitting or plan check review by the City of Los Angeles Department of Building and Safety. Therefore, the special provisions of the Enterprise Zone for parking standards and height restrictions are not applicable to the proposed project. Therefore, the proposed project would not conflict with this land use designation.

The project site is located in the City of Los Angeles Council District Nine Corridors South of the Santa Monica Freeway Recovery Redevelopment Project Area. Adopted in 1995 by the Los Angeles City Council, this plan covers over 2,800 acres of commercial and industrial corridors (residential neighborhoods are excluded). Development of job-producing programs and community revitalization are the primary goals of the plan with ongoing public improvements to promote economic opportunities and improving public services and infrastructure. As a public facility owned by the County of Los Angeles, the proposed Urgent Care Expansion will not be funded by the City of Los Angeles Community Redevelopment Agency and therefore, not subject to design standards or other City of Los Angeles Department of Building and Safety requirements. The proposed Urgent Care Expansion would be consistent with current zoning for this site. Therefore, the proposed project would not conflict with this land use plan.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				X

The proposed project is not located in the planning area of any Habitat Conservation Plan or Natural Community Conservation Plan. The project site is not located within any Los Angeles County Significant Ecological Area (SEA). The nearest SEAs to the project site are: the Griffith Park SEA approximately 9 miles north; the Ballona Creek SEA approximately 9.5 miles west; the El Segundo Dunes SEA approximately 9.8 miles southwest; and, the Whittier Narrows SEA approximately 11.5 miles east. The proposed project would not conflict with any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, the project would not result in any impact to conservation plans.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
2.11 Mineral Resources Would the project:				
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?				X

The project site is not located in a Mineral Resource Zone (MRZ), which are areas where geologic information indicates that significant inferred mineral resources are present. The proposed project would not result in loss of availability of any known mineral resources. Therefore, there would be no impact to mineral resources.

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?				X

The project site is not located within any mineral resource area delineated on a local land use plan. The proposed project would not require the removal of any locally important mineral resources, nor would it result in any interference with existing mining operations. Therefore, impacts to mineral resources would not be expected.

2.12 Noise Would the project result in:				
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?		X		

The primary noise source in the vicinity of the project site is motor vehicle traffic along Slauson Avenue. The proposed site is approximately 0.4 mile from the Harbor Freeway (Interstate 110) which does not significantly contribute to ambient noise levels at the site because of its distance. The Burlington Northern Santa Fe (BNSF) freight line which runs along Slauson Avenue approximately 130 ft north of the site also contributes to the noise environment. This train passes the project site three times per day (schedule is variable) and operates with a warning bell at its crossing at South Main Street.

The nearest major roadway to the Urgent Care Expansion site is Slauson Avenue, which forms the northern boundary of the Health Center. Traffic along Slauson Avenue is associated primarily with the commercial corridor that runs from Main Street to Central Avenue. The ambient daytime noise level at the Health Center (5850 S. Main Street) is approximately 67 dBA (LAUSD, 2007).

The nearest residence to the Urgent Care Expansion area is approximately 121 ft feet southeast along Woodlawn Avenue. There are no residential properties immediately across the street from the Urgent Care Expansion area on Woodlawn Avenue. All 24 properties along the east side of Woodlawn Avenue are zoned MR-1-1 (manufacturing/commercial) although 19 of these properties are residential structures.

Although the final location and size of the proposed parking deck or structure has not been determined at this time, the nearest residences to the proposed parking deck or structure location (as depicted on Figure 4) are approximately 73 ft feet east along Woodlawn Avenue. In addition to residents along Woodlawn Avenue, residential properties are also located approximately 40 feet from the southern perimeter of the existing parking lot (these residents are along East 59th Place).

Noise impacts from the proposed project would be a function of the noise generated by construction equipment, the location and sensitivity of nearby land uses, and the duration of the noise-generating activities.

Section 12.12.030 of the Los Angeles County Code establishes construction noise limits based on the time and day as follows:

> *Except as otherwise provided in this chapter, a person, on any Sunday, or at any other time between the hours of 8:00 p.m. and 6:30 a.m. the following day, shall not perform any construction or repair work of any kind upon any building or structure, or perform any earth excavating, filling or moving, where any of the foregoing entails the use of any air compressors; jackhammers; power-driven drill; riveting machine; excavator, diesel-powered truck, tractor or other earth moving equipment; hand hammers on steel or iron, or any other machine, tool, device or equipment which makes loud noises to the disturbance of persons occupying sleeping quarters in a dwelling, apartment, hotel, mobilehome, or other place of residence (Ord. 9818 § 1, 1969: Ord. 8594 § 6, 1964).*

Section 12.08.440 of the Los Angeles County Code contains restrictions applicable to construction noise. These guidelines:

- restrict the operation of construction equipment from 7:00 p.m. and 7:00 a.m. or at any time on Sundays or holidays;
- establish that maximum noise levels from mobile equipment shall not exceed 75 dBA from 7:00 a.m. to 8:00 p.m., or 60 dBA from 8:00 p.m. to 7:00 a.m., in single-family residential areas;
- establish that maximum noise levels from stationary equipment not exceed 60 dBA from 7:00 a.m. to 8:00 p.m., or 50 dBA from 8:00 p.m. to 7:00 a.m., in single-family residential areas;
- require that all mobile or stationary internal combustion engine-powered equipment of machinery be equipped with suitable exhaust and air-intake silencers in proper working order.

Construction Noise. Although temporary noise increases associated with project construction may result in annoyance to some local residents, construction activities would be limited to daytime hours in accordance with noise restrictions established in Section 12.12.030 of the County Code. The use of heavy equipment is typically a sporadic occurrence during the work day. This noise will vary greatly depending on the particular construction activity, function, quantity, and type and condition of equipment used as well as layout of the construction site. Construction noise levels were calculated for the various construction activities for the Urgent Care Expansion, single-level parking deck construction, and the 2-story parking structure construction. The estimated noise levels during construction of the proposed project, expressed in the hourly value for long-term average noise exposure, L_{eq}(h) and equivalent sound level (L_{eq}), are shown in Table 16.

Table 16. Estimated Construction Noise Levels for the Proposed Project

Construction Activity and Equipment	Number of Construction Equipment or Vehicles	Maximum Sound Level at 50 ft (dBA)	Effective Usage Factor	L_{eq}(h) at Nearest Residence (dBA)[1]			
				R1	R2	R3	R4
Construction of Urgent Care Expansion							
Site Preparation and Demolition							
Concrete Saw	1	83	0.15	67	55	52	51
Front-end Loader/Backhoe	2	85	0.23	71	59	55	55
Dozer	1	80	0.11	63	51	47	47
			Overall L_{eq}	73	61	57	57
Trenching							
Front-end Loader/Backhoe	1	85	0.11	68	56	52	52
Excavator	2	85	0.30	72	60	57	56
Trencher	1	82	0.19	67	55	52	51
			Overall L_{eq}	74	63	59	58
Building Construction							
Front-end Loader/Backhoe	1	85	0.11	68	56	52	52
Crane	1	83	0.15	67	55	52	51
Pile Driver	1	97	0.11	80	68	64	64
Forklkift	2	67	0.30	54	42	39	38
			Overall L_{eq}	80	69	65	64
Asphalt/Concrete Paving							
Concrete Truck/Mixer	1	85	0.11	68	56	52	52
Paver	1	89	0.11	72	60	56	56
			Overall L_{eq}	73	62	58	57
Site Preparation and Demolition							
Concrete Saw	1	83	0.15	57	65	61	60
Front-end Loader/Backhoe	2	85	0.23	60	68	65	64
Dozer	1	80	0.11	52	60	57	59
			Overall L_{eq}	62	70	67	66
Construction of Single-Level Parking Deck							
Foundation/Asphalt/Concrete Paving							
Front-end Loader/Backhoe	1	85	0.11	57	65	62	61
Concrete Truck/Mixer	2	85	0.23	60	68	65	64
Paver	1	89	0.11	61	69	66	65
Roller	1	74	0.11	46	54	51	50
			Overall L_{eq}	65	73	69	69

Table 16. Estimated Construction Noise Levels for the Proposed Project (Cont'd)

Construction Activity and Equipment	Number of Construction Equipment or Vehicles	Maximum Sound Level at 50 ft (dBA)	Effective Usage Factor	L_{eq}(h) at Nearest Residence (dBA)[1]			
				R1	R2	R3	R4
Construction of Two-Story Parking Structure							
Demolition and Site Preparation							
Concrete Saw	1	83	0.15	52	59	64	67
Front-end Loader/Backhoe	2	85	0.23	56	63	68	71
Dozer	1	80	0.11	48	55	60	63
			Overall L_{eq}	58	65	70	73
Foundation/Asphalt/Concrete Paving							
Front-end Loader/Backhoe	1	85	0.11	53	60	65	68
Crane	1	83	0.15	52	59	64	67
Concrete Truck/Mixer	2	85	0.23	56	63	68	71
Paver	1	89	0.11	57	64	69	72
Roller	1	74	0.11	42	49	54	57
			Overall L_{eq}	61	68	73	76

Note: 1. Receptors (R) 1, 2 and 3 represent nearest residences on Woodlawn Avenue directly across from the Urgent Care expansion area, the single-level parking deck, and the 2-story parking structure, respectively. R4 represents the nearest residences on the south side of the existing parking lot on 59th Place.
Source: Parsons

Noise from Urgent Care Expansion activities is not expected to exceed the 75 dBA daytime construction noise limit applicable to residential areas at the nearest surrounding residences, unless pile driving will be used. For the worst case analysis, the use of pile driving was assumed in the calculations of construction noise levels. The estimated noise levels at the nearest residence due to construction activities associated with the Urgent Care Expansion are expected to be between approximately 57 and 80 dBA. The 80 dBA noise level would be at the closest residence located across the street on Woodlawn Avenue; all other residences would be below the 75 dBA limit.

For the single-level parking deck construction, noise levels are estimated to be between approximately 62 and 73 dBA.

Noise levels during the construction of the 2-story parking structure are expected to be between approximately 58 and 76 dBA. The location where the noise level is expected to be 76 dBA is at residences along 59th Place on the south side of the existing parking lot where the 2-story parking structure is proposed. This would be the only location where the 75 dBA limit is expected to be exceeded during the parking structure construction.

Construction noise levels were also estimated to analyze scenarios where construction of the Urgent Care Expansion overlaps with construction of either the single-level parking deck or the 2-story parking structure. Table 17 provides a summary of the estimated construction noise level under each possible condition.

Table 17. Summary of Estimated Construction Noise Levels for the Proposed Project

Construction Activity	L_{eq}(h) at Nearest Residence (dBA)[1]			
	R1	R2	R3	R4
Construction of Urgent Care Expansion Only				
Site Preparation and Demolition	73	61	57	57
Trenching	74	63	59	58
Building Construction	80	69	65	64
Asphalt/Concrete Paving	73	62	58	57
Construction of Single-Level Parking Deck Only				
Site Preparation and Demolition	62	70	67	66
Asphalt/Concrete Paving	65	73	69	69
Construction of Two-Story Parking Structure Only				
Site Preparation and Demolition	58	65	70	73
Asphalt/Concrete Paving	61	68	73	76
Simultaneous Construction of Urgent Care Expansion and Single-Level Parking Deck				
(All construction activities, maximum activity)	81	74	70	70
Simultaneous Construction of Urgent Care Expansion and Two-Story Parking Structure				
(All construction activities, maximum activity)	80	72	73	76

Note: 1. Receptors (R) 1, 2 and 3 represent nearest residences on Woodlawn Avenue directly across from the Urgent Care expansion area, the single-level parking deck, and the 2-story parking structure, respectively. R4 represents the nearest residences on the south side of the existing parking lot on 59th Place.

Source: Parsons

In the event that simultaneous construction activity occurs for both the Urgent Care Expansion and the single level parking deck, worst-case noise levels at the nearest residences to the Urgent Care Expansion, depicted as R1, are expected to be approximately 81 dBA, exceeding the County's limit of 75 dBA. For the worst-case scenario where the construction of the Urgent Care Expansion and 2-story parking structure is to overlap, noise levels are expected to be exceeded at Receptors R1 and R4, residences closest to the proposed Urgent Care and Expansion, and 2-story parking structure, respectively. These are the only two areas where 75 dBA limit is expected to be exceeded.

Due to the proximity of the construction work area to residents east and south of the Urgent Care Expansion area, parking deck and parking structure, the following mitigation measures will be implemented:

- ***Noise 1.*** *The construction contractor shall select truck routes to avoid residences as much as possible.*
- ***Noise 2.*** *The construction contractor will conduct truck loading, unloading, hauling and other operations so that noise is kept to a minimum and avoid generating noise near residences.*
- ***Noise 3.*** *During construction, the use of high noise-generating equipment (i.e., concrete industrial saw) will be kept to a minimum as much as possible.*
- ***Noise 4.*** *The construction contractor will post (on the construction site fencing) a phone number for noise complaints on the site, and address complaints within two (2) business days.*
- ***Noise 5.*** *The County of Los Angeles Department of Public Works will provide surrounding residents and businesses (minimum radius of 300 ft) at least 30 days written notice of the start date and duration of pile driving activities.*
- ***Noise 6.*** *The construction contractor will prepare a Noise Control Plan containing site-specific noise attenuation measures to ensure maximum feasible noise attenuation. The plan shall be approved by the County of Los Angeles Department of Public Works. Noise reduction measures may include, but not be limited to: (1) use of temporary noise barriers around the construction site; (2) use of "quiet" pile driving technology based on soils and structural requirements, as feasible; (3) use of noise-control blankets as feasible; (4) limiting hours of operation of the pile drivers based on input from surrounding neighbors and businesses; (5)*

conducting noise measurements to ensure effective noise reduction; and,(6) implementation of noise reduction measures (as required based on measurements taken) under the supervision of an acoustical consultant.

- ***Noise 7.*** *The construction contractor shall prepare a noise monitoring plan and implement a noise monitoring program to ensure that noise limits are not exceeded at nearby residences. The plan will be approved by, and monitoring data will be provided to, the County of Los Angeles Department of Public Works.*

With incorporation of these mitigation measures, impacts from construction noise would be considered less than significant.

Operational Noise. With regard to operation of the Urgent Care Expansion and parking deck or structure, an average day-night sound level of 65 dBA is generally accepted as a standard for residential communities (HUD, 2010). As a land use compatibility guideline, this standard represents an averaged noise level over a 24-hour period and includes a penalty of 10dB[3] for nighttime hours. The Los Angeles County Noise Control Ordinance, Title 12 of the County Code, was adopted by the Board of Supervisors in 1977 "…to control unnecessary, excessive, and annoying noise and vibration …." It declared that County policy was to "…maintain quiet in those areas which exhibit low noise levels and to implement programs aimed at reducing noise in those areas within the county where noise levels are above acceptable values" (Section 12.08.010 of the County Code). On August 14, 2001, the Board of Supervisors approved an ordinance amending Title 12 of the County Code to prohibit loud, unnecessary, and unusual noise that disturbs the peace and/or quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensitivity residing in the area. Regulations can include requirements for sound barriers, mitigation measures to reduce excessive noise, or the placement and orientation of buildings, and can specify the compatibility of different uses with varying noise levels. The County exterior noise standard for residential properties is 45 decibels from 10:00 p.m. to 7:00 a.m. (nighttime) and 50 decibels for 7:00 a.m. to 10:00 p.m. (daytime). These noise standards are applicable to residential areas along Woodlawn Avenue.

Noise generated by operation of the expanded Urgent Care Expansion would be attributed to vehicles entering or exiting the parking area. The anticipated noise levels at nearby residences would be similar to existing operations. The increase of traffic due to the increased operations (approximately 31 additional patients per day) would not have a substantial effect on the overall ambient noise. Also, the main entrance for the facility is on Main Street, which is away from residences. Anticipated noise levels during operation of the expanded Urgent Care would not be expected to exceed Los Angeles County exterior noise standards.

The most noticeable noise associated with parking lot activity is car door slamming. Typical car door slamming generates a maximum sound level, L_{max}, of 73 dBA when measured at a distance of 50 feet without any attenuation due to building walls and other barriers. With the noise attenuation provided by typical parking design and construction, the noise generated by car door slamming would be further reduced. Therefore, operation of the new single-level parking deck is not expected to increase the existing ambient noise levels at the nearest residences. Although there may be periods of time when noise generated by car door slamming at the parking deck or structure may be discernible to residents to the east on Woodlawn Avenue and to the south along East 59th Place, noise levels in the area would not be expected to exceed t he Los Angeles County exterior noise standard. Therefore, no impacts from operation of the new parking deck or structure would be expected.

[3] When noise levels over a 24-hour period are averaged, the eight hours in the nighttime are assessed a 10 dB penalty to account for the impact of noise during these hours.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?		X		

Construction activities may include the use of equipment that is considered an impact device (i.e., pile driving may be required for construction of the Urgent Care Expansion). Noise from pile driving activities would be intermittent and limited to weekdays only. Pile driving may generate excessive groundborne vibration and groundborne noise at nearby residents. As discussed in Section 2.12(a), noise from impact pile devices would be managed in accordance with a noise reduction plan. Noise measurement and monitoring during pile driving activities would be conducted. With incorporation of these two mitigation measures (Noise 4 and Noise 5), impacts from groundborne vibration and groundborne noise would be considered less than significant.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X	

Operation of the proposed Urgent Care Expansion and new parking deck or structure would result in overall noise levels very similar to existing conditions. A permanent increase in ambient noise levels as a result of the expanded Urgent Care clinic and new parking deck or structure would not be expected. The existing ambient noise is approximately 67 dBA (see Section 2.12.a). A substantial permanent increase in the 24-hour average ambient noise level in the project vicinity would not be expected because the project represents a continuation of the current land use with no substantial increase in capacity. The permanent increase in ambient noise levels would not be discernible nor substantial because no change to existing ambient noise levels in the project vicinity would occur. Therefore, impacts to ambient noise levels in the project vicinity would be considered less than significant.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			X	

The proposed project would result in temporary increases in noise levels during construction as a result of the use of heavy construction equipment. Intermittent noise levels up to 81 dBA at nearby residences could result during construction that involves simultaneous pile driving and parking deck construction. Construction activities would be limited to daytime only (typically 7 a.m. to 4 p.m.). These conditions would not result in a substantial increase in ambient noise levels in the project vicinity.

Operation of the expanded Urgent Care clinic and parking deck or structure could also result in periodic increases in noise levels within overall ambient conditions. However, it is not expected that normal operation o the expanded Urgent Care clinic would result in a substantial increase in ambient noise levels in the project vicinity. Therefore, the temporary or periodic increases in ambient noise from the proposed project would be considered less than significant.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X

The proposed project is not located within any Airport Master Plan area or within two miles of any public or public use airport. The nearest public airport is the Hawthorne Municipal Airport located approximately

5.7 miles southwest of the Health Center. Therefore, the project would not result in impacts from excessive noise levels within an airport land use plan or near a public use airport.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?				X

The proposed project would not be located in the vicinity of any private airstrips. The nearest private airstrips are the Randy Champ-gary Howe Memorial and the Sfi-Vernon heliports approximately 2.0 and 3.6 miles south and east, respectively, of the site. The proposed project would not expose people residing or working in the area to excessive noise levels. Therefore, there would be no impact from excessive noise exposure within the vicinity of a private airstrip.

2.13 Population and Housing Would the project:				
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)?				X

Although the proposed project will result in an increase in the presence of people at the location, the project would not directly or indirectly induce population growth because no new housing or businesses would be provided and no infrastructure would be extended. Residents in the surrounding community would be the primary users of the Urgent Care clinic, although this health facility provides health care services to the entire south Los Angeles region. The proposed project would not have direct growth inducing effects, although it would support the health care needs associated with ongoing growth in the local community. The proposed project would not induce any population growth in the area or result in the need for additional infrastructure. Therefore, the project would not result in impacts to population growth.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X

The proposed project would not displace any housing. The proposed expanded Urgent Care clinic and new parking deck or structure would be constructed within the boundaries of public land owned by the County of Los Angeles. An additional 31 patients from the existing community would be served by the expanded Urgent Care clinic on a daily basis. Therefore, the project would not displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere not result in any impacts to housing.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X

The proposed project would not displace any people, or result in the need for replacement housing elsewhere. Therefore, the proposed project would not result in any impacts to housing.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
2.14 Public Services Would the project result in 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?			X	

Fire protection services for the project area are provided by the Los Angeles City Fire Department. The nearest fire station (Fire Station No. 33) is located at 6406 S. Main Street approximately 0.5 mile from the project site. The proposed project would result in the expansion of a public facility by 2,200 sq ft. This facility will continue to require fire protection services, but this would not result in a substantial increase in the demand for fire protection services or generate a need for new fire stations in the area. Therefore, impacts to fire protection would be considered less than significant.

b) Police protection?			X	

The Los Angeles Police Department provides protection in the project area through its Newton Community Police Station (3400 S. Central Avenue, Los Angeles, CA 90011) approximately 2.7 miles from the project site. The proposed project would not interfere with circulation for pedestrians, vehicles, and police patrols. The proposed project would result in a 2,200-sq ft expansion to a public facility that will require police protection services, but this would not result in a substantial increase in the demand for police protection services. The increase in service that would be required is not considered substantial because police protection is already provided in this area and specifically to this facility. The project site is not remote to the existing police protection service area. Therefore, impacts to police protection would be considered less than significant.

c) Schools?				X

The proposed project would not generate any additional population in the area, and therefore would not impact local school enrollments. The proposed project would not otherwise adversely impact existing and planned schools in the area. Therefore, no impacts to schools would result from the proposed project.

d) Parks?				X

The proposed expansion of the Urgent Care clinic and new parking deck or structure would not result in substantial adverse impacts to existing or planned parks in the region. Therefore, the proposed project would not result in substantial adverse impacts to existing or planned parks in the region.

e) Other public facilities?				X

The proposed project facilities would continue to be operated and maintained by the County of Los Angeles or its designated operator. Therefore, the proposed project would not result in any impacts to other public facilities.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
2.15 Recreation				
a) Would the project 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?				X

The purpose of the proposed project is to provide health care services for the southeast Los Angeles community. An additional 31 patients from the existing community would be served by the expanded Urgent Care clinic on a daily basis. The proposed project would not affect the use, nor result in substantial deterioration, of recreational facilities. Therefore, there would be no impacts to existing or planned neighborhood and regional parks.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?				X

The proposed project would result in an expanded Urgent Care clinic and new parking deck or structure with the features described herein. No recreational facilities would be provided. Therefore, no impacts to recreational resources would occur.

2.16 Transportation/Traffic Would the project:				
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)?		X		

Main Street and Woodlawn Avenue are the primary access roads to the Health Center. Main Street is a 4-lane secondary highway running North-South within the city. Woodlawn Avenue is a local street. There are no bike paths along Main Street, Slauson Avenue or Woodlawn Avenue. A secondary highway, when fully improved and operating at a Level of Service (LOS) E[4], can accommodate approximately 36,000 vehicles per day. Average daily traffic[5] along Main Street is shown on Table 18.

[4] Level of Service (LOS) E is characterized by significant delays and average travel speeds of 33 percent or less of the Free Flow Speed. Such operations are caused by a combination of adverse progression, high signal density, high volumes, extensive delays at critical intersection, and inappropriate signal timing. LOS E represents a roadway operating at the maximum capacity.

[5] Average daily traffic is the average number of vehicles that travel a segment of roadway during a 24-hour period.

Table 18. Average Daily Traffic Near the Hubert H. Humphrey Comprehensive Health Center

Primary Street	Cross Street	Date of Count	Northbound	Southbound	Average Daily Traffic
Main Street	North of Slauson Avenue	4/15/09	10,116	8,767	18,633
		5/8/10	9,694	8,766	18,460
	52nd Street	2/4/10	12,984	7,936	20,920
	64th Street	5/18/09	8,119	5,906	14,025

Source: LADOT, 2010

The existing (2007) LOS for South Main Street/West Slauson Avenue at the project site is LOS C[6] for morning peak hours shown in a recent EIR traffic study (LAUSD, 2007). The volume-to-capacity (V/C) ratio for this intersection is 0.706. The existing (2007) LOS for South Main Street/West 59th Place south of the project site is LOS A[7] for morning peak hours with a V/C ratio of 0.475 for this intersection (LAUSD, 2007).

During construction, trucks and workers would access the work site on a daily basis using the existing Heath Center entrances on Main Street and/or Woodlawn Avenue. Assuming that all the workers travel in single occupant vehicles, this is estimated to result in an additional 25 inbound and outbound vehicle trips. These trips would occur before morning and evening peak hour traffic. Movement of the construction vehicles and equipment would not be expected to result in any change to the volume-to-capacity ratio of area roadways or congestion at intersections in the local area. While some temporary lane detours may be required during demolition and construction, closures of entire roads would not be expected. Construction vehicles and equipment would be staged onsite within the existing parking lot. The health center, and the existing Urgent Care clinic, would continue to be open during the construction period. Construction-related traffic would be a short-term condition and is not expected to result in any substantial effects on traffic. As stated in Section 1.11, some temporary lane detours may be required during demolition and construction however, closures of entire roads would not be expected. Construction vehicles and equipment would be staged onsite within the existing parking lot.

While the proposed Urgent Care Expansion would serve the local community (with some patrons arriving by bus, on foot or bicycle), it is estimated that the project would result in approximately 31 additional daily patients accessing the Health Center in approximately 23 additional vehicle trips during its daily operation. As part of operations, normal maintenance activities would result in up to five (5) vehicles entering the parking lot each day.

Completion of the Urgent Care Expansion may result in an increase of approximately 23 daily vehicle trips over existing levels. The additional in-bound/out-bound vehicles to the Health Center parking lot would not be expected to exceed the current level of service standard for Main Street. This is because the designated roadway capacity can accommodate the expected increase in traffic from the proposed project.

Construction of the parking deck or structure is planned to occur at the same time as reconfiguration of the Urgent Care clinic. It is estimated that approximately 80 parking spaces in the existing lot would be unavailable during the 4-month construction period for the parking deck (approximately 138 spaces during the approximately 8-month construction period for the 2-story parking structure). Delays associated with loss of parking may contribute to decreased traffic flow at the entrances to the Health Center. The decrease in on-site parking would be a temporary condition alleviated upon completion of the parking deck or structure before operation of the expanded Urgent Care clinic. To ensure that adequate parking is provided during construction of the parking deck or structure, the County will implement the following mitigation measures:

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[6] LOS C is characterized by good operation. Occasionally drivers may have to wait more than 60 seconds, and back-ups may develop behind turning vehicles. Most drivers feel somewhat restricted.

[7] LOS A is characterized by excellent operation. All approaches to the intersection appear quite open, turning movements are easily made, and nearly all drivers find freedom of operation.

- ***Traffic 1.*** *The County of Los Angeles Department of Public Works will restripe the southern portion of the existing parking lot to maximize the number of available parking spaces during the construction period.*
- ***Traffic 2.*** *In the event that 25 or more parking spaces are temporarily unavailable during construction, the County of Los Angeles Department of Public Works will provide attended and/or tandem parking.*

With incorporation of these mitigation measures, impacts to traffic flows from inadequate parking would be considered less than significant. With completion of the proposed parking deck or structure or structure, parking capacity will be adequate during operation of the Urgent Care expansion.

The Southeast Los Angeles Community Plan does not specify an acceptable Level of Service for long-range planning nor does it recommend any reclassification or designations for Main Street at this time. The proposed project would not conflict with any 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. Therefore, impacts to traffic levels of service on roads and highways would be considered less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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 or highways?			X	

The Congestion Management Plan (CMP) adopted by the CMP agency in Los Angeles County in 1992 (and most recently updated in 2004) does not designate Slauson Avenue or Main Street as CMP roadways. The proposed expansion of the Urgent Care clinic and new parking deck or structure would not result in a substantial increase in traffic congestion. The proposed project would not conflict with the Los Angeles County CMP, its level of service standards, travel demand measures, or other standards established for designated roads or highways. Therefore, impacts to the congestion management efforts from the proposed project would be considered less than significant.

c) Results 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?				X

The proposed project would not result in any changes to air traffic patterns that could result in any increases in safety risks. Therefore, the project would not result in any impacts to air traffic patterns.

d) Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	

Roadway modifications to provide safe access to the new elementary school on S. Main Street are being constructed in accordance with requirements of the County of Los Angeles Department of Public Works and Department of Regional Planning. Road improvements include new signalization at 58th Place, roadway signage, and striping of a northbound left turn pocket lane. No substantial increase in hazards or incompatible uses would be anticipated as a result of the proposed project. Therefore, impacts from

roadway hazards associated with design features or incompatible uses would be considered less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Result in inadequate emergency access?				X

Emergency access would not be impeded during the construction period when vehicles would be parked within the parking lot of the Health Center. Access would continue to be from the existing driveways along South Main Street and Woodlawn Avenue. The Urgent Care Expansion would be operated in accordance with safety policies defined in the Los Angeles County Safety Element and would follow the appropriate area emergency response plan. No changes in access to emergency facilities or nearby land uses are expected to occur as a result of implementation of the project. Therefore, the project would not result in any impacts to emergency access.

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?			X	

The proposed project would be designed and operated to support alternative transportation with the inclusion of bicycle racks in the parking lot. There are no bike lanes or bus turnouts along Main Street or Slauson Avenue at this time. The City of Los Angeles Department of Transportation operates the DASH Southeast bus line that stops at the corner of Slauson Avenue and Main Street. As described herein, roadway modifications and improvements are being constructed along Main Street to provide safe access into the new LAUSD elementary school across from the Health Center. The proposed project to expand the existing Urgent Care clinic and operate a new parking deck or structure would represent a continuation of existing traffic patterns while utilizing the existing accessways into the Health Center. The proposed project would not result in any conflicts with policies that support public transit, bicycle, or pedestrian facilities. The proposed project would not otherwise decrease the performance or safety of such facilities. Therefore, impacts to public transit performance and safety would be considered less than significant.

2.17 Utilities and Service Systems Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			X	

Wastewater would continue to be generated from the Hubert H. Humphrey Comprehensive Health Center and discharged to the local sewer line operated by the City of Los Angeles Department of Public Works Bureau of Sanitation which operates in compliance with its permits limits. The anticipated increase in 31 patients per day would result in an increase in wastewater generation of approximately 551 gallons per day. The proposed project will not generate wastewater in excess of treatment requirements established by the Los Angeles Regional Water Quality Control Board applicable to the proposed project. Therefore, impacts to water quality standards or waste discharge requirements would be considered less than significant.

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?			X	

Water for the proposed project would continue to be provided by the Los Angeles Department of Water and Power purchased from the Metropolitan Water District, or received from the Los Angeles Aqueduct, groundwater and recycled water sources. Wastewater from the Health Center would be continue to be directed to the municipal sewer system operated by the Los Angeles County Sanitation District. The anticipated increase in 31 patients per day would result in an increase in wastewater generation of approximately 551 gallons per day. The proposed project would not result in a substantial increase in water consumption or wastewater generation. Sewage flow will continue to be conveyed to the Hyperion Treatment Plant which has sufficient capacity for the project. The proposed project would not require the construction of new water or wastewater treatment facilities, or the expansion of existing facilities. Therefore, impacts to water or wastewater treatment facilities from the proposed project would be considered less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	

The existing on-site storm water drainage is adequate to accommodate the Urgent Care Expansion. Adequate drainage for the proposed new parking deck or structure would be provided. No expansion of existing, or construction of new, storm water drainage facilities would be required. Therefore, impacts from construction of the storm drainage system would be considered less than significant.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			X	

Water for the Health Center would continue to be provided by the Los Angeles Department of Water and Power purchased from the Metropolitan Water District, or received from the Los Angeles Aqueduct, groundwater and recycled water sources.

The proposed project would use a limited amount of water (trucked to the site on water trucks) to control dust during the construction period. Design of the project would include water conservation features for Urgent Care clinic operations and irrigation for landscaping. Landscaping on the exterior of the Urgent Care clinic and in the parking lot would be composed of drought-tolerant trees and shrubs to minimize use of water. The proposed project would not require new or expanded water entitlements. Therefore, impacts to water supply would be considered less than significant.

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?			X	

The City of Los Angeles Department of Sanitation would continue to provide wastewater disposal and treatment for the Health Center. The proposed project would not result in generation of wastewater that would exceed the capacity of the provider. This amount of wastewater has been accounted for in planned expansion of treatment facilities in Los Angeles. Therefore, impacts to wastewater treatment systems would be considered less than significant.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			X	

Solid waste generated in the City of Los Angles is transported to transfer stations, landfills that process waste for beneficial reuse, and landfills that accept wastes for disposal. The proposed project would generate construction and demolition (C&D) materials which would be taken to any of the nine transfer stations that receive C&D materials from sources in the city or to any of the 15 landfills accepting C&D waste. The nearest landfill, Puente Hills Landfill in Whittier, accepted the most C&D materials from the City of Los Angeles in 2006 (City of Los Angeles, 2010). This landfill is projected to have a remaining capacity of 13.8 million tons by the end of 2010 with an expected closure due to capacity in 2013. Remaining landfills in Los Angeles County have projected closure in 2024 or later (County Sanitation Districts of Los Angeles County, 2009).

Construction activities would generate solid waste; however, waste management during construction would include diversion of wastes from disposal through recycling and reuse. Construction wastes would not be expected to significantly impact landfill capacities. Solid waste from the project would be disposed of in any approved landfills.

The proposed Urgent Care Expansion would be designed to include recycling of wastes. Commercial waste generated at the Health Center would continue to be collected by a permitted private waste hauling company. Operation of the proposed Urgent Care Expansion and parking deck or structure would not be expected to generate a substantial increase in solid waste. The increase in solid waste generation would be minimal. Therefore, impacts to solid waste disposal would be considered less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Comply with federal, state, and local statutes and regulations related to solid waste?			X	

All solid waste disposal would be managed in accordance with applicable federal, state and local statutes and regulations. Therefore, impacts to solid waste would be considered less than significant.

2.18 Mandatory Findings of Significance				
a) Does the project 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?			X	

The analysis conducted in this Initial Study results in a determination that the project, with implementation of mitigation measures, would result in a less than significant effect on the local environment. The construction activities associated with the proposed project would not be expected to substantially degrade fish, wildlife, and/or plant populations because these resources are not present on the site. Intrusion on any previously undiscovered cultural or historic resources would not be anticipated (mitigation for inadvertent discovery of cultural materials has been included in Section 2.5.b). The proposed site does not contain any important examples of the major periods of California history or prehistory. Therefore, the project would result in a less than significant impact on the quality of the environment.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Does the project 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.)			X	

There are five planned projects within 1.0 mile of the proposed Urgent Care Expansion and new parking deck or structure at the Hubert H. Humphrey Comprehensive Health Center (a radius of 1.0 mile was used to represent the anticipated sphere of influence where environmental impacts could be evident for a project of this type). According to State CEQA Guidelines Section 15355, cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. As discussed in Section 1.13, there are two probable future projects with construction that would overlap with construction of the proposed project (the remaining three projects would have been completed prior to construction of the proposed project). Due to the distance of the two related projects, the proposed project would not result in cumulative impacts to aesthetics, agriculture and forest resources, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, utilities and service systems.

As shown on Table 7, air pollutant emissions from construction of the two related projects, when added to emissions from the proposed project, would not exceed SCAQMD significance thresholds. Therefore, cumulative impacts to air quality would be considered less than significant.

Greenhouse gas emissions from the proposed project, when added to these emissions from related projects, would be less than significant because these emissions would be below the CAPCOA threshold of 900 metric tons per year (selected threshold for comparison). When this individual project's contribution to greenhouse gas emissions is compared to that produced by activities elsewhere in the world, the mass of greenhouse gas emissions generated by the construction and operation of the proposed project would be so small that the concentration of greenhouse gas emissions in the atmosphere would not change. For this reason, the project's individual impact to global climate change is considered less than significant. The project's incremental contribution to cumulative effects on a regional scale would not be considerable.

Due to distance from the site, traffic associated with the proposed project would have no combined effect on traffic associated with the two related projects which are over 0.5 mile away. Traffic improvements along Main Street are being constructed to accommodate projected traffic associated with the new elementary school which is scheduled to open in 2011. Therefore, cumulative impacts to traffic would be considered less than significant.

When the potential impacts of the proposed project are viewed in consideration of past and ongoing projects (both of which have been incorporated into the existing baseline of environmental conditions), these impacts would not be considered cumulatively considerable. Therefore, the cumulative impacts of the proposed project are considered less than significant.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?			X	

Direct and indirect substantial adverse effects on human beings would not be expected as a result of the project. Short term effects from air pollutant emissions and localized increases in traffic would occur during the construction period; these effects would not be considered significant because they would not be expected to exceed established criteria with incorporation of mitigation measures. Potential impacts from construction noise would not be considered significant because mitigation measures to prevent and minimize the short term effects have been included in the project. Potential impacts to biological, cultural, geologic and water resources would be avoided or minimized by mitigation measures that would be incorporated during the design, construction and operation phase of the project. The proposed project would be designed and constructed in accordance with all applicable codes, laws, ordinances and regulations to prevent or minimize environmental degradation. The proposed project would be implemented to provide a benefit from improved availability of health care services to the people of Los Angeles.

The Urgent Care Expansion and parking deck or structure would be designed to incorporate energy and water conservation and efficiency, in order to prevent or reduce adverse environmental effects. The proposed project would provide improvement in health care services for the local community which is considered a beneficial effect of the project. Therefore, direct and indirect environmental effects on human beings from the project would be considered less than significant.

NOTE: Authority cited: Section 21083, 21083.05, Public Resources Code. Reference: Section 65088.4, Gov. Code; Sections 21080, 21083.05, 21095, Pub. Resources Code; *Eureka Citizens for Responsible Govt v. City of Eureka* (2007) 147 Cal. App.4th 357; *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th at 1109; *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656.

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3.2 List of Preparers

Paul Farmanian, P.E., Technical Advisor (Parsons)

Elvira Gaddi, P.E., Technical Advisor (Parsons)

Rosemarie Crisologo, CEQA Task Manager (Parsons)

John Moeur, Ph.D., Ecologist/Principal Scientist (Parsons)

Angela Schnapp, Environmental Engineer (Parsons)

Eric Spangler, P.E., T.E., Transportation Engineer (Parsons)

Thanh Luc, Noise Control Specialist (Parsons)

Kip Harper, Cultural Resource Specialist (SWCA)

Holly Rendon, Cultural Resource Specialist (SWCA)

Jessica DeBusk, Paleontologist (SWCA)

APPENDIX A

ASBESTOS ABATEMENT PROJECT SPECIFICATIONS

ASBESTOS ABATEMENT
PROJECT SPECIFICATIONS

Hubert Humphrey Health Center
5850 South Main Street
Los Angeles, California 90003

Prepared for:

County of Los Angeles Department of Public Works
900 South Fremont Avenue, 5th Floor
Alhambra, California 91803-1331

Prepared by:

Cesar Ruvalcaba
Cal-OSHA Certified Asbestos Consultant #95-1799

Reviewed by:

Marie Tullai
Cal-OSHA Certified Asbestos Consultant #92-0218

CTL Environmental Services
24404 South Vermont Avenue, Suite 307
Harbor City, California 90710
(310) 530-5006

November 13, 2007
CTL Project No. 107-0390

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ASBESTOS PROJECT SPECIFICATIONS

Hubert Humphrey Health Center
5850 South Main Street
Los Angeles, California 90003

1.0 SCOPE OF WORK

The primary and general intent of this project is the removal and disposal of asbestos-containing materials (ACM) and/or asbestos-containing construction materials (ACCM). By submitting a bid, the Contractor warrants his intent to conduct the said work properly using qualified personnel employed by licensed contractors.

The extent of the material abatement and quantities shall be outlined during the bidding process in accordance with each project-specific scope of work.

2.0 CONTRACTOR QUALIFICATIONS

Submit copies of all Federal, State, and local licenses and permits necessary to carry out the removal scope of work as outlined in this document.

3.0 NOTIFICATION REQUIREMENTS

The Contractor will make all the required notifications pertinent to the removal of asbestos-containing materials for this project, including notifications to Cal-OSHA and the South Coast Air Quality Management District if necessary.

4.0 WORKER CERTIFICATIONS

4.1 Training Requirements

All workers are to be accredited as Abatement Workers as required by the *AHERA regulation 40CFR763 Appendix C to Subpart* E and *California Code of Regulations, Title 8 Section 341.16.* Worker certifications must be kept current and maintained on site.

4.2 Medical Examinations

The Contractor shall require his employees to be evaluated by a physician to determine their capability to work safely while breathing through the added resistance of a respirator, carrying the extra weight of a respirator, or are psychologically able to wear a respirator.

4.3 Respirator Training/Fit Testing

Provide current proof of worker annual training in the selection, fitting, limitations, and care and maintenance of respirators. Documentation will include the name of the worker, fit testing

procedures used, testing agent used, manufacturer of respirator, type of respirator (half face/full face), date of testing and training, and name of the instructor/tester.

4.4 Hazard Communication

For each worker, secure a Worker Acknowledgment that indicates that the worker was provided training and information regarding hazardous substances in accordance with *Code of California Regulations, Title 8, Section 5194, Hazard Communication.*

5.0 WORKER RESPIRATORY PROTECTION DURING ABATEMENT

5.1 Regulatory Compliance

The Contractor shall provide all respiratory protection to workers in accordance with the submitted written respiratory protection program, which includes all items in *29 CFR 1910.134 (b) (1-11)*, *29 CFR 1926.1101*, and *California Code of Regulations, Title 8, Sections 5144 and 1529*. The Contractor shall post a copy of this program in the Clean Room of the Worker Decontamination Enclosure System.

The Contractor shall instruct and train each worker involved in asbestos abatement or maintenance and repair of friable asbestos-containing materials in proper respiratory use and require that each worker always wear a properly-fitted respirator in the work area from the start of any operation which may cause airborne asbestos fibers until the work area is completely decontaminated. **Do not use single-use, disposable, or quarter-face respirators.**

5.2 Personal Exposure Monitoring

The Contractor shall conduct the required worker exposure monitoring as required by *Occupational Safety and Health Administration (OSHA), Title 8, Section 1529*, and *29 CFR 1926.1101.*

5.3 Minimum Respiratory Protection Requirements

The Contractor shall supply to his workers NIOSH-approved negative pressure respirators equipped with P100 HEPA particulate filters (HEPA).

6.0 EMERGENCY PLANNING AND PROCEDURE

6.1 Fire Retardant Materials

All Abatement Contractors should use only fire resistant materials.

6.2 Contingency Plan

The Contractor will be responsible for developing an Emergency, Fire, Safety, and Evacuation Plan for the abatement project. This will include, but not be limited to, procedures to be used in the event of emergencies such as fire, medical problems, loss of power, waste removal spills, water leaks, etc., describing how they will control or limit the release of asbestos fibers and minimize the impact of the emergency on the abatement project and the building. The Contractor will provide a written plan outlining the above, including emergency phone numbers and the route to hospital and emergency facility. The plan will be available on site.

Disruption of fire alarm and sprinkler systems should be minimized. Any such disruption shall immediately be brought to the attention of the Owner's Representative and Consultant. The Contractor shall also provide a fire watch to be present at all times that such disruptions exist. If work is in progress, the senior responsible Contractor's Representative (job project manager or foreman) will be responsible for the fire watch.

7.0 PREVENTION OF ASBESTOS FIBER RELEASE

7.1 Work Practices

The Contractor shall assume full responsibility and liability for compliance with all applicable Federal, State, and local regulations pertaining to work practices including, but not limited to, hauling and disposal, protection of workers, visitors to the site, and persons occupying areas adjacent to the site. The Contractor is responsible for providing medical examinations and maintaining medical records of personnel as required by the applicable Federal, State, and local regulations.

All asbestos abatement shall be conducted using good work practices to prevent the release of asbestos fibers outside of the containment area. If poor work practices are followed, the Consultant will direct the Contractor to make the necessary corrections. If area fiber concentration levels (not personal samples) in the workplace exceed 0.1 f/cc measured by PCM, this will generally be viewed as an indication of poor work practices unless it is a direct result of design or external circumstances anticipated in the project specification. If appropriate corrections are not made after repeated warnings, or if an immediate threat exists that fibers could be released outside the work area, abatement work shall be stopped. The decision to stop work shall be made jointly by the Consultant and the Owner's Representative.

7.2 Air Sampling During Abatement Activities

The Environmental Consultant shall conduct area sampling during the removal work activities. The sampling shall include, but not be limited to, entry/egress, critical barriers, negative air exhaust, etc.

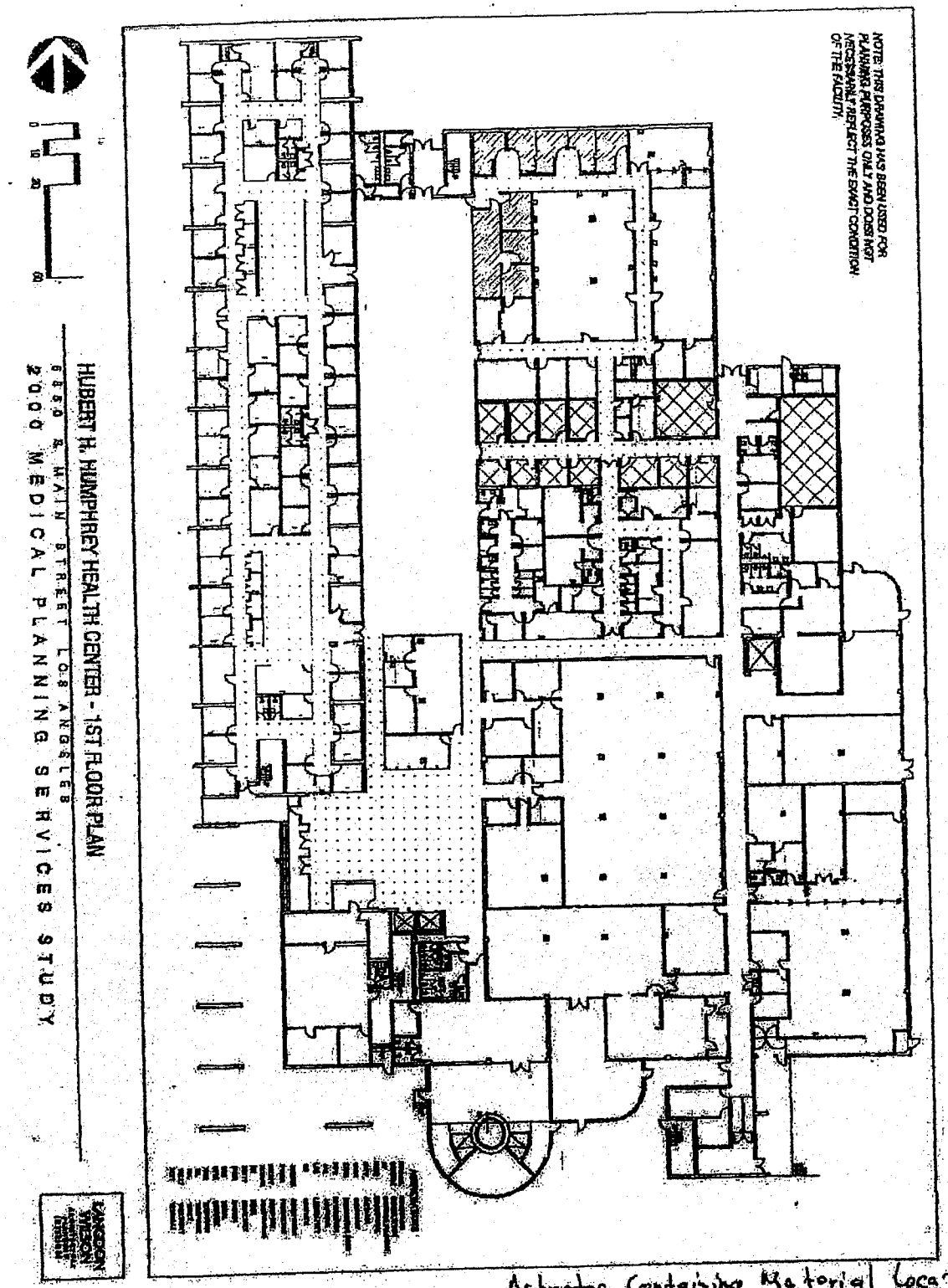
7.3 Air Sampling Methodology – Phase Contrast Microscopy

Air samples collected during the abatement activities will be analyzed in accordance with NIOSH Method 7400, utilizing Phase Contrast Microscopy (PCM) analysis.

7.4 Stop Work Authorization

The Consultant is authorized to immediately stop all abatement work and direct the conduct of any required remedial action if there is:

- An observed break in the containment that cannot be repaired immediately;
- A measured value of pressure differential below that specified for the job; or
- A fiber concentration level equal to or exceeding 0.01 fibers/cc measured by PCM outside of the work area.



Asbestos Containing Material Location Map

Cal Eng. Services
November 2007
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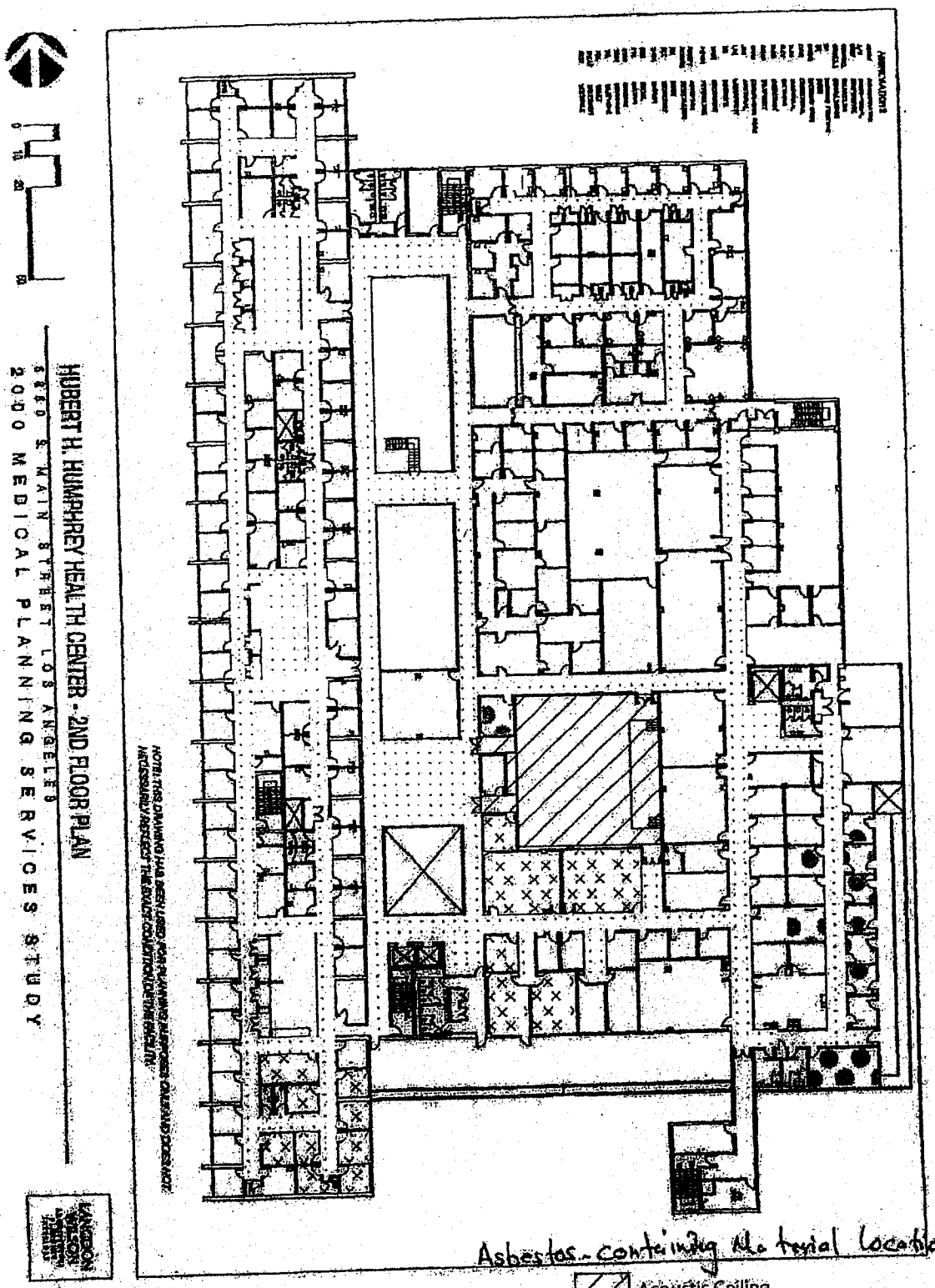
- 12" Speckled (white) floor tile and mastic
- 12" Pink with blue speckled floor tile with mastic & sublayer (also present in lobby and hallways)
- 12" Light blue floor tile with mastic & sublayer (also present in 1st floor hall at north rooms)



Asbestos-containing Material Location Map

- Acoustic Ceiling
- 12" Speckled (white) floor tile and mastic
- Floor tile with mastic (sublayer under new 12"x12" floor tile)
- Carpet glue associated with pink carpet with floor tile and mastic sublayer

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Any loss or damage due to a stop work order issued to prevent release of asbestos shall be the Contractor's responsibility.

8.0 SITE SPECIFIC WORK PLAN

8.1 Removal of Asbestos-Containing Materials

ITEM NO.	MATERIAL	LOCATION	TYPE OF WORK	ACM CONTENT	SPECS MATERIAL SECTION
01	Exterior stucco	1st floor - southwest covered walkway, cafeteria covered eating area, north center exit; 2nd floor - south covered walkway (ceilings only)	Removal	<0.1%-0.2% Chrysotile (by 1,000 point count analysis)	8.6
02	Ceiling acoustic (ACM)	Room 2229	Removal	3%-5% Chrysotile	8.2
03	12"x12" white speckled floor tile with mastic (ACM)	1st and 2nd floors - hallways, lobbies, waiting areas, storages, telephone rooms, electrical closets, rooms predominant under all carpets	Removal	2%-5% Chrysotile (tile), 3%-6% Chrysotile (mastic)	8.3
04	12"x12" pink with blue speckled floor tile with mastic with sublayers (ACM)	1st floor - main lobby, hallway, rooms 1145, 1154, 1144, 1153, 1143, 1152, 1142, 1151, 1204, 1157, 1156, 1155, 1143, emergency care	Removal	None Detected (beige/pink tile), None Detected (yellow mastic), 4%-5% Chrysotile (beige/white tile), 4%-5% Chrysotile (black mastic)	8.3
05	Floor tile with mastic (sublayer under new 12"x12" floor tile) (ACM)	2nd floor hallway southwest, rooms 2032, 2031, 2033-2036, 2068, 2067, 2101-2104, 2135-2138	Removal	4% Chrysotile (tile), 5% Chrysotile (mastic)	8.3
06	12"x12" light blue floor tile with mastic with sublayers (ACM)	1st floor hallway north center, rooms 1123, 1121, 1119, 1117, 1115, 1127, 1126	Removal	None Detected (light blue tile), None Detected (yellow mastic), 4% Chrysotile (tan/white tile), 2% Chrysotile (black/beige mastic)	8.3

ITEM NO.	MATERIAL	LOCATION	TYPE OF WORK	ACM CONTENT	SPECS MATERIAL SECTION
07	Carpet glue associated pink carpet with floor tile and mastic sublayers (ACM)	Rooms 2288, 2287, 2286, 2285, 2279, 2284, 2289, 2283, 2277	Removal	None Detected (carpet), None Detected (carpet glue), 3% Chrysotile (tile), 5% Chrysotile (mastic)	8.3
08	Grey roof mastic (ACM)	Roof penetrations and pads - penthouses 1, 2, 3, 4	Removal	3% Chrysotile	8.4
09	Galbestos (ACM)	Exterior - penthouses 1, 2, 3, 4 (on metal siding), mechanical room	Removal	20%-35% Chrysotile	8.5

The Contractor is responsible for assessing the type, extent and quantity of asbestos-containing material to be removed in each area of the project.

8.2 Acoustic Ceiling (ACM)

Engineering Controls: Install a full containment at the affected area. Provide temporary negative pressure differential and a 3-stage decontamination facility. No power equipment without local HEPA filter exhaust capture shall be used.

Min. Resp. Protection: Power Air Purifying Respirator (PAPR). Provide personal monitoring and comply with Cal/OSHA requirements during removal.

Removal: Wet all work area surfaces. Allow surfactant to soak into material. Remove in manageable sections. Continuous clean up of debris is required.

Preparation/Transport: Properly package and label immediately. Keep wet and cover during transport to dumpster. Store all waste in a lockable storage dumpster.

Disposal: Dispose of as friable asbestos-containing waste. A Hazardous Waste Shipment Record (manifest) is required.

8.3 Floor Tile and Mastic (ACM)

Engineering Controls: Install critical barriers as necessary prior to removal including any identified non-asbestos-containing new floor tile and carpets. A 3-stage decontamination facility is required. No power equipment without local HEPA filter exhaust capture shall be used.

Min. Resp. Protection:	Half-face negative pressure respirators with HEPA-P100 filters. Provide personal monitoring and comply with Cal/OSHA requirements during removal.
Removal:	Wet all work area surfaces. Allow surfactant to soak into material. Remove in manageable sections.
Preparation/Transport:	Properly package and label immediately. A DANGER CONTAINS ASBESTOS FIBERS, AVOID CREATING DUST, CANCER AND LUNG DISEASE HAZARD label must be applied to container for disposal. Store all waste in a lockable storage dumpster. Keep wet and cover during transport to dumpster. Store all waste in a lockable storage dumpster. All carpet debris that becomes contaminated with floor tile debris shall be packaged and disposed of properly.
Disposal:	Dispose of as non-friable, non-hazardous asbestos-containing waste all floor tile and carpet debris. A Non-Hazardous Waste Shipment Record is required.

8.4 Roof Mastic (ACM)

Engineering Controls:	Wet hand removal. Install critical barriers as necessary to prevent contamination to building interior. A remote decontamination facility with a wash station is required. No power equipment without local HEPA filter exhaust capture shall be used.
Min. Resp. Protection:	Half-face negative pressure respirators with HEPA-P100 filters. Provide personal monitoring and comply with Cal/OSHA requirements during removal.
Removal:	Wet all work area surfaces. Allow surfactant to soak into material. Remove in manageable sections. Continuous clean up of debris is required.
Preparation/Transport:	Package and label immediately. A DANGER CONTAINS ASBESTOS FIBERS, AVOID CREATING DUST, CANCER AND LUNG DISEASE HAZARD label must be applied to container for disposal. Store all waste in a lockable storage dumpster.
Disposal:	Dispose of as non-friable, non-hazardous asbestos-containing waste. A Non-Hazardous Waste Shipment Record is required.

8.5 Galbestos (ACM)

Engineering Controls:	Install critical barriers as necessary to prevent contamination to building interior. A remote decontamination facility with a wash station is required. No power equipment without local HEPA filter exhaust capture shall be used.

P100 Filter: Particulate respirator filter (99.97% filter efficiency level) affective against all particulate aerosols.

Phase Contrast Microscopy (PCM): Optical analytical method for determining fiber concentrations in air. The acceptable method is the NIOSH Method 7400, specified in the "NIOSH Method of Analytical Methods".

Physician's Written Opinion: A written opinion from the examining physician as to whether an employee has any detected medical conditions that would place the employee at an increased risk of material health impairment from exposure to asbestos, any recommended limitations on the employee or on the use of personal protective equipment such as respirators, and a statement that the employee has been informed by the physician of the results of the medical examination and of any medical conditions that may result from asbestos exposure.

Plasticize: To cover floors, ceilings, and walls with plastic sheeting (polyethylene film) as herein specified.

Polarized Light Microscopy (PLM): An optical method that uses polarized light that is used to analyze bulk or wipe samples and may include dispersion staining.

Removal: The stripping of any asbestos-containing materials from surfaces or components of a facility.

Renovation: Altering in any way one or more facility components. Operations in which load-supporting structural members are wrecked or taken out are excluded.

Seal (Sealing): The formation of an airtight connection between plasticized work areas and the outside environment.

Shower Room: A room between the Clean Room and the Equipment Room in the Worker Decontamination Enclosure System with hot and cold or warm running water controllable at the tap and suitably arranged for complete showering during decontamination.

SCAQMD: South Coast Air Quality Management District – The agency designated to enforce NESHAPs regulations in Southern California:

South Coast AQMD
Hazardous Materials Section/Enforcement
21865 East Copley
Diamond Bar, CA 91765-4182

Staging Area: An area adjacent to the Waste and Equipment Decontamination/Pass-Out Enclosure System where containerized asbestos-containing waste has been placed prior to removal from the work area, with facilities to clean the container holding the waste before it is passed out through the Waste and Equipment Decontamination/Pass-Out Enclosure System.

Strip: To take off friable asbestos materials from any part of the facility.

Structural Member: Any load-supporting member of a facility (such as a beam or a load-supporting wall).

Surfactant: A chemical-wetting agent added to water in order to improve penetration.

Time Weighted Average (TWA): The TWA for Asbestos is an eight-hour time weighted average airborne concentration of fibers equal to or longer than five (5) micrometers. The TWA is expressed in terms of the number of these fibers per cubic centimeter of air.

Transmission Electron Microscopy (TEM): A method of analysis for air monitoring or wipe sampling that uses a transmitted electron beam to identify and/or count fibers.

Type "C" Respirator: A pressure demand, supplied-air respirator.

UL: Underwriters Laboratories
333 Tfingften Road
Norfolk, IL 60062

Ventilation System: A portable exhaust system equipped with HEPA filtration and is capable of maintaining a constant low velocity airflow into contaminated areas from adjacent uncontaminated areas.

Visible Debris: Any (particulate) asbestos material or residue that is visually detectable on a surface without the aid of instruments.

Visible Emissions: Any emissions containing particulate asbestos materials that are visually detectable without the aid of instruments. This does not include condensed, uncombined water vapor.

VCAPCD Ventura County Air Pollution Control District
669 County Square Drive, 2nd floor
Ventura, CA 93003
(805) 645-1400

Waste and Equipment Decontamination/Pass-Out Enclosure System: A decontamination system used for transferring containerized waste or equipment from inside to outside of the work area.

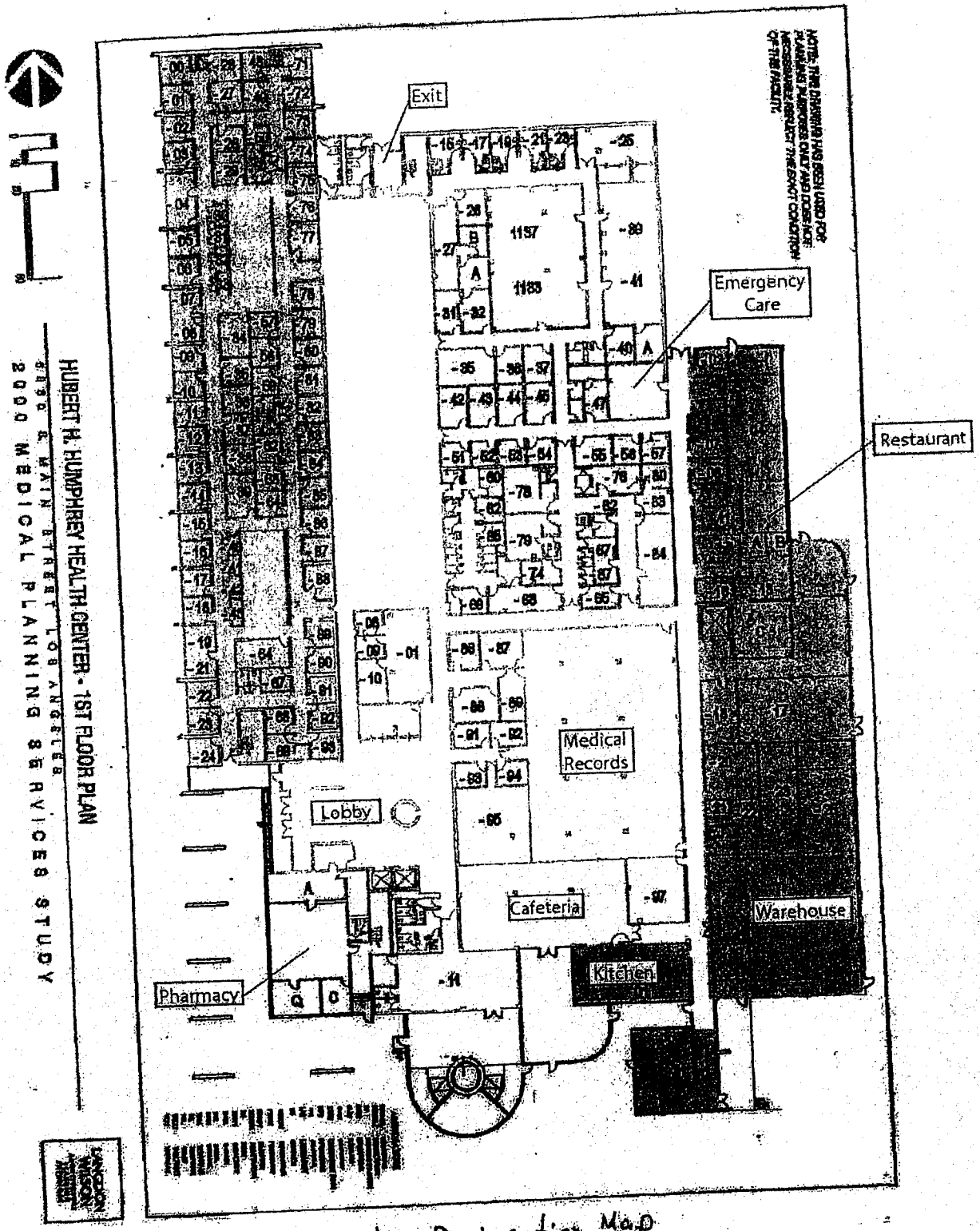
Wet Cleaning: The process of eliminating asbestos contamination from building surfaces and objects by using cloths, mops, or other cleaning utensils that have been dampened with water and afterwards thoroughly decontaminated or disposed of as asbestos-contaminated waste material.

Wipe Sampling: A sampling method used to determine if asbestos is present on surfaces. Samples are collected by pressing an adhesive material onto substrate surfaces or by gently wiping a mixed cellulose ester filter across the surfaces. Analysis is by polarized light or electron microscopy.

Work Area: Designated rooms, spaces, or areas of the project in which asbestos abatement actions are to be undertaken or which may become contaminated as a result of such abatement actions.

Worker Decontamination Enclosure System: A decontamination system consisting of a Clean Room, a Shower Room, and an Equipment Room separated from each other and from the containment work area or limited-containment work area by curtained doorways and airlocks connected directly to the work area.

ASBESTOS LOCATION MAPS



Room Number Designation Map

Rooms - 1000's 1100's 1200's

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Min. Resp. Protection:	Half-face negative pressure respirators with HEPA-P100 filters. Provide personal monitoring and comply with Cal/OSHA requirements during removal.
Removal:	Wet all work area surfaces. Allow surfactant to soak into material. Remove in manageable sections. Continuous clean up of debris is required.
Preparation/Transport:	Package and label immediately. A DANGER CONTAINS ASBESTOS FIBERS, AVOID CREATING DUST, CANCER AND LUNG DISEASE HAZARD label must be applied to container for disposal. Store all waste in a lockable storage dumpster.

8.6 Exterior Stucco (ACM)

Engineering Controls:	Install a full containment at the affected area. Provide temporary negative pressure differential and a 3-stage decontamination facility. No power equipment without local HEPA filter exhaust capture shall be used.
Min. Resp. Protection:	Half-face negative pressure respirators with HEPA-P100 filters. Provide personal monitoring and comply with Cal/OSHA requirements during removal.
Removal:	Wet all work area surfaces. Allow surfactant to soak into material. Remove in manageable sections. Continuous clean up of debris is required.
Preparation/Transport:	Keep wet and cover during transport to dumpster. Package waste using 2 layers of 6-mil poly.
Disposal:	Dispose of asbestos-containing construction waste.

GENERAL: The above procedures are minimum requirements for removal of selected asbestos-containing materials. If the selected contractor can perform the removal using alternative methods that can alleviate cost and expedite the removal, the contractor can submit a work plan to be reviewed and approved by the selected Environmental Consultant.

Materials listed as assumed in this document shall be sampled prior to disturbance. These materials were inaccessible for sampling during the initial asbestos survey.

9.0 FINAL VISUAL INSPECTION AND AIR CLEARANCE SAMPLING

9.1 Visual Inspection

Upon completion of the removal process, the Owner Representative will conduct a post-abatement visual inspection. If any material designated for removal, including loose debris, is observed, the Contractor will be required to re-clean that specific area.

9.2 Clearance Sampling Protocol

Owner representative will collect the air samples in the abatement work areas. Air clearance by PCM will be conducted for the interior containments and exterior wall stucco.

Exterior roof removal areas shall be released following the completion of the final visual inspection.

9.3 Phase Contract Microscopy (PCM) Clearance Sample Criteria

The samples will be analyzed using Phase Contrast Microscopy (PCM) utilizing the NIOSH 7400 method. Clearance will be issued when all samples results show that the airborne fiber concentrations inside the abatement work area are equal to or less than 0.01f/cc or the background level, whichever is greater.

10.0 HAZARDOUS MATERIALS

A Material Safety Data Sheet (MSDS) must be present on site for all materials used by the Contractor including, but not limited to, solvents, paint chemical strippers, etc.

11.0 DISPOSAL AND TRANSPORTATION OF WASTE

For each material, refer to the specific disposal requirements outlined in Section 8.0, Site Specific Work Plan, of this document.

All hazardous waste materials shall be stored in a secured, lined, closed-top, lockable dumpster.

The Contractor shall transport asbestos-containing waste material from this abatement site directly to an Owner-approved landfill. The Contractor shall not accept material from any other site when transporting asbestos-containing waste material from this abatement site.

12.0 PATENT PROTECTION

The Contractor has the sole responsibility for determining whether patents are applicable to any equipment, methods, or procedures used on this project and to meet any requirements of the patent owner. The Contractor will be responsible for any fees associated with the use of the patents.

13.0 OTHER HAZARDS

13.1 Polychlorinated Biphenyls (PCBs)

During demolition activities it should be determined if the light ballast contains PCBs. If the unit does not have a "No PCBs" label, the ballast/transformer is assumed to contain PCBs and should be segregated and tested for proper disposal.

13.2 Mercury

Mercury is present in small amounts in florescent light tubes. California State Law defines "significant quantities" as more than 15 tubes. During demolition activities the florescent light tubes should be segregated and disposed of properly.

14.0 DEFINITIONS

Definitions contained in this section are not necessarily complete, but are general to the extent that they are not defined more explicitly elsewhere in the contract documents. However, no implied meaning shall be interpreted to extend Owner's Representative's responsibility into the Contractor's area of construction supervision.

Abatement: Procedures to control fiber release from asbestos-containing materials.

Accredited PCM Laboratory: A laboratory which participates in the Proficiency Analytical Testing (PAT) program to count asbestos fibers with at least one person who is a qualified participant in a Quality Assurance Program meeting the requirements of *29 CFR 1926.1101*.

ACGIH: American Conference of Governmental Industrial Hygienists
6500 Glenway Avenue, Building D-5
Cincinnati, OH 45211

AHERA: The Asbestos Hazard Emergency Response Act

AIHA: American Industrial Hygiene Association
475 Wolf Ledges Parkway
Akron, OH 44311

Airlock: A system for permitting ingress and egress with minimum air movement between a contaminated area and an uncontaminated area.

Air Monitoring: The process of measuring the fiber content of a known volume of air collected during a specific period of time.

Air Monitoring Professional: The professional contracted or employed by the Contractor to supervise and/or conduct personal air monitoring and analysis.

Amended Water: Water to which a chemical wetting agent or surfactant has been added.

ANSI: American National Standards Institute
1430 Broadway
New York, NY 10018

Asbestos: The asbestiform varieties of serpentine (chrysotile), riebeckite (crocidolite), cummingtonite-grunerite (amosite), anthophyllite, and actinolite or tremolite.

Asbestos-Containing Material (ACM): Material composed of asbestos of any type and in an amount greater than one tenth of one percent by weight, either alone or mixed with other fibrous or non-fibrous materials.

Asbestos-Containing Waste Material: Any waste generated by the disturbance or removal of asbestos-containing material containing greater than one percent asbestos by weight.

ASTM: American Society For Testing and Materials
1916 Race Street
Philadelphia, PA 19103

Authorized Visitor: Any designated representatives of Owner or their representative, and/or a representative of a regulatory or other agency having jurisdiction over the project, and/or any person authorized in writing by Owner or their Representative as a visitor.

Building Owner: Any authorized representative of County of Los Angeles, Community Development Commission.

Certified Industrial Hygienist (CIH): An industrial hygienist holding a current certification in comprehensive practice by the American Board of Industrial Hygiene.

Class I Non-friable Asbestos-Containing Material: Non-friable material containing more than one percent (1%) asbestos by area or by weight that can potentially be broken, crumbled, pulverized, or reduced to powder in the course of demolition or renovation activities. Non-friable asbestos-containing material may become friable when physically worn or disturbed by mechanical force.

Class II Non-friable Asbestos-Containing Material: All other asbestos-containing material that is neither friable nor Class I non-friable.

Clean Room: An uncontaminated area or room that is a part of the Worker Decontamination Enclosure System with provisions for storage of workers' street clothes and clean protective equipment.

Clearance Air Monitoring: The process of measuring airborne asbestos concentration to determine if an abated area is sufficiently clean to allow re-occupancy.

Competent Person: A person trained in all aspects of asbestos, tremolite, anthophyllite, or actinolite abatement; the contents of *OSHA Regulation 29 CFR 1926.1101*; the identification of asbestos, tremolite, anthophyllite, or actinolite and their removal procedures; and other practices for reducing the hazard. Such training shall be obtained in a comprehensive course, such as a course conducted by an EPA Asbestos Training Center or an equivalent course.

Containment Work Area: Work area that has been sealed, plasticized, and equipped with both Worker Decontamination and Waste and Equipment Decontamination/Pass-Out Enclosure Systems.

Contractor (or Abatement Contractor): The individual and/or business with whom Owner or their Representative arranges to perform the asbestos abatement.

Curtained Doorway: A device to allow ingress or egress from one room to another while permitting minimal one-way air movement.

Demolition: The wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations.

Encapsulant: A liquid material which, when applied to asbestos-containing material, controls the possible release of asbestos fibers from the material.

Encapsulation: The application of an encapsulant to asbestos-containing materials to control the release of asbestos fibers into the air.

Enclosure: The construction of an airtight, impermeable, permanent barrier around asbestos-containing material to control the release of asbestos fibers into the air.

EPA: U.S. Environmental Protection Agency, Region IX
215 Fremont Street
San Francisco, CA 94105

Equipment Room: A contaminated area or room which is part of the Worker Decontamination Enclosure System with provisions for storage of contaminated clothing and equipment; also referred to as the dirty room.

Facility: Any institution, commercial or industrial structure, installation, or building.

Facility Component: Any pipe, duct, boiler, tank, reactor, turbine, or furnace at or in a facility, or any structural member of a facility.

Fixed Object: A piece of equipment or furniture in the work area that cannot be removed from the work area, or has been specified to remain in the work area during abatement.

Friable Asbestos-Containing Material: Material that when dry can be broken, crumbled, pulverized, or reduced to powder by hand pressure, and that contains more than one percent (1%) asbestos by area or by weight as determined by the procedure in "Methods of Analysis for Bulk Samples" (refer to *SCAQMD 1403 paragraph (g)*).

Glovebag Technique: A method for removing friable asbestos-containing material from HVAC ducts, short piping runs, valves, joints, elbows, and other non-planar surfaces. The glovebag is constructed and installed in such a manner that it surrounds the object or material to be removed and contains all asbestos fibers released during the process.

HEPA Filter: A high efficiency particulate air filter capable of removing particles 0.3 microns or larger in diameter with 99.97 percent efficiency.

HEPA Vacuum: A vacuum system equipped with HEPA filtration.

Holding Area: A secured area adjacent to the Waste and Equipment Decontamination/Pass-Out Enclosure System located in an uncontaminated area used for temporary storage of waste prior to disposal.

Limit of Detection: For air monitoring by PCM, 5.5 fibers per 100 fields; TEM, one fiber per 10 grid squares. Represented as < *** (example: < 0.04 f/cc) when converted to airborne fiber concentration.

Limited-Containment Work Area: An isolated or controlled access work area that has been sealed but not fully plasticized and is equipped with a Worker Decontamination Enclosure System and an Air Pressure Differential System.

Movable Object: A piece of equipment or furniture in the work area that can be removed from the work area.

MSHA: The Mine Safety and Health Administration
4105 Wilson Blvd.
Arlington, VA 22203

NESHAPS: The National Emission Standards for Hazardous Air Pollutants (*40 CFR Part 61*).

NIOSH: The National Institute for Occupational Safety and Health
CDC - NIOSH
Building J, N.E., Room 3007
Atlanta, GA 30333

On-Site Sample Evaluation: On-site evaluation (counting) by a person with a current satisfactory listing in the American Industrial Hygiene Association Asbestos Analysis Registry or a person who is a participant in a quality assurance program meeting the requirements of *29 CFR 1926.1101*.

OSHA: The Occupational Safety and Health Administration
200 Constitution Avenue
Washington, D.C. 20210

Local Office:
400 Oceangate, Suite 530
Long Beach, CA 90802
Tel: (310) 514-6387

Outside Air: The air outside buildings and structures or the air outside a containment work area where abatement is being performed.

Owner's Representative: An individual qualified by virtue of experience and education, and designated by the Owner as its Representative. Individual may include owner's employee, agent, or consultant, including CTL.

LEAD-BASED PAINT
PROJECT SPECIFICATIONS

Hubert Humphrey Health Center
5850 South Main Street
Los Angeles, California 90003

Prepared for:

County of Los Angeles Department of Public Works
900 South Fremont Avenue, 5th Floor
Alhambra, California 91803-1331

Prepared by:

Cesar Ruvalcaba
DHS-Certified Lead Project Monitor #I-6855

Reviewed by:

Marie Tullai
DHS-Certified Lead Project Designer #I-11088

CTL Environmental Services
24404 South Vermont Avenue, Suite 307
Harbor City, California 90710
(310) 530-5006

November 13, 2007
CTL Project No. 107-0390

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LEAD-BASED PAINT
PROJECT SPECIFICATIONS

Hubert Humphrey Health Center
5850 South Main Street
Los Angeles, California 90003

1.0 SCOPE OF WORK

The primary and general intent of this project is the component removal of lead-based paints impacted by the scope of work. By submitting a bid, the contractor warrants his intent to conduct the said work properly by using qualified personnel employed by licensed contractors.

The extent of the material abatement and quantities shall be outlined during the bidding process in accordance with each project specific scope of work.

2.0 CONTRACTOR QUALIFICATIONS

Submit copies of all State and local licenses and permits necessary to carry out the removal scope of work as outlined in this document.

3.0 NOTIFICATION REQUIREMENTS

The contractor will make the required Cal-OSHA and Department of Health Services notifications pertinent to the lead-based paint related work.

4.0 WORKER CERTIFICATIONS

4.1 Training Requirements

All workers are to be trained as required by *Cal-OSHA Title 8, 1532.1* and certified by the *Department of Health Services Title 17, CCR.*

4.2 Medical Examinations

The Contractor shall require his employees to be evaluated by a physician to determine their capability to work safely while breathing through the added resistance of a respirator, carrying the extra weight of a respirator, or are psychologically able to wear a respirator. The documentation shall include the physician's written opinion whether the worker has any detected medical conditions that would place the worker at an increased risk of material health impairment from exposure to asbestos, any recommended limitations on the worker, or on the use of personal protective equipment such as respirators.

4.3 Respirator Training/Fit Testing

Provide current proof of worker training in the selection, fitting, limitations, and care and maintenance of respirators. Documentation will include the name of the worker, fit testing

procedures used, testing agent used, manufacturer of respirator, type of respirator (half face/full face), date of testing and training, and name of the instructor/tester.

4.4 Hazard Communication

For each worker, secure a Worker Acknowledgment that indicates that the worker was provided with training and information regarding hazardous substances in accordance with *Code of California Regulations, Title 8, Section 5194, Hazard Communication.*

5.0 WORKER RESPIRATORY PROTECTION DURING WORK ACTIVITIES

5.1 Regulatory Compliance

The abatement project will be conducted using respiratory protection in accordance with Federal and State regulatory requirements.

5.2 Personal Exposure Monitoring

The contractor shall conduct the required worker exposure monitoring as required by *Occupational Safety and Health Administration (OSHA), Title 8, Section 1532.1*, and *29 CFR 1910.*

Cal/OSHA Lead in Construction Standard Title 8 1532.1 (d) (3) (D) requires employers to implement worker protective measures including training, medical surveillance, and respiratory protection when conducting any one of the "lead related tasks". The employer must assume that the worker is exposed to airborne lead concentrations above the permissible exposure level until the negative exposure assessment shows otherwise.

Class 1 Tasks: The Remediation Contractor shall assume exposure of at least 50 microgram per cubic meter ($\mu g/m^3$) - 500 $\mu g/m^3$ until exposure assessment proves otherwise for the tasks that include, but are not limited to, the following:

- Manual demolition of structures with lead paint or coating
- Manual scraping of lead paint or coating
- Manual sanding of lead paint or coating
- Heat gun (<1100° F) application on lead paint or coating
- Power tool lead paint or coating removal with HEPA dust collection systems
- Spray painting with LBP

Class 2 Tasks: The Remediation Contractor shall assume exposure of at least 500 $\mu g/m^3$ - 2500 $\mu g/m^3$ until exposure monitoring proves otherwise for the tasks that include, but are not limited to, the following:

- Using lead-containing mortar
- Burning of lead paint or coating
- Rivet bursting on lead paint or coating
- Power tool lead paint or coating removal without HEPA dust collection systems
- Clean-up activities of lead paint or coating where dry expendable abrasives are used
- Abrasive blasting enclosures movement and removal

Class 3 Tasks: The Remediation Contractor shall assume exposure of at least 2500 microgram $\mu g/m^3$ until exposure assessment proves otherwise for the tasks that include, but are not limited to, the following:

- Abrasive blasting of lead paint or coating
- Cutting where lead paint or coating are present
- Welding where lead paint or coating are present
- Torch burning where lead paint or coating are present

5.3 Minimum Respiratory Protection Requirements for Lead Aerosol

The contractor shall supply to his workers NIOSH-approved respirators with P100 particulate filters (HEPA).

Airborne Concentration of Lead or Condition of Use	Required Respirator
Not in excess of 500 $\mu g/m^3$	• ½ mask air purifying respirator with HEPA-P-100 filters. • ½ mask supplied air respirator operated in demand (negative pressure) mode.
Not in excess of 1,250 $\mu g/m^3$	• Loose fitting hood or helmet powered air- purifying respirator with high efficiency filters. • Hood or helmet supplied air respirator operated in a continuous flow mode; e.g., abrasive blasting respirators operated in a continuous flow mode.
Not in excess of 2,500 $\mu g/m^3$	• Full-face air purifying respirator with purple high efficiency filters (HE). • Tight fitting powered air purifying respirator with high efficiency filters. • Full facepiece supplied air respirator operated in demand mode. • ½ mask or full facepiece supplied air respirator operated in a continuous flow mode. • Full facepiece self-contained breathing apparatus (SCBA) operated in demand mode.
Not in excess of 50,000 $\mu g/m^3$	• ½ mask supplied air respirator operated in pressure demand or other positive-pressure mode.
Not in excess of 100,000 $\mu g/m^3$	• Full facepiece supplied air respirator operated in pressure demand or other positive-pressure mode; e.g., type CE abrasive blasting respirator operated in a positive-pressure mode.
Greater than 100,000 $\mu g/m^3$ unknown concentration, or fire fighting	• Full facepiece SCBA operated in pressure demand or other positive-pressure mode.

5.4 Lead-Containing Paint (Disclaimer)

Painted surfaces with less than 0.7 cm^2 or 5000 ppm or 0.5% by weight, when disturbed for construction purpose these surfaces are subjected to CAL-OSHA exposure assessment requirements set forth in *Title 8 CCR, Section 1532.1 (d)*. This regulation requires initial employee exposure monitoring to evaluate work exposure during work that disturbs paint with any detectable levels of lead. If airborne lead levels are above the established CAL-OSHA Action Limit (AL) or Permissible Exposure Limit (PEL) additional monitoring and respiratory protection is required.

6.0 EMERGENCY PLANNING AND PROCEDURES

6.1 Fire Retardant Materials

The Abatement Contractor must use only fire resistant materials.

6.2 Contingency Plan

The Contractor will be responsible for developing an Emergency, Fire, Safety, and Evacuation Plan for the abatement project. This will include, but not be limited to, procedures to be used in the event of emergencies such as, fire, medical problems, loss of power, loss of pressure differential, breach of containment, waste removal spills, water leaks, etc., describing how they will control or limit the release of lead dust and minimize the impact of the emergency on the abatement project and the building. The contractor will provide a written plan outlining the above including emergency phone numbers and the route to hospital and emergency facility. The plan will be available on site.

Disruption of fire alarm and sprinkler systems should be minimized. Any such disruption shall immediately be brought to the attention of the Owner's Representative and Consultant. The Contractor shall also provide a fire watch to be present at all times that such disruptions exist. If work is in progress, the senior responsible Contractor's Representative (job project manager or foreman) will be responsible for the fire watch.

7.0 Prevention of Lead-Based Paint Contamination

7.1 Work Practices

The Contractor shall assume full responsibility and liability for compliance with all applicable Federal, State, and local regulations pertaining to work practices including, but not limited to, hauling, disposal, and protection of workers, visitors to the site, and persons occupying areas adjacent to the site. The Contractor is responsible for providing medical examinations and maintaining medical records of personnel as required by the applicable Federal and State, regulations.

All lead-dust removal work activities shall be conducted using good work practices to prevent contamination to adjacent work areas. If poor work practices are observed, the Consultant will direct the Contractor to make the necessary corrections. If appropriate corrections are not made after repeated warnings, or if an immediate threat exists that contamination could be released outside the work area, abatement work shall be stopped.

7.2 Schedule of Samples During Work Activities

The contractor shall conduct the required worker exposure monitoring as required by *Occupational Safety and Health Administration (OSHA), Title 8, Section 1532.1.*

Wipe clearance samples will be collected on interior floors following the completion of the decontamination work activities.

Schedule of Sampling

Location Sampled	Number of Samples	Type of Sample	Remarks
Inside and outside contained work area	2 per shift (1 inside and 1 outside)	Air	During abatement
Inside the work area	1 per containment work area	Dust	Clearance following removal

7.3 Stop Work Authorization

The decision to stop work shall be made jointly by the Consultant and the Owner's Representative.

Any loss or damage due to a stop work order issued to prevent lead-contamination release shall be the Contractor's responsibility.

8.0 SITE SPECIFIC WORK PLAN

8.1 Removal of Lead Dust

ITEM NO.	COMPONENT	COMPONENT LOCATION	TYPE OF WORK	SPECS SECTION
01	Metal-Gray-Window Casing	X-ray room 2160	Paint stabilization	8.2
02	Ceramic-Tan-Wall	Men's restroom 2292	Component removal	8.2

The Contractor is responsible for assessing quantities to be impacted by this work plan.

8.2 Lead-Based Paint Stabilization

Engineering Controls: Install demarcation signage, drop floors, and critical barriers as necessary. A one-stage decontamination facility with a wash station is required.

Min. Personal Protection: Half-face air-purifying respirators equipped with HEPA-P100 filters. Disposable clothing (tyvek suits) and hand, foot, and eye protection is required. Provide personal monitoring and comply with Cal/OSHA requirements during work activities.

Removal: Manual means, wet all work area surfaces. Allow surfactant to soak into material and remove in manageable sections. Mechanical equipment shall be used only in conjunction with vacuums, which are equipped with HEPA filters.

Preparation/Transport: Package the waste immediately and separate the waste into waste streams. Conduct the required waste profile sampling for disposal. (Refer to Section 10 of this document).

Disposal:	Dispose of all waste in accordance with Federal, State, and Local regulations.

8.3 Ceramic Tile Removal/Demolition

Engineering Controls:	Install demarcation signage, drop floors, and critical barriers as necessary. A one-stage decontamination facility with a wash station and temporary negative pressure differential is required.
Min. Personal Protection:	Half-face air-purifying respirators equipped with HEPA-P100 filters. Disposable clothing (tyvek suits) and hand, foot, and eye protection is required. Provide personal monitoring and comply with Cal/OSHA requirements during work activities.
Removal:	Manual means, wet all work area surfaces. Allow surfactant to soak into material and remove in manageable sections. Mechanical equipment shall be used only in conjunction with vacuums, which are equipped with HEPA filters.
Preparation/Transport:	Package the waste immediately and separate the waste into waste streams. Conduct the required waste profile sampling for disposal. (Refer to Section 10 of this document).
Disposal:	Dispose of all waste in accordance with Federal, State, and Local regulations.

9.0 FINAL VISUAL INSPECTION AND RELEASE OF WORK AREA

9.1 Visual Inspection

A Certified Lead Project Monitor will conduct a comprehensive visual inspection. Provide ladders, scaffolding, and lifts to provide access to all surfaces in the area. Access shall allow touching of all surfaces. If any debris, residue, dust, or other matter is found, repeat final cleaning and continue decontamination procedure until the area is visually clean and no debris, residue, dust, or other material is found.

9.2 Clearance Sampling Protocol

Following the comprehensive visual inspection, the Certified Lead Project Monitor will collect wipe clearance samples. The samples will be collected in accordance with procedures described in the *U.S. Department of Housing and Development "Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing," Chapter 15: Clearance*.

The following clearance criteria has been adopted for this project:

- Interior floors - 40 micrograms per square foot

10.0 DISPOSAL OF WASTE

Waste materials shall be segregated into separate waste streams (i.e. demolition debris, personal protective equipment, plastic, etc.) and placed into labeled leak-tight containers. Waste water from the washing facilities will be captured and properly filtered prior to disposal. The filtered water shall be drained into the existing sanitary sewer system.

Random samples of each waste stream will be collected and analyzed for lead using Total Threshold Limit Concentration analysis (TTLC). Where results of the TTLC exceed 50 parts per million (ppm), further analysis for lead using Soluble Threshold Limit Concentration (STLC) should be conducted. Where results are less than 50 ppm by TTLC, the waste can be disposed of as construction waste. In California, TTLC sample results exceeding 1,000 ppm is considered California hazardous waste.

STLC waste with results less than 5.0 mg/l can be disposed of as non-hazardous construction waste. STLC waste stream sample results greater than 5.0 mg/l must be further analyzed for Toxicity Characteristic Leaching Procedure (TCLP).

TCLP waste with results greater than 5.0 mg/l will require treatment before disposal and will be disposed of as Federal hazardous waste. A Hazardous Waste Manifest is required. TCLP waste results that are less than 5.0 mg/l can be disposed of as non-RCRA hazardous waste. A waste shipment record is required.

All wastes shall be disposed of in accordance with applicable Federal, State, and Local regulations.

11.0 PATENT PROTECTION

The Contractor has the sole responsibility for determining whether patents are applicable to any equipment, methods, or procedures used on this project, and to meet any requirements of the patent owner. The Contractor will be responsible for any fees associated with the use of the patents.

12.0 DEFINITIONS

Definitions contained in this section are not necessarily complete, but are general to the extent that they are not defined more explicitly elsewhere in the contract documents. However, no implied meaning shall be interpreted to extend Owner's Representative's responsibility into the Remediation Contractor's area of construction supervision.

Abatement: The permanent (defined as designed to last at least 20 years or, in the case of encapsulation, a twenty-year product warranty) elimination of LBP hazards through replacement, enclosure, encapsulation, paint removal, and cleaning to remove lead-contaminated dust.

Accredited Laboratory: A laboratory recognized under the EPA National Lead Laboratory Accreditation Program (NLLAP).

Action Level: Employee exposure, without regard to use of respirators, to an airborne concentration of lead of 30 microgram per cubic meter of air averaged over an 8-hour period in an occupational/industrial environment.

Accessible Surface: Any interior or exterior surface such as sills and protruding surfaces that a young child can mouth or chew (HUD).

Airlock: A system for permitting ingress and egress with minimum air movement between a contaminated area and an uncontaminated area.

Air Monitoring: Sampling of lead concentrations within the lead control area and inside the physical boundaries that is representative of airborne lead concentrations that may reach the breathing zone of personnel potentially exposed to lead.

Air Monitoring Professional: The professional contracted or employed by the Remediation Contractor to supervise and/or conduct personal air monitoring and analysis.

Authorized Visitor: Any designated representatives of Owner or their representative, and/or a representative of a regulatory or other agency having jurisdiction over the project, and/or any person authorized in writing by Owner or their representative as a visitor.

Bare Soil: Soil not covered with grass, sod, or some other similar vegetation. Bare soil includes sand (for example: soil in sandboxes).

Base Substrate: The building material beneath the LBP film.

Biological Monitoring: The analysis of blood, urine, or both to determine the level of lead contamination in the body. Blood lead levels are expressed in micrograms of lead per one tenth of one-liter of blood (deciliter) or µg/dL.

Breathing Zone: A hemisphere forward of the shoulders with a radius of approximately 6 to 9 inches around the nose and mouth of the face.

Building Component: Any part of building coated with paint.

California DHS: California Department of Health Services

Certified Industrial Hygienist (C.I.H.): An industrial hygienist holding a current certification in comprehensive practice by the American Board of Industrial Hygiene.

Clean Room: An uncontaminated area or room that is a part of the Worker Decontamination Enclosure System with provisions for storage of worker's street clothes and clean protective equipment.

Cleaning: The process of using a HEPA vacuum and wet cleaning agents to remove leaded dust. The process includes the removal of bulk debris from the work area. OSHA prohibits the use of compressed air to blow lead-contaminated dust off a surface.

Clearance inspection: An on-site limited investigation which includes visual examination and collection of environmental samples as described in *Chapter 15: Clearance, Section II-VI, Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing, "U.S. Department of Housing and Urban Development, June 1995.*

Competent Person: As defined in *OSHA Lead Construction Standard (29 CFR 1926.62)*, a person who is capable of identifying or predicting hazardous working conditions and work areas and who has authorization to take prompt, corrective measures to eliminate the hazards. A competent person is not necessarily a risk assessor, inspector technician, or abatement project supervisor.

Component Removal: The removal of doors, windows, trims, and other building items with LBP.

Containment: A system, process, or barrier used to contain lead hazards inside a work area as described in *"Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing," U.S. Department of Housing and Urban Development, June 1995, Chapter 8, "Containment and Barrier Systems"*.

Containment Work Area: Work Area that has been sealed, plasticized, and equipped with both Worker Decontamination and Waste and Equipment Decontamination/Pass-Out Enclosure Systems.

Curtained Doorway: A device to allow ingress or egress from one room to another while permitting minimal one-way air movement.

Demolition: The wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations.

Deteriorated Lead-Based Paint: Interior or exterior LBP that is peeling, chipping, blistering, flaking, worn, chalking, alligatoring, cracking, or otherwise becoming separated from the substrate, or LBP on a damaged or deteriorated surface or fixture.

Encapsulation: Any covering or coating that acts as a barrier between the LBP and the environment and that relies on adhesion and the integrity of the existing bonds between paint layers and between the paint and the substrate for its durability.

Enclosure: The use of rigid, durable construction materials that are mechanically fastened to the substrate in order to act as a barrier between the LBP and the environment.

Equipment Room: A contaminated area or room that is part of the Worker Decontamination Enclosure System with provisions for storage of contaminated clothing and equipment; also referred to as the dirty room.

Exposure Monitoring: The personal air monitoring of an employee's breathing zone to determine the amount of contaminant (e.g. lead) to which he/she is exposed.

Facility: Any institutional, commercial or industrial structure, installation, or building.

Fixed Object: A piece of equipment or furniture in the work area that cannot be removed from the work area or has been specified to remain in the work area during remediation work.

Friction Surface: Any interior or exterior surface such as windows or stair treads that is subject to abrasion or friction.

Generator: Any person, by site, whose act or operation produces hazardous waste identified or listed in *40 CFR Part 261* or whose act causes a hazardous waste to come under regulation *(40 CFR 260.10)*.

Generator Identification Number: The unique number assigned by EPA to each generator or transporter of hazardous waste and each treatment, storage, or disposal facility.

Hazardous Waste: As defined in *EPA Regulations (40 CFR 261.3)*, the term hazardous waste means solid waste or a combination of solid wastes that, because of its quantity, concentration, physical, chemical, or infectious characteristics, may cause or significantly contribute to increases in mortality, or serious and irreversible, or incapacitating but reversible illnesses, or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed. As define in the regulations, solid waste is hazardous if it meets one of four conditions: (1) exhibits a characteristic of hazardous waste *(40 CFR Section 261.20 through 262.24)*; (2) has been listed as hazardous *(40 CFR Section 261.31 through 261.33)*; (3) is a mixture containing a listed hazardous waste and a non-hazardous waste, unless the mixture is specifically excluded or no longer exhibits any of the characteristics of hazardous waste; (4) is not excluded from regulation as hazardous waste. For the waste produced in LBP remediation, hazardous waste is waste that contains more than 5 ppm of leachable lead as determined by the TCLP Test, or waste that is corrosive, ignitable, or reactive and is not otherwise excluded.

P100 Filter: A high efficiency particulate air filter capable of removing particles 0.3 microns or larger in diameter with 99.97 percent efficiency.

HEPA/Wet Wash/HEPA cycle: The cleaning cycle that begins with HEPA vacuuming, followed by a wet wash with trisodium phosphate detergent, some other lead-specific cleaning agent, or any other equally effective liquid cleaning agent, followed by a final pass with a HEPA vacuum over the surface.

HEPA Vacuum: A vacuum system equipped with HEPA filtration.

Holding Area: A secured area adjacent to the Waste and Equipment Decontamination/Pass-Out Enclosure System located in an uncontaminated area used for temporary storage of waste prior to disposal.

Impact Surface: An interior or exterior surface such as those on door and door jambs subject to damage by repeated impacts.

Interim Control: A set of measures designed to temporarily reduce human exposure or possible exposure to LBP hazards. Such measures include specialized cleaning, repairs, maintenance, painting, temporary containment, and management and resident education programs. Monitoring levels of lead exposure by Owners and re-evaluation by professionals is an integral element of interim controls. Interim controls include dust removal, paint film stabilization, treatment of friction and impact surface, and installation of soil coverings such as grass or sod, or land-use controls.

Lead Based Paint: Paint or other surface coating that contains an amount of lead equal to or in excess of one milligram per square centimeter (1.0 mg/cm^2), more than half of one percent (0.5%) by weight. In the County of Los Angeles these limits are 0.7 mg/cm^2.

Lead-Contaminated Dust: Dust that contains an amount of lead equal to or in excess of forty micrograms per square foot ($40\mu g/ft^2$) for interior floor surfaces, two hundred fifty micrograms per square foot ($250\mu g/ft^2$) for interior horizontal window surfaces, and eight hundred micrograms per square foot ($800\mu g/ft^2$) for exterior floor and exterior horizontal window surfaces.

Lead-Contaminated Soil: Bare soil that contains an amount of lead equal to or in excess of four hundred parts per million (400 ppm) in children's play areas and one thousand parts per million (1000 ppm) in all other areas.

Lead-Hazard: Deteriorated lead paint, lead contaminated dust, lead contaminated soil, disturbing LBP without containment, or other nuisance that results in environmental lead contamination.

Lead Hazard Reduction Project: A construction (repair, demolition, and/or rehabilitation) and an environmental decontamination project necessary for the abatement or interim control of lead paint hazards.

Lead Inspector/Assessor: An individual who is certified by California DHS to assess the degree of total hazards in residential or public building before, during, or after lead-related construction work.

Movable Object: A piece of equipment or furniture in the work area that can be removed from the work area.

Outside Air: The air outside buildings and structures or the air outside a containment work area where LBP removal is being performed.

Owner's Representative: An individual qualified by virtue of experience and education, and designated by Owner as its Representative.

OSHA: The Occupational Safety and Health Administration
200 Constitution Avenue
Washington, D.C. 20210

Local Office:
1655 Mesa Verde, Room 125
Ventura, CA 93003
Tel: (805) 654-4581
Fax: (805) 654-4852

Paint Film Stabilization: The process of wet scraping, priming, and repainting deteriorated LBP in a dwelling. The process includes cleanup and clearance.

Patch Test: A test method or procedure to assess the adhesion of an encapsulant coating to a substrate covered with a layer of LBP.

Personal Sampling: Sampling of airborne lead concentrations within the breathing zone of an employee to determine the 8-hour time weighted average concentration in accordance with *29 CFR 1926.62*. Samples shall be representative of the employee's work tasks. Breathing zone shall be considered an area within a hemisphere, forward of the shoulders, with a radius of 6 to 9 inches and centered at the nose or mouth of an employee.

Permissible Exposure Level (PEL): Fifty micrograms per cubic meter of air as an 8-hour time weighted average as determined by *29 CFR 1926.62*. If an employee is exposed for more than 8 hours in a workday, the PEL shall be determined by the following formula:

- PEL ($\mu g/m^3$) = 400 / Number of hours worked per day

Physician's Written Opinion: A written opinion from the examining physician as to whether an employee has any detected medical conditions that would place the employee at an increased risk of material health impairment from exposure to lead, any recommended limitations on the employee or on the use of personal protective equipment such as respirators, and a statement that the employee has been informed by the physician of the results of the medical examination and of any medical conditions that may result from lead exposure.

Plasticize: To cover floors, ceilings, and walls with plastic sheeting (polyethylene film) as herein specified.

Project Monitor: An individual who is certified by California DHS to oversee lead-related construction work in residential or public buildings, to ensure that the contract plans and specifications are followed, and to evaluate lead-related construction control.

RCRA: *Resource Conservation and Recovery Act of 1976*; an amendment to the *Solid Waste Disposal Act of 1965*.

Remediation: Lead hazard reduction through abatement or interim control.

Remediation Contractor: The state-certified business entity, public body, or person performing the actual work on a LBP hazard control project.

Removal: On-site or off-site removal of LBP from affected substrate by chemical or mechanical means.

Renovation: Altering in any way one or more facility components. Operations in which load-supporting structural members are wrecked or taken out are excluded.

Replacement: A strategy of abatement that entails the removal of building components that have surfaces coated with LBP such as windows, doors, and trim, and the installation of new components free of LBP.

Seal (Sealing): The formation of an airtight connection between plasticized work areas and the outside environment.

Shower Room: A room between the Clean Room and the Equipment Room in the Worker Decontamination Enclosure System with hot and cold or warm running water controllable at the tap and suitably arranged for complete showering during decontamination.

Staging Area: An area adjacent to the Waste and Equipment Decontamination/Pass-Out Enclosure System where containerized lead-containing waste has been placed prior to removal from the work area, with facilities to clean the container holding the waste before it is passed out through the Waste and Equipment Decontamination/Pass-Out Enclosure System.

Structural Member: Any load-supporting member of a facility (such as a beam or a load-supporting wall).

Transporter: A person who transports hazardous waste offsite within the United States by air, rail, highway, or water, if the transport requires a manifest under *40 CFR 260.10*.

Treatment, Storage, and Disposal (TSD) Facility: A facility licensed to handle hazardous waste.

Trisodium Phosphate (TSP) Detergent: Detergent that contains at least 5 percent trisodium phosphate.

Type "C" Respirator: A pressure demand, supplied-air respirator.

Ventilation System: A portable exhaust system equipped with HEPA filtration and capable of maintaining constant low-velocity airflow into contaminated areas from adjacent uncontaminated areas.

Visible Debris: Any (particulate) lead dust or residue that is visually detectable on a surface without the aid of instruments.

Visible Emissions: Any emissions that is visually detectable without the aid of instruments. This does not include condensed uncombined water vapor.

Waste and Equipment Decontamination/Pass-Out Enclosure System: A decontamination system used for transferring containerized waste or equipment from inside to outside of the work area.

Wipe Sampling: A sampling method used to determine if lead dust is present on surfaces.

Work Area: Designated rooms, spaces, or areas of the project in which lead remedial actions are to be undertaken or which may become contaminated as a result of such remedial actions.

Worker Decontamination Enclosure System: A decontamination system consisting of a Clean Room, a Shower Room, and an Equipment Room separated from each other and from the containment work area or limited-containment work area by curtained doorways and airlocks connected directly to the work area.

ZPP: Zinc protoporphyrin; an indicator of chronic lead absorption.

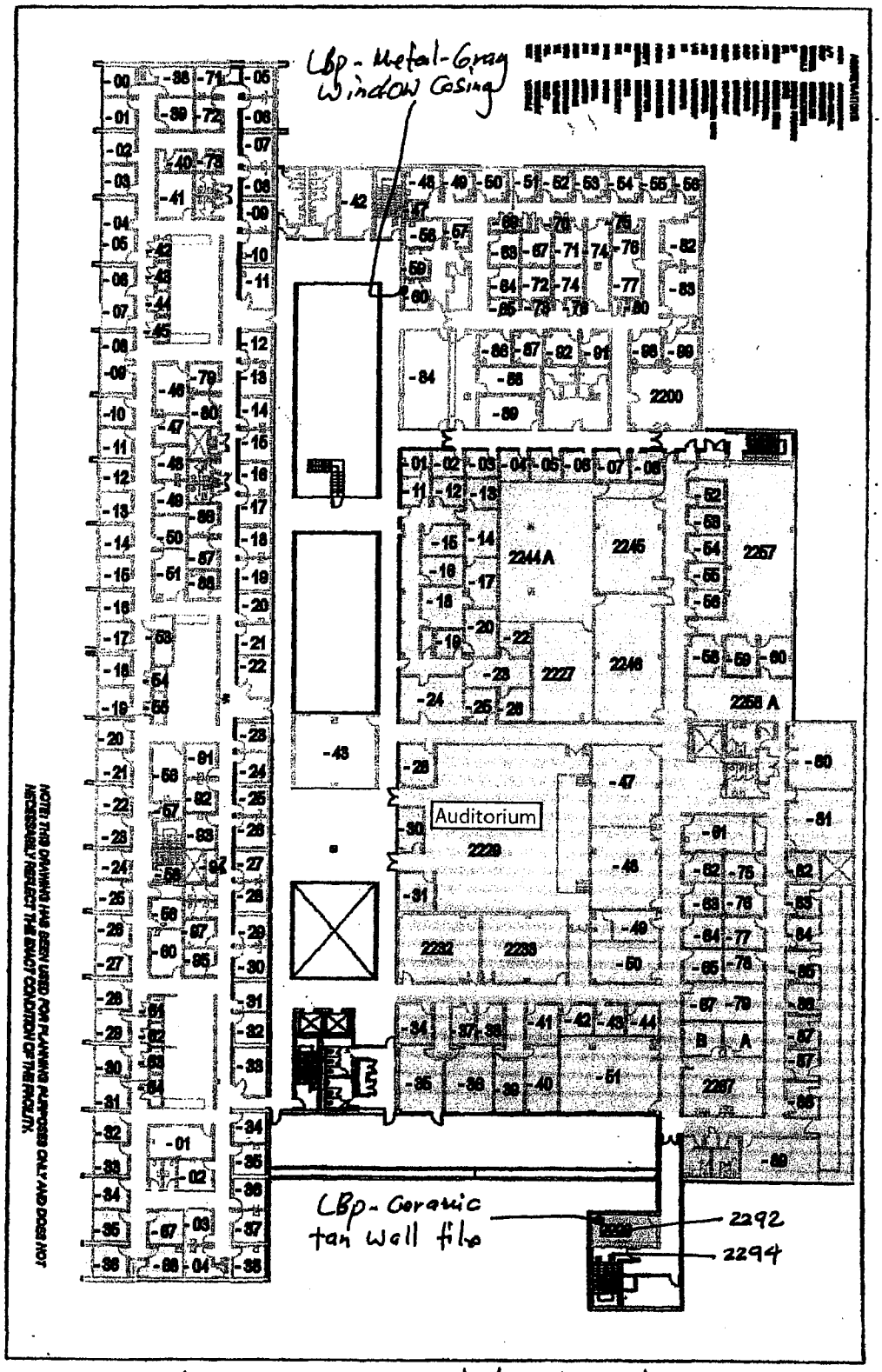
LEAD-BASED PAINT LOCATION MAP

HUBERT H. HUMPHREY HEALTH CENTER - 2ND FLOOR PLAN

8700 S. MAIN STREET LOS ANGELES

2000 MEDICAL PLANNING SERVICES STUDY

LANGDON WILSON ARCHITECTURE PLANNING



NOTE: THIS DRAWING HAS BEEN USED FOR PLANNING PURPOSES ONLY AND DOES NOT NECESSARILY REFLECT THE EXACT CONDITION OF THE FACILITY.

Lead-Based Paint Location Map

Rooms - 2000's 2100's 2200's

CR Env. Services
November 2007
107-0390

APPENDIX B

CULTURAL RESOURCES ASSESSMENT

Cultural Resources Assessment for the Hubert H. Humphrey Comprehensive Health Center Urgent Care Expansion Project, City of Los Angeles, Los Angeles County, California

Prepared for:

County of Los Angeles Department of Public Works

and

Parsons

Prepared by:

SWCA Environmental Consultants

December 2010

CULTURAL RESOURCES ASSESSMENT FOR THE HUBERT H. HUMPHREY COMPREHENSIVE HEALTH CENTER URGENT CARE EXPANSION PROJECT, CITY OF LOS ANGELES, LOS ANGELES COUNTY, CALIFORNIA

Prepared for

County of Los Angeles
Department of Public Works
900 South Vermont Avenue, 5th Floor
Alhambra, California 91803

and

Parsons
Attention: Rosemarie Crisologo
100 W. Walnut Street, Suite B4
Pasadena, California 91124

Prepared by

Cheryle Hunt, B.A.
Caprice D. (Kip) Harper, M.A., RPA
Clarus Backes, M.A., RPA

SWCA Environmental Consultants
150 South Arroyo Parkway, 2nd Floor
Pasadena, California 91105
(626) 240-0587
www.swca.com

SWCA Project No. 17023

SWCA Cultural Resources Report Database No. 2010-482

December 7, 2010

Keywords: CEQA; cultural resources survey; negative results; Los Angeles; Inglewood, CA quadrangle; Township 2 South; Range 13 West; 6.2 acres

MANAGEMENT SUMMARY/ABSTRACT

Purpose and Scope: On behalf of the County of Los Angeles Department of Public Works (LADPW), Parsons retained SWCA Environmental Consultants (SWCA) to conduct cultural resources studies in support of the proposed Hubert H. Humphrey Comprehensive Health Center Urgent Care Expansion Project, located within the City of Los Angeles, Los Angeles County, California. LADPW proposes to expand the Urgent Care facility and construct a new parking deck for the existing Hubert H. Humphrey Comprehensive Health Center, located at 5850 South Main Street, Los Angeles, California. The cultural resources study includes a records search and Native American coordination, an intensive pedestrian survey of the project site for both archaeological and built environment resources, and the preparation of a cultural resources technical report documenting the results of these efforts and providing management recommendations. This study was completed under the provisions of the California Environmental Quality Act (CEQA). Public Resources Code (PRC) Section 5024.1, Section 15064.5 of the Guidelines, and Sections 21083.2 and 21084.1 of the Statutes of CEQA were also used as the basic guidelines for the cultural resources study (Governor's Office of Planning and Research 1998).

Dates of Investigation: The cultural resources records search was conducted on October 14, 2010 by the South Central Coastal Information Center (SCCIC) located at California State University, Fullerton. The California Native American Heritage Commission (NAHC) Sacred Lands File (SLF) search was initiated on October 12, 2010. The results of the SLF search and a list of Native American contacts were received from the NAHC on October 21, 2010. Letters requesting information on known cultural resources within and near the project site were sent to the identified Native American contacts on November 4, 2010. SWCA staff conducted the cultural resources survey on November 9, 2010.

Summary of Findings: The project does not have the potential to cause an adverse effect on any resource that currently qualifies as a "historical resource" or "unique archaeological resource" as defined by CEQA. Twenty-six prior cultural resource studies have been conducted within a one-mile radius of the project site. Of these, two occurred within the project site. The records search did not identify any previously recorded cultural resources within the project site. The NAHC SLF search revealed that no Native American cultural resources are known to be present within the project site. SWCA's intensive-level survey did not identify any archaeological or built environment resources within the project site. The results of the study indicate that the project site is heavily disturbed by grading and heavy residential and commercial development, and that there is a low potential for encountering subsurface archaeological deposits.

Investigation Constraints: The entire project site is occupied by the existing facility and the adjacent parking lot. The area was heavily disturbed prior to and during construction of the existing Health Center in 1979, including excavation and grading for the building's foundation and grading for the parking lot. Asphalt, concrete, nonnative grasses, and ornamental landscaping have obscured over 95 percent of the ground surface in the proposed project site. The only ground surface observed was provided by ornamental landscaping (such as plants and trees within the parking lot area) and grass sod near the Urgent Care entrance along Slauson Avenue.

Recommendations: Because no historical resources or unique archaeological resources were identified within the proposed project site and there is a low potential for encountering subsurface archaeological deposits, no additional cultural resources mitigation measures are necessary beyond the standard archaeological mitigation measures to minimize impacts to unanticipated discovery of cultural resources or human remains.

Disposition of Data: This report and any subsequent related reports will be filed with Parsons; the South Central Coastal Information Center (SCCIC) at California State University, Fullerton; and with the Pasadena office of SWCA Environmental Consultants. All field notes, photographs, and records related to the current study are on file at the SWCA Pasadena, California, office.

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APPENDICES

Appendix A: South Central Coastal Information Center Results Letter
Appendix B: Native American Coordination Correspondence

INTRODUCTION

SWCA was retained by Parsons on behalf of the County of Los Angeles Department of Public Works (LADPW) to conduct cultural resources studies and prepare a Cultural Resources Assessment Report in support of the proposed Hubert H. Humphrey Comprehensive Health Center Urgent Care Expansion project (proposed project). The County of Los Angeles Department of Public Works proposes to expand the Urgent Care facility and construct a new parking deck for the existing 143,200-square-foot Hubert H. Humphrey Comprehensive Health Center, located at 5850 South Main Street, Los Angeles, California. The California Environmental Quality Act (CEQA) requires that the potential effects of this proposed project on historical and archaeological resources be studied and evaluated prior to project implementation. This Cultural Resources Assessment Report presents the results of these studies, which include a records and literature review, initial Native American coordination, and an intensive-level cultural resources survey for archaeological and built environment resources. The format of this report follows *Archaeological Resource Management Reports (ARMR): Recommended Contents and Format* (Office of Historic Preservation 1990).

Cultural Resources Project Manager, Caprice D. (Kip) Harper, M.A., Registered Professional Archaeologist (RPA), managed the cultural resources study. John Dietler, Ph.D., RPA, acted as principal investigator and quality control officer. Ms. Harper also conducted the cultural resources survey and took the photographs found in this report. Cultural Resources Specialists Cheryle Hunt, B.A., Kip Harper and Clarus Backes, M.A., RPA prepared the report.

PROJECT LOCATION AND DESCRIPTION

The address of the existing Hubert H. Humphrey Comprehensive Health Center is 5850 South Main Street, Los Angeles, California; the Health Center is located at the southeast corner of Main Street and Slauson Avenue, in the City of Los Angeles and the County of Los Angeles (Figure 1). The project is located approximately 4.5 miles southwest of downtown Los Angeles and approximately 0.4 mile east of Interstate 110 (the Harbor Freeway). The project site occupies approximately 6.2 acres on eleven parcels of land owned by the County of Los Angeles, including Assessor's Parcel Nos. 6006-001-900 through 6006-001-910. The proposed project will be accomplished as a Design/Build project at the same location and would not extend beyond the current property boundary (Figure 2).

The project will be constructed in two work packages: Package 1, which would involve a total of 6,200 square feet of remodeling, and Package 2, which would involve construction of a new parking deck. The first phase of Package 1 would include the expansion of the medical office building to include a new Urgent Care waiting room, restrooms and reception desk, and the conversion of a covered walkway into interior space that will serve as a corridor between the new waiting room and clinical spaces. The new waiting room would include an accessible pedestrian passageway and sidewalk along Slauson Avenue. Additionally, the parking area east of the new waiting room will be reconfigured for emergency vehicles during this phase.

The second phase of Package 1 would include remodeling the existing waiting area into a Clinic Module which would include seven examination rooms, a nurse station and restrooms, and a new phlebotomy station. The existing bulk storage area would be reconfigured to accommodate a triage area, an employee break room, and a laboratory storage room. The cooling capacity of the Hematology Laboratory would be increased by adding fan coil units and connecting them to chilled water lines.

Package 1 construction would include:

- Reconfiguration of a portion of the building exterior and the entire adjoining parking area.
- Reconfiguration of interior space in the Health Center in order to remodel 6,200 square feet of clinic space and expand the Urgent Care.
- Clearing of approximately 10,000 square feet of exterior surfaces and the removal of concrete, asphalt, and other construction debris. No soil would be imported or removed from the site.
- Abatement of hazardous materials (for example, asbestos and lead-based paint) would be conducted prior to this reconfiguration in accordance with regulatory requirements.
- Soil adjacent to the existing building and under its parking lot may be excavated and re-compacted in accordance with recommendations of a site-specific geotechnical investigation.
- The construction area at this location would be fenced and secured during the construction work period.
- Access to the parking lot would continue to be provided from existing driveways on South Main Street and Woodlawn Avenue. These are the two current primary entrances into the parking lot. No roadway improvements for this project are planned at this time.

Package 2 of the proposed project involves construction of a new single-level parking deck above the existing parking lot. The new parking deck would include lighting and drainage and would provide the number of parking spaces required by code.

Package 2 construction would include:

- Removal of asphalt, with subsequent excavation and grading required for the new parking deck. It is estimated that the depth of excavation would be approximately 5 feet below ground surface.
- Construction of security and pedestrian lighting, American Disability Act (ADA) compliant concrete walkways, and drainage for the parking deck.

While some temporary lane detours may be required during demolition and construction, closures of entire roads would not be expected. Construction vehicles and equipment would be staged onsite within the existing parking lot.

Construction is anticipated to start in early 2012 and be completed by the end of 2013. Construction would require approximately 22 months for completion of both packages.

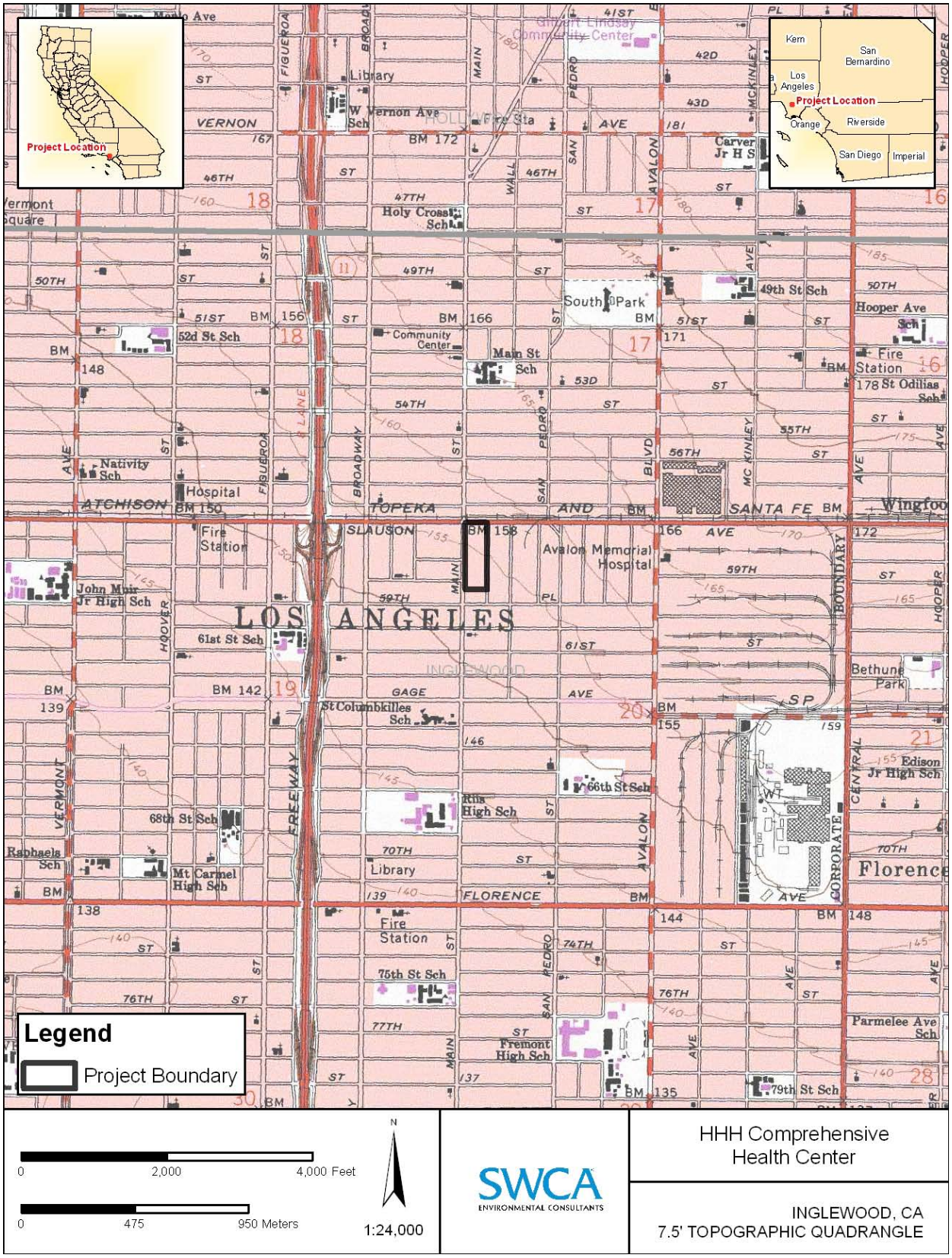

Figure 1. Project Location Map

Figure 2. Aerial Photograph of Project Site

REGULATORY SETTING

This section includes a discussion of the applicable laws, ordinances, regulations, and standards governing cultural resources, which must be adhered to before and during construction of the proposed Hubert H. Humphrey Comprehensive Health Center Urgent Care Expansion Project. State and local ordinances are included.

State

This study was completed under the provisions of CEQA. Sections 21083.2 and 21084.1 of the Statutes of CEQA and Public Resources Code (PRC) Section 5024.1, Section 15064.5 of the Guidelines, were also used as the basic guidelines for the cultural resources study (Governor's Office of Planning and Research 1998). PRC Section 5024.1 requires evaluation of historical resources to determine their eligibility for listing on the California Register of Historical Resources (CRHR). The purposes of the register are to maintain listings of the state's historical resources and to indicate which properties are to be protected from substantial adverse change (Office of Historic Preservation 1997). The criteria for listing resources on the CRHR were expressly developed to be in accordance with previously established criteria developed for listing on the National Register of Historic Places (NRHP).

According to PRC Section 5024.1(c)(1–4), a resource is considered *historically significant* if it meets at least one of the following criteria:

(1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

(2) is associated with the lives of persons important in our past;

(3) embodies the distinctive characteristics of a type, period, region, or method of installation, or represents the work of an important creative individual, or possesses high artistic values; or

(4) has yielded, or may be likely to yield, information important in prehistory or history.

Under CEQA, if an archeological site is not a historical resource but meets the definition of a "unique archeological resource" as defined in PRC Section 21083.2, then it should be treated in accordance with the provisions of that section. A unique archaeological resource is defined as follows:

> An archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

(1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;

(2) has a special and particular quality such as being the oldest of its type or the best available example of its type; or

(3) is directly associated with a scientifically recognized important prehistoric or historic event or person.

Resources that neither meet any of these criteria for listing on the CRHR nor qualify as a "unique archaeological resource" under CEQA PRC Section 21083.2 are viewed as not significant. Under CEQA, "A nonunique archaeological resource need be given no further consideration, other than the simple recording of its existence by the lead agency if it so elects" (PRC Section 21083.2[h]).

Local

County of Los Angeles

Historical, cultural, and paleontological resources are discussed in the County's Conservation and Open Space Element of the Draft Preliminary General Plan (LADRP 2007:140). The County recognizes that historical and cultural resources are an important part of the County's identity and contribute to the local economy. The following goals and policies apply to historical, cultural, and paleontological resources:

- **Policy C/OS 12.1:** Support an inter-jurisdictional collaborative system that protects and enhances the County's cultural heritage resources.
- **Policy C/OS 12.2:** Support initiatives that improve the effectiveness of the Los Angeles County Landmarks Commission and the preservation of historical buildings.
- **Policy C/OS 12.3:** Ensure proper notification procedures to Native American tribes in accordance with Senate Bill 18 (2004).
- **Policy C/OS 12.4:** Promote public awareness of the County's cultural heritage resources.

City of Los Angeles

Los Angeles Historic-Cultural Monuments

Local landmarks in the City of Los Angeles are known as Historic-Cultural Monuments (HCMs) and are under the aegis of the Planning Department, Office of Historic Resources. An HCM, monument, or local landmark is defined in the Cultural Heritage Ordinance as:

> Historic-Cultural Monument (Monument) is any site (including significant trees or other plant life located on the site), building or structure of particular historic or cultural significance to the City of Los Angeles, including historic structures or sites in which the broad cultural, economic or social history of the nation, State or community is reflected or exemplified; or which is identified with historic personages or with important events in the main currents of national, State or local history; or which embodies the distinguishing characteristics of an architectural type specimen, inherently valuable for a study of a period, style or method of construction; or a notable work of a master builder, designer, or architect whose individual genius influenced his or her age (Los Angeles Municipal Code Section 22.171.7 Added by Ordinance No. 178,402, Effective 4-2-07).

Historic Preservation Overlay Zones

As described by the City of Los Angeles Office of Historic Resources, the Historic Preservation Overlay Zone (HPOZ) Ordinance was adopted in 1979 and amended in 2004:

> to identify and protect neighborhoods with distinct architectural and cultural resources, the City…developed an expansive program of Historic Preservation Overlay Zones... HPOZs, commonly known as historic districts, provide for review of proposed exterior alterations and additions to historic properties within designated districts.

Regarding HPOZ eligibility, City of Los Angeles Ordinance Number 175891 states:

> Features designated as contributing shall meet one or more of the following criteria:

(1) adds to the Historic architectural qualities or Historic associations for which a property is significant because it was present during the period of significance, and possesses Historic integrity reflecting its character at that time; or

(2) owing to its unique location or singular physical characteristics, represents an established feature of the neighborhood, community or city; or

(3) retaining the building, structure, Landscaping, or Natural Feature, would contribute to the preservation and protection of an Historic place or area of Historic interest in the City (Los Angeles Municipal Code, Section 12.20.3).

Regarding effects on federal and locally significant properties, Los Angeles Municipal Code declares the following:

> The department shall not issue a permit to demolish, alter or remove a building or structure of historical, archaeological or architectural consequence if such building or structure has been officially designated, or has been determined by state or federal action to be eligible for designation, on the National Register of Historic Places, or has been included on the City of Los Angeles list of historic cultural monuments, without the department having first determined whether the demolition, alteration or removal may result in the loss of or serious damage to a significant historical or cultural asset. If the department determines that such loss or damage may occur, the applicant shall file an application and pay all fees for the California Environmental Quality Act Initial Study and Check List, as specified in Section 19.05 of the Los Angeles Municipal Code. If the Initial Study and Check List identifies the historical or cultural asset as significant, the permit shall not be issued without the department first finding that specific economic, social or other considerations make infeasible the preservation of the building or structure (Section 91.106.4.5, Permits for Historical and Cultural Buildings).

ENVIRONMENTAL SETTING

The project site is situated in the central portion of the Los Angeles Basin, a sedimentary basin, approximately 10 miles southeast of the Santa Monica Mountains and 12 miles inland from the coast. Over the course of several millennia, rivers and drainages in the highlands to the north and east transported and deposited huge volumes of coarse-grained sandstone and sandy cobble-boulder conglomerate into the basin (Yerkes et al. 1965). The project site is at an elevation of approximately 155 feet above mean sea level (amsl).

The project site is located in a fully urbanized area of Los Angeles and residential and commercial buildings dominate the landscape. Although the project site has been heavily modified by previous grading and heavy construction, the project site is generally located within the California Coastal Chaparral Forest and Shrub Province (Bailey 1995). With the exception of ornamental landscaping, vegetation within the project site is virtually non-existent due to the highly populated and developed urban setting.

A geotechnical investigation conducted by Geocon West, Inc. (2010) determined that various amounts of artificial fill, likely the result of past grading and demolition activities, were found throughout the project site. The artificial fill was characterized as slightly moist to moist, loose to medium dense, brown to yellowish brown poorly graded sand, silty sand, sandy silt and silt with varied amounts of gravel and construction debris. They determined that the depth of fill in the area of the proposed waiting room expansion varied between 9 and 10½ feet below existing ground surface, while fill in the area of the proposed parking structure was found to extend approximately three feet below existing ground surface (Geocon West, Inc. 2010).

CULTURAL SETTING

PREHISTORIC OVERVIEW

Numerous chronological sequences have been devised to aid in understanding cultural changes within southern California. Building on early studies and focusing on data synthesis, Wallace (1955, 1978) developed a prehistoric chronology for the southern California coastal region that is still widely used today and is applicable to near-coastal and many inland areas. Four periods are presented in Wallace's prehistoric sequence: Early Man, Milling Stone, Intermediate, and Late Prehistoric. Although Wallace's (1955) synthesis initially lacked chronological precision due to a paucity of absolute dates (Moratto 1984:159), this situation has been alleviated by the availability of thousands of radiocarbon dates that have been obtained by southern California researchers in the last three decades (Byrd and Raab 2007:217). Several revisions have been made to Wallace's (1955) synthesis using radiocarbon dates and projectile point assemblages (e.g., Koerper and Drover 1983; Mason and Peterson 1994; Koerper et al. 2002).

Horizon I–Early Man (ca. 10,000–6,000 B.C.)

When Wallace developed the Horizon I (Early Man) in the 1950s, there was little evidence of human presence on the southern California coast prior to 6000 B.C. Archaeological work in the intervening years has identified numerous sites older than this date, including coastal and Channel Islands sites (e.g., Erlandson 1991; Johnson et al. 2002; Moratto 1984).

Recent data from Horizon I sites indicate that the economy was a diverse mixture of hunting and gathering, with a major emphasis on aquatic resources in many coastal areas (e.g., Jones et al. 2002) and on Pleistocene lakeshores in eastern San Diego County (see Moratto 1984:90-92). Although few Clovis-like or Folsom-like fluted points have been found in southern California (e.g., Erlandson et al. 1987), it is generally considered that the emphasis on hunting may have been greater in Horizon I than in later periods. Common elements in many San Dieguito Tradition sites, for example, include leaf-shaped bifacial projectile points and knives, stemmed or shouldered projectile points, scrapers, engraving tools, and crescents (Warren 1967:177). Subsistence patterns shifted around 6000 B.C. coincident with the gradual desiccation associated with the onset of the Altithermal, a warm and dry period that lasted for about 3,000 years. After 6000 B.C., a greater emphasis was placed on plant foods and small animals.

Horizon II–Milling Stone (6000–3000 B.C.)

The Milling Stone Horizon of Wallace (1955, 1978) and Encinitas Tradition of Warren (1968) (6000-3000 B.C.) are characterized by an ecological adaptation to collecting, and by the dominance of the principal ground stone implements generally associated with the horizontal motion of grinding small seeds, namely milling stones (metates, slabs) and handstones (manos, mullers), which are typically shaped. Milling stones occur in large numbers for the first time, and are even more numerous near the end of this period. As testified by their toolkits and shell middens in coastal sites, people during this period practiced a mixed food procurement strategy. Subsistence patterns varied somewhat as groups became better adapted to their regional or local environments.

Wallace (1955, 1978) and Warren (1968) relied on several key coastal sites to characterize the Milling Stone Horizon and Encinitas Tradition, respectively. These include the Oak Grove Complex in the Santa Barbara region, Little Sycamore in southwestern Ventura County, Topanga Canyon in the Santa Monica Mountains, and at La Jolla in San Diego County. The Encinitas Tradition was proposed to extend southward into San Diego County, where it apparently continued alongside the following Campbell

Tradition, which occurred primarily in the Santa Barbara–Ventura County region beginning around 3000 B.C.

During the Milling Stone Horizon and Encinitas Tradition, stone chopping, scraping, and cutting tools are abundant, and generally made from locally available raw material. Projectile points, rather large and generally leaf-shaped, and bone tools, including awls, are generally rare. The large points are associated with the spear, and probably with an atlatl. Items made from shell, including beads, pendants, and abalone dishes, are generally rare. Evidence of weaving or basketry is present at a few sites. Cogged stones and discoidals are often purposefully buried, and are found mainly in sites along the coastal drainages from southern Ventura County southward, with a few specimens inland at Cajon Pass, and heavily in Orange County (Moratto 1984:149). Kowta (1969) attributes the presence of numerous scraper-planes in Milling Stone sites to the preparation of agave or yucca for food or fiber. The mortar and pestle, associated with the vertical motion of pounding foods, such as acorns, were introduced during the Milling Stone Horizon, but are not common.

Characteristic mortuary practices during the Milling Stone Horizon or Encinitas Tradition include extended and loosely flexed burials, some with red ochre, and few grave goods, such as shell beads and milling stones, interred beneath cobble or milling stone cairns. “Killed” milling stones, exhibiting holes, may occur in the cairns. Reburials are common in the Los Angeles County area, with flexed burials oriented to the north common southward in Orange and San Diego Counties.

Horizon III–Intermediate (3000 B.C.–A.D. 500)

Following the Milling Stone, Wallace’s Intermediate Horizon and Warren’s Campbell Tradition in Santa Barbara, Ventura, and parts of Los Angeles Counties, date from approximately 3000 B.C. to A.D. 500 and are characterized by a shift toward a hunting and maritime subsistence strategy, along with a wider use of plant foods. The Campbell Tradition (Warren 1968) incorporates David B. Rogers’ (1929) Hunting Culture and related expressions along the Santa Barbara coast. In the San Diego region, the Encinitas Tradition (Warren 1968) and the La Jolla Culture (Moriarty 1966; M. Rogers 1939; 1945) persist with little change during this time.

During the Intermediate Horizon and Campbell Tradition, there is a pronounced trend toward greater adaptation to regional or local resources. For example, the remains of fish, land mammals, and sea mammals are increasingly abundant and diverse in sites along the California coast in the referenced region. Related chipped stone tools suitable for hunting are more abundant and diversified, and shell fishhooks become part of the toolkit during this period. Larger knives, a variety of flake scrapers, and drill-like implements are common during this period. Projectile points include large side-notched, stemmed, and lanceolate or leaf-shaped forms. Bone tools, including awls, are more numerous than in the preceding period, and the use of asphaltum adhesive is now common.

Mortars and pestles become more common during this period, gradually replacing manos and metates as milling stone implements. In addition, hopper mortars and stone bowls, including steatite vessels, appear to enter the toolkit at this time. This shift appears to be a correlate of a diversification in subsistence resources. Many archaeologists believe this change in milling stones signals a shift away from the processing and consuming of hard seed resources to the increasing importance of the acorn (e.g., Glassow et al. 1988; True 1993). It has been argued that mortars and pestles may have been used initially to process roots (e.g., tubers, bulbs, and corms associated with marshland plants), with acorn processing beginning at a later point in prehistory (Glassow 1997:86) and continuing to European contact.

Characteristic mortuary practices during the Intermediate Horizon and Campbell Tradition include fully flexed burials, placed face down or face up, oriented toward the north or west (Warren 1968:2–3). Red ochre is common, and abalone shell dishes are infrequent. Interments sometimes occurred beneath cairns

or broken artifacts. Shell, bone, and stone ornaments, including charmstones, are more common than in the preceding Encinitas Tradition. Some later sites include *Olivella* shell and steatite beads, mortars with flat bases and flaring sides, and a few small points.

Horizon IV–Late Prehistoric (A.D. 500–Historic Contact)

In the Late Prehistoric Horizon (Wallace 1955, 1978), which lasted from the end of the Intermediate (~A.D. 500) until European contact, there was an increase in the use of plant food resources in addition to an increase in land and sea mammal hunting. There was a concomitant increase in the diversity and complexity of material culture during the Late Prehistoric, demonstrated by more classes of artifacts. The recovery of a greater number of small, finely chipped projectile points, usually stemless with convex or concave bases, suggests an increased usage of the bow and arrow rather than the atlatl and dart for hunting. Other items include steatite containers, circular shell fishhooks, perforated stones, arrow straighteners, and a variety of bone tools and personal ornaments. There is also an increased use of asphalt adhesive.

During the Late Prehistoric, sites contain beautiful and complex objects of utility, art, and decoration. Ornaments include drilled whole venus clam (*Chione* spp.) and drilled abalone (*Haliotis* spp.). Steatite effigies become more common, with scallop (*Pecten* spp. and *Argopecten* spp.) shell rattles common in middens. Mortuary customs are elaborate and include cremation and interment with abundant grave goods. Pottery and smoking pipes occur in some locations during this period.

In Warren's (1968) cultural ecological scheme, the period between A.D. 500 and European contact is divided into three regional patterns. The Chumash Tradition is present mainly in the region of Santa Barbara and Ventura Counties; the Takic or Numic Tradition in the Los Angeles and Orange Counties region; and the Yuman Tradition in the San Diego region.

The seemingly abrupt changes in material culture, burial practices, and subsistence focus at the beginning of the Late Prehistoric period are considered the result of a migration to the coast of peoples from inland desert regions to the east. In addition to the small triangular and triangular side-notched points similar to those found in the desert regions in the Great Basin and Lower Colorado River, Colorado River pottery and the introduction of cremation in the archaeological record are diagnostic of the Yuman Tradition in the San Diego region. This combination certainly suggests a strong influence from the Colorado Desert region.

In Los Angeles and Orange Counties, similar changes (introduction of cremation, pottery, and small triangular arrow points) are considered the result of a Takic migration to the coast from inland desert regions. This Takic or Numic Tradition was formerly referred to as the "Shoshonean wedge" or "Shoshonean intrusion" (Warren 1968). This terminology, used originally to describe a Uto-Aztecan language group, is generally no longer used to avoid confusion with ethnohistoric and modern Shoshonean groups who spoke Numic languages (Heizer 1978:5; Shipley 1978:88, 90). Modern Gabrielino/Tongva, Juaneño, and Luiseño in this region are considered the descendants of the prehistoric Uto-Aztecan, Takic-speaking populations that settled along the California coast during this period, or perhaps somewhat earlier.

ETHNOGRAPHIC OVERVIEW

The project site is in an area historically occupied by the Gabrielino (Bean and Smith 1978:538; Kroeber 1925: Plate 57). The name Gabrielino denotes those people who were administered by the Spanish from Mission San Gabriel, which included people from the Gabrielino proper, as well as other social groups. Therefore, in the post-Contact period, the name does not necessarily identify a specific ethnic or tribal group. The names Native Americans in southern California used to identify themselves have, for the most

part, been lost. Many contemporary Gabrielino identify themselves as descendants of the indigenous people living across the plains of the Los Angeles Basin and use the native term *Tongva* (King 1994:12). This term is used in the remainder of this section to refer to the pre-Contact inhabitants of the Los Angeles Basin and their descendants.

Tongva lands encompassed the greater Los Angeles Basin and three Channel Islands—San Clemente, San Nicolas, and Santa Catalina. Their mainland territory was bounded on the north by the Chumash at Topanga Creek, the Serrano at the San Gabriel Mountains in the east, and the Juaneño on the south at Aliso Creek (Bean and Smith 1978:538; Kroeber 1925:636). The project site is situated in the central portion of the Los Angeles Basin.

The Tongva language, as well as that of the neighboring Juaneño/Luiseño, Tatataviam/Alliklik, and Serrano, belongs to Takic branch of the Uto-Aztecan language family, which can be traced to the Great Basin area (Mithun 2004:539, 543–544). The Tongva established large, permanent villages in the fertile lowlands along rivers and streams, and in sheltered areas along the coast, stretching from the foothills of the San Gabriel Mountains to the Pacific Ocean. A total tribal population has been estimated of at least 5,000 (Bean and Smith 1978:540), but recent ethnohistoric work suggests a number approaching 10,000 seems more likely (O'Neil 2002).

The Tongva subsistence economy was centered on gathering and hunting. The surrounding environment was rich and varied, and the tribe exploited mountains, foothills, valleys, and deserts as well as riparian, estuarine, and open and rocky coastal eco-niches. Like most native Californians, acorns were the staple food (an established industry by the time of the early Intermediate period). Acorns were supplemented by the roots, leaves, seeds, and fruits of a wide variety of flora (e.g., islay, cactus, yucca, sages, and agave). Freshwater and saltwater fish, shellfish, birds, reptiles, and insects, as well as large and small mammals, were also consumed (Bean and Smith 1978:546; Kroeber 1925:631–632; McCawley 1996:119–123, 128–131).

European contact with the Tongva occurred as early as 1542 with the Spanish expedition led by Juan Rodriguez Cabrillo, followed by Sebastián Vizcaíno in 1602, who both visited Santa Catalina Island. Colonization of Tongva lands did not begin in earnest until after the inland expedition led by Gaspar de Portolá in 1769. By 1771, four missions had been constructed in the region, including Mission San Gabriel, located in Los Angeles County and founded in September 1771 (Bean and Smith 1978:540–541; Engelhardt 1927; McCawley 1996:3–6).

The Franciscan missions, charged with converting the Native Americans to Christianity and with acculturating them to European society and economy, relocated the Tongva to mission grounds. Known as *reducción*, relocation and baptism initially involved the Eastern Tongva of the plains as far south as the Santa Ana River and west to the Los Angeles River. The missionaries later proselytized the Western Tongva living west of the Los Angeles River, on the southern Channel Islands, and the interior groups to the east and south. Between 1780 and 1794, the majority of people from the southeast region were baptized and removed to the mission (King 2004:Figures 7 and 8). Mission San Fernando del Rey was founded in 1797, and its priests pushed into the lands of other tribes located to the north and west and also converted Tongva people along the Los Angeles River and its tributaries. Although mission life did give indigenous Californians some skills needed to survive in a rapidly changing world, much traditional cultural knowledge was lost during this era, as populations were moved and decimated by introduced diseases for which the people had no immunity.

After governmental control of California shifted to Mexico, the missions were formally secularized in 1834, and the extensive mission lands were divided into private land grants, claimed by the growing ranchero class. With the migration of farmers to southern California after the Mexican-American War of 1846, the local native population, who continued to work as laborers, was soon a minority that was often lumped together with the Mexican-American community. Many allied themselves with remaining Native American communities in the Tehachapi and San Bernardino Mountains.

In the early twentieth century, Tongva who still lived in San Gabriel neighborhoods near the old mission joined the Mission Indian Federation and sought redress from the federal government over lost lands. A generation later, partly as an outgrowth of the civil rights movement, the Tongva started to form political organizations of their own to affect handling of ancestral remains discovered at construction sites and to seek federal acknowledgement of their tribe. There are currently five such organizations with total membership approaching nearly a thousand people. They are still struggling to receive federal recognition.

HISTORIC OVERVIEW

Post-Contact history for the state of California generally is divided into three periods: the Spanish Period (1769–1822), the Mexican Period (1822–1848), and the American Period (1848–present). Although there were brief visits by Spanish, Russian, and British explorers from 1529 to 1769, the beginning of Spanish settlement in California occurred in 1769 with a settlement at San Diego. Mission San Diego de Alcala was the first of 21 missions that were established in Alta California between 1769 and 1823. The Mexican Period, which commenced when news of the revolution against the Spanish crown reached California in 1822, was an era of extensive interior land grant development and exploration by American fur trappers west of the Sierra Nevada Mountains.

With the signing of the Treaty of Guadalupe Hidalgo in 1848, ending the Mexican-American War, California became a territory of the United States. The discovery of gold in 1848 at Sutter's Mill near Sacramento and the resulting Gold Rush era influenced the history of the state and the nation. The rush of tens of thousands of people to the gold fields also had a devastating impact on the lives of indigenous Californians, with the introduction and concentration of diseases, the loss of land and territory (including traditional hunting and gathering locales), violence, malnutrition, and starvation. Thousands of settlers and immigrants continued to pour into the state, particularly after the completion of the transcontinental railroad in 1869.

Los Angeles County

The first European account of the area to become Los Angeles County was by Portuguese navigator João Rodrigues Cabrilho (Juan Rodriguez Cabrillo in Spanish), who led a Spanish expedition along the California coast in 1542–1543 (Chartkoff and Chartkoff 1984:252-253). Cabrillo noted the numerous campfires of the Gabrielino and thus named the area the "Bay of Smokes." Spain's presence in the region was only intermittent for approximately 200 years. Then, because of the possibility of territorial encroachment by the British and Russians from the north, Spanish Governor of Baja California Gaspar de Portolá was instructed to lead a land–sea expedition to colonize Alta (upper) California in the 1760s (Chartkoff and Chartkoff 1984:254-257).

On September 8, 1771, Fathers Pedro Cambón and Angel Somera established the Mission San Gabriel de Arcángel near the present-day city of Montebello (Johnson et al. 1972). In 1775, the mission was moved to its current location in San Gabriel due to better agricultural lands. This mission marked the first sustained European occupation of the Los Angeles County area. Mission San Gabriel, despite a slow start partially due to misconduct by Spanish soldiers, eventually became so prosperous it was known as "The Queen of the Missions" (Johnson et al. 1972).

The pueblo that eventually became the City of Los Angeles was established in 1781. During this period, Spain also deeded ranchos to prominent citizens and soldiers (though very few in comparison to the Mexican Period). Rancho San Pedro, one such rancho, was deeded to soldier Juan Jose Dominguez in 1784 and comprised 75,000 acres encompassing the modern South Bay region from the Los Angeles River on the east to the Pacific Ocean on the west (Dominguez Rancho Adobe Museum 2006).

The area that became Los Angeles County saw an increase in European settlement during the Mexican Period largely due to the many land grants (ranchos) to Mexican citizens by various governors. However, the Mexican Period for Los Angeles ended in early January 1847. Mexican forces fought combined U.S. Army and Navy forces in the Battle of the San Gabriel River on January 8 and in the Battle of La Mesa on January 9 (Nevin 1978). On January 10, leaders of the pueblo of Los Angeles surrendered peacefully after Mexican General Jose Maria Flores withdrew his forces. Shortly thereafter, newly appointed Mexican Military Commander of California Andrés Pico surrendered all of Alta California to U.S. Army Lieutenant Colonel John C. Fremont in the Treaty of Cahuenga (Nevin 1978).

Settlement of the Los Angeles region continued in the early American Period. The county was established on February 18, 1850, one of 27 counties established in the months prior to California becoming a state. Many ranchos in the county were sold or otherwise acquired by Americans, and most were subdivided into agricultural parcels or towns. Nonetheless, ranching retained its importance and, by the late 1860s, Los Angeles was one of the top dairy production centers in the country (Rolle 2003). By 1876, the county had a population of 30,000 (Dumke 1944:7).

In 1854, the U.S. Congress agreed to let San Pedro become an official port of entry. By the 1880s, the railroads had established networks throughout the county, resulting in fast and affordable shipment of goods, as well as a means to transport new residents to the booming region (Dumke 1944). New residents included many health-seekers drawn to the area by the fabled climate in the 1870s–1880s (Baur 1959).

In the early to mid-1900s, population growth accelerated due to industry associated with both world wars, as well as emigration from the Midwest "dust bowl" states during the Great Depression. The county became one of the most densely occupied areas in the U.S. The county's mild climate and successful economy continued to draw new residents in the late 1900s, with much of the county transformed from ranches and farms into residential subdivisions surrounding commercial and industrial centers. Hollywood's development into the entertainment capital of the world, and southern California's booming aerospace industry, were key factors in the county's growth.

Project Site Vicinity

The neighborhood that contains the proposed project site was originally part of the "Shoestring" annexation of 1906 that added 11,931 acres (18.64 square miles) to the City of Los Angeles, bringing the city's total area to approximately 43 square miles. In the late 19th and 20th centuries, the neighborhood was zoned for a combination of residences and light industry and subdivided into tracts of gridded streets with small parcels for single-family houses (Kaplan and O'Connor 2007).

The blocks adjoining the intersection of Slauson and Main remained focused on manufacturing, but by the 1940s the local industrial facilities had become more organized. By 1950 the intersection included a stamping plant on Slauson and a laundry facility on Main Street. The industrial pattern remained into the 1970s when the parcels on which the project site is located were redeveloped into a county-owned medical building with a large parking lot.

The Hubert H. Humphrey Comprehensive Health Center was established in 1976 as a satellite of the Martin Luther King, Jr. Multi-Service Ambulatory Care Center (MLK-MACC, formerly the King/Drew Medical Center), located approximately 5 miles southeast of the project site. Currently the 143,200-square-foot Health Center is operated by the County of Los Angeles Department of Health Services.

METHODS

SWCA conducted a cultural resources records search, a Sacred Lands File search and initial Native American coordination, and a field survey to assess the sensitivity of the project site for cultural resources. The following section discusses the methods for each of these aspects of the study.

RECORDS SEARCH

The cultural resources records search was conducted on October 14, 2010 by the South Central Coastal Information Center located at California State University, Fullerton. The SCCIC houses records of the California Historical Resources Information System (CHRIS) for Los Angeles, Orange and Ventura counties. The records search addressed the project site plus a one-mile radius around the project site boundary. These records were reviewed to (1) identify cultural resources within the project site and surrounding area, including prehistoric or historic archaeological sites, historic buildings and historic structures, and (2) identify and determine the adequacy of previous cultural resources studies in the project site. Reviews were made of the NRHP, the CRHR, the California Points of Historical Interest (CPHI), the California Historical Landmarks (CHL), the Archaeological Determinations of Eligibility (ADOE), the California State Historic Resources Inventory (HRI), and the City of Los Angeles Zoning Information and Map Access System (ZIMAS). Pertinent portions of historic USGS Santa Monica 15-minute (1902, 1921) and Redondo (1896, 1944) 15-minute quadrangle maps were also reviewed.

SACRED LANDS FILE SEARCH AND INITIAL NATIVE AMERICAN COORDINATION

On October 12, 2010, SWCA requested that the California Native American Heritage Commission (NAHC) conduct a search of its Sacred Lands File to determine if cultural resources important to Native Americans have been recorded within the project site or its immediate vicinity. The NAHC provided a list of Native American contacts for the Project to be contacted for additional information. A letter was prepared and mailed to each of the NAHC-listed contacts on November 4, 2010, requesting information related to any known Native American cultural resources within or immediately adjacent to the project site.

ARCHAEOLOGICAL AND BUILT ENVIRONMENT SURVEYS

SWCA Cultural Resources Specialist Kip Harper conducted a cultural resources survey for both archaeological and built environment resources on November 9, 2010. The archaeological survey methods consisted of an intensive-level pedestrian survey of portions of the project site that did not contain buildings or structures and were not paved with asphalt or concrete. Since most of the project site was obscured by buildings and pavement, the intensive-level pedestrian survey was limited to the perimeter and northern portion of the project site where soil was observed. Within each transect, Ms. Harper examined the ground surface for artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools, ceramics, fire-affected rock, or historical debris), soil discoloration that might indicate the presence of a cultural midden, soil depressions, and features such as standing exterior walls, postholes, or foundations that might indicate the current or former presence of structures or buildings.

The built environment survey occurred concurrently with the archaeological survey. Ms. Harper visually examined buildings and structures located within in and immediately adjacent to the project site. When appropriate, she analyzed these buildings for age and potential significance using data generated during the records search. She took digital photographs using a Nikon Coolpix digital camera, including general overviews of the project site, photographs of buildings located on or immediately adjacent to the project

site, and overviews of the surrounding areas. All field notes, photographs, and records related to the current study are on file at the SWCA office in Pasadena, California.

RESULTS

RECORDS SEARCH

Previous Cultural Resources Studies within One Mile of the Project Site

Twenty-six cultural resources studies have been previously conducted within one mile of the project site (Table 1). All 26 studies were negative for cultural resources. A complete bibliography of previously conducted cultural resources studies is provided in Appendix A.

Table 1. Previously Conducted Cultural Resources Studies within One Mile of the Project Site

SCCIC Report Number	Study	Author	Year	Relationship to Project Site
LA-4097	Council District Nine Revitalization/Recovery Program Final Environmental Impact Report	Anonymous	1995	Inside
LA-4349	Archaeological Monitoring at New Hope Senior Villa Project, 52nd Street and South Central Avenue, City of Los Angeles	Schmidt, J.	1998	Outside
LA-4387	Cultural Resource Survey of 5140 S. Central Avenue, Los Angeles	Foster, J.	1998	Outside
LA-4388	Cultural Resources Survey for of 6206 S. Hoover, Los Angeles	Foster, J.	1998	Outside
LA-4836	Phase I Archaeological Survey Along Onshore Portions of the Global West Fiber Optic Cable Project	SAIC	2000	Outside
LA-5196	A Phase I Archaeological Study for the proposed South Central Sports Center (7020 Figueroa Street), City of Los Angeles, Los Angeles County, California	Wlodarski, R.	2001	Outside
LA-5500	Negative Archaeological Survey Report: to Replace Broken Pcc Pavement Slabs and Grind New Pcc Slabs	Sylvia, B.	2000	Outside
LA-6021	Cultural Resource Assessment at AT&T Wireless Services Facility No. 04094, Los Angeles County, California	Duke, C.	2002	Outside
LA-7412	A Phase 1 Archaeological Study for a Proposed Affordable Housing Project Located at 5950-5978 South Main Street, City of Los Angeles, Los Angeles County, California	Wlodarski, R.	2004	Outside
LA-7682	Cultural Resources Records Search and Site Visit Results for T-Mobile, Usa Candidate La13083a (acme Felt), 6500 Stanford Avenue, Los Angeles, Los Angeles County, California	Bonner, W.	2006	Outside

Table 1. Previously Conducted Cultural Resources Studies within One Mile of the Project Site (Continued)

SCCIC Report Number	Study	Author	Year	Relationship to Project Site
LA-7692	Site Visit and Direct and Indirect APE Historic Architectural Assessments for Sprint Telecommunications Facility Candidate La60xc179a (hope Church), 344 West Florence Avenue, Los Angeles, Los Angeles County, California	Bonner, W.	2004	Outside
LA-7698	Wadsworth/CA-6355a, 7301 South Avalon Boulevard, Los Angeles City and County, CA 90003	Billat, L.	2006	Outside
LA-7700	Historic Cultural Resources Study: the Los Angeles Unified School District Central Region Elementary School No. 16, Located at Main Street and 58th Street in the City of Los Angeles, Los Angeles County, California	McKenna, J.	2004	Outside
LA-7867	Historic-Period Building Survey South Region High School #2 Project in an Unincorporated Area Near the City of Los Angeles, Los Angeles County, California	Tang, B., M. Hogan, and C. Tibbet.	2005	Outside
LA-8255	Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project, State of California: Volumes I and II	Arrington, C. and N. Sikes	2006	Inside
LA-8270	Cultural Resources Records Search and Site Visit Results for Sprint Nextel Candidate Ca6359e (kansas), 739 West 56th Street, Los Angeles, Los Angeles County, California	Bonner, W.	2006	Outside
LA-8271	Cultural Resources Records Search and Site Visit Results for Sprint Nextel Candidate Ca7502b/la25xc157 (stanford), 6701 S. Stanford Avenue, Los Angeles, Los Angeles County, California	Bonner, W.	2007	Outside
LA-8420	Verizon Cellular Communications Tower Site-Arsenal, 344 West Florence Avenue, Los Angeles, California Results of Architectural History Survey	Jones, J.	2006	Outside
LA-8502	Archaeological Survey Report for the Goodyear Tract Project, 6500-6622 South Stanford Avenue, Los Angeles, California	Wood, C.	2007	Outside
LA-8662	Archaeological Investigation for South Los Angeles Wetlands Park, City of Los Angeles, California	Foster, J.	2007	Outside
LA-8709	South Los Angeles Wetlands park, Historical Resources Evaluation Report, W.E. Ew4006b	Slawson, D.	2007	Outside
LA-8765	Cultural Resources Records Search and Site Visit Results for Sprint Candidate Ca63591d (Kansas), 739 West 56th Street, Los Angeles, Los Angeles County, California	Bonner, W.	2006	Outside

Table 1. Previously Conducted Cultural Resources Studies within One Mile of the Project Site (Continued)

SCCIC Report Number	Study	Author	Year	Relationship to Project Site
LA-8778	Cultural Resources Records Search and Site Visit Results for T-Mobile Candidate la13083d (Adams Furniture), 6430 South Avalon Boulevard, Los Angeles, Los Angeles County, California	Bonner, W.	2007	Outside
LA-9812	Historical Resources Documentation Report for the South Los Angeles Wetlands Park Project	Slawson, D.	2008	Outside
LA-10231	Cultural Resources Records Search and Site Visit Results for AT&T Mobility, LLC Candidate LA0013-01 (Kim's Auto), 5602 South Central Avenue, Los Angeles, Los Angeles County, California	Bonner, W.	2009	Outside
LA-10536	Archaeological Survey for the Proposed Vermont Avenue Relief Sewer, City of Los Angeles, California	Strauss, M.	2003	Outside

Of the 26 previous cultural resources studies, two (SCCIC report numbers LA-4097 and LA-8255) were conducted within the project site. These are described below.

Report LA-4097 documents a survey conducted in 1995 by Myra L. Frank and Associates, Inc., in support of the Final Environmental Impact Report for the Council District Nine Revitalization/Recovery program. The entire project site and 1-mile radius record search area for the current project were investigated as part of this district-wide cultural resources inventory. Although the survey identified 1,018 potentially significant properties (i.e., previously identified properties that had not been demolished or substantially altered since their recordation) within the 6,520-acre Recovery Program area, none were located within one mile of the project site.

Report LA-8255 documents cultural resources investigations conducted in 2006 by SWCA in support of maintenance activities for portions of the Qwest Network fiber optic cable system. These investigations addressed approximately 1,431 linear miles of trenched fiber optic cable, a portion of which ran along the Burlington Northern and Santa Fe Railroad right-of-way at the current proposed project site's northern boundary. The Qwest Network survey found no cultural resources within one mile of the project site.

Previously Recorded Cultural Resources within One Mile of the Project Site

The record search results indicate that no archaeological resources have been previously recorded within the project site or within one mile of the project site. Fourteen built environment resources have been previously identified within a 1-mile radius of the project site (Table 2). These resources consist entirely of buildings, including of single and multiple family residences, small commercial buildings and a commercial apartment building; these buildings date to between 1905 and circa 1949. None of these resources is located within the project site boundaries or immediately adjacent to the project site, and none has been found eligible for the NRHP or CRHR.

Table 2. Previously Recorded Cultural Resources within One Mile of the Project Site

Primary Number	Description	Author and Year	Relationship to Project Site
19-186741	Two- story commercial building, 1905	J. Marvin, S. Younger and J. Michalsky, LSA Associates Inc., 2002	Outside
19-187509	Three-story commercial/apartment building, 1926, Neoclassical style	C Taganuchi, Galvin & Associates, 2004	Outside
19-187537	Single family residence, 1920	J. McKenna, 2004	Outside
19-187538	Single family residence, 1921	J. McKenna, 2004	Outside
19-187539	Multiple family residence, 1913	J. McKenna, 2004	Outside
19-187540	Single family residence, 1924, Craftsman bungalow	J. McKenna, 2004	Outside
19-187541	Single family residence, 1921-1922, California bungalow	J. McKenna, 2004	Outside
19-187787	Barac's Auto Body Shop, one-story commercial building, pre-1925	B. Tang, J. Smallwood, C. Tibbet, CRM Tech, 2005	Outside
19-187788	One-story commercial building, pre-1941	B. Tang, J. Smallwood, C. Tibbet, CRM Tech, 2005	Outside
19-187789	Los Gallos Bar, one-story commercial building, pre-1924	B. Tang, J. Smallwood, C. Tibbet, CRM Tech, 2005	Outside
19-187790	Central Driveshafts, one-story commercial building, pre-1946	B. Tang, J. Smallwood, C. Tibbet, CRM Tech, 2005	Outside
19-187791	MC Automotive Repair, one-story commercial building, c. 1949	B. Tang, J. Smallwood, C. Tibbet, CRM Tech, 2005	Outside
19-188018	Hope Community Reformed Church, 1928	J. Jones, URS Corporation, 2006	Outside
19-188505	Hiram of Tyre Grand Lodge, four-story commercial building, c. 1924	K. Crawford, Michael Brandman Associates, 2009	Outside

The record search also determined that no properties listed in the NRHP, CRHR, CPHI, CHL, ADOE, or HRI are located within the boundaries of the project site. A review of the City of Los Angeles ZIMAS showed that the project site and surrounding area do not fall within a City of Los Angeles HPOZ, or contain any HCMs.

SACRED LANDS FILE SEARCH AND INITIAL NATIVE AMERICAN COORDINATION

SWCA initiated Native American coordination for this project on October 12, 2010. A NAHC Sacred Lands File search was requested as part of the process of identifying cultural resources within or near the project site. The NAHC faxed a response on October 21, 2010 stating that the search "did not indicate the presence of Native American cultural resources within one-half mile radius of the proposed project site." The NAHC also provided a contact list of nine Native American individuals or tribal organizations that may have knowledge of cultural resources in or near the project site. Letters were prepared and mailed to each of the NAHC-listed contacts on November 4, 2010, requesting information related any Native American cultural resources in the vicinity of the project site.

To date, only one of the NAHC-listed contacts has responded to our request for information. On November 26, 2010, SWCA was contacted via email by Mr. Andy Salas, Chairman of the Shoshonean Gabrielino Band of Mission Indians. Mr. Salas indicated that the proposed project is located within a culturally sensitive area, and requested that a Native American monitor be present during any ground-disturbing activities related to the project. Correspondence related to the Sacred Lands File search and Native American Coordination is provided in Appendix B.

CULTURAL RESOURCES SURVEY

Archaeological Resources

No archaeological resources were observed during the intensive-level survey of the project site. The entire project site was heavily disturbed prior to and during construction of the existing Hubert H. Humphrey Comprehensive Health Center in 1979 (Photographs 1-3), including excavation and grading for the building's foundation and grading for the parking lot. Asphalt, concrete, nonnative grasses, and ornamental landscaping have obscured over 95 percent of the ground surface in the proposed project site; the only ground surface observed was provided by ornamental landscaping such as plants and trees within the parking lot area and grass sod along the Slauson Avenue sidewalk. Modern trash, including glass and bottle caps, was sparsely scattered throughout the area.

Built Environment Resources

The built environment survey did not identify any above-ground cultural resources. No built environment resources dating to the period before the construction of the existing Hubert H. Humphrey Comprehensive Health Center in 1979 were observed within the proposed project site boundaries.

Photograph 1. Overview of the northern portion of the project site from Main Street, view looking south

Photograph 2. Overview of project site from its southern boundary, view looking north with the Hubert H. Humphrey Comprehensive Health Center in background

Photograph 3. **Overview of Health Center from Slauson Avenue, view looking west**

ASSESSMENT OF IMPACTS

Based on the above assessment in which (1) the records search failed to identify any previously recorded historical resources or unique archaeological resources within the project site, (2) the Sacred Lands File search and initial Native American coordination failed to identify any Native American resources within the project site, and (3) no archaeological or built environment resources were encountered during the cultural resources survey, the project does not have the potential to cause an adverse impact to any resource that currently qualifies as a "historical resource" or "unique archaeological resource" as defined by CEQA.

RECOMMENDATIONS

Because no historical resources or unique archaeological resources were identified within the proposed project site, and the project site was heavily disturbed prior to and during construction of the existing facility, there is a low potential for encountering subsurface archaeological deposits. No additional cultural resources mitigation measures are necessary beyond the standard archaeological mitigation measures to minimize impacts to unanticipated discovery of cultural resources or human remains. These mitigation measures are described below.

It should be noted that Mr. Andy Salas, Chairman of the Shoshonean Gabrielino Band of Mission Indians, indicated that the proposed project is located within a culturally sensitive area and requested that a Native American monitor be present during any ground-disturbing activities related to the project.

UNANTICIPATED DISCOVERY OF CULTURAL RESOURCES

In the event that cultural resources (such as archaeological sites, features, or artifacts) are exposed during construction, work in the immediate vicinity of the find must stop until a qualified archaeologist can evaluate the significance of the find. Construction activities may continue in other areas. If the discovery proves significant under CEQA, additional work such as testing or data recovery may be warranted.

UNANTICIPATED DISCOVERY OF HUMAN REMAINS

The discovery of human remains is always a possibility during ground disturbances; State of California Health and Safety Code Section 7050.5 covers these findings. This code section states that no further disturbance shall occur until the Los Angeles County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the human remains are determined to be prehistoric, the Coroner will notify the NAHC, which will determine and notify those persons it believes to be most likely descended from the deceased Native American. The most likely descendants shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

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APPENDIX A:
South Central Coastal Information Center Results Letter

South Central Coastal Information Center
California State University, Fullerton
Department of Anthropology MH-426
800 North State College Boulevard
Fullerton, CA 92834-6846
657.278.5395 / FAX 657.278.5542
anthro.fullerton.edu/sccic.html - sccic@fullerton.edu
California Historical Resources Information System
Orange, Los Angeles, and Ventura Counties

October 14, 2010 SCCIC # 10967.7719

Ms. Kip Harper
SWCA
625 Fair Oaks Ave., Ste. 190
South Pasadena, CA 91030
(626) 240-0587

RE: Hubert H. Humphrey Comprehensive Health Center (Project# 17023).

Dear Ms. Harper,

As per your request received on October 12, 2010 a records search was conducted for the above referenced project. The search includes a review of all recorded archaeological sites within a 1-mile radius of the project site as well as a review of cultural resource reports on file. In addition, the California Points of Historical Interest (PHI), the California Historical Landmarks (CHL), the California Register of Historical Resources (CR), the National Register of Historic Places (NR), the California State Historic Resources Inventory (HRI), and the City of Los Angeles Historic-Cultural Monuments listings were reviewed for the above referenced project. The following is a discussion of the findings.

Hollywood, CA. & Inglewood, CA. USGS 7.5' Quadrangles

ARCHAEOLOGICAL RESOURCES:

No archaeological sites have been identified within a 1-mile radius of the project site. No archaeological sites are located within the project site. No sites are listed on the Archaeological Determination of Eligibility (DOE) list. No isolates have been identified within a 1-mile radius of the project site. No isolates are located within the project site.

HISTORIC RESOURCES:

Fourteen additional cultural resources (19-186741,19-187509,19-187537,19-187538,19-187539,19-187540,19-187541,19-187787,19-187788,19-187789,19-187790,19-187791,19-188018, and 19-188505) have been identified within a 1-mile radius of the project site. No cultural resources are located within the project site.

Copies of our historic maps Santa Monica, CA. (1902 & 1921) & Redondo, CA. (1896 & 1944) 15' USGS, are enclosed for your review.

The California Point of Historical Interest of the Office of Historic Preservation, Department of Parks and Recreation, lists no properties within a 1-mile radius of the project site.

The California Historical Landmarks of the Office of Historic Preservation, Department of Parks and Recreation, lists no properties within a 1-mile radius of the project site.

The California Register of Historical Resources lists three properties within a 1-mile radius of the project site. These are properties determined to have a National Register of Historic Places Status of 1 or 2, a California Historical Landmark numbering 770 and higher, or a Point of Historical Interest listed after 1/1/1998. **(see enclosed HRI list).**

The National Register of Historic Places lists two properties within a 1-mile radius of the project site. **(+ additional NR sites can be found on enclosed HRI list)**.

Inglewood 19- 52nd Place Historic District, Along E. 52nd Pl., Los Angeles, 09000398, LISTED, 6/11/09 (African Americans in Los Angeles)

Inglewood 19-172618 Prince Hall Masonic Temple 1050 E. 50th St. LA

The City of Los Angeles Historic-Cultural Monuments lists no properties within a 1-mile radius of the project site.

The California Historic Resources Inventory lists 310 properties that have been evaluated for historical significance within a 1-mile radius of the project site **(see enclosed list)**.

PREVIOUS CULTURAL RESOURCES INVESTIGATIONS:

Twenty-seven studies (LA4097*, LA4349, LA4387, LA4388, LA4836, LA5196, LA5500, LA6021, LA7412, LA7682, LA7692, LA7698, LA7700, LA7867, LA8255*, LA8270, LA8271, LA8420, LA8502, LA8662, LA8709, LA8765, LA8778, LA9812, LA10231, LA10244, and LA10536) have been conducted within a 1-mile radius of the project site. Of these, two are located within the project site. There are forty-three additional investigations located on the Hollywood, CA & Inglewood, CA. 7.5' USGS Quadrangles that are potentially within a 1-mile radius of the project site. These reports are not mapped due to insufficient locational information.
(= Located within the project site)*

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you **do not include** resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at 657.278.5395 Monday through Thursday 9:00 am to 3:30 pm.

Should you require any additional information for the above referenced project, reference the SCCIC number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Sincerely,
SCCIC

Lindsey Noyes
Staff Researcher

Enclosures:

(X) Maps – Hollywood, CA. & Inglewood, CA. 7.5' Santa Monica, CA. (1902 & 1921) & Redondo, CA. (1896 & 1944) USGS Quadrangle, 15' USGS Quadrangle –8 pages
(X) Bibliography –17 pages
(X) HRI –41 pages
(X) National Register Status Codes
(X) Site Records – (19-186741, 19-187509, 19-187537, 19-187538, 19-187539, 19-187540,19-187541,19-187787,19-187788,19-187789,19-187790,19-187791, 19-188018, and 19-188505) –63 pages
(X) Survey Reports –entire report (LA4097*, LA7412, LA8255*), title pages (LA4349, LA4387, LA4388, LA4836, LA5196, LA5500, LA6021, LA7682, LA7692, LA7698, LA7700, LA7867, LA8270, LA8271, LA8420, LA8502, LA8662, LA8709, LA8765, LA8778, LA9812, LA10231, LA10244, and LA10536) – 594 pages
(X) Confidentiality Form
(X) Invoice #10967.7719

SCCIC Bibliography: Hubert H. Humphrey Health Center

LA-04097

Author(s): Anonymous
Year: 1995
Title: Council District Nine Revitalization/recovery Program Final Environmental Impact Report
Affiliation: Myra L. Frank & Associates, Inc.
Resources:
Quads: HOLLYWOOD, INGLEWOOD, LOS ANGELES, SOUTH GATE
Pages:
Notes: Numerous built environment resources mentioned within the body of the report. Only the sections pertaining to historical resources saved.

LA-04349

Author(s): Schmidt, James J.
Year: 1998
Title: Archaeological Monitoring at New Hope Senior Villa Project, 52nd Street and South Central Avenue, City of Los Angeles
Affiliation: Greenwood and Associates
Resources:
Quads: INGLEWOOD
Pages:
Notes: States isolates were found, but no isolate record& also indicate a site record form was to be filled out & filed w/ SCCIC

LA-04387

Author(s): Foster, John M.
Year: 1998
Title: Cultural Resource Survey of 5140 S. Central Avenue, Los Angeles
Affiliation: Greenwood and Associates
Resources:
Quads: INGLEWOOD
Pages:
Notes:

LA-04388

Author(s): Foster, John M.
Year: 1998
Title: Cultural Resource Survey of 6206 S. Hoover, Los Angeles
Affiliation: Greenwood and Associates
Resources:
Quads: INGLEWOOD
Pages:
Notes:

LA-04836

Author(s):
Year: 2000
Title: Phase I Archaeological Survey Along Onshore Portions of the Global West Fiber Optic Cable Project
Affiliation: Science Applications International Corporation
Resources:
Quads: HOLLYWOOD, INGLEWOOD, LOS ANGELES, SOUTH GATE, VENICE
Pages:
Notes:

SCCIC Bibliography: Hubert H. Humphrey Health Center

LA-05196

Author(s): Wlodarski, Robert J.
Year: 2001
Title: A Phase I Archaeological Study for the Proposed South Central Sports Center (7020 Figueroa Street) City of Los Angeles, Los Angeles County, California
Affiliation: Historical, Environmental, Archaeological, Research, Team
Resources:
Quads: INGLEWOOD
Pages:
Notes:

LA-05500

Author(s): Sylvia, Barbara
Year: 2000
Title: Negative Archaeological Survey Report: to Replace Broken Pcc Pavement Slabs and Grind New Pcc Slabs
Affiliation: Caltrans District 7
Resources:
Quads: INGLEWOOD
Pages:
Notes:

LA-06021

Author(s): Duke, Curt
Year: 2002
Title: Cultural Resource Assessment at & T Wireless Services Facility No. 04094 Los Angeles County, California
Affiliation: LSA Associates, Inc.
Resources:
Quads: INGLEWOOD
Pages:
Notes: 1 HB 186741

LA-07412

Author(s): Wlodarski, Robert J.
Year: 2004
Title: A Phase 1 Archaeological Study for a Proposed Affordable Housing Project Located at 5950-5978 South Main Street City of Los Angeles, Los Angeles County, California
Affiliation: Historical, Environmental, Archaeological, Research, Team
Resources:
Quads: INGLEWOOD
Pages:
Notes:

LA-07682

Author(s): Bonner, Wayne H.
Year: 2006
Title: Cultural Resources Records Search and Site Visit Results for T-mobile Usa Candidate La13083a (acme Felt), 6500 Stanford Avenue, Los Angeles, Los Angeles County, California
Affiliation: Michael Brandman Associates
Resources:
Quads: INGLEWOOD
Pages:
Notes:

SCCIC Bibliography: Hubert H. Humphrey Health Center

LA-07692

Author(s): Bonner, Wayne H.
Year: 2004
Title: Site Visit and Direct and Indirect Ape Historic Architectural Assessments for Sprint Telecommunications Facility Candidate La60xc179a (hope Church) 344 West Florence Avenue, Los Angeles, Los Angeles County, California
Affiliation: Michael Brandmand Associates
Resources: 19-187498, 19-187499
Quads: INGLEWOOD
Pages:
Notes:

LA-07698

Author(s): Billat, Lorna
Year: 2006
Title: Wadsworth/CA-6355a, 7301 South Avalon Blvd., Los Angeles City and County, Ca 90003
Affiliation: EarthTouch Inc.
Resources:
Quads: INGLEWOOD
Pages:
Notes:

LA-07700

Author(s): McKenna, Jeanette A.
Year: 2004
Title: Historic Cultural Resources Study: the Los Angeles Unified School District Central Region Elementary School No. 16, Located at Main Street and 58th Street in the City of Los Angeles, Los Angeles County, California
Affiliation: McKenna et al.
Resources: 19-187537, 19-187538, 19-187539, 19-187540, 19-187541
Quads: INGLEWOOD
Pages:
Notes:

LA-07867

Author(s): Tang, Bai "Tom", Michael Hogan, and Casey Tibbet
Year: 2005
Title: Historic-period Building Survey South Region High School #2 Project in an Unincorporated Area Near the City of Los Angeles, Los Angeles County, California
Affiliation: CRM Tech
Resources:
Quads: INGLEWOOD
Pages:
Notes: 39 addresses on file at SCCIC listed, but no primary numbers assigned

SCCIC Bibliography: Hubert H. Humphrey Health Center

LA-08255

Author(s): Arrington, Cindy and Nancy Sikes
Year: 2006
Title: Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project State of California: Volumes I and Ii
Affiliation: SWCA Environmental Consultants, Inc.
Resources:
Quads: ANAHEIM, BLACK MTN, BURBANK, CAMARILLO, CANOGA PARK, DANA POINT, EL TORO, FRAZIER MOUNTAIN, HOLLYWOOD, INGLEWOOD, LEBEC, LIEBRE MTN, LONG BEACH, LOS ALAMITOS, LOS ANGELES, MOORPARK, NEWHALL, NEWPORT BEACH, OAT MOUNTAIN, ORANGE, OXNARD, PITAS POINT, SAN CLEMENTE, SAN FERNANDO, SAN JUAN CAPISTRANO, SANTA SUSANA, SATICOY, SIMI, SOUTH GATE, TUSTIN, VAN NUYS, VENICE, VENTURA, WARM SPRINGS MOUNTAIN, WHITAKER PEAK, WHITE LEDGE PEAK, WHITTIER
Pages:
Notes: Same as OR3373, VN2504

LA-08270

Author(s): Bonner, Wayne H.
Year: 2006
Title: Cultural Resources Records Search and Site Visit for Sprint Nextel Candidate Ca6359e (kansas), 739 West 56th Street, Los Angeles, Los Angeles County, California
Affiliation: Michael Brandman Associates
Resources:
Quads: INGLEWOOD
Pages:
Notes:

LA-08271

Author(s): Bonner, Wayne H.
Year: 2007
Title: Cultural Resources Records Search and Site Visit for Sprint Nextel Candidate Ca7502b/la25xc157 (stanford), 6701 S. Stanford Avenue, Los Angeles, Los Angeles County, California
Affiliation: Michael Brandman Associates
Resources:
Quads: INGLEWOOD
Pages:
Notes:

LA-08420

Author(s): Jones, Jason D.
Year: 2006
Title: Verizon Cellular Communications Tower Site - Arsenal, 344 West Florence Ave., Los Angeles, Ca Results of Architectural History Survey
Affiliation: URS Corporation
Resources:
Quads: INGLEWOOD
Pages:
Notes:

SCCIC Bibliography: Hubert H. Humphrey Health Center

LA-08502

Author(s): Wood, Catherine M.
Year: 2007
Title: Archaeological Survey Report for the Goodyear Tract Project, 6500-6622 South Stanford Avenue, Los Angeles, California
Affiliation: Jones & Stokes
Resources:
Quads: INGLEWOOD
Pages:
Notes:

LA-08662

Author(s): Foster, John M.
Year: 2007
Title: Archaeological Investigation for South Los Angeles Wetlands Park, City of Los Angeles, California
Affiliation: Greenwood and Associates
Resources:
Quads: INGLEWOOD
Pages:
Notes:

LA-08709

Author(s): Slawson, Dana N.
Year: 2007
Title: South Los Angeles Wetlands Park, Historical Resources Evaluation Report, W.o. Ew40006b
Affiliation: Greenwood and Associates
Resources:
Quads: HOLLYWOOD, INGLEWOOD
Pages:
Notes:

LA-08765

Author(s): Bonner, Wayne H.
Year: 2006
Title: Cultural Resources Records Search Results and Site Visit Results for Sprint Candidate Ca63591d (kansas), 739 West 56th Street, Los Angeles, Los Angeles County, California
Affiliation: Michael Brandman Associates
Resources:
Quads: INGLEWOOD
Pages:
Notes:

LA-08778

Author(s): Bonner, Wayne H.
Year: 2007
Title: Cultural Resources Records Search and Site Visit Results for T-mobile Candidate La13083d (adams Furniture), 6430 South Avalon Boulevard, Los Angeles, Los Angeles County, California
Affiliation: Michael Brandman Associates
Resources:
Quads: INGLEWOOD
Pages:
Notes:

SCCIC Bibliography: Hubert H. Humphrey Health Center

LA-09812

Author(s): Dana N. Slawson
Year: 2008
Title: Historical Resources Documentation Report for the South Los Angeles Wetlands Park Project
Affiliation: Greenwood and Associates
Resources:
Quads: INGLEWOOD
Pages: 132
Notes:

LA-10231

Author(s): Bonner, Wayne H.
Year: 2009
Title: Cultural Resources Records Search and Site Visit Results for AT&T Mobility, LLC Candidate LA0013-01 (Kim's Auto), 5602 South Central Avenue, Los Angeles, Los Angeles County, California
Affiliation: MBA
Resources: 19-186741
Quads: INGLEWOOD
Pages: 12
Notes:

LA-10244

Author(s): Bonner, Wayne H., Arabesque Said, and Kathleen A. Crawford
Year: 2009
Title: Cultural Resources Records Search and Site Visit Results for Clearwire Candidate CA-LOS0125D (Hasting's Ranch), 3701 East Foothill Blvd, Pasadena, Los Angeles County, California
Affiliation: MBA
Resources: 19-188512
Quads: MT WILSON
Pages: 14
Notes:

LA-10536

Author(s): Strauss, Monica
Year: 2003
Title: Archaeological Survey for the Proposed Vermont Avenue Relief Sewer, City of Los Angeles, California
Affiliation: EDAW, Inc.
Resources: 19-003076, 19-100430, 19-186871
Quads: HOLLYWOOD, INGLEWOOD
Pages: 20
Notes:

APPENDIX B:
Native American Coordination Correspondence

STATE OF CALIFORNIA Arnold Schwarzenegger, Governor

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
Web Site www.nahc.ca.gov
ds_nahc@pacbell.net

October 21, 2010

Ms. Caprice "Kip" Harper, Project Manager, Cultural Resources
SWCA ENVIRONMENTAL CONSULTANTS
620 Fair Oaks Avenue, Suite 190
South Pasadena, CA 91030

Sent by FAX to: 626-240-0607
No. of Pages: 4

Re: Request for a Sacred Lands File Search and Native American Contacts list for the **"Hubert H. Humphrey Comprehensive Project;"** located in the Inglewood area south of downtown Los Angeles; Los Angeles County, California

Dear Ms. Harper:

The Native American Heritage Commission, the State of California 'Trustee Agency' for the protection and preservation of Native American cultural resources. The NAHC Sacred Lands File (SLF) search, **did not indicate** the presence of Native American cultural resources within one-half mile of the proposed project site (APE). However, the absence of evidence of archaeological items is not evidence that they are not present at the subsurface level.

Also, this letter includes state and federal statutes relating to Native American historic properties of religious and cultural significance to American Indian tribes and interested Native American individuals as 'consulting parties' under both state and federal law. State law also addresses the freedom of Native American Religious Expression in Public Resources Code §5097.9.

The California Environmental Quality Act (CEQA – CA Public Resources Code 21000-21177, amendments effective 3/18/2010) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per the CEQA Guidelines defines a significant impact on the environment as 'a substantial, or potentially substantial, adverse change in any of physical conditions within an area affected by the proposed project, including ...objects of historic or aesthetic significance." In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE), and if so, to mitigate that effect.

Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries once a project is underway. Culturally affiliated tribes and individuals may have knowledge of the religious and cultural significance of the historic properties in the project area (e.g. APE). We strongly recommend that you contact persons on the attached list of Native American contacts, including non federally recognized tribes/tribal representatives as they are persons with unique expertise in articulating Native American cultural resources.

Furthermore we suggest that you contact the California Historic Resources Information System (CHRIS) for pertinent archaeological data within or near the APE, at (916) 445-7000 for the nearest Information Center.

Consultation with tribes and interested Native American consulting parties, on the NAHC list, should be conducted in compliance with the requirements of federal NEPA (42 U.S.C 4321-43351) and Section 106 and 4(f) of federal NHPA (16 U.S.C. 470 *et seq*), 36 CFR Part 800.3 (f) (2) & .5, the President's Council on Environmental Quality (CSQ, 42 U.S.C 4371 *et seq.* and NAGPRA (25 U.S.C. 3001-3013) as appropriate. The 1992 *Secretary of the Interiors Standards for the Treatment of Historic Properties* were revised so that they could be applied to all historic resource types included in the National Register of Historic Places and including cultural landscapes. Also, federal Executive Orders Nos. 11593 and 13007 are helpful, supportive guides for Section 106 consultation.

Also, Public Resources Code Section 5097.98 and Health & Safety Code Section 7050.5 provide for provisions for accidentally discovered archeological resources during construction and mandate the processes to be followed in the event of an accidental discovery of any human remains in a project location other than a 'dedicated cemetery'.

To be effective, consultation on specific projects must be the result of an ongoing relationship between Native American tribes and lead agencies, project proponents and their contractors, in the opinion of the NAHC. Regarding tribal consultation, a relationship built around regular meetings and informal involvement with local tribes will lead to more qualitative consultation tribal input on specific projects. Also, the 2006 SB 1059 the state enabling legislation to the Federal Energy Policy Act of 2005, does mandate tribal consultation for the 'electric transmission corridors. This is codified in the California Public Resources Code, Chapter 4.3, and §25330 to Division 15, requires consultation with California Native American tribes, and identifies both federally recognized and non-federally recognized on a list maintained by the NAHC. Consultation with Native American communities is also a matter of environmental justice as defined by California Government Code §65040.12(e).

The response to this search for Native American cultural resources is conducted in the NAHC Sacred Lands Inventory, established by the California Legislature (CA Public Resources Code 5097.94(a) and is exempt from the CA Public Records Act (c.f. California Government Code 6254.10) although Native Americans on the attached contact list may wish to reveal the nature of identified cultural resources/historic properties. Confidentiality of "historic properties of religious and cultural significance" may also be protected under Section 304 of he NHA or at the Secretary of the Interior discretion if not eligible for listing on the National Register of Historic Places. The Secretary may also be advised by the federal Indian Religious Freedom Act (cf. 42 U.S.C., 1996) in issuing a decision on whether or not to disclose items of religious and/or cultural significance identified in or near the APE and possibility threatened by proposed project activity.

If you have any questions about this response to your request, please do not hesitate to contact me at (916) 653-6251.

Sincerely,

Dave Singleton
Program Analyst

Attachment: Native American Contact List

Native American Contacts
Los Angeles County
October 21, 2010

LA City/County Native American Indian Comm
Ron Andrade, Director
3175 West 6th Street, Rm.
Los Angeles , CA 90020
randrade@css.lacounty.gov
(213) 351-5324
(213) 386-3995 FAX

Gabrielino Tongva Nation
Sam Dunlap, Chairperson
P.O. Box 86908 Gabrielino Tongva
Los Angeles , CA 90086
samdunlap@earthlink.net

(909) 262-9351 - cell

Ti'At Society/Inter-Tribal Council of Pimu
Cindi M. Alvitre, Chairwoman-Manisar
6515 E. Seaside Walk, #C Gabrielino
Long Beach , CA 90803
calvitre@yahoo.com
(714) 504-2468 Cell

Gabrielino Tongva Indians of California Tribal Council
Robert F. Doramae, Tribal Chair/Cultural
P.O. Box 490 Gabrielino Tongva
Bellflower , CA 90707
gtongva@verizon.net
562-761-6417 - voice
562-925-7989 - fax

Tongva Ancestral Territorial Tribal Nation
John Tommy Rosas, Tribal Admin.
, Gabrielino Tongva
tattnlaw@gmail.com
310-570-6567

Gabrielino-Tongva Tribe
Bernie Acuna
1875 Century Pk East #1500 Gabrielino
Los Angeles , CA 90067
(310) 428-7720 - cell
(310) 587-2281

Gabrieleno/Tongva San Gabriel Band of Mission
Anthony Morales, Chairperson
PO Box 693 Gabrielino Tongva
San Gabriel , CA 91778
GTTribalcouncil@aol.com
(626) 286-1632
(626) 286-1758 - Home
(626) 286-1262 -FAX

Shoshoneon Gabrieleno Band of Mission Indians
Andy Salas, Chairperson
PO Box 393 Gabrieleno
Covina , CA 91723
(626)926-41``31
gabirelenoindians@yahoo.com
213) 688-0181 - FAX

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code. Also, federal National Environmental Policy Act (NEPA), National Historic Preservation Act, Section 106 and federal NAGPRA. And 36 CFR Part 800.

This list is only applicable for contacting local Native Americans for consultation purposes with regard to cultural resources impact by the proposed Hubert H. Humphrey Comprehensive Health Center; located south of Downtown Los Angeles; Los Angeles County, California for which a Sacred Lands File search and Native American Contacts list were requested.

Native American Contacts
Los Angeles County
October 21, 2010

Gabrielino-Tongva Tribe
Linda Candelaria, Chairwoman
1875 Century Park East, Suite 1500
Los Angeles , CA 90067 Gabrielino
lcandelaria1@gabrielinoTribe.org
310-428-5767- cell
(310) 587-2281

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code. Also, federal National Environmental Policy Act (NEPA), National Historic Preservation Act, Section 106 and federal NAGPRA. And 36 CFR Part 800.

This list is only applicable for contacting local Native Americans for consultation purposes with regard to cultural resources impact by the proposed Hubert H. Humphrey Comprehensive Health Center; located south of Downtown Los Angeles; Los Angeles County, California for which a Sacred Lands File search and Native American Contacts list were requested.

SWCA
ENVIRONMENTAL CONSULTANTS
Sound Science. Creative Solutions.

Pasadena Office
625 Fair Oaks Avenue, Suite 190
South Pasadena, CA 91030
Tel 626.240.0587 Fax 626.240.0607
www.swca.com

November 4, 2010

Bernie Acuna
Gabrielino-Tongva Tribe
1875 Century Park East, Suite 1500
Los Angeles, CA 90067

Sent Via U.S. Mail

RE: Cultural Resources Survey for the Hubert H. Humphrey Comprehensive Health Center Project, Los Angeles County

Dear Mr. Acuna:

SWCA Environmental Consultants has been retained to perform cultural resources services for the Hubert H. Humphrey Comprehensive Health Center Project (proposed project) located at 5850 S. Main Street (Assessor's Parcel No. 6006-001-900 and several other vacant parcels), south of downtown Los Angeles in Los Angeles County, California. The proposed project would entail upgrading many of the existing utilities, expansion of the existing Urgent Care and ambulance parking area, and construction of a single-story 48-space parking deck (with ramp) above the existing parking lot. The study area falls within the USGS 7.5-minute Inglewood, California quadrangle, specifically within Township 2 South, Range 13 West, Section 20 (see enclosed project location map).

As part of the process of identifying cultural resources issues for this project, SWCA contacted the Native American Heritage Commission (NAHC) and requested a Sacred Lands File (SLF) search and a list of Native American individuals and/or tribal organizations that may have knowledge of cultural resources in or near the project area. The SLF search "did not indicate the presence of Native American cultural resources within one-half mile of the proposed project site". The NAHC recommends that we consult with you directly regarding your knowledge of the presence of cultural resources that may be impacted by this project.

If you have any knowledge of cultural resources that may exist within or near the project area, please contact me at (626) 240-0587, kharper@swca.com, or at the above address at your earliest convenience. Thank you for your assistance.

Sincerely,

Kip Harper

Caprice 'Kip' Harper, M.A., RPA

Enclosures: Project Location Map and Area of Potential Effects Map

SWCA
ENVIRONMENTAL CONSULTANTS
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Pasadena Office
625 Fair Oaks Avenue, Suite 190
South Pasadena, CA 91030
Tel 626.240.0587 Fax 626.240.0607
www.swca.com

November 4, 2010

Cindi M. Alvitre, Chairwoman-Manisar
Ti'At Society/Inter-Tribal Council of Pimu
6515 E. Seaside Walk, #C
Long Beach, CA 90803

Sent Via U.S. Mail

RE: Cultural Resources Survey for the Hubert H. Humphrey Comprehensive Health Center Project, Los Angeles County

Dear Ms. Alvitre:

SWCA Environmental Consultants has been retained to perform cultural resources services for the Hubert H. Humphrey Comprehensive Health Center Project (proposed project) located at 5850 S. Main Street (Assessor's Parcel No. 6006-001-900 and several other vacant parcels), south of downtown Los Angeles in Los Angeles County, California. The proposed project would entail upgrading many of the existing utilities, expansion of the existing Urgent Care and ambulance parking area, and construction of a single-story 48-space parking deck (with ramp) above the existing parking lot. The study area falls within the USGS 7.5-minute Inglewood, California quadrangle, specifically within Township 2 South, Range 13 West, Section 20 (see enclosed project location map).

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If you have any knowledge of cultural resources that may exist within or near the project area, please contact me at (626) 240-0587, kharper@swca.com, or at the above address at your earliest convenience. Thank you for your assistance.

Sincerely,

Kip Harper

Caprice 'Kip' Harper, M.A., RPA

Enclosures: Project Location Map and Area of Potential Effects Map

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ENVIRONMENTAL CONSULTANTS
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Pasadena Office
625 Fair Oaks Avenue, Suite 190
South Pasadena, CA 91030
Tel 626.240.0587 Fax 626.240.0607
www.swca.com

November 4, 2010

Ron Andrade, Director
L.A. City/County Native American Indian Community
3175 West 6th Street
Los Angeles, CA 90020

Sent Via U.S. Mail

RE: Cultural Resources Survey for the Hubert H. Humphrey Comprehensive Health Center Project, Los Angeles County

Dear Mr. Andrade:

SWCA Environmental Consultants has been retained to perform cultural resources services for the Hubert H. Humphrey Comprehensive Health Center Project (proposed project) located at 5850 S. Main Street (Assessor's Parcel No. 6006-001-900 and several other vacant parcels), south of downtown Los Angeles in Los Angeles County, California. The proposed project would entail upgrading many of the existing utilities, expansion of the existing Urgent Care and ambulance parking area, and construction of a single-story 48-space parking deck (with ramp) above the existing parking lot. The study area falls within the USGS 7.5-minute **Inglewood, California** quadrangle, specifically within **Township 2 South, Range 13 West, Section 20** (see enclosed project location map).

As part of the process of identifying cultural resources issues for this project, SWCA contacted the Native American Heritage Commission (NAHC) and requested a Sacred Lands File (SLF) search and a list of Native American individuals and/or tribal organizations that may have knowledge of cultural resources in or near the project area. The SLF search "did not indicate the presence of Native American cultural resources within one-half mile of the proposed project site". The NAHC recommends that we consult with you directly regarding your knowledge of the presence of cultural resources that may be impacted by this project.

If you have any knowledge of cultural resources that may exist within or near the project area, please contact me at (626) 240-0587, kharper@swca.com, or at the above address at your earliest convenience. Thank you for your assistance.

Sincerely,

Kip Harper

Caprice 'Kip' Harper, M.A., RPA

Enclosures: Project Location Map and Area of Potential Effects Map

SWCA
ENVIRONMENTAL CONSULTANTS
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Pasadena Office
625 Fair Oaks Avenue, Suite 190
South Pasadena, CA 91030
Tel 626.240.0587 Fax 626.240.0607
www.swca.com

November 4, 2010

Linda Candelaria, Chairwoman
Gabrielino-Tongva Tribe
1875 Century Park East, Suite 1500
Los Angeles, CA 90067

Sent Via U.S. Mail

RE: Cultural Resources Survey for the Hubert H. Humphrey Comprehensive Health Center Project, Los Angeles County

Dear Ms. Candelaria:

SWCA Environmental Consultants has been retained to perform cultural resources services for the Hubert H. Humphrey Comprehensive Health Center Project (proposed project) located at 5850 S. Main Street (Assessor's Parcel No. 6006-001-900 and several other vacant parcels), south of downtown Los Angeles in Los Angeles County, California. The proposed project would entail upgrading many of the existing utilities, expansion of the existing Urgent Care and ambulance parking area, and construction of a single-story 48-space parking deck (with ramp) above the existing parking lot. The study area falls within the USGS 7.5-minute Inglewood, California quadrangle, specifically within Township 2 South, Range 13 West, Section 20 (see enclosed project location map).

As part of the process of identifying cultural resources issues for this project, SWCA contacted the Native American Heritage Commission (NAHC) and requested a Sacred Lands File (SLF) search and a list of Native American individuals and/or tribal organizations that may have knowledge of cultural resources in or near the project area. The SLF search "did not indicate the presence of Native American cultural resources within one-half mile of the proposed project site". The NAHC recommends that we consult with you directly regarding your knowledge of the presence of cultural resources that may be impacted by this project.

If you have any knowledge of cultural resources that may exist within or near the project area, please contact me at (626) 240-0587, kharper@swca.com, or at the above address at your earliest convenience. Thank you for your assistance.

Sincerely,

Kip Harper

Caprice 'Kip' Harper, M.A., RPA

Enclosures: Project Location Map and Area of Potential Effects Map

SWCA
ENVIRONMENTAL CONSULTANTS
Sound Science. Creative Solutions.

Pasadena Office
625 Fair Oaks Avenue, Suite 190
South Pasadena, CA 91030
Tel 626.240.0587 Fax 626.240.0607
www.swca.com

November 4, 2010

Robert Doramae, Tribal Chair
Gabrielino Tongva Indians of California Tribal Council
P.O. Box 490
Bellflower, CA 90707

Sent Via U.S. Mail

RE: Cultural Resources Survey for the Hubert H. Humphrey Comprehensive Health Center Project, Los Angeles County

Dear Mr. Doramae:

SWCA Environmental Consultants has been retained to perform cultural resources services for the Hubert H. Humphrey Comprehensive Health Center Project (proposed project) located at 5850 S. Main Street (Assessor's Parcel No. 6006-001-900 and several other vacant parcels), south of downtown Los Angeles in Los Angeles County, California. The proposed project would entail upgrading many of the existing utilities, expansion of the existing Urgent Care and ambulance parking area, and construction of a single-story 48-space parking deck (with ramp) above the existing parking lot. The study area falls within the USGS 7.5-minute **Inglewood, California** quadrangle, specifically within **Township 2 South, Range 13 West, Section 20** (see enclosed project location map).

As part of the process of identifying cultural resources issues for this project, SWCA contacted the Native American Heritage Commission (NAHC) and requested a Sacred Lands File (SLF) search and a list of Native American individuals and/or tribal organizations that may have knowledge of cultural resources in or near the project area. The SLF search "did not indicate the presence of Native American cultural resources within one-half mile of the proposed project site". The NAHC recommends that we consult with you directly regarding your knowledge of the presence of cultural resources that may be impacted by this project.

If you have any knowledge of cultural resources that may exist within or near the project area, please contact me at (626) 240-0587, kharper@swca.com, or at the above address at your earliest convenience. Thank you for your assistance.

Sincerely,

Kip Harper

Caprice 'Kip' Harper, M.A., RPA

Enclosures: Project Location Map and Area of Potential Effects Map

SWCA
ENVIRONMENTAL CONSULTANTS
Sound Science. Creative Solutions.

Pasadena Office
625 Fair Oaks Avenue, Suite 190
South Pasadena, CA 91030
Tel 626.240.0587 Fax 626.240.0607
www.swca.com

November 4, 2010

Sam Dunlap, Chairperson
Gabrielino Tongva Nation
P.O. Box 86908
Los Angeles, CA 90086

Sent Via U.S. Mail

RE: Cultural Resources Survey for the Hubert H. Humphrey Comprehensive Health Center Project, Los Angeles County

Dear Mr. Dunlap:

SWCA Environmental Consultants has been retained to perform cultural resources services for the Hubert H. Humphrey Comprehensive Health Center Project (proposed project) located at 5850 S. Main Street (Assessor's Parcel No. 6006-001-900 and several other vacant parcels), south of downtown Los Angeles in Los Angeles County, California. The proposed project would entail upgrading many of the existing utilities, expansion of the existing Urgent Care and ambulance parking area, and construction of a single-story 48-space parking deck (with ramp) above the existing parking lot. The study area falls within the USGS 7.5-minute Inglewood, California quadrangle, specifically within Township 2 South, Range 13 West, Section 20 (see enclosed project location map).

As part of the process of identifying cultural resources issues for this project, SWCA contacted the Native American Heritage Commission (NAHC) and requested a Sacred Lands File (SLF) search and a list of Native American individuals and/or tribal organizations that may have knowledge of cultural resources in or near the project area. The SLF search "did not indicate the presence of Native American cultural resources within one-half mile of the proposed project site". The NAHC recommends that we consult with you directly regarding your knowledge of the presence of cultural resources that may be impacted by this project.

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Kip Harper

Caprice 'Kip' Harper, M.A., RPA

Enclosures: Project Location Map and Area of Potential Effects Map

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www.swca.com

November 4, 2010

Anthony Morales, Chairperson
Gabrieleno/Tongva San Gabriel Band of Mission Indians
P.O. Box 693
San Gabriel, CA 91778

Sent Via U.S. Mail

RE: Cultural Resources Survey for the Hubert H. Humphrey Comprehensive Health Center Project, Los Angeles County

Dear Mr. Morales:

SWCA Environmental Consultants has been retained to perform cultural resources services for the Hubert H. Humphrey Comprehensive Health Center Project (proposed project) located at 5850 S. Main Street (Assessor's Parcel No. 6006-001-900 and several other vacant parcels), south of downtown Los Angeles in Los Angeles County, California. The proposed project would entail upgrading many of the existing utilities, expansion of the existing Urgent Care and ambulance parking area, and construction of a single-story 48-space parking deck (with ramp) above the existing parking lot. The study area falls within the USGS 7.5-minute **Inglewood, California** quadrangle, specifically within **Township 2 South, Range 13 West, Section 20** (see enclosed project location map).

As part of the process of identifying cultural resources issues for this project, SWCA contacted the Native American Heritage Commission (NAHC) and requested a Sacred Lands File (SLF) search and a list of Native American individuals and/or tribal organizations that may have knowledge of cultural resources in or near the project area. The SLF search "did not indicate the presence of Native American cultural resources within one-half mile of the proposed project site". The NAHC recommends that we consult with you directly regarding your knowledge of the presence of cultural resources that may be impacted by this project.

If you have any knowledge of cultural resources that may exist within or near the project area, please contact me at (626) 240-0587, kharper@swca.com, or at the above address at your earliest convenience. Thank you for your assistance.

Sincerely,

Kip Harper

Caprice 'Kip' Harper, M.A., RPA

Enclosures: Project Location Map and Area of Potential Effects Map

SWCA
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Sound Science. Creative Solutions.

Pasadena Office
625 Fair Oaks Avenue, Suite 190
South Pasadena, CA 91030
Tel 626.240.0587 Fax 626.240.0607
www.swca.com

November 4, 2010

John Tommy Rosas, Tribal Admin.
Tongva Ancestral Territorial Tribal Nation
tattnlaw@gmail.com

RE: Cultural Resources Survey for the Hubert H. Humphrey Comprehensive Health Center Project, Los Angeles County

Dear Mr. Rosas:

SWCA Environmental Consultants has been retained to perform cultural resources services for the Hubert H. Humphrey Comprehensive Health Center Project (proposed project) located at 5850 S. Main Street (Assessor's Parcel No. 6006-001-900 and several other vacant parcels), south of downtown Los Angeles in Los Angeles County, California. The proposed project would entail upgrading many of the existing utilities, expansion of the existing Urgent Care and ambulance parking area, and construction of a single-story 48-space parking deck (with ramp) above the existing parking lot. The study area falls within the USGS 7.5-minute **Inglewood, California** quadrangle, specifically within **Township 2 South, Range 13 West, Section 20** (see enclosed project location map).

As part of the process of identifying cultural resources issues for this project, SWCA contacted the Native American Heritage Commission (NAHC) and requested a Sacred Lands File (SLF) search and a list of Native American individuals and/or tribal organizations that may have knowledge of cultural resources in or near the project area. The SLF search "did not indicate the presence of Native American cultural resources within one-half mile of the proposed project site". The NAHC recommends that we consult with you directly regarding your knowledge of the presence of cultural resources that may be impacted by this project.

If you have any knowledge of cultural resources that may exist within or near the project area, please contact me at (626) 240-0587, kharper@swca.com, or at the above address at your earliest convenience. Thank you for your assistance.

Sincerely,

Kip Harper

Caprice 'Kip' Harper, M.A., RPA

Enclosures: Project Location Map and Area of Potential Effects Map

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ENVIRONMENTAL CONSULTANTS
Sound Science. Creative Solutions.

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South Pasadena, CA 91030
Tel 626.240.0587 Fax 626.240.0607
www.swca.com

November 4, 2010

Andy Salas, Chairperson
Shoshoneon Gabrieleno Band of Mission Indians
P.O. Box 393
Covina, CA 91723

Sent Via U.S. Mail

RE: Cultural Resources Survey for the Hubert H. Humphrey Comprehensive Health Center Project, Los Angeles County

Dear Mr. Salas:

SWCA Environmental Consultants has been retained to perform cultural resources services for the Hubert H. Humphrey Comprehensive Health Center Project (proposed project) located at 5850 S. Main Street (Assessor's Parcel No. 6006-001-900 and several other vacant parcels), south of downtown Los Angeles in Los Angeles County, California. The proposed project would entail upgrading many of the existing utilities, expansion of the existing Urgent Care and ambulance parking area, and construction of a single-story 48-space parking deck (with ramp) above the existing parking lot. The study area falls within the USGS 7.5-minute **Inglewood, California** quadrangle, specifically within **Township 2 South, Range 13 West, Section 20** (see enclosed project location map).

As part of the process of identifying cultural resources issues for this project, SWCA contacted the Native American Heritage Commission (NAHC) and requested a Sacred Lands File (SLF) search and a list of Native American individuals and/or tribal organizations that may have knowledge of cultural resources in or near the project area. The SLF search "did not indicate the presence of Native American cultural resources within one-half mile of the proposed project site". The NAHC recommends that we consult with you directly regarding your knowledge of the presence of cultural resources that may be impacted by this project.

If you have any knowledge of cultural resources that may exist within or near the project area, please contact me at (626) 240-0587, kharper@swca.com, or at the above address at your earliest convenience. Thank you for your assistance.

Sincerely,

Kip Harper

Caprice 'Kip' Harper, M.A., RPA

Enclosures: Project Location Map and Area of Potential Effects Map

From: Gabrieleno Band of Mission Indians
[mailto:gabrielenoindians@yahoo.com]
Sent: Friday, November 26, 2010 8:20 PM
To: Kip Harper
Subject: 5850 S. Main St No 6006-001-900

Dear Kip Harper
This email is in response to your letter dated Nov 14 2010 in regards to the subject project 5850 S.Main St No.6006-001-900 .The proposed project is within a culturally sensitive area and in order to protect our resources we're requesting one of our experienced & certified Native American monitors to be on site during all ground disturbances.

Please contact our office regarding this project to coordinate a NA monitor to be present.

Sincerely,
Andy Salas
Chairman

APPENDIX C

MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION MONITORING AND REPORTING PROGRAM: HUBERT H. HUMPHREY COMPREHENSIVE HEALTH CENTER URGENT CARE EXPANSION PROJECT LOS ANGELES, CALIFORNIA

Section 21081.6 of the Public Resources Code, enacted by passage of AB 3180 (Cortese Bill), requires public agencies approving projects with significant environmental impacts to adopt a Mitigation Monitoring and Reporting Program. This objective of the program is to ensure that mitigation measures adopted to avoid or mitigate potentially significant environmental impacts are implemented. Section 21081.6 of the Public Resources Code requires all state and local agencies to establish monitoring and reporting programs whenever approval of a project relies upon a mitigated negative declaration or an environmental impact report (EIR). In accordance with these requirements, this mitigation monitoring and reporting program has been prepared to ensure that mitigation measures identified in the Initial Study/Mitigated Negative Declaration for the proposed Urgent Care Expansion at the Hubert H. Humphrey Comprehensive Health Center, 5850 S. Main Street, Los Angeles, California 90003 (or subsequent revisions thereto), are implemented in an effective and timely manner, and that identified impacts are avoided or mitigated to a level of insignificance. This plan identifies responsible parties for the mitigation program, and includes a detailed discussion of monitoring and reporting procedures for each mitigation measure.

I. Responsible Party

The Los Angeles County Department of Public Works (LACDPW) or its designee, will be responsible for implementing and reporting mitigation measures in this program. The LACDPW will have responsibility for ensuring that mitigation measures are accomplished in an environmentally responsible manner. The LACDPW will be responsible for ensuring that the status of mitigation measures is reported in accordance with this program. The LACDPW will be responsible for ensuring that the cost of mitigation is included in its budget, as appropriate.

LACDPW will be responsible for program oversight and implementing construction-related mitigation measures. Mitigation measures will be included in applicable requests for proposals (RFP), specifications and procedures issued for construction of the Urgent Care expansion and new parking deck or structure within the scope of this project. Other mitigation measures funded by the selected contractor will be subject to oversight by the LACDPW. In addition, LACDPW will be responsible for ensuring that mitigation measures are properly carried out by designated and qualified personnel, which may include specialty contractors.

The Los Angeles County Department of Health Services (DHS) will be responsible for ensuring that applicable mitigation measures are carried forward in operational and maintenance procedures for the Health Center.

II. Mitigation Requirements

Based on the findings of the Initial Study, mitigation measures are not required for aesthetics, agriculture and forest resources, air quality, biological resources, greenhouse gases, hydrology/water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation and utilities and service systems. Specific mitigation measures are required for cultural resources, geology/soils, hazards and hazardous materials, noise and transportation/traffic. Potentially significant impacts in these environmental resource areas will be avoided or minimized with implementation of eighteen (18) specific mitigation measures summarized on Table C-1.

III. Schedule and Reporting Frequency

Table C-2 describes the method for executing the mitigation measure, organization responsible for implementing the measure, organization responsible for funding the measure, estimated completion date for each measure, frequency of reporting, and significance after mitigation. Due to possible funding

conditions and other external factors, facility construction and operation could be delayed. These delays may also affect the start and completion of mitigation measures.

Table C-1. Summary of Mitigation Measures

Item	Category	Mitigation No.	Mitigation Measure	Section
1	Cultural Resources	Cultural 1	Inadvertent Discovery of Archaeological Materials	2.5.b
2		Cultural 2	Paleontological Monitoring of Excavations Below 10 ft	2.5.c
3		Cultural 3	Inadvertent Discovery of Paleontological Materials	2.5.c
4		Cultural 4	Inadvertent Discovery of Human Remains	2.5.d
5	Geology and Soils	Soils 1	Geotechnical Recommendations	2.6.c
6	Hazards and Hazardous Materials	Hazards 1	Provide Final Plans to ExxonMobil	2.8.d
7		Hazards 2	Advance Notice to ExxonMobil	2.8.d
8		Hazards 3	Advance Notice to ExxonMobil	2.8.d
9		Hazards 4	Soil Management Plan/ Inadvertent Discovery of Contaminated Soils	2.8.d
10	Noise	Noise 1	Route Trucks to Avoid Residential Noise	2.12.a
11		Noise 2	Operation of Vehicles and Equipment Away from Residences	2.12.a
12		Noise 3	Placement of Noise Generating Equipment	2.12.a
13		Noise 4	Noise Complaints	2.12.a
14		Noise 5	Advance Notice of Pile Driving to Residents	2.12.a
15		Noise 6	Noise Control Plan	2.12.a
16		Noise 7	Noise Monitoring Plan	2.12.a
17	Transportation/ Traffic	Traffic 1	Interim Parking During Construction	2.16.a
18		Traffic 2	Interim Parking During Construction	2.16.a

The monitoring and accomplishment of each mitigation measure will be documented on a Mitigation Monitoring Report form (see Exhibit C-1). This form will be filled out by the appropriate individual in the event of an inadvertent discovery of archaeological materials, paleontological materials, or human remains as described in Table C-2. Supplemental recordkeeping, report preparation and documentation will be required for some mitigation measures. The Mitigation Monitoring Report form will be filled out by the appropriate individual verifying that steps to prevent or minimize environmental degradation have been completed as described in Table C-2. Monitoring reports will be submitted to the County Department of Public Works and County Department of Health Services (Attn: Facility Manager), retained in the County's project files, and be available for inspection upon request. Completion of these forms will demonstrate and document compliance with Public Resources Code 21081.6.

Table C-2. Implementation of Mitigation Measures

Mit. No.	Mitigation Measure	Method for Execution of Mitigation	Entity Responsible for Mitigation Monitoring	Completion Date	Frequency of Reporting	Significance After Mitigation
Cultural 1	Inadvertent Discovery of Archaeological Materials	In the event any archaeological materials or subsurface deposits are exposed during ground disturbance, the construction contractor would cease activity in the affected area (e.g., redirect activities into another area) until the discovery can be evaluated by a qualified archaeologist or historic resources specialist, as required, and appropriate treatment measures implemented. If the discovery proves to be significant pursuant to § 15064.5(c) of CEQA Guidelines, additional work such as testing or data recovery will be conducted as warranted. Methods during monitoring and/or recovery of archaeological resources shall be documented in a report of findings.	Los Angeles County Department of Public Works and Construction Contractor(s)	During Construction	Within 10 working days of discovery and at completion of construction	Less than Significant
Cultural 2	Paleontological Monitoring	All project-related ground disturbances in Quaternary older alluvium, any previously undisturbed older alluvial deposits, and all excavation exceeding 10 feet below the surface will be monitored by a qualified paleontological monitor on a full-time basis. A qualified paleontologist will be retained to supervise monitoring of construction excavations.	Los Angeles County Department of Public Works and Construction Contractor(s)	During Construction	Weekly	Less than Significant
Cultural 3	Inadvertent Discovery of Paleontological Materials	In the event paleontological resources are encountered during earthwork, the paleontological monitor will have the authority to cease activity in the affected area (e.g., divert grading away from exposed fossils and redirect activities into another area) until the resources can be evaluated, and the appropriate treatment measures implemented. The paleontologist will determine if the paleontological material should be salvaged, identified and permanently preserved. Recovered fossils will be prepared to the point of curation, identified by qualified experts, listed in a database to facilitate analysis, and reposited in a designated paleontological curation facility.	Los Angeles County Department of Public Works and Construction Contractor(s)	During Construction	Upon discovery and at completion of construction	Less than Significant
Cultural 4	Inadvertent Discovery of Human Remains	In the event human remains are encountered during project construction, the Los Angeles County Coroner shall be immediately contacted to determine whether or not investigation of the cause of death is required. The Coroner shall make a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The Coroner will be notified of the find immediately. In the event the remains are Native American in origin, the Native American Heritage Commission shall be contacted to determine necessary procedures for protection and preservation of remains, including reburial, as provided in the CEQA Guidelines, Section 15064.5(e).	Los Angeles County Department of Public Works and Construction Contractor(s)	During Construction	Upon discovery and at completion of construction	Less than Significant
Soils 1	Geotechnical Recommendations	The proposed project would be designed and constructed in accordance with the recommendations of the project-	Los Angeles County Department of Public Works	Prior to Construction	Prior to Construction	Less than Significant

Mit. No.	Mitigation Measure	Method for Execution of Mitigation	Entity Responsible for Mitigation Monitoring	Completion Date	Frequency of Reporting	Significance After Mitigation
		specific geotechnical investigation including, but not limited to: (a) excavation and proper compaction of the upper 18 inches of existing site soils at the Urgent Care Expansion area for support of concrete slab-on-grade; (b) excavation and proper compaction of the upper 4 feet of existing site soils at the parking deck or structure site; and, (c) review and approval of grading and foundation plans before construction.	and Construction Contractor(s)			
Hazards 1	Provide Final Plans to ExxonMobil	The County of Los Angeles will provide a detailed set of final plans to the ExxonMobil Corporation West Coast/Rockies Pipeline Department for review to determine if there is a conflict with any of their facilities.	Los Angeles County Department of Public Works and Construction Contractor(s)	Prior to Construction	Prior to Construction and at completion of construction	Less than Significant
Hazards 2	Advance Notice to ExxonMobil	The contractor will ensure that a minimum 48-hour notification to the ExxonMobil Corporation West Coast/Rockies Pipeline Department and/or Underground Service Alert (USA) is made before construction of the Urgent Care Expansion and new parking deck or structure initiates.	Los Angeles County Department of Public Works and Construction Contractor(s)	Prior to Construction	Prior to Construction and at completion of construction	Less than Significant
Hazards 3	Advance Notice to ExxonMobil	The contractor shall also contact the ExxonMobil's designated contact at (310) 782-0799 or (562) 921-7150 between the hours of 6:30 a.m. and 3:00 p.m. Monday through Friday, at least 48 hours before commencing construction. An ExxonMobil representative is required to be on site during any construction activities in the vicinity of the pipelines.	Los Angeles County Department of Public Works and Construction Contractor(s)	Prior to Construction	Prior to Construction and at completion of construction	Less than Significant
Hazards 4	Soil Management Plan/ Inadvertent Discovery of Contaminated Soils	The County of Los Angeles Department of Public Works will ensure that design and construction plans include a soil management plan before initiation of construction and earthmoving activities on the site. The plan will address potentially impacted soils that may be encountered on the site during construction. The soil management plan will identify potential chemicals of concern, a health and safety plan, identify individuals responsible for implementation of the plan, dust and odor suppression control methods, procedures for notification and identification of unknown environmental features, site specific soil management protocols, cleanup criteria, and soil reuse options. Any soil generated during construction activities would be characterized for appropriate disposal based on results of laboratory testing. In the event any stained soil or soils appearing to be contaminated are exposed during earthwork, the construction contractor would cease activity in the affected area (e.g., redirect activities into another area) until the soil can be further evaluated. The contractor shall follow the procedures in the soil management plan as approved by the County of Los Angeles Department of Public Works.	Los Angeles County Department of Public Works and Construction Contractor(s)	Prior to and During Construction	Prior to Construction and at completion of construction	Less than Significant

Mit. No.	Mitigation Measure	Method for Execution of Mitigation	Entity Responsible for Mitigation Monitoring	Completion Date	Frequency of Reporting	Significance After Mitigation
Noise 1	Route Trucks to Avoid Residential Noise	The construction contractor shall select truck routes to avoid residences as much as possible.	Los Angeles County Department of Public Works and Construction Contractor(s)	During Construction	During Construction	Less than Significant
Noise 2	Operation of Vehicles and Equipment Away from Residences	The construction contractor will conduct truck loading, unloading, hauling and other operations so that noise is kept to a minimum and avoid generating noise near residences.	Los Angeles County Department of Public Works and Construction Contractor(s)	During Construction	During Construction	Less than Significant
Noise 3	Placement of Noise Generating Equipment	During construction, the use of high noise-generating equipment (i.e., concrete industrial saw) will be kept to a minimum as much as possible.	Los Angeles County Department of Public Works and Construction Contractor(s)	During Construction	During Construction	Less than Significant
Noise 4	Noise Complaints	The construction contractor will post (on the construction site fencing) a phone number for noise complaints on the site, and address complaints within two (2) business days.	Los Angeles County Department of Public Works and Construction Contractor(s)	During Construction	During Construction, following receipt of noise complaints and at completion of construction	Less than Significant
Noise 5	Advance Notice of Pile Driving to Residents	The County of Los Angeles Department of Public Works will provide surrounding residents and businesses (minimum radius of 300 ft) at least 30 days written notice of the start date and duration of pile driving activities.	Los Angeles County Department of Public Works and Construction Contractor(s)	Prior to Use of Pile Driving Equipment)	Prior to Construction and at completion of construction	Less than Significant
Noise 6	Noise Control Plan	The construction contractor will prepare a Noise Control Plan containing site-specific noise attenuation measures to ensure maximum feasible noise attenuation. The plan shall be approved by the County of Los Angeles Department of Public Works. Noise reduction measures may include, but not be limited to: (1) use of temporary noise barriers around the construction site; (2) use of “quiet” pile driving technology based on soils and structural requirements, as feasible; (3) use of noise-control blankets as feasible; (4) limiting hours of operation of the pile drivers based on input from surrounding neighbors and businesses; (5) conducting noise measurements to ensure effective noise reduction; and,(6) implementation of noise reduction measures (as required based on measurements taken) under the supervision of an acoustical consultant.	Los Angeles County Department of Public Works and Construction Contractor(s)	Prior to Construction	Following any receipt of noise complaints and at completion of construction	Less than Significant
Noise 7	Noise Monitoring Plan	The construction contractor shall prepare a Noise Monitoring Plan and implement a noise monitoring program to ensure that noise limits are not exceeded at nearby residences. The plan will be approved by, and monitoring data will be provided to, the County of Los Angeles Department of Public Works.	Los Angeles County Department of Public Works and Construction Contractor(s)	Prior to and During Construction	Prior to Construction and at completion of construction	Less than Significant
Traffic 1	Interim Parking During Construction	The County of Los Angeles Department of Public Works will restripe the southern portion of the existing parking lot	Los Angeles County Department of Public Works	Prior to Construction of	At completion of Parking Deck or	Less than Significant

Mit. No.	Mitigation Measure	Method for Execution of Mitigation	Entity Responsible for Mitigation Monitoring	Completion Date	Frequency of Reporting	Significance After Mitigation
		to maximize the number of available parking spaces during the construction period.	and Construction Contractor(s)	Parking Deck or Structure	Structure	
Traffic 2	Interim Parking During Construction	In the event that 25 or more parking spaces are temporarily unavailable during construction, the County of Los Angeles Department of Public Works will provide attended and/or tandem parking.	Los Angeles County Department of Public Works and Construction Contractor(s)	Prior to Construction of Parking Deck or Structure	At completion of Parking Deck or Structure	Less than Significant

EXHIBIT C-1

MITIGATION MONITORING REPORT FORM

MITIGATION MONITORING REPORT

SECTION 21081.6 PUBLIC RESOURCES CODE

County of Los Angeles Department of Public Works Project Management Division I 900 S. Fremont Avenue, 5th Floor (Attn: Hoda El Sokkary) Alhambra, CA 91803	Page ____ of ____

Project Name

Hubert H. Humphrey Comprehensive Health Center
Urgent Care Expansion

Location **5850 S. Main Street** **Los Angeles, CA 90003**	File No.

Mitigation Measure No. _____

Mitigation Description:

Monitoring Frequency	Reporting Requirement

Remarks

The information contained in this report is an independent evaluation based on my personal observations and information provided to me. In accordance with Section 21081.6 of the California Public Resources Code, I hereby certify under penalty of perjury that the information contained herein is true and correct to the best of my knowledge.

Name of Person Completing Form _____ Title _____

Signature _____ Date Signed _____

Form Received by: _____ Signature: _____

Title: _____ Department/Division: _____ Date Rec'd: _____

Compliance Acceptance: ☐ Yes ☐ No Date Rec'd by Report Recipient: _____

Mitigation Completed: ☐ Yes ☐ No Date Completed:
Monitoring Completed: ☐ Yes ☐ No Date Completed: _____

Attach additional sheets if necessary.

APPENDIX D

GEOTECHNICAL INVESTIGATION

GEOTECHNICAL INVESTIGATION

PROPOSED URGENT CARE EXPANSION AND PARKING STRUCTURE
HHH HEALTH CENTER
5850 SOUTH MAIN STREET
LOS ANGELES, CALIFORNIA

PREPARED FOR

LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS
ALHAMBRA, CALIFORNIA

PROJECT NO. A8559-06-36

NOVEMBER 15, 2010

GEOCON
WEST, INC.
GEOTECHNICAL ■ ENVIRONMENTAL ■ MATERIALS

Project No. A8559-06-36
November 15, 2010

VIA OVERNIGHT DELIVERY

County of Los Angeles Department of Public Works
900 South Fremont Avenue, 5th Floor
Alhambra, CA 91803

Attention: Ms. Hoda El Sokkary

Subject: GEOTECHNICAL INVESTIGATION
PROPOSED URGENT CARE EXPANSION AND PARKING STRUCTURE
HHH HEALTH CENTER
5850 SOUTH MAIN STREET
LOS ANGELES, CALIFORNIA

Dear Ms. El Sokkary:

In accordance with your authorization of our proposal dated June 17, 2010, we have performed a geotechnical investigation for the proposed HHH Health Care Expansion project at the existing Hubert Humphrey Health Center located at 5850 South Main Street in the City of Los Angeles, California. The accompanying report presents the findings of our study, and our conclusions and recommendations pertaining to the geotechnical aspects of proposed design and construction. Based on the results of our investigation, it is our opinion that the site can be developed as proposed, provided the recommendations in this report are followed and implemented during construction.

If you have any questions regarding this report, or if we may be of further service, please contact the undersigned.

Very truly yours,

GEOCON WEST, INC.

REGISTERED GEOLOGIST GERALD KASMAN No. 2251 CERTIFIED ENGINEERING GEOLOGIST STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER JELISA M. THOMAS 74946 EXP 12/31/11 CIVIL STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER NEAL D. BERLINER 2576 EXP 12/31/11 GEOTECHNICAL STATE OF CALIFORNIA

Gerry Kasman	Jelisa Thomas	Neal D. Berliner
CEG 2551	PE 74946	GE 2576

(4 + 1CD) Addressee

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GEOTECHNICAL INVESTIGATION

1. PURPOSE

This report presents the results of a geotechnical investigation for the proposed HHH Health Care Expansion project at the existing Hubert Humphrey Health Center located at 5850 South Main Street in the City of Los Angeles, California (see Figure 1, Vicinity Map). The expansion project will include an approximately 2,200 square-foot addition to the existing Urgent Care facility, as well as the construction of a new parking structure. The purpose of the investigation was to evaluate subsurface soil and geologic conditions underlying the areas of proposed improvement, and based on conditions encountered, provide conclusions and recommendations pertaining to the geotechnical aspects of proposed design and construction.

The scope of our investigation included a site reconnaissance, a field investigation, laboratory testing, engineering analysis, and the preparation of this report. The site was explored on October 19, 2010 by conducting four eight-inch diameter borings utilizing a truck-mounted hollow-stem auger drilling machine to depths between 20½ and 50½ feet below the existing ground surface. In addition, on October 21, 2010 two test pit excavations were conducted to depths of 10 feet below the existing ground surface utilizing hand tools and hand auger equipment. The approximate locations of the exploratory excavations are depicted on the Site Plan, Figure 2. The test pit excavations were conducted to expose the existing foundations and obtain foundation dimensions for consideration in the design of the new waiting area. A detailed discussion of the field investigation, including excavation logs, is presented in Appendix A.

Laboratory tests were performed on selected soil samples obtained during the investigation to determine pertinent physical soil properties. Appendix B presents a summary of the laboratory test results.

The recommendations presented herein are based on analysis of the data obtained during the investigation and our experience with similar soil and geologic conditions. References reviewed to prepare this report are provided in the *List of References* section.

If project details vary significantly from those described above, Geocon should be contacted to determine the necessity for review and possible revision of this report.

2. SITE DESCRIPTION

The subject property is located at 5850 South Main Street in the City of Los Angeles, California. The property is a rectangular parcel and is currently occupied by the existing Hubert Humphrey Health Center, which includes a mixed-level one- to two-story on-grade structure and asphalt paved parking lot. The property is bounded by East Slauson Avenue to the north, by South Main Street to the west, by commercially and residentially occupied parcels to the south, and by Woodman Avenue to the east. The site is relatively level and surface water drainage at the site appears to be by sheet flow along the existing

ground contours to the city streets and area drains. Vegetation consists of shrubs and small trees, located in isolated planer areas.

It is our understanding that both the proposed expansion to the Urgent Care facility and new parking structure are in preliminary phases of development. No project plans were available for our review.

The proposed expansion to the existing Urgent Care facility is anticipated to consist of an approximately 2,200 square-foot, single-story waiting room and waiting corridor addition to the northeast corner of the existing structure. It is anticipated that the addition will consist of the construction of three new walls supported by new foundations, with structural connections to the existing structure.

The proposed parking structure is anticipated to consist of a single-story structure with on grade parking and roof-top parking.

Due to the preliminary nature of the design at this time, wall and column loads were not made available. It is anticipated that wall loads for the proposed addition could be up to 2 kips per linear foot, and column loads could be up to 50 kips.

It is anticipated that wall loads for the proposed parking structure could be up to 5 kips per linear foot, and column loads could be up to 500 kips.

Once the design phase and foundation loading configuration proceeds to a more finalized plan, the recommendations within this report should be reviewed and revised, if necessary. Any changes in the design, location or elevation of any structure, as outlined in this report, should be reviewed by this office. Geocon should be contacted to determine the necessity for review and possible revision of this report.

3. GEOLOGIC SETTING

The site is located in the central portion of the Los Angeles Basin. The Los Angeles Basin is a coastal plain between the Santa Monica Mountains to the north, the Puente Hills and Whittier faults to the east, the Palos Verdes Peninsula and Pacific Ocean to the west, and the Santa Ana Mountains and San Joaquin Hills to the south. The Los Angeles Basin is located in the northern portion of the Peninsular Ranges geomorphic province and is a northwest-trending alluviated lowland plain, sometimes called the Coastal Plain of Los Angeles. The basin is underlain by a deep structural depression which has been filled by both marine and continental sedimentary deposits, which rest on a basement complex of presumably igneous and metamorphic composition (Yerkes, et al., 1965). The basement surface within the central portion of the basin extends to a maximum depth of 32,000 feet below sea level. The prominent structural features within the Los Angeles Basin include the central lowland plain, the uplifted Palos Verdes Hills, and the northwest trending line of low hills and mesas (underlain by the Newport-Inglewood Fault Zone).

4. GEOLOGIC MATERIALS

Based on our field investigation and published geologic maps of the area, the site is underlain by Holocene Age alluvial deposits consisting of varying amounts of poorly graded sand, silty sand, sandy silt and silt extending approximately 100 feet below the existing ground surface. These Holocene Age sediments are underlain by marine and continental sediments of the Pleistocene Age Lakewood Formation and San Pedro Formation at depth, generally consisting of sand, silt and gravel (California Department of Water Resources, 1961).

4.1 Artificial Fill

Various amounts of artificial fill were found throughout the area of the proposed development. The depth of fill in the area of the proposed waiting room expansion was found to vary between 9 and 10½ feet below existing ground surface. Up to 3 feet of existing fill was found in the area of the proposed parking structure. The artificial fill generally consists of brown to grayish brown to yellowish brown poorly graded sand, silty sand, sandy silt and silt with varied amounts of gravel and construction debris. The artificial fill is characterized as slightly moist to moist and loose to medium dense or soft to hard. The fill is likely the result of past grading and demolition activities at the site. Deeper fill may exist between excavations and in other portions of the site that were not directly explored.

4.2 Alluvium

The artificial fill is underlain by relatively flat-lying Holocene age alluvial basin deposits generally consisting of interbedded fine- to medium-grained poorly graded sand, silty sand, sandy silt and silt. The soils are primarily dry to moist, loose to dense or soft to stiff and become denser with increased depth. The soils consist of detrital sediments deposited by the ancestral Los Angeles River.

5. GROUNDWATER

Based on a review of the Seismic Hazard Zone Report for the Inglewood 7.5 Minute Quadrangle, Los Angeles County, California (California Division of Mines and Geology, 1998), the historically highest groundwater level in the area is approximately 25 feet beneath the ground surface. Groundwater information presented in this document is generated from data collected in the early 1900's to present. Based on current groundwater basin management practices, it is unlikely that groundwater levels will ever reach the historic high levels.

The Los Angeles County Department of Public Works maintains various wells in the vicinity of the subject site. Well No. 1441F and Well No. 1442 are located approximately 0.90 mile east and 0.78 mile southeast of the site, respectively (LADPW, 2010). Review of the monitoring data between 1952 and 2009 for Well No. 1441F indicates that the depth to groundwater has fluctuated between 152.1 and 291.1 feet beneath the ground surface (LADPW, 2010). The most recent groundwater level measurement for

Well No. 1441F was measured in September, 2009 at a depth of 184.1 feet below the existing ground surface (LADPW, 2010). Review of the monitoring data between 1934 and 1983 for Well No. 1442 indicates that the depth to groundwater has fluctuated between 82.0 and 191.2 feet beneath the ground surface (LADPW, 2010). The most recent groundwater level measurement for Well No. 1442 was measured in August, 1983 at a depth of 113.0 feet below the existing ground surface (LADPW, 2010).

The site is located within the Central Basin of Los Angeles County (see figure on the following page). According to the State of California Department of Water Resources (DWR), groundwater development in the Central Basin increased dramatically in 1909, with the advent of the deep-well turbine pump. With time the demand for groundwater exceeded the natural replenishment of water within the Central Basin. This overdraft affected the groundwater situation in the basin by lowering the water levels and by causing oceanfront areas to be subject to sea water intrusion.

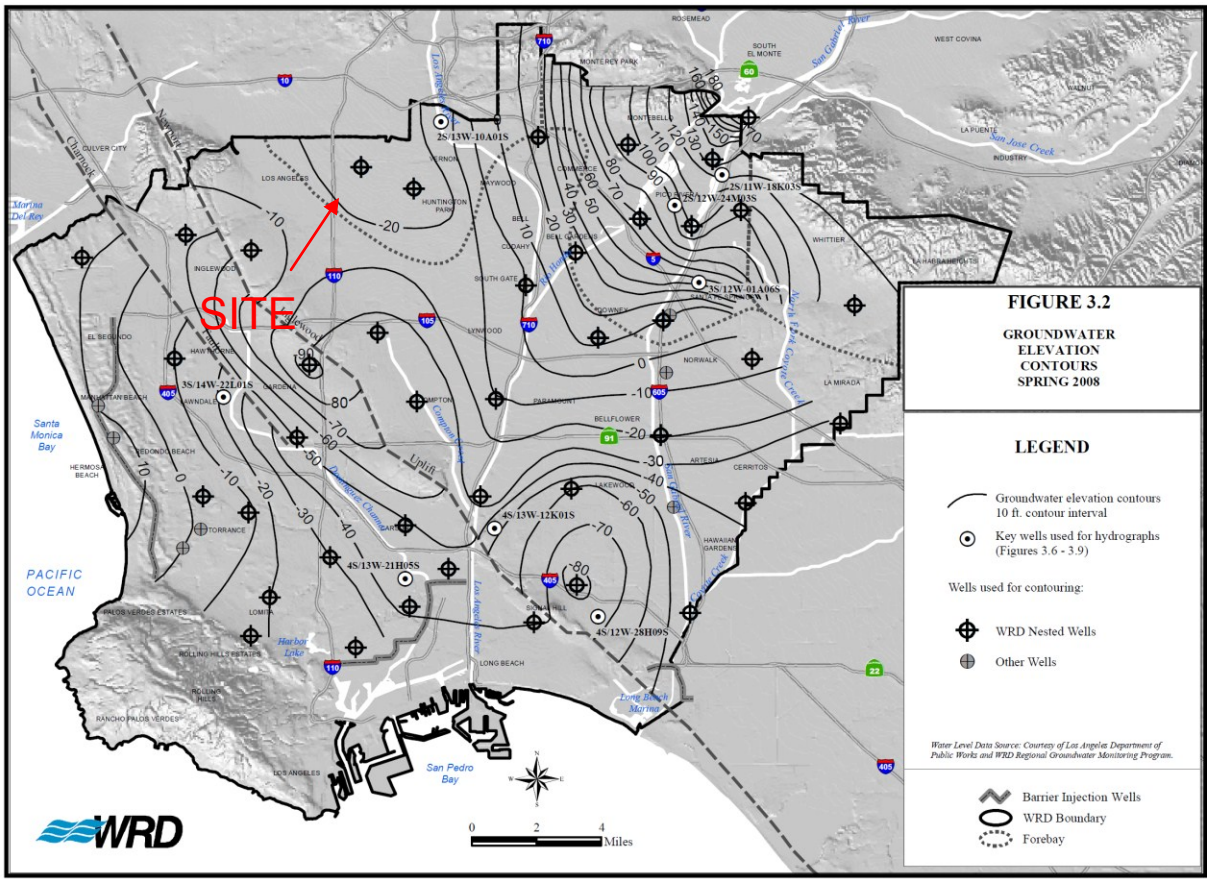
In 1950, the Central Basin Water Association was formed to address the deteriorating groundwater situation in the Central Basin, and to develop a water management plan. In 1959 the Central and West Basin Water Replenishment District (CWBWRD) was formed, with the objective to replenish and maintain the groundwater basin by purchasing imported water, recharging basins and halting sea water intrusion. In 1962, the CWBWRD brought litigation against 700 defendants, and sought to obtain title to the right to use groundwater and regulate withdrawals from the Central Basin to protect the water supply from deterioration. As a result, in 1962 the DWR was appointed as Watermaster to manage the groundwater within the Central Basin. The Watermaster's primary responsibility is to administer the water management plan and issue annual reports to the Court on groundwater related events within the Basin. As part of this plan, every groundwater pumper in the basin provides DWR a monthly report of its extractions.

The CWBWRD has since changed its name to the Water Replenishment District of Southern California (WRD). The WRD's hydrogeologists and engineers closely monitor, collect data and manage the groundwater resources of the District throughout the year, utilizing a computer model developed by the United States Geological Survey (USGS) to simulate groundwater conditions and to predict future conditions. The DWR cooperates closely with the WRD to maintain a balance between outflow/extractions and replenishment of groundwater by natural and artificial recharge. The 1962 Judgment limits the extraction of groundwater from the Basin to 217,367 acre-feet annually, so imported water has become a major component of the area's water supply. WRD tracks groundwater in the production wells and monitoring wells located throughout the District to observe the conditions of the basins and to identify any up or down trends that may impact groundwater resources.

There is a high annual demand for groundwater within the Central Basin, and the Basin has an overdraft every year, which means that pumping exceeds natural groundwater replenishment. The overdraft is made up by purchasing artificial replenishment (imported and recycled water) to help make up the difference. According to a 2002 report by DWR, historical groundwater extractions and the use of imported water

within the Central Basin for the years 1957-58 to 2002-03 indicate that the amount of groundwater extracted has remained essentially the same since 1962-63 and the imported water usage has been consistent since 1983-84. In conjunction with the WRD, the DWR systematically and continuously monitors and manages the groundwater use and changes in water levels within the Basin. Over the past 45 years, the withdrawal of groundwater by pumping has remained essentially constant, and every year there is an overdraft, because the amount pumped exceeds the amount of natural replenishment. The amount pumped also does not meet the total annual demand for water. As a result, the WRD purchases imported water and reclaimed water to meet the high demand as well as to maintain a balance between the water extracted and the natural replenishment that occurs. This approach does not significantly change the annual amount of water stored in the Basin. Going forward, if the management plan used for the past 45 years is maintained, there should not be any significant change in the depth to groundwater compared to the range of current levels. In fact, as the population increases the demand will certainly continue to increase.

According to the Groundwater Elevation Contours Map below (WRD, 2008) the depth of groundwater in the area of the site is at an approximate Elevation -20 feet MSL. The ground surface elevation of the site is approximately 155 feet MSL; therefore, the depth of groundwater is approximately 175 feet below the ground surface, which is relatively consistent with current water level measurements observed in the LADPW Well No. 1441F and Well No. 1442.



Groundwater was not encountered in our field explorations, drilled to a maximum of 50½ feet below the ground surface. However, it is not uncommon for groundwater levels to vary seasonally or for groundwater conditions to develop where none previously existed, especially in impermeable fine-grained soils which are heavily irrigated or after seasonal rainfall. Proper surface drainage of irrigation and precipitation will be critical for future performance of the project. Recommendations for drainage are provided in the S*urface Drainage* section of this report (see Section 8.20).

6. GEOLOGIC HAZARDS

6.1 Surface Fault Rupture

The numerous faults in Southern California include active, potentially active, and inactive faults. The criteria for these major groups are based on criteria developed by the California Geological Survey (formerly known as California Division of Mines and Geology (CDMG)) for the Alquist-Priolo Earthquake Fault Zone Program (Hart, 1999). By definition, an active fault is one that has had surface displacement within Holocene time (about the last 11,000 years). A potentially active fault has demonstrated surface displacement during Quaternary time (approximately the last 1.6 million years), but has had no known Holocene movement. Faults that have not moved in the last 1.6 million years are considered inactive.

The site is not within a currently established Alquist-Priolo Earthquake Fault Zone for surface fault rupture hazards. No active or potentially active faults with the potential for surface fault rupture are known to pass directly beneath the site. Therefore, the potential for surface rupture due to faulting occurring beneath the site during the design life of the proposed development is considered low. The site, however, is located in the seismically active Southern California region, and could be subjected to moderate to strong ground shaking in the event of an earthquake on one of the many active Southern California faults. The faults in the vicinity of the site are shown in Figure 3, Regional Fault Map.

The closest active fault to the site is the Newport-Inglewood Fault Zone located approximately 3.6 miles west of the site (Ziony and Jones, 1989). Other nearby active faults are the Hollywood Fault, the Santa Monica Fault, the Raymond Fault and the Verdugo Fault located 8.3 miles north, 9.0 miles northwest, 9.2 miles north and 11½ miles north-northeast of the site, respectively (Ziony and Jones, 1989). The active San Andreas Fault Zone is located approximately 38 miles northeast of the site.

The closest potentially active fault to the site is the MacArthur Park Fault located approximately 4.2 miles northeast of the site. Other nearby potentially active fault are the Coyote Pass Fault, the Overland Fault, and the Charnock Fault located approximately 4.6 miles northeast, 6.1 miles west, and 7.2 miles west of the site, respectively (Ziony and Jones, 1989).

Several buried thrust faults, commonly referred to as blind thrusts, underlie the Los Angeles Basin at depth. These faults are not exposed at the ground surface and are typically identified at depths greater than 3.0 kilometers. The October 1, 1987 M_w 5.9 Whittier Narrows earthquake, and the January 17, 1994 M_w 6.7 Northridge earthquake were a result of movement on the buried thrust faults. These thrust faults are not exposed at the surface and do not present a potential surface fault rupture hazard; however, these active features are capable of generating future earthquakes.

6.2 Seismicity

As with all of Southern California, the site has experienced historic earthquakes from various regional faults. The seismicity of the region surrounding the site was formulated based on research of an electronic database of earthquake data. The epicenters of recorded earthquakes with magnitudes equal to or greater than 4.0 within a radius of 60 miles of the site are depicted on Figure 4, Regional Seismicity Map. A number of earthquakes of moderate to major magnitude have occurred in the Southern California area within the last 100 years. A partial list of these earthquakes is included in the following table.

LIST OF HISTORIC EARTHQUAKES

Earthquake (Oldest to Youngest)	Date of Earthquake	Magnitude	Distance to Epicenter (Miles)	Direction to Epicenter
Lake Elsinore area	May 15, 1910	6.0	54	SE
San Jacinto-Hemet area	April 21, 1918	6.8	75	E
Near Redlands	July 23, 1923	6.3	59	E
Long Beach	March 10, 1933	6.4	31	SE
Tehachapi	July 21, 1952	7.5	82	NNW
San Fernando	February 9, 1971	6.6	30	N
Whittier Narrows	October 1, 1987	5.9	12	NE
Sierra Madre	June 28, 1991	5.8	25	NNE
Landers	June 28, 1992	7.3	106	ENE
Big Bear	June 28, 1992	6.4	84	ENE
Northridge	January 17, 1994	6.7	22	NNW
Hector Mine	October 16, 1999	7.1	122	NE

The site could be subjected to strong ground shaking in the event of an earthquake. However, this hazard is common in Southern California and the effects of ground shaking can be mitigated if the proposed structures are designed and constructed in conformance with current building codes and engineering practices.

6.3 Estimation of Peak Ground Accelerations

The seismic exposure of the site may be investigated in two ways. The deterministic approach recognizes the Maximum Earthquake, which is the theoretical maximum event that could occur along a fault. The deterministic method assigns a maximum earthquake to a fault derived from formulas that correlate the length and other characteristics of the fault trace to the theoretical maximum magnitude earthquake. The probabilistic method considers the probability of exceedance of various levels of ground motion and is calculated by consideration of risk contributions from regional faults.

6.3.1 Deterministic Analysis

Table 1 shows known faults within a 60 mile radius of the site. The maximum earthquake magnitude is indicated for each fault. In order to measure the distance of known faults to the site, the computer program *EQFAULT*, (Blake, 2000), was utilized. Principal references used within *EQFAULT* in selecting faults to be included are Jennings (1994), Anderson (1984) and Wesnousky (1986). For this investigation, the ground motion generated by maximum earthquakes on each of the faults is assumed to attenuate to the site per the attenuation relation by Sadigh et al. (1997). The resulting calculated peak horizontal accelerations at the site are shown on Table 1. These values are one standard deviation above the mean.

Using this methodology, the maximum earthquake resulting in the highest peak horizontal accelerations at the site would be a magnitude 7.1 event on the Puente Hills Blind Thrust Fault. Such an event would be expected to generate peak horizontal accelerations at the site of 0.74g.

While listing of peak accelerations is useful for comparison of potential effects of fault activity in a region, other considerations are important in seismic design, including the frequency and duration of motion and the soil conditions underlying the site.

The site could be subjected to moderate to severe ground shaking in the event of a major earthquake on any of the faults referenced above or other faults in Southern California. With respect to seismic shaking, the site is considered comparable to the surrounding developed area.

6.3.2 Probabilistic Analysis

The computer program *FRISKSP* (Blake, 2000) was used to perform a site-specific probabilistic seismic hazard analysis. The program is a modified version of FRISK (McGuire, 1978) that models faults as lines to evaluate site-specific probabilities of exceedance of given horizontal accelerations for each line source. Geologic parameters not included in the deterministic analysis are included in this analysis. The program operates under the assumption that the occurrence rate of earthquakes on each mapped Quaternary Fault is proportional to the fault's slip rate. The program accounts for fault rupture length as a function of

earthquake magnitude, and site acceleration estimates are made using the earthquake magnitude and closest distance from the site to the rupture zone.

Uncertainty in each of following are accounted for: (1) earthquake magnitude, (2) rupture length for a given magnitude, (3) location of the rupture zone, (4) maximum magnitude of a given earthquake, and (5) acceleration at the site from a given earthquake along each fault.

After calculating the expected accelerations from all earthquake sources, the program then calculates the total average annual expected number of occurrences of the site acceleration greater than a specified value. Attenuation relationships suggested by Sadigh et al. (1997) were utilized in the analysis.

The Maximum Considered Earthquake Ground Motion (MCE) is the level of ground motion that has a 2 percent chance of exceedance in 50 years, with a statistical return period of 2,500 years. According to 2007 California Building Code and ASCE 7-05, the MCE is to be utilized for the design of critical structures such as schools and hospitals.

The Design-Basis Earthquake Ground Motion (DBE) is the level of ground motion that has a 10 percent chance of exceedance in 50 years, with a statistical return period of 475 years. The DBE is typically used for the design of non-critical structures. Based on the computer program *FRISKSP* (Blake, 2000), the MCE and DBE is expected to generate motions at the site of approximately 0.68g and 0.45g, respectively. Graphical representation of the analysis is presented on Figure 5.

6.4 Seismic Design Criteria

The following table summarizes site-specific design criteria obtained from the 2007 California Building Code (CBC; Based on the 2006 International Building Code [IBC]), Chapter 16 Structural Design, Section 1613 Earthquake Loads. The values were derived using the computer program Seismic Hazard Curves and Uniform Hazard Response Spectra, provided by the USGS. The short spectral response uses a period of 0.2 second.

TABLE
CBC SEISMIC DESIGN PARAMETERS

Parameter	Value	CBC-07 Reference
Site Class	D	Table 1613.5.2
Spectral Response – Class B (short), S_S	1.690g	Figure 1613.5(3)
Spectral Response – Class B (1 sec), S_1	0.604g	Figure 1613.5(4)
Site Coefficient, F_a	1.0	Table 1613.5.3(1)
Site Coefficient, F_v	1.5	Table 1613.5.3(2)
Maximum Considered Earthquake Spectral Response Acceleration (short), S_{MS}	1.690g	Section 1613.5.3 (Eqn 16-37)
Maximum Considered Earthquake Spectral Response Acceleration – (1 sec), S_{M1}	0.906g	Section 1613.5.3 (Eqn 16-38)

5% Damped Design Spectral Response Acceleration (short), S_{DS}	1.126g	Section 1613.5.4 (Eqn 16-39)
5% Damped Design Spectral Response Acceleration (1 sec), S_{D1}	0.604g	Section 1613.5.4 (Eqn 16-40)

Conformance to the criteria in the above table for seismic design does not constitute any kind of guarantee or assurance that significant structural damage or ground failure will not occur if a large earthquake occurs. The intent of the code is "Life Safety," not to completely prevent damage to the structure, since such design may be economically prohibitive.

6.5 Liquefaction Potential

Liquefaction is a phenomenon in which loose, saturated, relatively cohesionless soil deposits lose shear strength during strong ground motions. Primary factors controlling liquefaction include intensity and duration of ground motion, gradation characteristics of the subsurface soils, in-situ stress conditions and the depth to groundwater. Liquefaction is typified by a loss of shear strength in the liquefied layers due to rapid increases in pore water pressure generated by earthquake accelerations.

The current standard of practice, as outlined in the "Recommended Procedures for Implementation of DMG Special Publication 117, Guidelines for Analyzing and Mitigating Liquefaction in California" requires liquefaction analysis to a depth of fifty feet below the lowest portion of the proposed structure. Liquefaction typically occurs in areas where the soils below the water table are composed of poorly consolidated, fine to medium-grained, primarily sandy soil. In addition to the requisite soil conditions, the ground acceleration and duration of the earthquake must also be of a sufficient level to induce liquefaction.

According to the State of California Seismic Hazard Zone, Inglewood Quadrangle Map (1999) the site is located within an area identified as having a potential for liquefaction. The Building Code and DMG Special Publication 117, Guidelines for Analyzing and Mitigating Liquefaction in California, require exploration to a minimum depth of 50 feet below the lowest portion of the proposed structure to assess liquefaction potential for the development. However, a review of the County of Los Angeles Seismic Safety Element (Leighton, 1990) and the City of Los Angeles Seismic Safety Element (1996) indicates that the site is not located within an area identified as having a potential for liquefaction. Furthermore, based on the Water Replenishment District's current groundwater management practices combined with data collected by the Los Angeles County Department of Public Works over the past 70 years from nearby wells in the vicinity of the subject site, it is our opinion that the depth to groundwater will be maintained below a depth of 50 feet.

Based on these considerations, it is our opinion that the potential for liquefaction of the site soils is very low. Further, no surface manifestations of liquefaction are expected at the subject site.

6.6 Seismically-Induced Settlement

Seismically-induced settlement is often caused by loose to medium-dense granular soils densified during ground shaking. Uniform settlement beneath a given structure would cause minimal damage; however, because of variations in distribution, density, and confining conditions of soils, seismically-induced settlement is generally non-uniform and can cause serious structural damage. Dry and partially saturated soils as well as saturated granular soils are subject to seismically-induced settlement. Generally, differential settlements induced by ground failures such as liquefaction, flow slides, and surface ruptures would be much more severe than those caused by densification alone.

The seismically-induced settlement calculations were performed in accordance with the American Society of Civil Engineers, Technical Engineering and Design Guides as adapted from the US Army Corps of Engineers, No. 9. The calculations are provided herein for Borings 1 and 4 and indicate that the upper 50 feet of site soils could be prone to up to between 1.32 and 0.49 inches of total settlement as a result of the DBE ground motion, respectively (see enclosed calculation sheets, Figures 6 and 7). The differential settlement across the site, measured between Borings 1 and 4 (approximately 870 feet), is 0.83 inches, which is less than 0.05 inches over a distance of 30 feet. Settlement of this magnitude is considered negligible and tolerable provided conventional static settlement is considered in design.

6.7 Landslides

According to the State of California Seismic Hazard Zone, Inglewood Quadrangle Map (1999) the site is not within an area identified as having a potential for slope instability. Additionally, according to the County of Los Angeles Seismic Safety Element (Leighton, 1990) and the City of Los Angeles Seismic Safety Element (1996) the site is not located within an area identified as having a potential for seismic slope instability. The site and surrounding vicinity is gently sloping to the south. There are no known landslides near the site, nor is the site in the path of any known or potential landslides. We do not consider the potential for a landslide to be a hazard to this project.

6.8 Earthquake-Induced Flooding

Earthquake-induced flooding is inundation caused by failure of dams or other water-retaining structures due to earthquakes. Based on a review of the Los Angeles County Seismic Safety Element (Leighton, 1990), the site is located within a potential inundation area for an earthquake-induced dam failure from Hansen Dam and the Sepulveda Dam. However, these dams, as well as others in California, are continually monitored by various governmental agencies (such as the State of California Division of Safety of Dams and the U.S. Army Corps of Engineers) to guard against the threat of dam failure. The possibility of dam failures during an earthquake has been addressed by the California Geological Survey in the earthquake planning scenarios for a magnitude 8.3 earthquake on the San Andreas fault zone (Davis et al., 1982) and a magnitude 7.0 earthquake on the Newport-Inglewood fault zone (Toppozada et al., 1988). As stated in both reports, catastrophic failure of a major dam as a result of a scenario earthquake is

regarded as unlikely. Current design and construction practices, and ongoing programs of review, modification, or total reconstruction of existing dams are intended to ensure that all dams are capable of withstanding the maximum considered earthquake (MCE) for the site. Therefore, the potential for inundation at the site as a result of an earthquake-induced dam failure is considered low.

6.9 Tsunamis and Seiches

The site is not located within a coastal area. Therefore, tsunamis, seismic sea waves, are not considered a significant hazard at the site.

Seiches are large waves generated in enclosed bodies of water in response to ground shaking. No major water-retaining structures are located immediately up gradient from the project site. Flooding from a seismically-induced seiche is considered unlikely.

The site is in an area of minimal flooding potential (Zone X) as defined by the Federal Insurance Administration (FEMA).

6.10 Oil Fields & Methane Potential

Based on a review of the California Division of Oil, Gas and Geothermal Resources (DOGGR) Oil and Gas Well Location Map W1-5, the site is not located within the boundaries of an oil field. No oil wells are located in the immediate vicinity of the site. However, due to the voluntary nature of record reporting by the oil well drilling companies, wells may be improperly located or not shown on the location map. Other wells could be encountered during construction. Any wells encountered will need to be properly abandoned in accordance with the current requirements of the DOGGR.

The site is not located within the boundaries of a methane or methane buffer zone, as defined by the City of Los Angeles (2004).

6.11 Subsidence

Subsidence occurs when a large portion of land is displaced vertically, usually due to the withdrawal of groundwater, oil, or natural gas. Soils that are particularly subject to subsidence include those with high silt or clay content. The area surrounding the site is not within an area of known ground subsidence. No large-scale extraction of groundwater, gas, oil, or geothermal energy is occurring or planned at the site. There appears to be little or no potential for ground subsidence due to withdrawal of fluids or gases at the site.

7. ENVIRONMENTAL SAMPLING & TESTING

7.1 General

Per the Clients request, select soil samples collected from the borings were transported to a laboratory for analyses of chemical constituents of concern. Soil samples for environmental testing were collected from each of the four borings at depths of approximately 8.0 to 8.5 feet. The soil samples were collected in 6-inch long stainless steel sleeves driven ahead of the drill bit with a split-spoon sampler. The split-spoon sampler used to collect the samples was decontaminated between uses by washing with a non-phosphate detergent, rinsing in clean water, and final rinsing with distilled water.

The soil samples to be tested for volatile organic compounds and gasoline range petroleum hydrocarbons were collected and preserved in the field following EPA Method 5035 protocols as follows:

- Six aliquots of soil were collected by driving a tool, specifically designed to remove five grams of soil, directly into the soil within one of the stainless steel sleeves.
- The soil aliquots were then placed into VOA vials provided by the analytical laboratory containing pre-measured volumes of preservative.

Additionally a second stainless steel sleeve of soil from each sample location was capped, labeled, placed in a re-sealable plastic bag, and submitted to the analytical laboratory for testing. After collection the soil samples were placed in a chilled cooler pending shipment to the analytical laboratory.

The soil samples were submitted, following chain-of-custody procedures, to Advanced Technology Laboratories, a State certified analytical laboratory located in Signal Hill, California, for analysis of Title 22 metals by EPA Test Method 6010B/7471A, extended range (C6-C40) total petroleum hydrocarbons (TPH) by modified EPA Test Method 8015B, volatile organic compounds (VOCs) by EPA Test Method 8260B, organochlorine pesticides by EPA Test Method 8081A, organophosphorous pesticides by EPA Test Method 8141A, and semi-volatile organic compounds (SVOCs) by EPA Test Method 8270C.

7.2 Findings

A summary of the soil analytical results for metals, TPH, VOCs, Pesticides, and SVOCs presented in Table 1 in Appendix C. Reproductions of the laboratory report and chain-of-custody documentation are presented as Appendix C. Analyses were processed using laboratory ten-business-day turn-around time. Soil sample analytical results are summarized below:

- Each of the four samples were reported to contain concentrations of the following metals: arsenic, barium, chromium, cobalt, copper, lead, nickel, vanadium, and zinc. The metal molybdenum was also reported in the soil sample collected from 8-feet in boring B1 (sample B1-8).

- The sample from boring B1 was reported to contain 110 milligrams per kilogram (mg/kg) of TPH. The TPH reported in this sample appears to be in the waste oil range based on the carbon

chain number (C28-C40). Concentrations of TPH, greater than or equal to the laboratory reporting limits, were not reported for the other three samples analyzed.

- The sample from boring B1 was reported to contain the VOCs tetrachloroethene (PCE) and trichloroethene (TCE) at a concentration of 7.7 micrograms per kilogram (µg/kg) and 7.0 µg/kg, respectively. Concentrations of VOCs, greater than or equal to the laboratory reporting limits, were not reported for the other three samples analyzed.

- Concentrations of organochlorine pesticides, organophosphorous pesticides, and SVOCs were not reported for any of the samples analyzed.

The reported metals concentrations were compared to the California Human Health Screening Levels (CHHSLs) for residential land use published in the California Environmental Protection Agency *Use of California Human Health Screening Levels in Evaluation of Contaminated Properties,* dated January 2005. With the exception of arsenic, none of the reported metals concentrations exceeded their respective CHHSL.

Arsenic concentrations exceeding the CHHSL were reported in the soil samples collected from the Site. However, arsenic is a naturally occurring element commonly found in soils at concentrations in excess of CHHSL. Natural background concentrations of arsenic in California are often much greater than the CHHSL, which is 0.07 mg/kg for residential land use. Based on the statistical evaluation of arsenic concentrations in 1,337 soil samples collected from the Los Angeles area, the Department of Toxic Substances Control (DTSC), a division of the California EPA, generally accepts levels less than 11.5 mg/kg to be considered background concentrations. The concentrations of arsenic reported in the soil samples collected from the Site ranged from 1.1 to 3.7 mg/kg which is within the range of naturally occurring arsenic.

The sample collected from boring B1 was reported to contain PCE and TCE at concentrations of 7.7 µg/kg and 7.0 µg/kg, respectively. The reported VOC concentrations were compared with the United States Environmental Protection Agency's Regional Screening Levels (RSLs) for residential land use. The concentrations of PCE and TCE reported in the soil sample do not exceed their respective RSLs for residential land use.

A TPH concentration of 110 mg/kg was reported for the sample collected from Boring 1. CHHSLs and RSLs for TPH have not been developed; however local government agencies providing oversight of environmental cleanup projects frequently allow TPH concentrations less than 1,000 to remain in place.

8. CONCLUSIONS AND RECOMMENDATIONS

8.1 General

8.1.1 It is our opinion that neither soil nor geologic conditions were encountered during the investigation that would preclude the construction of the proposed improvements provided the recommendations presented herein are followed and implemented during construction.

8.1.2 Up to 3 feet of existing artificial fill was encountered within the area of study for the proposed parking structure. The fill is believed to be the result of past grading and construction activities at the site. Deeper fill may exist in other areas of the site that were not directly explored. It is our opinion that the existing fill, in its present condition, is not suitable for direct support of proposed foundations or slabs. These soils, and any soils disturbed during site demolition activities, should be excavated, well blended and properly compacted for support of proposed foundations and slabs. The existing site soils are suitable for re-use as engineered fill provided the recommendations in the *Grading* section of this report are followed (See Section 8.5).

8.1.3 Based on this consideration, it is recommended that the upper four feet of existing site soils within the footprint of the proposed parking structure be excavated and properly compacted for foundation and slab support. Any encountered deeper artificial fill or soft alluvial soil should be completely over-excavated as necessary at the direction of the Geocon representative. The excavation should extend laterally a minimum distance of five feet beyond the parking structure footprint area or for a distance equal to the depth of fill below the foundations, whichever is greater. Recommendations for earthwork are provided in the *Grading* section of this report (see Section 8.5).

8.1.4 Subsequent to the recommended grading, a conventional foundation system may be utilized for support of the proposed parking structure provided foundations derive support in the newly placed engineered fill. All foundations should be underlain by at least two feet of newly placed engineered fill.

8.1.5 Within the area of the proposed Urgent Care facility expansion, up to 10½ feet of existing artificial fill was encountered. Samples of existing artificial fill were collected for laboratory analysis, and based on the laboratory test results, it is our opinion that the existing artificial fill exhibits density, moisture, and consolidation characterizes which are considered competent and suitable to be utilized for support of proposed foundations. Therefore, it is recommended that a conventional shallow spread foundation system, deriving support in the existing artificial fill, be utilized for support of the proposed building addition. As a minimum it is recommended that the upper 18 inches of existing site soils be excavated and properly compacted for support of the concrete slab-on-grade.

8.1.6 If for any reason the building official will not allow foundations or slabs to derive support in the existing artificial fill, excavation of the existing artificial fill materials within the area of the proposed Urgent Care Facility expansion is not recommended. Deep continuous excavation immediately adjacent to the existing health care structure would remove support from the existing structure, which is not acceptable. Therefore, if the existing artificial fill cannot be used for support of the proposed building expansion, it is recommended that foundations be deepened to bear in the alluvial soils found at or below a depth of 10 feet. This may be accomplished through the use of drilled, cast in place end-bearing caissons.

8.1.7 In addition, if the building official will not allow use of the existing artificial fill for support of the proposed addition, it is recommended that the interior slab be designed as a structural slab that derives all support from the deepened foundation system, eliminating permanent reliance on the soil immediately underlying the slab. If the subgrade soils are soft or disturbed, compaction of the soils will be required to create a stable subgrade prior to placing steel or concrete for structural slab construction. Any required compaction effort will be directed by the Geotechnical Engineer (a representative of Geocon).

8.1.8 It is anticipated that the majority of the recommended grading excavations for the construction of the proposed parking structure and building addition can be achieved with sloping and/or slot-cutting measures. Excavation recommendations are provided in the *Temporary Excavations* section of this report (Section 8.19).

8.1.9 Foundations for small outlying structures, such as block walls, planter walls or trash enclosures, which will not be tied-in to the proposed structures, may be supported on conventional foundations bearing on a minimum of 12 inches of newly placed engineered fill. Where excavation and compaction cannot be performed, foundations may bear in the competent alluvial soils. If the soils exposed in the excavation bottom are soft, compaction of the soft soils will be required prior to placing steel or concrete. Compaction of the foundation excavation bottom is typically accomplished with a compaction wheel or mechanical whacker and must be observed and approved by a Geocon representative.

8.1.10 Where new paving is to be placed, it is recommended that all existing fill and soft soils be excavated and properly compacted for paving support. The client should be aware that excavation and compaction of all existing fill and soft soils in the area of new paving is not required; however, paving constructed over existing uncertified fill or unsuitable alluvial soils may experience increased settlement and/or cracking, and may therefore have a shorter design life and increased maintenance costs. As a minimum, the upper twelve inches of soil should be scarified and properly compacted for paving support. Paving recommendations are provided in *Preliminary Pavement Recommendations* section of this report (see Section 8.16).

8.1.11 Once the design and foundation loading configuration proceeds to a more finalized plan, the recommendations within this report should be reviewed and revised, if necessary. If the proposed building loads will exceed those presented herein, the potential for settlement should be reevaluated by this office.

8.1.12 Any changes in the design, location or elevation of improvements, as outlined in this report, should be reviewed by this office. Geocon should be contacted to determine the necessity for review and possible revision of this report.

8.2 Mandatory Building Code Statement

8.2.1 This statement is made in accordance with Section 111 of the County of Los Angeles Building Code. It is the opinion of this office, based on the findings of this investigation, provided our recommendations are followed and properly maintained, (1) the proposed development will be safe for its intended use against hazard from landslide, settlement or slippage and (2) the proposed grading and development will have no adverse effect on the stability of the site or adjoining properties.

8.3 Soil and Excavation Characteristics

8.3.1 The in-situ soils can be excavated with moderate effort using conventional excavation equipment. Caving should be anticipated in unshored excavations, especially where granular soils are encountered.

8.3.2 It is the responsibility of the contractor to ensure that all excavations and trenches are properly shored and maintained in accordance with applicable OSHA rules and regulations to maintain safety and maintain the stability of adjacent existing improvements.

8.3.3 All onsite excavations must be conducted in such a manner that potential surcharges from existing structures, construction equipment, and vehicle loads are resisted. The surcharge area may be defined by a 1:1 projection down and away from the bottom of an existing foundation or vehicle load. Penetrations below this 1:1 projection will require special excavation measures such as sloping and shoring. Excavation recommendations are provided in the *Temporary Excavations* section of this report (see Section 8.19).

8.3.4 The upper site soils encountered within the area of study for the proposed parking structure during this investigation are considered to have a “very low” expansive potential (EI=2); and the soils are classified as “non-expansive” based on the 2007 California Building Code (CBC) Section 1802.3.2. Recommendations presented herein assume that foundations and slabs will derive support in these materials.

8.4 Minimum Resistivity, pH, Chloride and Water-Soluble Sulfate

8.4.1 Potential of Hydrogen (pH) and resistivity testing as well as chloride content testing were performed on representative samples of soil to generally evaluate the corrosion potential to surface utilities. The tests were performed in accordance with California Test Method Nos. 643 and 422 and indicate that a potential for corrosion of buried ferrous metals exists on site. The results are presented in Appendix B (Figure B11) and should be considered for design of underground structures.

8.4.2 Laboratory tests were performed on representative samples of the site materials to measure the percentage of water-soluble sulfate content. Results from the laboratory water-soluble sulfate tests are presented in Appendix B (Figure B11) and indicate that the on-site materials possess "negligible" sulfate exposure to concrete structures as defined by CBC Section 1904.3 and ACI 318.

8.4.3 Geocon West, Inc. does not practice in the field of corrosion engineering. If corrosion sensitive improvements are planned, it is recommended that a corrosion engineer be retained to evaluate corrosion test results and incorporate the necessary precautions to avoid premature corrosion on buried metal pipes and concrete structures in direct contact with the soils.

8.5 Grading

8.5.1 Earthwork should be observed, and compacted fill tested by representatives of Geocon West, Inc. The existing fill encountered during exploration is suitable for re-use as an engineered fill, provided any encountered oversize material (greater than 6 inches) and any encountered deleterious debris is removed.

8.5.2 A preconstruction conference should be held at the site prior to the beginning of grading operations with the owner, contractor, civil engineer and geotechnical engineer in attendance. Special soil handling requirements can be discussed at that time.

8.5.3 Grading should commence with the removal of all existing vegetation and existing improvements from the area to be graded. Once a clean excavation bottom has been established it must be approved by the Geotechnical Engineer (a representative of Geocon West, Inc.). Deleterious debris such as wood and root structures should be exported from the site and should not be mixed with the fill soils. Asphalt and concrete should not be mixed with the fill soils unless approved by the Geotechnical Engineer. All existing underground improvements planned for removal should be completely excavated and the resulting depressions properly backfilled in accordance with the procedures described herein.

8.5.4 Within the area of the proposed parking structure, as a minimum it is recommended that the upper four feet of existing site soils be excavated and property recompacted for foundation and slab support. All existing fill within the proposed structure footprint area should be over-excavated and properly recompacted. The excavation should extend laterally a minimum distance of five feet beyond the foundation footprint area or for a distance equal to the depth of fill below the foundations, whichever is greater. Proposed foundations should be underlain by at least two feet of newly compacted engineered fill. The excavation bottom must be observed and approved by the Geotechnical Engineer (a representative of Geocon) prior to placing and compacting fill. If soils exposed at the bottom of the excavation are determined to be soft or disturbed, additional removals may be required at the direction of the Geotechnical Engineer.

8.5.5 Based on our analysis of the existing fill materials underlying the area of the Urgent Care facility expansion, it is our opinion that the existing artificial fill is competent and may be utilized for support of proposed foundations. Therefore, it is our recommendation that proposed foundations to derive support in the existing artificial fill. As a minimum it is recommended that the upper 18 inches of existing site soils be excavated and properly compacted for support of the concrete slab-on-grade.

8.5.6 All fill and backfill soils should be placed in horizontal loose layers approximately 6 to 8 inches thick, moisture conditioned to near optimum moisture content, and compacted to at least 90 percent relative compaction, as determined by ASTM Test Method D 1557 (latest edition.

8.5.7 Utility trenches should be properly backfilled in accordance with the requirements of the Green Book (latest edition). The pipe should be bedded with clean sands (Sand Equivalent greater than 30) to a depth of at least one foot over the pipe. The remainder of the trench backfill may be derived from onsite soil or approved import soil, compacted as necessary, until the required compaction is obtained.

8.5.8 Where new paving is to be placed, it is recommended that all existing fill and soft alluvial soils be excavated and properly compacted for paving support. The client should be aware that excavation and compaction of all existing artificial fill and alluvial soil in the area of new paving is not required; however, paving constructed over existing uncertified fill or unsuitable soils may experience increased settlement and/or cracking, and may therefore have a shorter design life and increased maintenance costs. As a minimum, the upper twelve inches of paving subgrade should be scarified and properly compacted to at least 95 percent relative compaction, as determined by ASTM Test Method D 1557 (latest edition).

8.5.9 All imported fill shall be observed, tested and approved by Geocon West, Inc. prior to use in the building pad area. Rocks larger than six inches in diameter shall not be used in the fill.

Imported soils used in the building pad area should have an expansion index less than 30 and soil corrosivity properties that are equally or less detrimental to that of the existing onsite soils.

8.5.10 All excavation bottoms must be observed and approved by the Geotechnical Engineer (a representative of Geocon), prior to placing fill, steel, gravel or concrete.

8.6 Shrinkage

8.6.1 Shrinkage results when a volume of material removed at one density is compacted to a higher density. A shrinkage factor of between 5 and 15 percent should be anticipated when excavating and compacting the existing earth materials on the site to an average relative compaction of 92 percent.

8.7 Existing Foundations

8.7.1 During the field investigation, the existing foundation dimensions were observed in Test Pits 1 and 2 at the locations indicated on the Site Plan (Figure 2). It is unknown at this time if the existing foundation system will be used to support additional loads from the proposed building addition. The project structural engineer should evaluate the existing foundations, existing building loads, and proposed improvement loads. Where excess capacity remains, the existing foundations may be utilized to support the loads associated with the renovation improvements. However, adding heavier loads to existing foundations could induce settlements on the existing foundations which could be detrimental to existing structural connections. The existing and proposed loading configuration should be provided to this office for evaluation of settlements induced by adding loads to existing foundations for consideration of protecting existing structural connections.

8.7.2 The following table summarizes the foundation dimensions which were observed and measured to the best of our ability within the test pit excavations, as well as the assumed footing width. The existing foundations were observed to derive support in artificial fill soils. The allowable bearing capacities presented below are based on the observed footing dimensions and material in which the footings derive support, as well as the laboratory test results of the alluvial soils.

TEST PIT	FOOTING DEPTH (IN.)	FOOTING WIDTH (IN.)*	ALLOWABLE BEARING CAPACITY (PSF) CONTINUOUS FOOTING
1	54	24	5,200
2	42	12	3,800

*Footing widths assumed.

8.8 Foundation Design - General

8.8.1 Subsequent to the recommended grading, a conventional shallow spread foundation system may be utilized for support of the proposed parking structure provided foundations derive support in the newly placed engineered fill. Proposed foundations should be underlain by a minimum of two feet of engineered fill and grading should be performed as necessary to maintain the required two-foot-thick fill blanket beneath all foundations.

8.8.2 Subsequent to the recommended grading, a conventional shallow spread foundation system may be utilized for support of the proposed Urgent Care facility building addition. Foundations may derive support in the existing artificial fill. If for any reason the building official will not allow the use of existing artificial fill for foundation or slab support, it is recommended that proposed foundations be deepened to derive support in the undisturbed alluvium found at or below a depth of 10 feet. This can be accomplished by utilizing drilled, cast-in-place end bearing caissons.

8.8.3 Foundation excavations must be observed and approved in writing by the Geotechnical Engineer (a representative of Geocon West, Inc.), prior to the placement of reinforcing steel and concrete to verify that the excavations and exposed soil conditions are consistent with those anticipated.

8.8.4 No special subgrade presaturation is required prior to placement of concrete. However, the slab and foundation subgrade should be sprinkled as necessary to maintain a moist condition as would be expected in any concrete placement.

8.8.5 This office should be provided a copy of the final construction plans so that the foundation recommendations presented herein could be properly reviewed and revised if necessary.

8.9 Conventional Foundation Design – Parking Structure

8.9.1 Continuous foundations may be designed for an allowable bearing capacity of 2,800 pounds per square foot, and should be a minimum of 12 inches in width, 18 inches in depth below the lowest adjacent grade, and 12 inches into the recommended bearing material.

8.9.2 Isolated spread foundations for the proposed building may be designed for an allowable bearing capacity of 3,200 psf, and should be a minimum of 24 inches in width, 18 inches in depth below the lowest adjacent grade, and 18 inches into the recommended bearing material.

8.9.3 The soil bearing pressure above may be increased by 350 psf and 500 psf for each additional foot of foundation width and depth, respectively, up to a maximum allowable soil bearing pressure of 4,500 psf.

8.9.4 The allowable bearing pressure may be increased by up to one-third for transient loads due to wind or seismic forces.

8.9.5 Continuous footings should be reinforced with four No. 4 steel reinforcing bars, two placed near the top of the footing and two near the bottom. Reinforcement for spread footings should be designed by the project structural engineer.

8.9.6 The above foundation dimensions and minimum reinforcement recommendations are based on soil conditions and building code requirements only, and are not intended to be used in lieu of those required for structural purposes.

8.10 Conventional Foundation Design – Urgent Care Facility Building Addition

8.10.1 Proposed foundations that are situated immediately adjacent to the existing foundations should be deepened as necessary to bear at or below the depth of the existing foundations. Where the proposed foundations will be deeper than the existing foundation, the proposed foundation must be designed to resist the surcharge imposed by the existing foundation. The surcharge area may be defined by a 1:1 projection up and away from the bottom of an existing foundation.

8.10.2 Where proposed foundations are to be situated immediately adjacent to existing foundations, the structural connection should be designed by the project structural engineer. In order to minimize new settlement between existing and proposed foundations, a structural separation should be considered between the existing and proposed foundations.

8.10.3 Where proposed foundations will be joined to existing foundations, the magnitude of settlement between existing and proposed foundations should be considered by the project structural engineer in order to determine an appropriate mechanism for structurally joining the foundation systems. In order to minimize settlements to less than ¼ inch between existing and proposed foundations, a reduced bearing capacity is being recommended for proposed foundations that will be joined to existing foundations. Continuous footings deriving support in the existing artificial fill may be designed for an allowable bearing capacity of 1,200 pounds per square foot, and should be a minimum of 12 inches in width and 36 inches in depth below the lowest adjacent grade, and 12 inches into the recommended bearing material. Isolated spread foundations deriving support in the existing artificial fill may be designed for an allowable bearing capacity of 1,500 pounds per square foot, and should be a minimum of 24 inches in width and 36 inches in depth below the lowest adjacent grade and 12 inches into the recommended bearing material. The maximum allowable soil bearing pressure should be limited to 1,500 pounds per square foot to minimize settlements to less than ¼ inch.

8.10.4 Where settlements up to ¾ inch are allowed a maximum allowable soil bearing pressure of 4,000 psf may be utilized. Continuous footings deriving support in the recommended bearing material may be designed for an allowable bearing capacity of 2,000 pounds per square foot, and should be a minimum of 12 inches in width, 36 inches in depth below the lowest adjacent grade, and 12 inches into the recommended bearing material. Isolated spread foundations (pads or caissons) deriving support in the recommended bearing material may be designed for an allowable bearing capacity of 2,500 pounds per square foot, and should be a minimum of 24 inches in width (or diameter), 36 inches in depth below the lowest adjacent grade, and 12 inches into the recommended bearing material. The soil bearing pressure above may be increased by 100 psf and 300 psf for each additional foot of foundation width and depth, respectively, up to a maximum allowable soil bearing pressure of 3,500 psf. If depth increases are utilized for the exterior wall footings, this office should be provided a copy of the final construction plans so that the excavation recommendations presented herein could be properly reviewed and revised if necessary.

8.10.5 The allowable bearing pressure may be increased by up to one-third for transient loads due to wind or seismic forces.

8.10.6 Continuous footings should be reinforced with a minimum of four No. 4 steel reinforcing bars, two placed near the top of the footing and two near the bottom. The project structural engineer should design reinforcement for spread footings.

8.10.7 The above foundation dimensions and minimum reinforcement recommendations are based on soil conditions and building code requirements only, and are not intended to be used in lieu of those required for structural purposes.

8.10.8 The above foundation dimensions and minimum reinforcement recommendations are based on soil conditions and building code requirements only, and are not intended to be used in lieu of those required for structural purposes.

8.11 End Bearing Caissons – Urgent Care Facility Building Addition

8.11.1 Drilled cast-in-place, end-bearing concrete caissons should be a minimum of 24 inches in diameter and should derive support in the competent alluvial soils found at or below a depth of 10 feet. All loose soils must be completely removed from the bottom of all end-bearing foundation excavations. Caissons may be assumed fixed from lateral deflection at a depth of five feet below the ground surface.

8.11.2 In order to minimize settlements to less than ¼ inch between existing and proposed foundations, a reduced bearing capacity is being recommended for foundations that will be joined to existing foundations. Caissons may be designed for an allowable bearing capacity of 1,800 pounds per square foot, and should be embedded a minimum of 18 inches into the recommended bearing material.

8.11.3 Where settlements up to ¾ inch are allowed a maximum allowable soil bearing pressure of 3,000 psf may be utilized. Caissons may be designed for an allowable bearing capacity of 2,000 pounds per square foot, and should be embedded a minimum of 18 inches into the recommended bearing material. The soil bearing pressure above may be increased by 150 psf and 300 psf for each additional foot of foundation width and depth, respectively, up to a maximum allowable soil bearing pressure of 3,000 psf.

8.11.4 The allowable bearing pressure may be increased by up to one-third for transient loads due to wind or seismic forces.

8.11.5 Casing may be required to prevent caving during excavation of the caisson foundations. The contractor should have casing available prior to the commencement of drilling activities and should be prepared to use it if necessary.

8.11.6 A continuous grade beam foundation may be placed across the top of the caisson foundations and the appropriate span between caissons should be determined by the project structural engineer. Reinforcement for deepened foundations should be designed by the project structural engineer.

8.11.7 Closely spaced caissons should be drilled and filled alternately, with the concrete permitted to set at least eight hours before drilling an adjacent hole. Caisson excavations should be filled with concrete as soon after drilling and inspection as possible; the holes should not be left open overnight unless approved by the Geotechnical Engineer.

8.12 Miscellaneous Foundations

8.12.1 Foundations for small outlying structures, such as property line walls less than 6 feet in height, planter walls or trash enclosures, which will not be tied-in to the proposed structures, may be supported on conventional foundations bearing on a minimum of 12 inches of newly placed engineered fill. Where removal and compaction cannot be performed, such as adjacent to property lines, foundations may bear in the competent alluvial soils. It is essential that proper drainage be maintained in order to minimize settlements in the soils and any foundations supported therein.

8.12.2 Foundations for small outlying structures, such as property line walls up to 6 feet high, planter walls or trash enclosures, which will not be tied-in to the proposed structures, may be supported on conventional foundations bearing on a minimum of 12 inches of newly placed engineered fill that extends at least 12 inches beyond the foundation footprint area. Where removal and compaction cannot be performed, such as adjacent to property lines, foundations may bear in the undisturbed competent alluvium. If the soils exposed in the excavation bottom are soft, compaction of the soft soils will be required prior to placing steel or concrete. Compaction of the foundation excavation bottom is typically accomplished with a compaction wheel or mechanical whacker and must be observed and approved by a Geocon representative. Miscellaneous foundations deriving support in engineered fill or alluvium may be designed for a bearing value of 1,000 pounds per square foot, and should be a minimum of 12 inches in width, 24 inches in depth below the lowest adjacent grade and 12 inches into the recommended bearing material. The allowable bearing pressure may be increased by up to one-third for transient loads due to wind or seismic forces.

8.12.3 Foundation excavations should be observed by the Geotechnical Engineer (a representative of Geocon West, Inc.), prior to the placement of reinforcing steel and concrete to verify that the excavations and exposed soil conditions are consistent with those anticipated.

8.13 Foundation Settlement

8.13.1 The maximum expected static settlement for the parking structure supported on a conventional foundation system deriving support in newly placed engineered fill is estimated to be approximately 1 inch and occur below the heaviest loaded structural element. Settlement of the foundation system is expected to occur on initial application of loading. Differential settlement is not expected to exceed ½ inch over a distance of twenty feet.

8.13.2 The maximum expected static settlement for the proposed Urgent Care Facility building expansion supported on a conventional foundation system deriving support in the existing artificial fill materials or on a deepened foundation system deriving support in the alluvial soils found at or below a depth of 10 feet is estimated to be between ¼ and ¾ inch and is dependent upon the bearing pressure utilized as indicated in the *Foundation Design* sections above. The settlement is expected to occur below the heaviest loaded structural element. Settlement of the foundation system is expected to occur on initial application of loading. Settlement between existing and proposed foundations is anticipated to be less than ¼ inch.

8.13.3 The maximum expected settlement for the proposed Urgent Care Facility building expansion supported on a deepened foundations deriving support in competent alluvial soils found at or below a depth of 10 feet is estimated to be approximately 1 inch and occur below the heaviest loaded structural element. Settlement of the foundation system is expected to occur on initial

application of loading. Differential settlement is not expected to exceed ½ inch over a distance of twenty feet.

8.13.4 Once the design and foundation loading configurations for the proposed improvements proceeds to a more finalized plan, the estimated settlements presented in this report should be reviewed and revised, if necessary. If the final foundation loading configurations are greater than the assumed loading conditions, the potential for settlement should be reevaluated by this office.

8.14 Lateral Design

8.14.1 Resistance to lateral loading may be provided by friction acting at the base of foundations, slabs and by passive earth pressure. An allowable coefficient of friction of 0.4 may be used with the dead load forces in newly placed engineered fill or existing artificial fill. An allowable coefficient of friction of 0.3 may be used with the dead load forces in the undisturbed alluvial soil.

8.14.2 Passive earth pressure for the sides of foundations and slabs poured against the newly placed engineered fill or existing artificial fill may be computed as an equivalent fluid having a density of 250 pounds per cubic foot with a maximum earth pressure of 2,500 pounds per square foot. Passive earth pressure for the sides of foundations poured against the alluvial soils may be computed as an equivalent fluid having a density of 200 pounds per cubic foot with a maximum earth pressure of 2,000 pounds per square foot. When combining passive and friction for lateral resistance, the passive component should be reduced by one-third.

8.15 Concrete Slabs-on-Grade

8.15.1 Concrete slabs-on-grade near the ground surface that are subject to vehicle loading should be designed in accordance with the recommendations in the *Preliminary Pavement Recommendations* section of this report (Section 8.16).

8.15.2 Building slabs-on-grade, not subject to vehicle loading, should be a minimum of 4-inches thick and minimum slab reinforcement should consist of No. 3 steel reinforcing bars placed 18 inches on center in both horizontal directions. Steel reinforcing should be positioned vertically near the slab midpoint. As a minimum it is recommended that the upper 18 inches of existing site soils be excavated and properly compacted for support of a conventional concrete slab-on-grade.

8.15.3 If the building official will not allow the concrete slab-on-grade for the Urgent Care Facility building expansion to derive support in the existing artificial fill, it is recommended that the concrete slab-on-grade be designed as a structural slab deriving permanent support exclusively from the deepened foundation system. The thickness and reinforcing for the structural slab will be designed by the project structural engineer.

8.15.4 Slabs that may receive moisture-sensitive floor coverings or may be used to store moisture-sensitive materials should be underlain by a vapor retarder placed directly beneath the slab. The vapor retarder and acceptable permeance should be specified by the project architect or developer based on the type of floor covering that will be installed. The vapor retarder design should be consistent with the guidelines presented in Section 9.3 of the American Concrete Institute's (ACI) *Guide for Concrete Slabs that Receive Moisture-Sensitive Flooring Materials* (ACI 302.2R-06) and should be installed in general conformance with ASTM E 1643-98 and the manufacturer's recommendations. In order to protect the vapor retarder from damage subsequent to placement, two inches of sand shading over the barrier should be considered.

8.15.5 For seismic design purposes, a coefficient of friction of 0.40 may be utilized between concrete slabs and subgrade soils without a moisture barrier, and 0.15 for slabs underlain by a moisture barrier.

8.15.6 Exterior slabs, not subject to traffic loads, should be at least 4 inches thick and reinforced with No. 3 steel reinforcing bars placed 18 inches on center in both horizontal directions, positioned near the slab midpoint. Prior to construction of slabs, the upper 12 inches of subgrade should be moisture conditioned to near optimum moisture content and properly compacted to at least 92 percent relative compaction, as determined by ASTM Test Method D 1557 (latest edition). Crack control joints should be spaced at intervals not greater than 8 feet and should be constructed using saw-cuts or other methods as soon as practical following concrete placement. Crack control joints should extend a minimum depth of one-fourth the slab thickness. The project structural engineer should design construction joints as necessary.

8.15.7 The recommendations of this report are intended to reduce the potential for cracking of slabs due to settlement. However, even with the incorporation of the recommendations presented herein, foundations, stucco walls, and slabs-on-grade may exhibit some cracking due to minor soil movement and/or concrete shrinkage. The occurrence of concrete shrinkage cracks is independent of the supporting soil characteristics. Their occurrence may be reduced and/or controlled by limiting the slump of the concrete, proper concrete placement and curing, and by the placement of crack control joints at periodic intervals, in particular, where re-entrant slab corners occur.

8.16 Preliminary Pavement Recommendations

8.16.1 Where new paving is to be placed, it is recommended that all existing fill and soft alluvial soils be excavated and properly compacted for paving support. The client should be aware that excavation and compaction of all existing artificial fill and alluvial soil in the area of new paving is not required; however, paving constructed over existing uncertified fill or unsuitable soils may experience increased settlement and/or cracking, and may therefore have a shorter

design life and increased maintenance costs. As a minimum, the upper twelve inches of paving subgrade should be scarified and properly compacted to at least 95 percent relative compaction, as determined by ASTM Test Method D 1557 (latest edition).

8.16.2 The following pavement sections are based on an assumed R-Value of 30. Once site grading activities are complete an R-Value should be obtained by laboratory testing to confirm the properties of the soils serving as paving subgrade, prior to placing pavement. This is especially important where import soils are utilized in proposed parking areas. Pavement thicknesses were determined following procedures outlined in the *California Highway Design Manual* (Caltrans). It is anticipated that the majority of traffic will consist of automobile traffic.

PRELIMINARY PAVEMENT DESIGN SECTIONS

Location	Estimated Traffic Index (TI)	Asphalt Concrete (inches)	Class 2 Aggregate Base (inches)
Automobile Parking	3	3	4
Driveways	5	3	6
Trash Truck & Fire Lanes	7	4	10

8.16.3 Asphalt concrete should conform to Section 203-6 of the "*Standard Specifications for Public Works Construction"* (Green Book). Class 2 aggregate base materials should conform to Section 26-1.02A of the "*Standard Specifications of the State of California, Department of Transportation"* (Caltrans).

8.16.4 Unless specifically designed and evaluated by the project structural engineer, where concrete paving will be utilized for support of vehicles, it is recommended that the concrete be a minimum of 6 inches of 4,000 psi Portland cement concrete reinforced with No. 3 steel reinforcing bars placed 24 inches on center in both horizontal directions. Concrete paving supporting vehicular traffic should be underlain by a minimum of 4 inches of aggregate base and a properly compacted subgrade. The subgrade and base material should be compacted to at least 95 percent relative compaction, respectively, as determined by ASTM Test Method D 1557 (latest edition).

8.16.5 The performance of pavements is highly dependent upon providing positive surface drainage away from the edge of pavements. Ponding of water on or adjacent to the pavement will likely result in saturation of the subgrade materials and subsequent cracking, subsidence and pavement distress. If planters are planned adjacent to paving, it is recommended that the

perimeter curb be extended at least 12 inches below the bottom of the aggregate base to minimize the introduction of water beneath the paving.

8.17 Elevator Pit Design

8.17.1 The elevator pit slab and retaining wall should be designed by the project structural engineer. As a minimum the slab-on-grade should be at least 4 inches thick and reinforced with No. 3 steel reinforcing bars placed 18 inches on center in both horizontal directions, positioned near the slab midpoint. Provided retaining walls are properly drained, walls not restrained at the top and having a level backfill surface should be designed utilizing an equivalent fluid pressure of 35 pounds per cubic foot. The equivalent fluid pressure to be used in design of the non-drained elevator pit retaining walls would be 90 pounds per cubic foot. The value includes hydrostatic pressures plus buoyant lateral earth pressures.

8.17.2 Additional active pressure should be added for a surcharge condition due to sloping ground, vehicular traffic or adjacent foundations and should be designed for each condition as the project progresses. Once the design becomes more finalized, an addendum letter can be prepared addressing specific surcharge conditions throughout the project, if necessary.

8.17.3 If retaining wall drainage is to be provided, the drainage system should extend at least two-thirds the height of the wall. At the base of the drain system, a subdrain covered with a minimum of 12 inches of gravel should be installed, and a compacted fill blanket or other seal placed at the surface (see Figure 8). The clean bottom and subdrain pipe, behind a retaining wall, should be observed by the Geotechnical Engineer (a representative of Geocon), prior to placement of gravel or compacting backfill.

8.17.4 Subdrainage pipes at the base of the retaining wall drainage system should outlet to a location acceptable to the building official.

8.17.5 It is suggested that the exterior walls and slab be waterproofed to prevent excessive moisture inside of the elevator pit. Waterproofing design and installation is not the responsibility of the geotechnical engineer.

8.18 Elevator Piston

8.18.1 If a plunger-type elevator piston is installed for this project, a deep drilled excavation will be required. It is important to verify that the drilled excavation is not situated immediately adjacent to a foundation or the drilled excavation could compromise the existing foundation support.

8.18.2 Casing may be required if caving is experienced in the drilled excavation, especially if the excavation is conducted below the groundwater seepage level. The contractor should be prepared to use casing and should have it readily available at the commencement of drilling activities. Continuous observation of the drilling and installation of the elevator piston by the Geotechnical Engineer (a representative of Geocon West, Inc.) is required.

8.18.3 The annular space between the piston casing and drilled excavation wall should be filled with a minimum of 1½-sack slurry pumped from the bottom up. As an alternative, pea gravel may be utilized. The use of soil to backfill the annular space is not acceptable.

8.19 Temporary Excavations

8.19.1 Excavations on the order to five feet in vertical height may be required for the proposed grading and foundation excavations at the site. The excavations are expected to expose fill and alluvial soils, which are suitable for vertical excavations up to five feet in height where not surcharged by adjacent traffic or structures and where loose soils or caving sands are not present.

8.19.2 Vertical excavations that are higher than five feet or surcharged by existing structures will require sloping or shoring measures to provide a stable excavation. It is anticipated that this project can be completed with sloping measures. Recommendations for shoring will only be provided if deemed necessary.

8.19.3 Where sufficient space is available, temporary unsurcharged embankments could be sloped back at a uniform 1:1 slope gradient or flatter. A uniform slope does not have a vertical portion.

8.19.4 Where sloped embankments are utilized, the top of the slope should be barricaded to prevent vehicles and storage loads at the top of the slope within a horizontal distance equal to the height of the slope. If the temporary construction embankments are to be maintained during the rainy season, berms are suggested along the tops of the slopes where necessary to prevent runoff water from entering the excavation and eroding the slope faces. Geocon personnel should inspect the soils exposed in the cut slopes during excavation so that modifications of the slopes can be made if variations in the soil conditions occur. All excavations should be stabilized within 30 days of initial excavation.

8.20 Surface Drainage

8.20.1 Proper surface drainage is critical to the future performance of the project. Uncontrolled infiltration of irrigation excess and storm runoff into the soils can adversely affect the performance of the planned improvements. Saturation of a soil can cause it to lose internal

shear strength and increase its compressibility, resulting in a change in the original designed engineering properties. Proper drainage should be maintained at all times.

8.20.2 All site drainage should be collected and transferred to the street in non-erosive drainage devices. Drainage should not be allowed to pond anywhere on the site, and especially not against any foundation or retaining wall. Drainage should not be allowed to flow uncontrolled over any descending slope. Discharge from downspouts, roof drains and scuppers are not recommended onto unprotected soils within five feet of the building perimeter. Planters which are located adjacent to foundations should be sealed to prevent moisture intrusion into the soils providing foundation support. Landscape irrigation is not recommended within five feet of the building perimeter footings except when enclosed in protected planters.

8.20.3 Positive site drainage should be provided away from structures, pavement, and the tops of slopes to swales or other controlled drainage structures. The building pad and pavement areas should be fine graded such that water is not allowed to pond.

8.20.4 Landscaping planters immediately adjacent to paved areas are not recommended due to the potential for surface or irrigation water to infiltrate the pavement's subgrade and base course. Either a subdrain, which collects excess irrigation water and transmits it to drainage structures, or an impervious above-grade planter boxes should be used. In addition, where landscaping is planned adjacent to the pavement, it is recommended that consideration be given to providing a cutoff wall along the edge of the pavement that extends at least 12 inches below the base material.

8.21 Plan Review

8.21.1 Grading, foundation and shoring plans should be reviewed by the Geotechnical Engineer prior to finalization to verify that the plans have been prepared in substantial conformance with the recommendations of this report and to provide additional analyses or recommendations, if necessary.

LIMITATIONS AND UNIFORMITY OF CONDITIONS

1. The recommendations of this report pertain only to the site investigated and are based upon the assumption that the soil conditions do not deviate from those disclosed in the investigation. If any variations or undesirable conditions are encountered during construction, or if the proposed construction will differ from that anticipated herein, Geocon Inland Empire, Inc. should be notified so that supplemental recommendations can be given. The evaluation or identification of the potential presence of hazardous or corrosive materials was not part of the scope of services provided by Geocon West, Inc.

2. The limited environmental soil sampling discussed in this report is not a comprehensive site characterization and should not be construed as such. The findings of environmental testing as presented in this report are based on the results of the limited sampling and laboratory testing performed specific to the Client's request. In addition, the information obtained is not intended to address potential impacts related to locations and sources other than those specified herein. Therefore, the report should be deemed conclusive with respect to only the information obtained.

3. This report is issued with the understanding that it is the responsibility of the owner, or of his representative, to ensure that the information and recommendations contained herein are brought to the attention of the architect and engineer for the project and incorporated into the plans, and the necessary steps are taken to see that the contractor and subcontractors carry out such recommendations in the field.

4. The findings of this report are valid as of the present date. However, changes in the conditions of a property can occur with the passage of time, whether they are due to natural processes or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside our control. Therefore, this report is subject to review and should not be relied upon after a period of three years.

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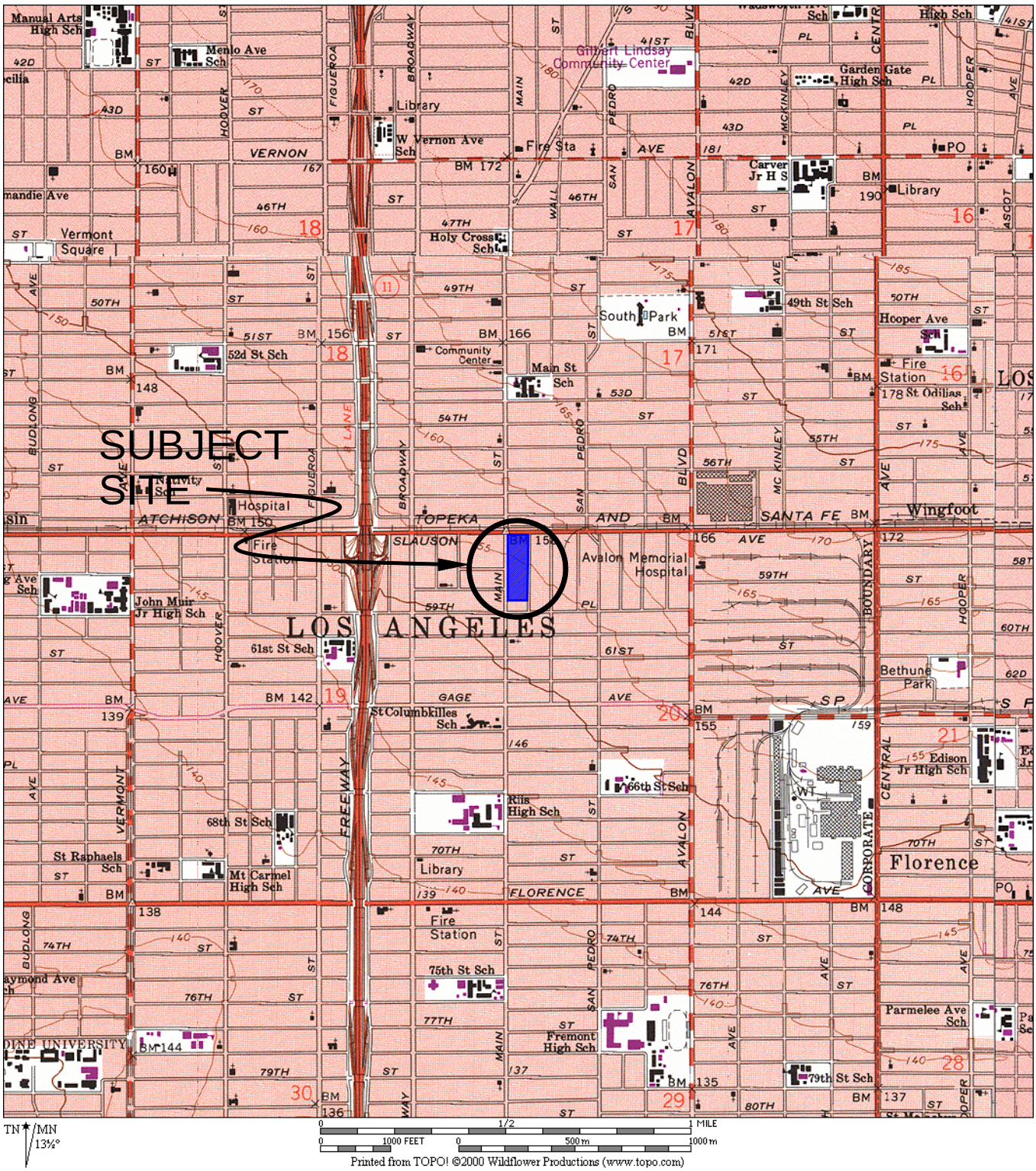

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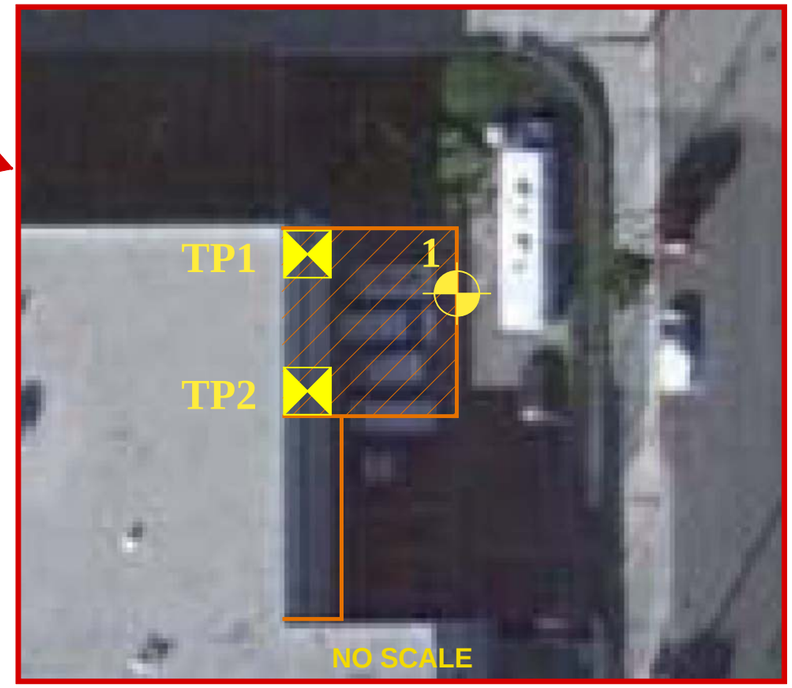
VICINITY MAP

HHH HEALTH CENTER - URGENT CARE EXP.
LOS ANGELES COUNTY DEPT. OF PUBLIC WORKS
5850 SOUTH MAIN STREET
LOS ANGELES, CALIFORNIA

CHL		8000

NOV. 15, 2010	PROJECT NO. A8559-06-36	FIG. 1

ENLARGEMENT OF PROPOSED
NEW WAITING AREA



0 100' 200'

LEGEND

4 Approximate Location of Boring

TP2 Approximate Location of Test Pit

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SITE PLAN

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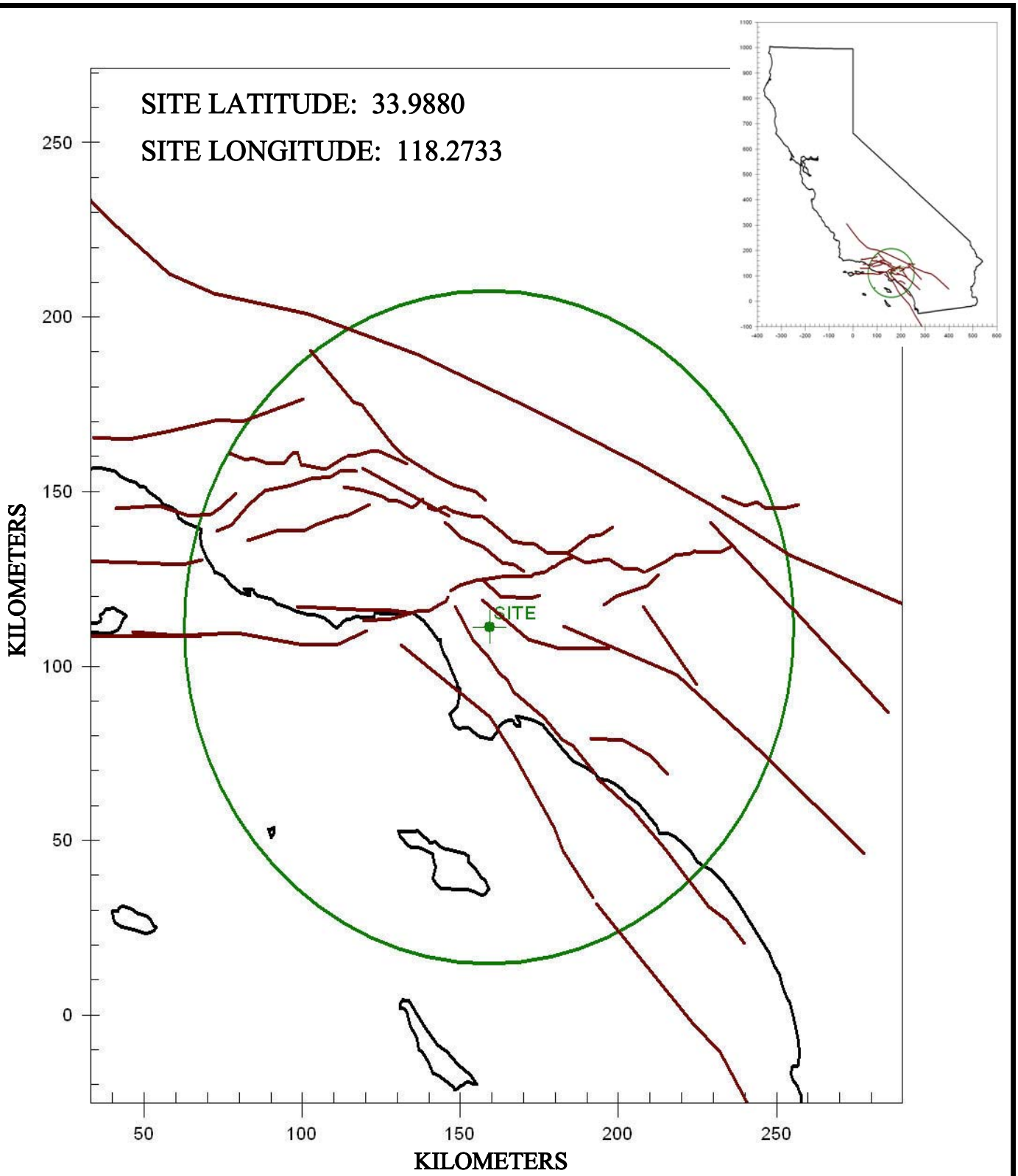
NOV. 15, 2010	PROJECT NO. A8559-06-36	FIG. 2



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REGIONAL FAULT MAP

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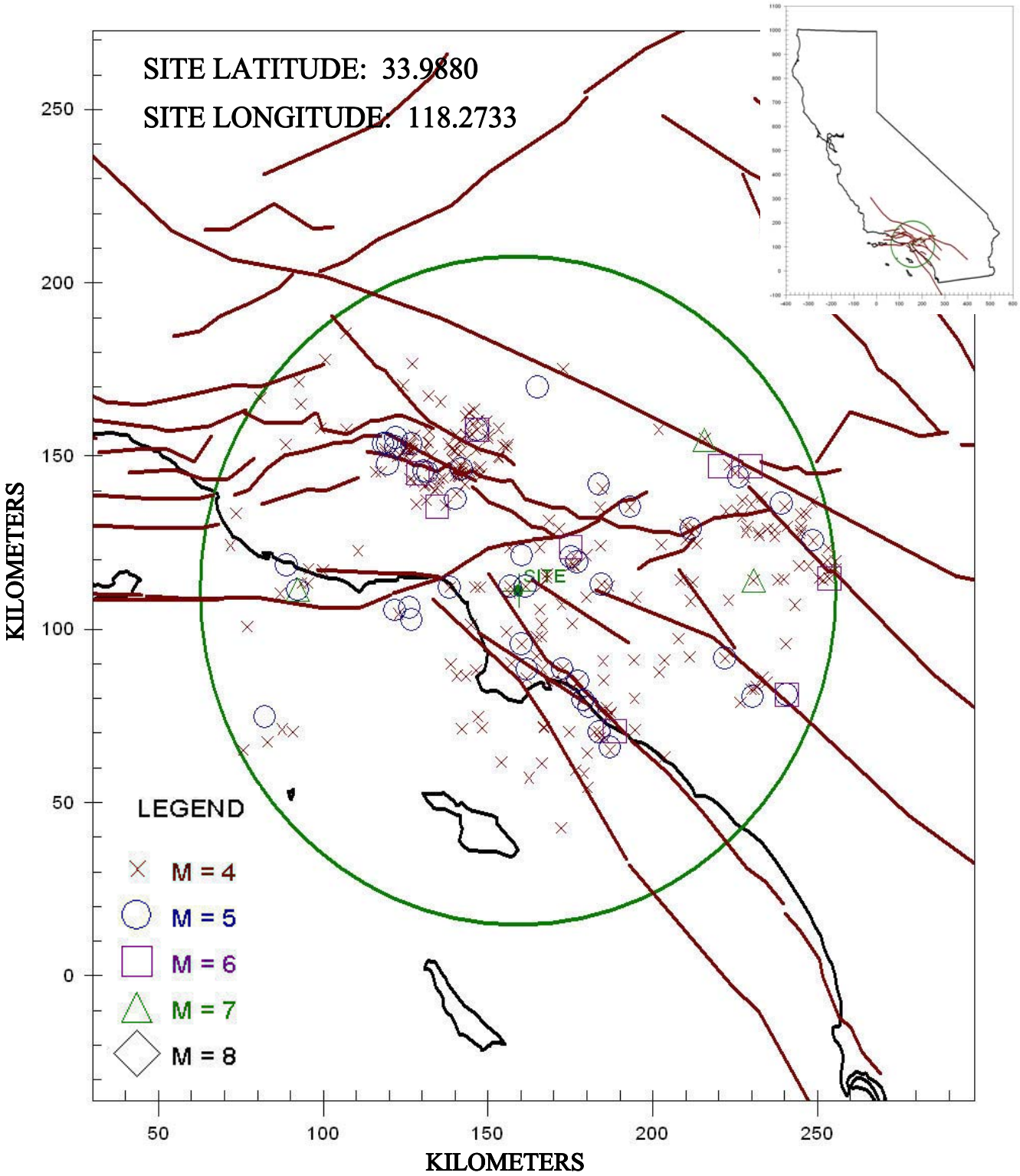
LOS ANGELES, CALIFORNIA

NOV. 15, 2010	PROJECT NO. A8559-06-36	FIG. 3



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CALIFORNIA SEISMICITY MAP

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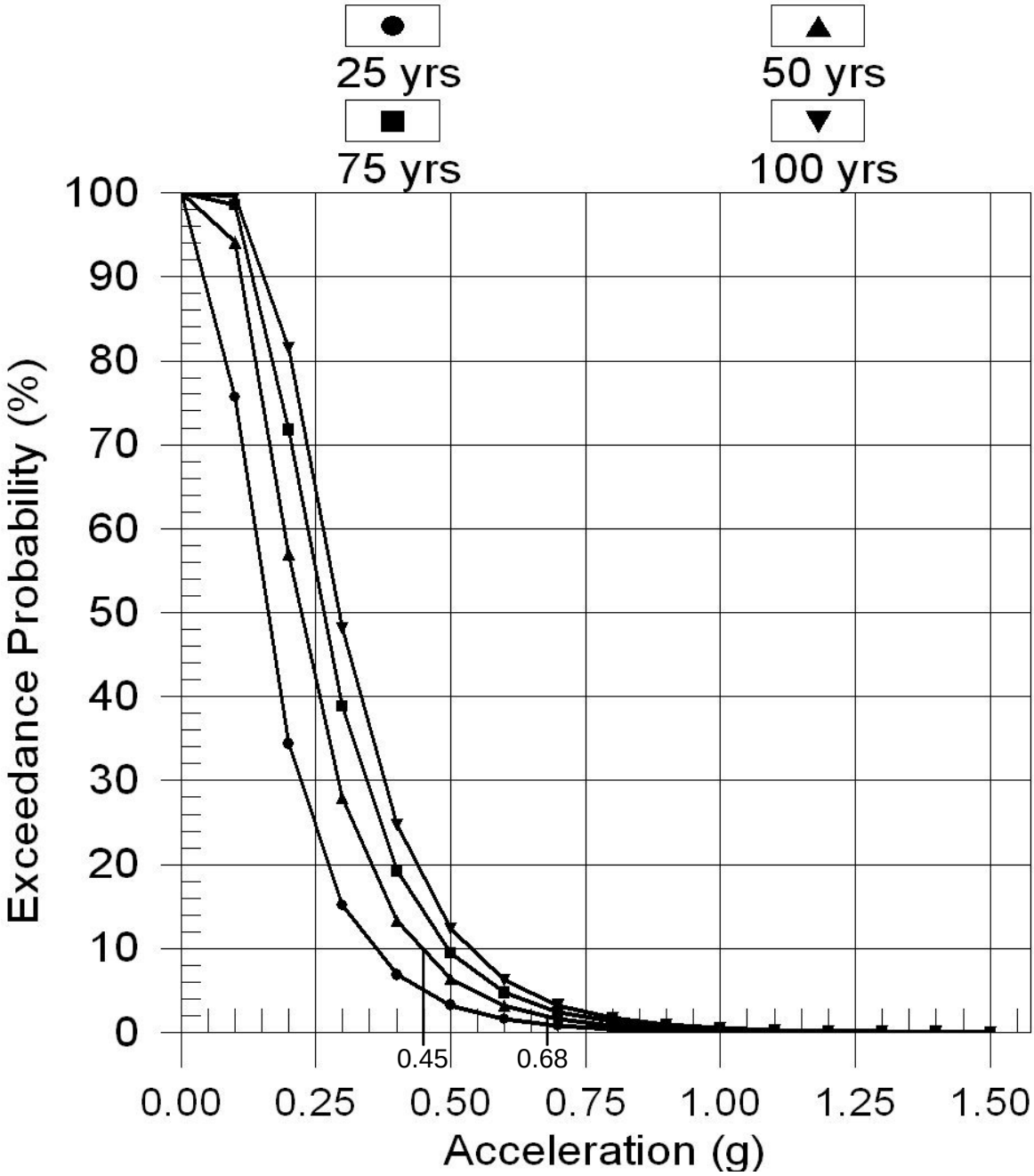
LOS ANGELES, CALIFORNIA

NOV. 15, 2010	PROJECT NO. A8559-06-36	FIG. 4

PROBABILITY OF EXCEEDANCE

SADIGH ET AL. (1997) DEEP SOIL 1



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CHL		8000

PROBABILITY OF EXCEEDANCE

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LOS ANGELES COUNTY DEPT. OF PUBLIC WORKS
5850 SOUTH MAIN STREET
LOS ANGELES, CALIFORNIA

NOV. 15, 2010	PROJECT NO. A8559-06-36	FIG. 5

GEOCON

CLIENT: LACDPW- HHMC EP
FILE NO. A8559-06-36 Boring 1

TECHNICAL ENGINEERING AND DESIGN GUIDES AS ADAPTED FROM THE US ARMY CORPS OF ENGINEERS, NO. 9
EVALUATION OF EARTHQUAKE-INDUCED SETTLEMENTS IN DRY SANDY SOILS

EARTHQUAKE INFORMATION:

Earthquake Magnitude:	7.5
Peak Horiz. Acceleration (g):	0.45

Depth of Base of Strata (ft)	Thickness of Layer (ft)	Depth of Mid-point of Layer (ft)	Soil Unit Weight (pcf)	Overburden Pressure at Mid-point (tsf)	Mean Effective Pressure at Mid-point (tsf)	Average Cyclic Shear Stress [Tav]	Field SPT [N]	Correction Factor [Cer]	Fig 4.1 Relative Density [Dr] (%)	Fig 4.2 Correction Factor [Cn]	Corrected [N1]60	rd Factor	Fig 4.4 Maximum Shear Mod. [Gmax] (tsf)	[yeff]*[Geff] [Gmax]	yeff Shear Strain	[yeff]*100%	Volumetric Strain M7.5 [E15] (%)	Number of Strain Cycles [Nc]	Corrected Vol. Strains [Ec]	Estimated Settlement [S] (inches)
1.0	1.0	0.5	129.9	0.03	0.02	0.009	9	1.25	72.6	2.0	20.3	1.0	179.719	5.23E-05	7.80E-05	0.008	7.68E-03	15.0000	7.68E-03	0.00
2.0	1.0	1.5	129.9	0.10	0.07	0.028	9	1.25	70.4	2.0	20.3	1.0	311.283	8.89E-05	1.60E-04	0.016	1.58E-02	15.0000	1.58E-02	0.00
3.0	1.0	2.5	129.9	0.16	0.11	0.047	9	1.25	68.4	2.0	20.3	1.0	401.864	1.12E-04	1.70E-04	0.017	1.67E-02	15.0000	1.67E-02	0.00
4.0	1.0	3.5	129.9	0.23	0.15	0.066	9	1.25	66.6	2.0	20.3	1.0	475.492	1.31E-04	1.70E-04	0.017	1.67E-02	15.0000	1.67E-02	0.00
5.0	1.0	4.5	129.9	0.29	0.20	0.085	9	1.25	64.9	1.9	19.1	1.0	529.083	1.48E-04	1.70E-04	0.017	1.79E-02	15.0000	1.79E-02	0.00
6.0	1.0	5.5	129.8	0.36	0.24	0.104	9	1.25	63.3	1.7	17.3	1.0	565.671	1.66E-04	1.50E-04	0.015	1.78E-02	15.0000	1.78E-02	0.00
7.0	1.0	6.5	129.8	0.42	0.28	0.123	9	1.25	61.8	1.6	15.9	1.0	598.042	1.82E-04	1.50E-04	0.015	1.97E-02	15.0000	1.97E-02	0.00
8.0	1.0	7.5	129.8	0.49	0.33	0.142	9	1.25	60.5	1.5	14.8	1.0	627.244	1.97E-04	1.50E-04	0.015	2.15E-02	15.0000	2.15E-02	0.01
9.0	1.0	8.5	129.8	0.55	0.37	0.160	9	1.25	59.2	1.4	13.9	1.0	653.953	2.10E-04	4.50E-04	0.045	6.95E-02	15.0000	6.95E-02	0.02
10.0	1.0	9.5	126.9	0.62	0.41	0.179	5	1.25	43.2	1.3	7.3	1.0	557.674	2.69E-04	4.50E-04	0.045	1.50E-01	15.0000	1.50E-01	0.04
11.0	1.0	10.5	126.9	0.68	0.46	0.197	5	1.25	40.9	1.2	7.0	1.0	576.197	2.83E-04	4.50E-04	0.045	1.59E-01	15.0000	1.59E-01	0.04
12.0	1.0	11.5	126.9	0.74	0.50	0.214	5	1.25	40.9	1.2	6.7	0.9	593.600	2.94E-04	4.50E-04	0.045	1.68E-01	15.0000	1.68E-01	0.04
13.0	1.0	12.5	126.9	0.81	0.54	0.232	5	1.25	40.9	1.1	6.4	0.9	610.038	3.06E-04	7.10E-04	0.071	2.79E-01	15.0000	2.79E-01	0.07
14.0	1.0	13.5	126.9	0.87	0.58	0.250	5	1.25	40.9	1.1	6.2	0.9	625.636	3.16E-04	7.10E-04	0.071	2.92E-01	15.0000	2.92E-01	0.07
15.0	1.0	14.5	126.9	0.93	0.63	0.267	5	1.25	40.9	1.1	5.9	0.9	640.492	3.25E-04	7.10E-04	0.071	3.04E-01	15.0000	3.04E-01	0.07
16.0	1.0	15.5	126.0	1.00	0.67	0.285	7	1.25	44.6	1.0	9.2	0.9	765.181	2.86E-04	3.70E-04	0.037	9.40E-02	15.0000	9.40E-02	0.02
17.0	1.0	16.5	126.0	1.06	0.71	0.302	7	1.25	44.6	1.0	8.9	0.9	780.977	2.92E-04	3.70E-04	0.037	9.75E-02	15.0000	9.75E-02	0.02
18.0	1.0	17.5	126.0	1.12	0.75	0.319	7	1.25	44.6	1.0	8.7	0.9	796.159	2.99E-04	3.70E-04	0.037	1.01E-01	15.0000	1.01E-01	0.02
19.0	1.0	18.5	126.0	1.19	0.79	0.335	7	1.25	44.6	0.9	8.4	0.9	810.782	3.05E-04	7.10E-04	0.071	2.00E-01	15.0000	2.00E-01	0.05
20.0	1.0	19.5	126.0	1.25	0.84	0.352	7	1.25	44.6	0.9	8.2	0.9	824.897	3.10E-04	7.10E-04	0.071	2.07E-01	15.0000	2.07E-01	0.05
21.0	1.0	20.5	126.0	1.31	0.88	0.368	7	1.25	44.6	0.9	8.0	0.9	838.544	3.15E-04	7.10E-04	0.071	2.13E-01	15.0000	2.13E-01	0.05
22.0	1.0	21.5	117.9	1.37	0.92	0.384	16	1.25	63.1	0.9	26.4	0.9	1276.638	2.13E-04	3.70E-04	0.037	2.65E-02	15.0000	2.65E-02	0.01
23.0	1.0	22.5	117.9	1.43	0.96	0.399	16	1.25	63.1	0.9	26.0	0.9	1297.085	2.15E-04	3.70E-04	0.037	2.70E-02	15.0000	2.70E-02	0.01
24.0	1.0	23.5	117.9	1.49	1.00	0.413	16	1.25	63.1	0.8	25.6	0.9	1317.050	2.17E-04	3.70E-04	0.037	2.75E-02	15.0000	2.75E-02	0.01
25.0	1.0	24.5	117.9	1.55	1.04	0.428	22	1.25	69.8	0.8	26.5	0.9	1358.193	2.15E-04	3.00E-04	0.030	2.14E-02	15.0000	2.14E-02	0.01
26.0	1.0	25.5	117.9	1.61	1.08	0.442	22	1.25	69.8	0.8	26.7	0.9	1387.422	2.15E-04	3.00E-04	0.030	2.12E-02	15.0000	2.12E-02	0.01
27.0	1.0	26.5	117.9	1.67	1.12	0.456	22	1.25	69.8	0.8	26.3	0.9	1404.393	2.17E-04	3.00E-04	0.030	2.16E-02	15.0000	2.16E-02	0.01
28.0	1.0	27.5	117.9	1.73	1.16	0.469	22	1.25	69.8	0.8	25.8	0.9	1420.974	2.19E-04	3.00E-04	0.030	2.21E-02	15.0000	2.21E-02	0.01
29.0	1.0	28.5	117.9	1.79	1.20	0.483	22	1.25	69.8	0.8	24.7	0.9	1423.867	2.22E-04	3.00E-04	0.030	2.33E-02	15.0000	2.33E-02	0.01
30.0	1.0	29.5	117.9	1.84	1.24	0.496	22	1.25	69.8	0.8	24.3	0.9	1439.371	2.23E-04	3.00E-04	0.030	2.37E-02	15.0000	2.37E-02	0.01
31.0	1.0	30.5	112.9	1.90	1.27	0.509	5	1.25	31.6	0.7	5.6	0.9	893.729	3.65E-04	5.20E-04	0.052	2.42E-01	15.0000	2.42E-01	0.06
32.0	1.0	31.5	116.0	1.96	1.31	0.521	5	1.25	31.6	0.7	5.5	0.9	902.604	3.67E-04	5.20E-04	0.052	2.46E-01	15.0000	2.46E-01	0.06
33.0	1.0	32.5	116.0	2.02	1.35	0.534	5	1.25	31.6	0.7	5.4	0.9	911.425	3.69E-04	5.20E-04	0.052	2.50E-01	15.0000	2.50E-01	0.06
34.0	1.0	33.5	116.0	2.08	1.39	0.546	5	1.25	31.6	0.7	5.3	0.8	920.079	3.70E-04	5.20E-04	0.052	2.55E-01	15.0000	2.55E-01	0.06
35.0	1.0	34.5	116.0	2.13	1.43	0.558	5	1.25	31.6	0.7	5.2	0.8	928.572	3.71E-04	5.20E-04	0.052	2.59E-01	15.0000	2.59E-01	0.06
36.0	1.0	35.5	116.0	2.19	1.47	0.569	19	1.25	58.9	0.7	21.7	0.8	1510.155	2.31E-04	3.00E-04	0.030	2.72E-02	15.0000	2.72E-02	0.01
37.0	1.0	36.5	116.0	2.25	1.51	0.581	19	1.25	58.9	0.7	21.4	0.8	1523.982	2.32E-04	3.00E-04	0.030	2.76E-02	15.0000	2.76E-02	0.01
38.0	1.0	37.5	116.0	2.31	1.55	0.592	19	1.25	58.9	0.7	21.2	0.8	1537.586	2.32E-04	3.00E-04	0.030	2.80E-02	15.0000	2.80E-02	0.01
39.0	1.0	38.5	116.0	2.37	1.58	0.602	19	1.25	58.9	0.7	20.9	0.8	1550.976	2.33E-04	3.00E-04	0.030	2.84E-02	15.0000	2.84E-02	0.01
40.0	1.0	39.5	106.2	2.42	1.62	0.612	9	1.25	39.0	0.7	15.9	0.8	1430.412	2.54E-04	3.00E-04	0.030	3.96E-02	15.0000	3.96E-02	0.01
41.0	1.0	40.5	106.2	2.47	1.66	0.622	9	1.25	39.0	0.6	15.8	0.8	1443.104	2.54E-04	3.00E-04	0.030	3.99E-02	15.0000	3.99E-02	0.01
42.0	1.0	41.5	106.2	2.53	1.69	0.631	9	1.25	39.0	0.6	15.7	0.8	1455.649	2.54E-04	3.00E-04	0.030	4.02E-02	15.0000	4.02E-02	0.01
43.0	1.0	42.5	106.2	2.58	1.73	0.639	9	1.25	39.0	0.6	15.6	0.8	1468.052	2.53E-04	3.00E-04	0.030	4.05E-02	15.0000	4.05E-02	0.01
44.0	1.0	43.5	106.2	2.63	1.76	0.648	9	1.25	39.0	0.6	15.5	0.8	1480.317	2.53E-04	3.00E-04	0.030	4.07E-02	15.0000	4.07E-02	0.01
45.0	1.0	44.5	106.2	2.69	1.80	0.656	9	1.25	39.0	0.6	15.4	0.8	1492.450	2.52E-04	3.00E-04	0.030	4.10E-02	15.0000	4.10E-02	0.01
46.0	1.0	45.5	130.2	2.75	1.84	0.665	13	1.25	45.0	0.6	19.0	0.8	1618.364	2.34E-04	3.00E-04	0.030	3.19E-02	15.0000	3.19E-02	0.01
47.0	1.0	46.5	130.2	2.81	1.88	0.676	13	1.25	45.0	0.6	18.9	0.8	1633.411	2.34E-04	3.00E-04	0.030	3.21E-02	15.0000	3.21E-02	0.01
48.0	1.0	47.5	130.2	2.88	1.93	0.686	13	1.25	45.0	0.6	18.7	0.8	1648.266	2.35E-04	3.00E-04	0.030	3.24E-02	15.0000	3.24E-02	0.01
49.0	1.0	48.5	130.2	2.94	1.97	0.696	13	1.25	45.0	0.6	18.6	0.8	1662.936	2.35E-04	3.00E-04	0.030	3.27E-02	15.0000	3.27E-02	0.01
50.0	1.0	49.5	130.2	3.01	2.01	0.706	13	1.25	45.0	0.6	18.5	0.8	1677.426	2.34E-04	1.00E-02	1.000	1.10E+00	15.0000	1.10E+00	0.26

TOTAL SETTLEMENT = **1.32**

Figure 6

GEOCON

CLIENT: LACDPW- HHMC EP
FILE NO. A8559-06-36 Boring 4

TECHNICAL ENGINEERING AND DESIGN GUIDES AS ADAPTED FROM THE US ARMY CORPS OF ENGINEERS, NO. 9
EVALUATION OF EARTHQUAKE-INDUCED SETTLEMENTS IN DRY SANDY SOILS

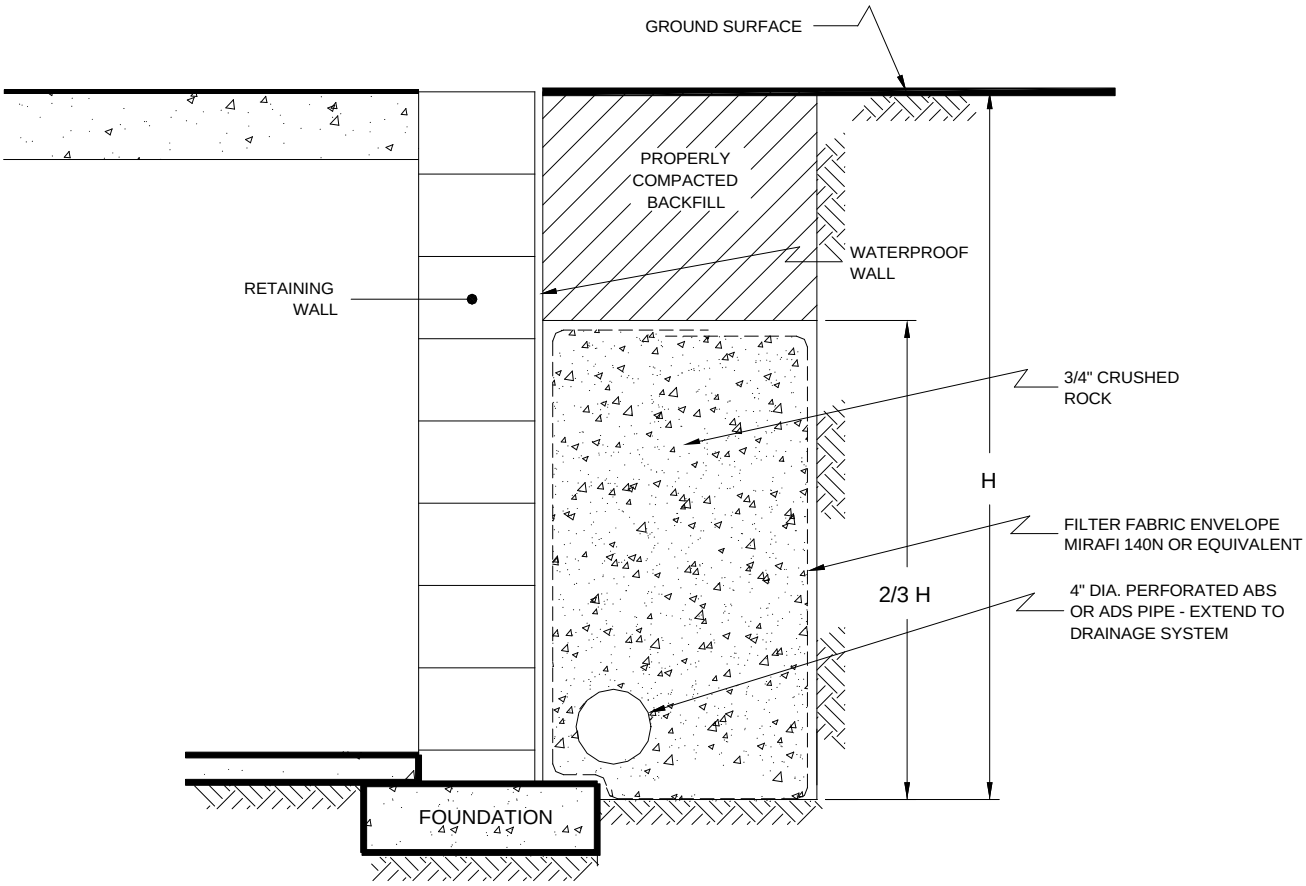
EARTHQUAKE INFORMATION:

Earthquake Magnitude:	7.5
Peak Horiz. Acceleration (g):	0.45

Depth of Base of Strata (ft)	Thickness of Layer (ft)	Depth of Mid-point of Layer (ft)	Soil Unit Weight (pcf)	Overburden Pressure at Mid-point (tsf)	Mean Effective Pressure at Mid-point (tsf)	Average Cyclic Shear Stress [Tav]	Field SPT [N]	Correction Factor [Cer]	Fig 4.1 Relative Density [Dr] (%)	Fig 4.2 Correction Factor [Cn]	Corrected [N1]60	rd Factor	Maximum Shear Mod. [Gmax] (tsf)	[yeff]*[Geff] [Gmax]	Fig 4.4 yeff Shear Strain	[yeff]*100%	Volumetric Strain M7.5 [E15] (%)	Number of Strain Cycles [Nc]	Corrected Vol. Strains [Ec]	Estimated Settlement [S] (inches)
1.0	1.0	0.5	104.0	0.03	0.02	0.008	11	1.25	80.5	2.0	24.8	1.0	171.932	4.38E-05	6.00E-05	0.006	4.65E-03	15.0000	4.65E-03	0.00
2.0	1.0	1.5	104.0	0.08	0.05	0.023	11	1.25	78.5	2.0	24.8	1.0	297.795	7.44E-05	1.40E-04	0.014	1.08E-02	15.0000	1.08E-02	0.00
3.0	1.0	2.5	104.0	0.13	0.09	0.038	11	1.25	76.7	2.0	24.8	1.0	384.452	9.41E-05	1.90E-04	0.019	1.47E-02	15.0000	1.47E-02	0.00
4.0	1.0	3.5	104.0	0.18	0.12	0.053	11	1.25	75.0	2.0	24.8	1.0	454.889	1.09E-04	1.70E-04	0.017	1.32E-02	15.0000	1.32E-02	0.00
5.0	1.0	4.5	104.0	0.23	0.16	0.068	11	1.25	73.4	2.0	24.8	1.0	515.796	1.22E-04	1.70E-04	0.017	1.32E-02	15.0000	1.32E-02	0.00
6.0	1.0	5.5	104.0	0.29	0.19	0.083	11	1.25	71.9	1.9	23.6	1.0	561.606	1.34E-04	1.70E-04	0.017	1.39E-02	15.0000	1.39E-02	0.00
7.0	1.0	6.5	104.0	0.34	0.23	0.098	11	1.25	70.5	1.8	21.7	1.0	593.766	1.47E-04	1.50E-04	0.015	1.36E-02	15.0000	1.36E-02	0.00
8.0	1.0	7.5	102.5	0.39	0.26	0.113	11	1.25	69.2	1.6	20.3	1.0	622.576	1.58E-04	1.50E-04	0.015	1.48E-02	15.0000	1.48E-02	0.00
9.0	1.0	8.5	102.5	0.44	0.30	0.128	11	1.25	67.9	1.5	19.0	1.0	648.757	1.69E-04	1.50E-04	0.015	1.59E-02	15.0000	1.59E-02	0.00
10.0	1.0	9.5	102.5	0.49	0.33	0.143	11	1.25	66.7	1.5	18.0	1.0	672.980	1.78E-04	1.50E-04	0.015	1.70E-02	15.0000	1.70E-02	0.00
11.0	1.0	10.5	102.5	0.54	0.36	0.157	7	1.25	50.6	1.4	10.9	1.0	598.290	2.18E-04	4.50E-04	0.045	9.31E-02	15.0000	9.31E-02	0.02
12.0	1.0	11.5	111.8	0.60	0.40	0.172	7	1.25	50.6	1.3	10.4	0.9	617.340	2.28E-04	4.50E-04	0.045	9.85E-02	15.0000	9.85E-02	0.02
13.0	1.0	12.5	111.8	0.65	0.44	0.188	7	1.25	50.6	1.3	10.0	0.9	636.038	2.37E-04	4.50E-04	0.045	1.04E-01	15.0000	1.04E-01	0.02
14.0	1.0	13.5	111.8	0.71	0.47	0.204	7	1.25	50.6	1.2	9.6	0.9	653.697	2.46E-04	4.50E-04	0.045	1.09E-01	15.0000	1.09E-01	0.03
15.0	1.0	14.5	111.8	0.76	0.51	0.219	7	1.25	50.6	1.2	9.2	0.9	670.450	2.54E-04	3.70E-04	0.037	9.39E-02	15.0000	9.39E-02	0.02
16.0	1.0	15.5	111.8	0.82	0.55	0.234	7	1.25	46.6	1.1	10.1	0.9	717.188	2.51E-04	3.70E-04	0.037	8.37E-02	15.0000	8.37E-02	0.02
17.0	1.0	16.5	128.8	0.88	0.59	0.251	7	1.25	46.6	1.1	9.8	0.9	734.300	2.58E-04	3.70E-04	0.037	8.73E-02	15.0000	8.73E-02	0.02
18.0	1.0	17.5	128.8	0.95	0.63	0.268	7	1.25	46.6	1.1	16.4	0.9	904.469	2.21E-04	3.70E-04	0.037	4.68E-02	15.0000	4.68E-02	0.01
19.0	1.0	18.5	128.8	1.01	0.68	0.286	7	1.25	46.6	1.0	16.1	0.9	928.939	2.26E-04	3.70E-04	0.037	4.79E-02	15.0000	4.79E-02	0.01
20.0	1.0	19.5	128.8	1.07	0.72	0.303	7	1.25	43.2	1.0	16.6	0.9	967.304	2.27E-04	3.70E-04	0.037	4.63E-02	15.0000	4.63E-02	0.01
21.0	1.0	20.5	128.8	1.14	0.76	0.320	7	1.25	43.2	1.0	16.3	0.9	990.344	2.32E-04	3.70E-04	0.037	4.72E-02	15.0000	4.72E-02	0.01
22.0	1.0	21.5	128.8	1.20	0.81	0.336	7	1.25	43.2	0.9	16.1	0.9	1012.684	2.35E-04	3.70E-04	0.037	4.81E-02	15.0000	4.81E-02	0.01
23.0	1.0	22.5	128.8	1.27	0.85	0.353	7	1.25	43.2	0.9	15.8	0.9	1034.383	2.39E-04	3.70E-04	0.037	4.89E-02	15.0000	4.89E-02	0.01
24.0	1.0	23.5	130.4	1.33	0.89	0.369	9	1.25	45.8	0.9	18.7	0.9	1120.849	2.28E-04	3.70E-04	0.037	4.01E-02	15.0000	4.01E-02	0.01
25.0	1.0	24.5	130.4	1.40	0.94	0.386	9	1.25	45.8	0.9	18.4	0.9	1142.273	2.31E-04	3.70E-04	0.037	4.08E-02	15.0000	4.08E-02	0.01
26.0	1.0	25.5	130.4	1.46	0.98	0.402	9	1.25	45.8	0.8	18.2	0.9	1163.151	2.33E-04	3.70E-04	0.037	4.15E-02	15.0000	4.15E-02	0.01
27.0	1.0	26.5	130.1	1.53	1.02	0.417	9	1.25	45.8	0.8	17.9	0.9	1183.497	2.36E-04	3.00E-04	0.030	3.42E-02	15.0000	3.42E-02	0.01
28.0	1.0	27.5	130.1	1.59	1.07	0.433	9	1.25	45.8	0.8	17.7	0.9	1203.347	2.38E-04	3.00E-04	0.030	3.47E-02	15.0000	3.47E-02	0.01
29.0	1.0	28.5	130.1	1.66	1.11	0.448	9	1.25	45.8	0.8	17.5	0.9	1222.756	2.40E-04	3.00E-04	0.030	3.52E-02	15.0000	3.52E-02	0.01
30.0	1.0	29.5	130.1	1.72	1.15	0.464	9	1.25	45.8	0.8	17.3	0.9	1241.750	2.42E-04	3.00E-04	0.030	3.57E-02	15.0000	3.57E-02	0.01
31.0	1.0	30.5	104.6	1.78	1.19	0.477	18	1.25	61.4	0.8	22.3	0.9	1374.092	2.23E-04	3.00E-04	0.030	2.64E-02	15.0000	2.64E-02	0.01
32.0	1.0	31.5	104.6	1.83	1.23	0.488	18	1.25	61.4	0.8	22.0	0.9	1387.898	2.23E-04	3.00E-04	0.030	2.68E-02	15.0000	2.68E-02	0.01
33.0	1.0	32.5	104.6	1.89	1.26	0.499	18	1.25	61.4	0.7	21.7	0.9	1401.455	2.24E-04	3.00E-04	0.030	2.72E-02	15.0000	2.72E-02	0.01
34.0	1.0	33.5	104.6	1.94	1.30	0.510	18	1.25	61.4	0.7	21.4	0.8	1414.774	2.25E-04	3.00E-04	0.030	2.76E-02	15.0000	2.76E-02	0.01
35.0	1.0	34.5	104.6	1.99	1.33	0.520	18	1.25	61.4	0.7	21.2	0.8	1427.866	2.25E-04	3.00E-04	0.030	2.80E-02	15.0000	2.80E-02	0.01
36.0	1.0	35.5	125.0	2.05	1.37	0.532	11	1.25	45.8	0.7	11.8	0.8	1191.395	2.74E-04	3.00E-04	0.030	5.66E-02	15.0000	5.66E-02	0.01
37.0	1.0	36.5	125.0	2.11	1.41	0.545	11	1.25	45.8	0.7	11.6	0.8	1203.394	2.75E-04	3.00E-04	0.030	5.76E-02	15.0000	5.76E-02	0.01
38.0	1.0	37.5	125.0	2.17	1.46	0.557	11	1.25	45.8	0.7	11.4	0.8	1215.158	2.77E-04	3.00E-04	0.030	5.87E-02	15.0000	5.87E-02	0.01
39.0	1.0	38.5	125.0	2.24	1.50	0.569	7	1.25	36.5	0.7	14.2	0.8	1323.934	2.57E-04	3.00E-04	0.030	4.53E-02	15.0000	4.53E-02	0.01
40.0	1.0	39.5	125.0	2.30	1.54	0.581	7	1.25	36.5	0.7	14.1	0.8	1339.206	2.58E-04	3.00E-04	0.030	4.57E-02	15.0000	4.57E-02	0.01
41.0	1.0	40.5	125.0	2.36	1.58	0.593	7	1.25	34.8	0.7	14.0	0.8	1354.258	2.58E-04	3.00E-04	0.030	4.61E-02	15.0000	4.61E-02	0.01
42.0	1.0	41.5	125.0	2.42	1.62	0.605	7	1.25	34.8	0.7	13.9	0.8	1369.099	2.59E-04	3.00E-04	0.030	4.65E-02	15.0000	4.65E-02	0.01
43.0	1.0	42.5	125.0	2.49	1.67	0.616	7	1.25	34.8	0.6	13.8	0.8	1383.738	2.59E-04	3.00E-04	0.030	4.68E-02	15.0000	4.68E-02	0.01
44.0	1.0	43.5	107.0	2.54	1.70	0.626	25	1.25	63.4	0.6	24.3	0.8	1689.170	2.14E-04	3.00E-04	0.030	2.38E-02	15.0000	2.38E-02	0.01
45.0	1.0	44.5	107.0	2.60	1.74	0.634	25	1.25	63.4	0.6	24.0	0.8	1700.989	2.14E-04	3.00E-04	0.030	2.41E-02	15.0000	2.41E-02	0.01
46.0	1.0	45.5	107.0	2.65	1.78	0.642	25	1.25	63.4	0.6	23.8	0.8	1712.647	2.14E-04	3.00E-04	0.030	2.44E-02	15.0000	2.44E-02	0.01
47.0	1.0	46.5	107.0	2.70	1.81	0.650	25	1.25	63.4	0.6	23.5	0.8	1724.151	2.14E-04	3.00E-04	0.030	2.47E-02	15.0000	2.47E-02	0.01
48.0	1.0	47.5	107.0	2.76	1.85	0.658	25	1.25	63.4	0.6	23.3	0.8	1735.505	2.14E-04	3.00E-04	0.030	2.50E-02	15.0000	2.50E-02	0.01
49.0	1.0	48.5	113.2	2.81	1.88	0.666	25	1.25	63.4	0.6	23.1	0.8	1747.037	2.14E-04	3.00E-04	0.030	2.53E-02	15.0000	2.53E-02	0.01
50.0	1.0	49.5	113.2	2.87	1.92	0.674	25	1.25	63.4	0.6	22.9	0.8	1758.738	2.13E-04	3.00E-04	0.030	2.56E-02	15.0000	2.56E-02	0.01

TOTAL SETTLEMENT = **0.49**

Figure 7



NO SCALE

GEOCON
WEST, INC.

ENVIRONMENTAL GEOTECHNICAL MATERIALS
3303 N. SAN FERNANDO BLVD. - SUITE 100 - BURBANK, CA 91504
PHONE (818) 841-8388 - FAX (818) 841-1704

CHL		8000

RETAINING WALL DRAIN DETAIL

HHH HEALTH CENTER - URGENT CARE EXP.
LOS ANGELES COUNTY DEPT. OF PUBLIC WORKS
5850 SOUTH MAIN STREET
LOS ANGELES, CALIFORNIA

NOV. 15, 2010	PROJECT NO. A8559-06-36	FIG. 8

GEOCON

TABLE 1

FAULTS WITHIN 60 MILES OF THE SITE

DETERMINISTIC SITE PARAMETERS

ABBREVIATED FAULT NAME	APPROXIMATE DISTANCE mi	(km)	ESTIMATED MAX. EARTHQUAKE EVENT MAXIMUM EARTHQUAKE MAG.(Mw)	PEAK SITE ACCEL. g	EST. SITE INTENSITY MOD.MERC.
NEWPORT-INGLEWOOD (L.A.Basin)	3.9	(6.3)	7.1	0.595	X
PUENTE HILLS BLIND THRUST	4.2	(6.8)	7.1	0.744	XI
UPPER ELYSIAN PARK BLIND THRUST	6.2	(10.0)	6.4	0.536	X
HOLLYWOOD	8.7	(14.0)	6.4	0.424	X
RAYMOND	9.7	(15.6)	6.5	0.411	X
SANTA MONICA	9.8	(15.8)	6.6	0.419	X
VERDUGO	11.8	(19.0)	6.9	0.397	X
PALOS VERDES	12.8	(20.6)	7.3	0.342	IX
WHITTIER	14.6	(23.5)	6.8	0.250	IX
MALIBU COAST	15.2	(24.4)	6.7	0.299	IX
SIERRA MADRE	16.2	(26.0)	7.2	0.350	IX
NORTHRIDGE (E. Oak Ridge)	19.9	(32.1)	7.0	0.259	IX
SIERRA MADRE (San Fernando)	19.9	(32.1)	6.7	0.227	IX
CLAMSHELL-SAWPIT	20.4	(32.9)	6.5	0.201	VIII
SAN JOSE	22.7	(36.6)	6.4	0.167	VIII
SAN GABRIEL	22.8	(36.7)	7.2	0.199	VIII
ANACAPA-DUME	24.1	(38.8)	7.5	0.286	IX
SANTA SUSANA	26.4	(42.5)	6.7	0.166	VIII
SAN JOAQUIN HILLS	28.1	(45.3)	6.6	0.146	VIII
CHINO-CENTRAL AVE. (Elsinore)	28.3	(45.5)	6.7	0.154	VIII
SIMI-SANTA ROSA	32.3	(52.0)	7.0	0.154	VIII
HOLSER	32.3	(52.0)	6.5	0.116	VII
CUCAMONGA	32.5	(52.3)	6.9	0.145	VIII
NEWPORT-INGLEWOOD (Offshore)	34.3	(55.2)	7.1	0.120	VII
OAK RIDGE (Onshore)	36.8	(59.3)	7.0	0.132	VIII
ELSINORE (GLEN IVY)	37.6	(60.5)	6.8	0.089	VII
SAN ANDREAS - 1857 Rupture M-2a	39.0	(62.8)	7.8	0.164	VIII
SAN ANDREAS - Mojave M-1c-3	39.0	(62.8)	7.4	0.127	VIII
SAN ANDREAS - Whole M-1a	39.0	(62.8)	8.0	0.186	VIII
SAN ANDREAS - Cho-Moj M-1b-1	39.0	(62.8)	7.8	0.164	VIII
SAN CAYETANO	41.8	(67.2)	7.0	0.113	VII
SAN JACINTO-SAN BERNARDINO	47.3	(76.1)	6.7	0.062	VI
SAN ANDREAS - SB-Coach. M-2b	49.0	(78.9)	7.7	0.119	VII
SAN ANDREAS - SB-Coach. M-1b-2	49.0	(78.9)	7.7	0.119	VII
SAN ANDREAS - San Bernardino M-1	49.0	(78.9)	7.5	0.104	VII
SAN ANDREAS - Carrizo M-1c-2	50.9	(81.9)	7.4	0.092	VII
CLEGHORN	51.4	(82.8)	6.5	0.049	VI
CORONADO BANK	53.5	(86.1)	7.6	0.100	VII
SANTA YNEZ (East)	54.3	(87.4)	7.1	0.067	VI
OAK RIDGE(Blind Thrust Offshore)	55.2	(88.9)	7.1	0.085	VII
VENTURA - PITAS POINT	55.5	(89.3)	6.9	0.073	VII
CHANNEL IS. THRUST (Eastern)	57.0	(91.7)	7.5	0.110	VII
ELSINORE (TEMECULA)	58.1	(93.5)	6.8	0.050	VI
SAN JACINTO-SAN JACINTO VALLEY	59.6	(95.9)	6.9	0.052	VI

44 FAULTS FOUND WITHIN THE SPECIFIED SEARCH RADIUS.
THE NEWPORT-INGLEWOOD (L.A.Basin) FAULT IS CLOSEST TO THE SITE.
IT IS ABOUT 3.9 MILES (6.3 km) AWAY.
LARGEST MAXIMUM-EARTHQUAKE SITE ACCELERATION: 0.7436 g

APPENDIX A

FIELD INVESTIGATION

The scope of the field investigation, performed on October 19, 2010 and October 21, 2010 by conducting four eight-inch diameter borings utilizing a truck-mounted hollow-stem auger drilling machine to a maximum depth of 50½ feet below the existing ground surface. In addition, two test pit excavations were conducted to a depth of 10 feet below the existing ground surface utilizing hand tools and hand auger equipment. The test pit excavations were conducted to expose the existing foundations and obtain foundation dimensions. Representative and relatively undisturbed samples were obtained by driving a 3-inch, O. D., sampler into the "undisturbed" soil mass with blows from a 140-lbs. hammer falling 30 inches or a slide hammer. The sampler was equipped with 1-inch by $2^{3}/_{8}$-inch brass sampler rings to facilitate removal and testing. Bulk samples were also obtained.

The soil conditions encountered in the excavations were visually examined, classified and logged in general accordance with Unified Soil Classification System. Logs of the boring and test pits are presented on Figures A-1 through A-6. The logs depict the soil and geologic conditions encountered and the depth at which samples were obtained. The approximate locations of the excavations are indicated the Site Plan (see Figure 2).

PROJECT NO. A8559-06-36

BORING 1

ELEV. (MSL.) _____ DATE COMPLETED **10/19/10**

EQUIPMENT **HOLLOW STEM AUGER** BY: **JMT**

DEPTH IN FEET	SAMPLE NO>	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	MATERIAL DESCRIPTION	PENETRATION RESISTANCE (BLOWS/FT)*	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
0					**ASPHALT: 2.5" BASE: 4.5"**			
					ARTIFICIAL FILL			
2					Silty Sand, loose, moist, dark brown, fine- to medium-grained, some brick debris			
4								
	B1@5'				- Medium dense, trace cobbles	33	108.0	20.3
6					Silt, soft, moist, grayish brown, trace debris			
	B1@7.5'					9	--	18.2
8								
10	B1@10'				- Hard, mottled brown to grayish brown to yellowish brown, moderate plasticity	44	116.5	11.4
					ALLUVIUM			
12	B1@12.5'				Sandy Silt, soft, moist, grayish brown, very fine- to fine-grained, micaceous	5	--	21.6
14								
	B1@15'				- Firm, brown, very fine- to fine-grained with trace medium- to coarse-grained	16	105.6	20.2
16				ML				
	B1@17.5'					7	--	15.0
18					- Soft, pale brown to reddish brown, increased sand content			
20	B1@20'				- Firm, very fine- to fine-grained, pale brown	19	109.6	15.0
22	B1@22.5'			SP	Sand, poorly graded, medium dense, slightly moist, light brown, fine-grained	16	--	13.8
					Sandy Silt, stiff, moist, brown, fine-grained			
24				ML				
	B1@25'				Sand, poorly graded, medium dense, dry to slightly moist, light brown, very fine- to fine-grained	42	106.3	10.9
26				SP				
	B1@27.5'					22	--	8.8
28					Silty Sand, medium dense, slightly moist, brown to light reddish brown, very fine- to fine-grained			
				SM				
				SP				

A8559-06-36 BORING LOGS FIG A1-A4.GPJ

Log of Boring 1, Page 1 of 2

SAMPLE SYMBOLS

- ... SAMPLING UNSUCCESSFUL
- ... STANDARD PENETRATION TEST
- ... DRIVE SAMPLE (UNDISTURBED)
- ... DISTURBED OR BAG SAMPLE
- ... CHUNK SAMPLE
- ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

GEOCON

PROJECT NO. A8559-06-36

BORING 1

ELEV. (MSL.) _____ DATE COMPLETED **10/19/10**

EQUIPMENT **HOLLOW STEM AUGER** BY: **JMT**

DEPTH IN FEET	SAMPLE NO>	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	MATERIAL DESCRIPTION	PENETRATION RESISTANCE (BLOWS/FT)*	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
30	B1@30'			SM	Sand, medium dense, dry to slightly moist, light brown, very fine- to fine-grained	61	105.1	7.4
32	B1@32.5'			ML	Silty Sand, medium dense, slightly moist, brown to light reddish brown, very fine- to fine-grained Silt, soft, moist, pale brown to grayish brown, trace carbon deposits	5	--	33.5
34								
	B1@35'				- Firm, brown to grayish brown to yellowish brown, moderate to high plasticity	12	86.0	34.9
36				SP	Sand, poorly graded, loose, dry to slightly moist, very fine- to fine-grained, micaceous			
	B1@37.5'				- Medium dense	19	--	5.4
38								
40	B1@40'			SM/ML	Silty Sand to Sandy Silt, medium dense to hard, moist, pale brown, very fine- to fine-grained	46	99.3	6.9
42	B1@42.5'				- Loose to firm	9	--	16.3
44								
	B1@45'				- Decreased silt content, medium dense to hard, fine- to medium-grained	50	117.8	10.5
46								
	B1@47.5'				- Medium dense to firm	13	--	18
48				ML	Sandy Silt, stiff, moist, pale brown to grayish brown, fine-grained			
50	B1@50'					22	99.1	26.6

End at 50.5 feet.
Artificial fill to 10.5 feet.
No groundwater encountered.
Boring backfilled and tamped with soil cuttings.
Capped with asphalt patch.

*Penetration resistance for 140 pound hammer falling 30 inches.

A8559-06-36 BORING LOGS FIG A1-A4.GPJ

Log of Boring 1, Page 2 of 2

SAMPLE SYMBOLS

- ... SAMPLING UNSUCCESSFUL
- ... STANDARD PENETRATION TEST
- ... DRIVE SAMPLE (UNDISTURBED)
- ... DISTURBED OR BAG SAMPLE
- ... CHUNK SAMPLE
- ... WATER TABLE OR SEEPAGE

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GEOCON

PROJECT NO. A8559-06-36

BORING 2

ELEV. (MSL.) _____ DATE COMPLETED **10/19/10**

EQUIPMENT **HOLLOW STEM AUGER** BY: **JMT**

DEPTH IN FEET	SAMPLE NO>	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	MATERIAL DESCRIPTION	PENETRATION RESISTANCE (BLOWS/FT)*	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
0					**ASPHALT: 2.5" BASE: 4.5"**			
					ALLUVIUM			
2				SM	Silty Sand, medium dense, moist, pale brown, fine- to medium-grained			
4					Sand, poorly graded, medium dense, light brown, slightly moist, fine-grained with some medium-grained and trace coarse-grained			
	B2@5'					27	102.8	3.6
6				SP				
8	B2@7.5'				- Loose	9	--	--
					Silt with Sand, soft, moist, grayish brown, fine-grained, micaceous, laminated, some oxidation staining along lamination planes			
10	B2@10'					10	92.3	29.4
12								
14				ML				
	B2@15'				- Decreased sand content, firm, pale brown to gray brown	18	108.5	19.8
16								
18								
20	B2@20'					14	--	--
					End at 20.5 feet. No artificial fill. No groundwater. Boring backfilled and tamped with soil cuttings. Capped with asphalt patch. *Penetration resistance for 140 pound hammer falling 30 inches.			

A8559-06-36 BORING LOGS FIG A1-A4.GPJ

Log of Boring 2, Page 1 of 1

SAMPLE SYMBOLS

- ... SAMPLING UNSUCCESSFUL
- ... STANDARD PENETRATION TEST
- ... DRIVE SAMPLE (UNDISTURBED)
- ... DISTURBED OR BAG SAMPLE
- ... CHUNK SAMPLE
- ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

GEOCON

PROJECT NO. A8559-06-36

BORING 3

ELEV. (MSL.) _____ DATE COMPLETED **10/19/10**

EQUIPMENT **HOLLOW STEM AUGER** BY: **JMT**

DEPTH IN FEET	SAMPLE NO>	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	MATERIAL DESCRIPTION	PENETRATION RESISTANCE (BLOWS/FT)*	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
0					**ASPAHLT: 3" BASE: 4"**			
					ARTIFICIAL FILL			
2					Silty Sand, medium dense, moist, dark brown to brown, fine- to medium-grained			
					ALLUVIUM			
4					Sand, poorly graded, medium dense, slightly moist, light brown to pale brown, fine-grained with some medium-grained			
6	B3@5'			SP		26	100.3	3.5
8	B3@7.5'				- Loose, fine- to medium-grained, some oxidation staining	9	--	--
10	B3@10'				Silty Sand, loose, moist, dark brown, very fine- to fine-grained	11	91.1	5.9
12								
14								
16	B3@15'			SM	- Increased silt content, trace rootlets, trace porosity, micaceous	21	105.3	19.5
18								
20	B3@20'				- Pale brown to grayish brown	26	109.6	17.7

End at 20.5 feet.
Artificial fill to 1.5 feet..
No groundwater.
Boring backfilled and tamped with soil cuttings.
Capped with asphalt patch.

*Penetration resistance for 140 pound hammer falling 30 inches.

A8559-06-36 BORING LOGS FIG A1-A4.GPJ

Log of Boring 3, Page 1 of 1

SAMPLE SYMBOLS

- ... SAMPLING UNSUCCESSFUL
- ... STANDARD PENETRATION TEST
- ... DRIVE SAMPLE (UNDISTURBED)
- ... DISTURBED OR BAG SAMPLE
- ... CHUNK SAMPLE
- ... WATER TABLE OR SEEPAGE

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GEOCON

PROJECT NO. A8559-06-36

BORING 4

ELEV. (MSL.) _____ DATE COMPLETED **10/19/10**

EQUIPMENT **HOLLOW STEM AUGER** BY: **JMT**

DEPTH IN FEET	SAMPLE NO>	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	MATERIAL DESCRIPTION	PENETRATION RESISTANCE (BLOWS/FT)*	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
0					**ASPHALT: 2" BASE: 4"**			
					ARTIFICIAL FILL			
2					Silt with Sand, firm, moist, grayish brown, very fine- to fine-grained			
4					**ALLUVIUM**			
					Sand, poorly graded, medium dense, moist, light brown, fine-grained with trace medium-grained, some oxidation staining			
6	B4@5'			SP		26	99.9	4.1
8	B4@7.5'					11	--	6.3
10	B4@10'					22	97.6	5.0
					Silt, soft, moist, gray, trace very fine- to fine-grained sand			
12	B4@12.5'					7	--	23.5
14				ML	- Stiff, increased sand content, micaceous			
16	B4@15'					22	101.1	10.6
	B4@17.5'					7	--	19.9
18					Interbedded Silty Sand and Sandy Silt, loose to soft, moist, gray, very fine- to fine-grained			
20	B4@20'				- Medium dense to stiff, light grayish brown, trace oxidation staining	23	108.5	18.7
22	B4@22.5'			SM/ML	- Loose to soft	7	--	16.2
24								
26	B4@25'				- Medium dense to stiff, mottled gray to light gray to grayish brown	32	111.3	17.2
	B4@27.5'				Silt with Sand, loose to firm, moist, grayish brown, very fine- to fine-grained	9	--	23.3
28								

A8559-06-36 BORING LOGS FIG A1-A4.GPJ

Log of Boring 4, Page 1 of 2

SAMPLE SYMBOLS

- ... SAMPLING UNSUCCESSFUL
- ... STANDARD PENETRATION TEST
- ... DRIVE SAMPLE (UNDISTURBED)
- ... DISTURBED OR BAG SAMPLE
- ... CHUNK SAMPLE
- ... WATER TABLE OR SEEPAGE

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GEOCON

PROJECT NO. A8559-06-36

BORING 4

ELEV. (MSL.) _____ DATE COMPLETED **10/19/10**

EQUIPMENT **HOLLOW STEM AUGER** BY: **JMT**

DEPTH IN FEET	SAMPLE NO>	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	MATERIAL DESCRIPTION	PENETRATION RESISTANCE (BLOWS/FT)*	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
30	B4@30'				Silty Sand to Sandy Silt, medium dense to firm, moist, mottled grayish brown to light brown, very fine- to fine-grained	31	104.8	24.1
32	B4@32.5'			SP	Sand, medium dense, slightly moist, light brown, fine-grained	18	--	--
34								
	B4@35'				- Medium dense, light brown to light grayish brown	49	97.6	7.2
36					Sandy Silt, firm, slightly moist, light grayish brown, very fine- to fine-grained			
	B4@37.5'					11	--	21.3
38				ML	Silt, firm, moist, light brown to yellowish brown, moderate plasticity			
40	B4@40'				- Increased sand Content	20	98.9	26.4
42	B4@42.5'				Silt with Sand, firm, moist, light yellowish brown to reddish brown, very fine- to fine-grained	7	--	23.6
44					Sand, poorly graded, medium dense, slightly moist, light brown, very fine- to fine-grained			
	B4@45'				- Dense	69	102.3	4.6
46								
	B4@47.5'			SP		25	--	3.9
48					- Medium dense, fine- to medium-grained, dry to slightly moist			
50	B4@50'				- Very dense, trace coarse-grained	50(5")	108.6	4.2

End at 50.5 feet.
Artificial fill to 3 feet.
No groundwater encountered.
Boring backfilled and tamped with soil cuttings.
Capped with asphalt patch.

*Penetration resistance for 140 pound hammer falling 30 inches.

A8559-06-36 BORING LOGS FIG A1-A4.GPJ

Log of Boring 4, Page 2 of 2

SAMPLE SYMBOLS

- ... SAMPLING UNSUCCESSFUL
- ... STANDARD PENETRATION TEST
- ... DRIVE SAMPLE (UNDISTURBED)
- ... DISTURBED OR BAG SAMPLE
- ... CHUNK SAMPLE
- ... WATER TABLE OR SEEPAGE

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GEOCON

PROJECT NO. A8559-06-36

TEST PIT 1

ELEV. (MSL.) _____ DATE COMPLETED **10/21/10**

EQUIPMENT **HAND AUGER** BY: **RG**

DEPTH IN FEET	SAMPLE NO>	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	MATERIAL DESCRIPTION	PENETRATION RESISTANCE (BLOWS/FT)*	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
0					**CONCRETE: 3.5"**			
					ARTIFICIAL FILL			
2					Sand, poorly graded, medium dense, slightly moist, light brown, fine- to medium-grained			
					Silty Sand, medium dense, moist, dark brown, some fine- to coarse-gravel, trace cobbles, some concrete debris			
4								
6	TP1@6'						110.8	10.0
					- Dark brown to grayish brown			
8	TP1@8'						109.4	14.3
				ML	**ALLUVUIM**			
10					Sandy Silt, soft, moist, gray, fine- to medium-grained, micaceous, trace gypsum deposits			

End at 10 feet.
Artificial fill to 9 feet.
No groundwater encountered.
Test pit backfilled and tamped with soil cuttings.
Patched with concrete.

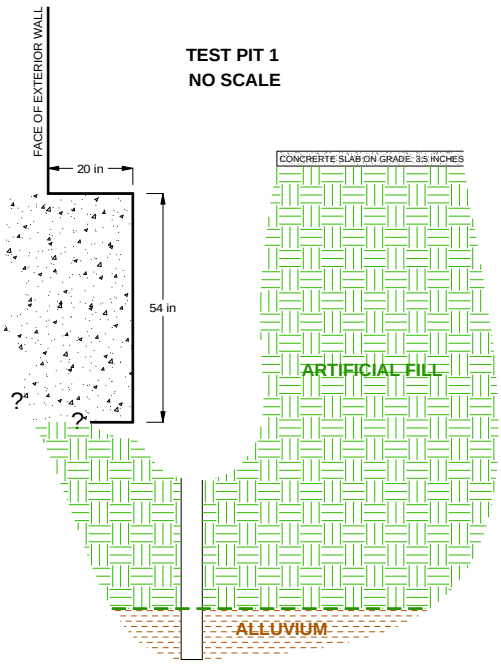

Figure A-5,
Log of Test Pit 1, Page 1 of 1

A8559-06-36 TEST PIT LOGS FIG A5 & A6.GPJ

SAMPLE SYMBOLS

- ... SAMPLING UNSUCCESSFUL
- ... STANDARD PENETRATION TEST
- ... DRIVE SAMPLE (UNDISTURBED)
- ... DISTURBED OR BAG SAMPLE
- ... CHUNK SAMPLE
- ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

GEOCON

PROJECT NO. A8559-06-36

TEST PIT 2

ELEV. (MSL.) _____ DATE COMPLETED **10/21/10**

EQUIPMENT **HAND AUGER** BY: **RG**

DEPTH IN FEET	SAMPLE NO>	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	MATERIAL DESCRIPTION	PENETRATION RESISTANCE (BLOWS/FT)*	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
0					**CONCRETE: 3.5"**			
					ARTIFICIAL FILL			
2					Silty Sand, medium dense, slightly moist, dark brown, fine- to medium-grained			
					Sand, poorly graded, medium dense, slightly moist, light brown, fine- to medium-grained			
4	TP2@3.5'				Silty Sand, medium dense, slightly moist, brown, fine- to medium-grained, some fine to coarse gravel, some brick debris		93.3	30.8
					Silt, soft, moist, mottled grayish brown to brown to yellowish brown			
6	TP2@6'				Sand with Silt, poorly graded, medium dense, moist, grayish brown, fine- to medium-grained, trace cobbles, trace silt with moderate plasticity		112.0	12.2
8	TP2@8'						104.9	11.7
10				ML	**ALLUVIUM** Sandy Silt, soft, moist, grayish brown, moderate plasticity, trace gypsum			

End at 10 feet.
Artificial fill to 9.5 feet.
No groundwater encountered.
Test pit backfilled and tamped with soil cuttings.
Patched with concrete.

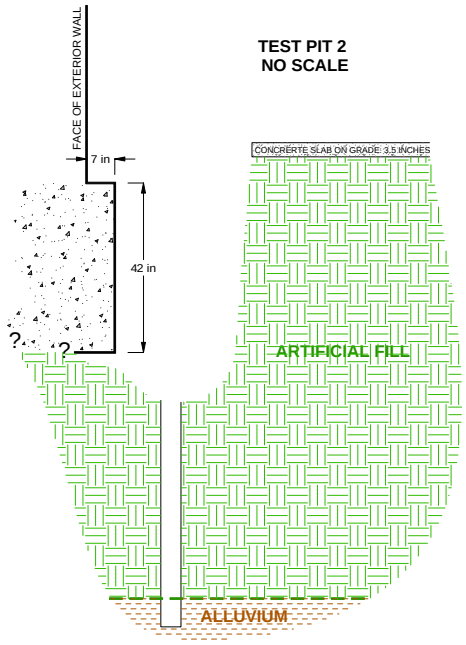

Figure A-6,
Log of Test Pit 2, Page 1 of 1

A8559-06-36 TEST PIT LOGS FIG A5 & A6.GPJ

SAMPLE SYMBOLS

- ... SAMPLING UNSUCCESSFUL
- ... STANDARD PENETRATION TEST
- ... DRIVE SAMPLE (UNDISTURBED)
- ... DISTURBED OR BAG SAMPLE
- ... CHUNK SAMPLE
- ... WATER TABLE OR SEEPAGE

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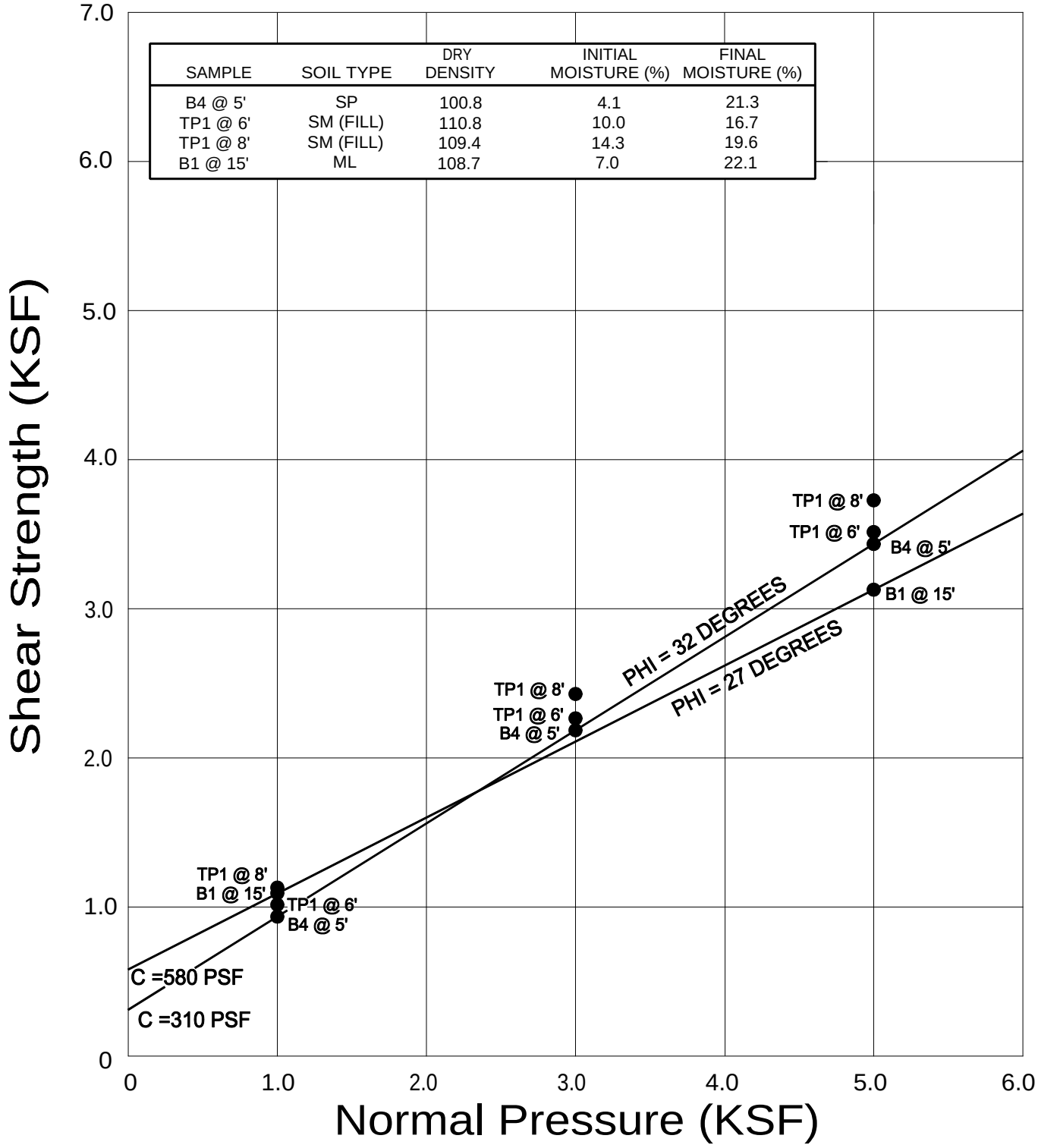
APPENDIX B

LABORATORY TESTING

Laboratory tests were performed in accordance with generally accepted test methods of the American Society for Testing and Materials (ASTM) or other suggested procedures. Selected samples were tested for direct shear strength, consolidation and expansion characteristics, compaction characteristics, corrosivity, and in-place dry density and moisture content. The results of the laboratory tests are summarized in Figures B1 through B11. The in-place dry density and moisture content of the samples tested are presented on the boring logs, Appendix A.



SAMPLE	SOIL TYPE	DRY DENSITY	INITIAL MOISTURE (%)	FINAL MOISTURE (%)
B4 @ 5'	SP	100.8	4.1	21.3
TP1 @ 6'	SM (FILL)	110.8	10.0	16.7
TP1 @ 8'	SM (FILL)	109.4	14.3	19.6
B1 @ 15'	ML	108.7	7.0	22.1

● Direct Shear, Saturated

GEOCON WEST, INC.
ENVIRONMENTAL GEOTECHNICAL MATERIALS
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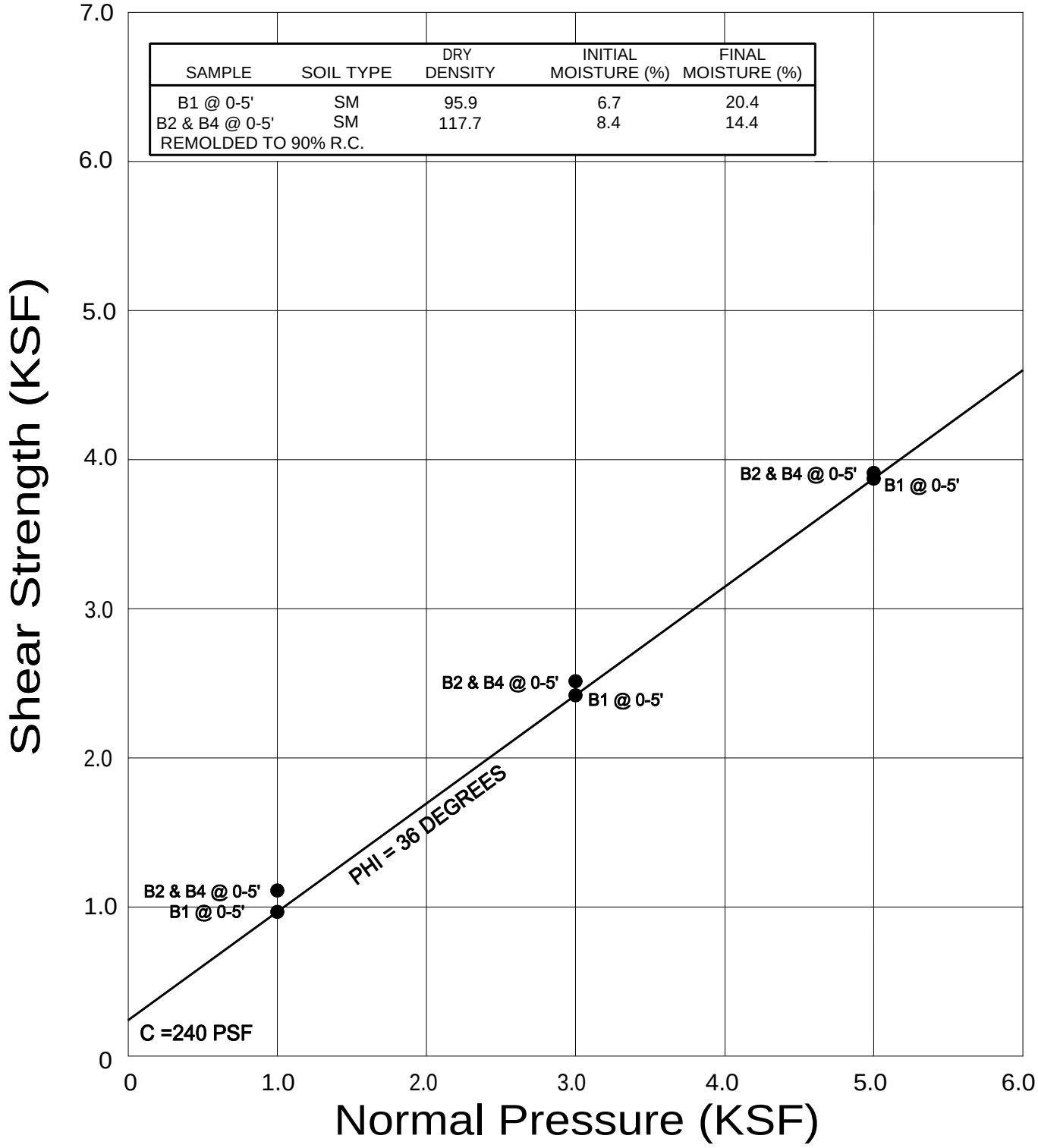
PHONE (818) 841-8388 - FAX (818) 841-1704

DIRECT SHEAR TEST RESULTS

HHH HEALTH CENTER - URGENT CARE EXP.
LOS ANGELES COUNTY DEPT. OF PUBLIC WORKS
5850 SOUTH MAIN STREET
LOS ANGELES, CALIFORNIA

JMT		8000	NOV. 15, 2010	PROJECT NO. A8559-06-36	FIG. B1



● Direct Shear, Saturated

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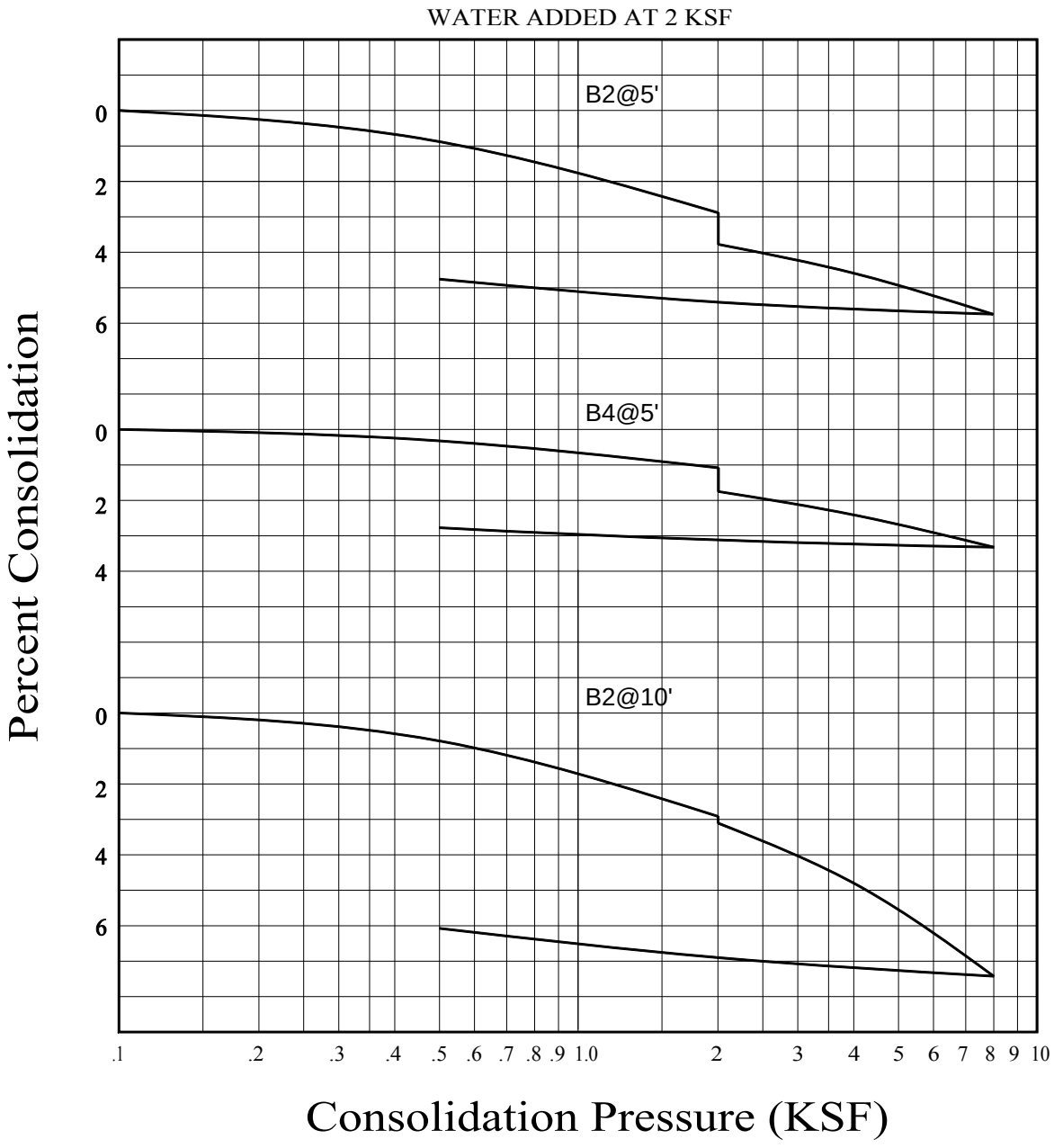
PHONE (818) 841-8388 - FAX (818) 841-1704

JMT		8000

DIRECT SHEAR TEST RESULTS

HHH HEALTH CENTER - URGENT CARE EXP.
LOS ANGELES COUNTY DEPT. OF PUBLIC WORKS
5850 SOUTH MAIN STREET
LOS ANGELES, CALIFORNIA

NOV. 15, 2010	PROJECT NO. A8559-06-36	FIG. B2



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WEST, INC.

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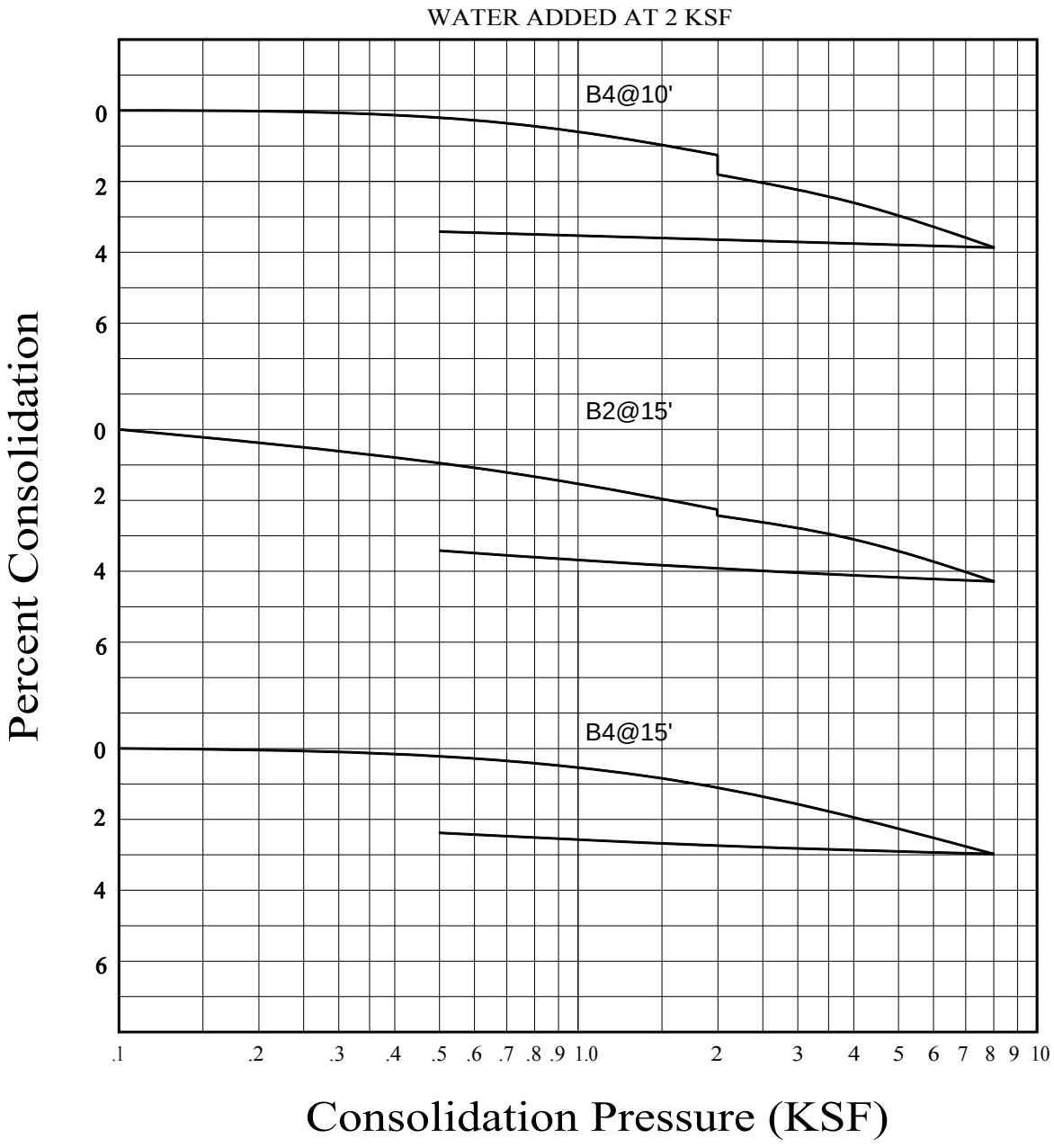
PHONE (818) 841-8388 - FAX (818) 841-1704

JMT		8000

CONSOLIDATION TEST RESULTS

HHH HEALTH CENTER - URGENT CARE EXP.
LOS ANGELES COUNTY DEPT. OF PUBLIC WORKS
5850 SOUTH MAIN STREET
LOS ANGELES, CALIFORNIA

NOV. 15, 2010	PROJECT NO. A8559-06-36	FIG. B3



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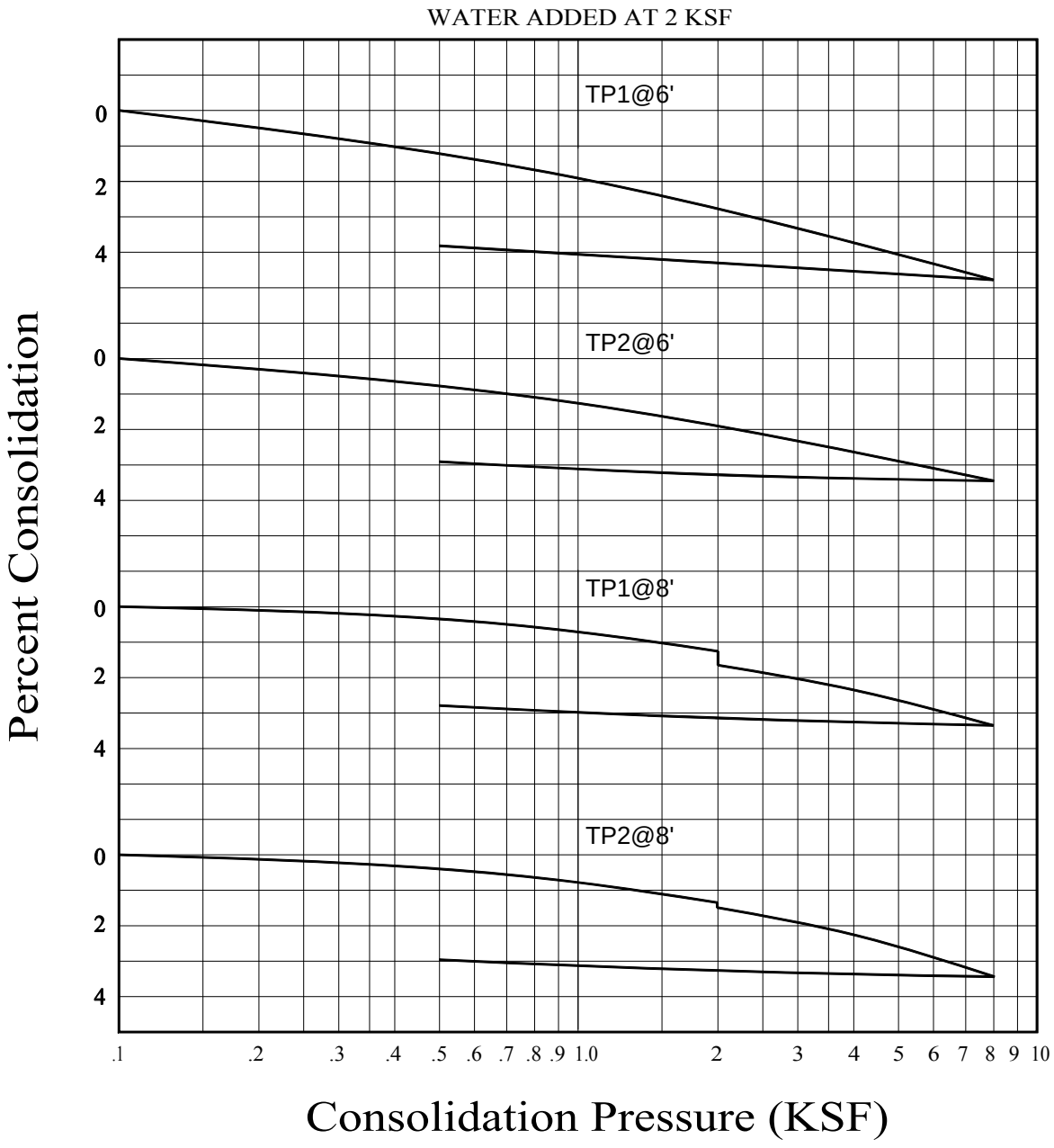
3303 N. SAN FERNANDO BLVD. - SUITE 100 - BURBANK, CA 91504
PHONE (818) 841-8388 - FAX (818) 841-1704

JMT		8000

CONSOLIDATION TEST RESULTS

HHH HEALTH CENTER - URGENT CARE EXP.
LOS ANGELES COUNTY DEPT. OF PUBLIC WORKS
5850 SOUTH MAIN STREET
LOS ANGELES, CALIFORNIA

NOV. 15, 2010	PROJECT NO. A8559-06-36	FIG. B4



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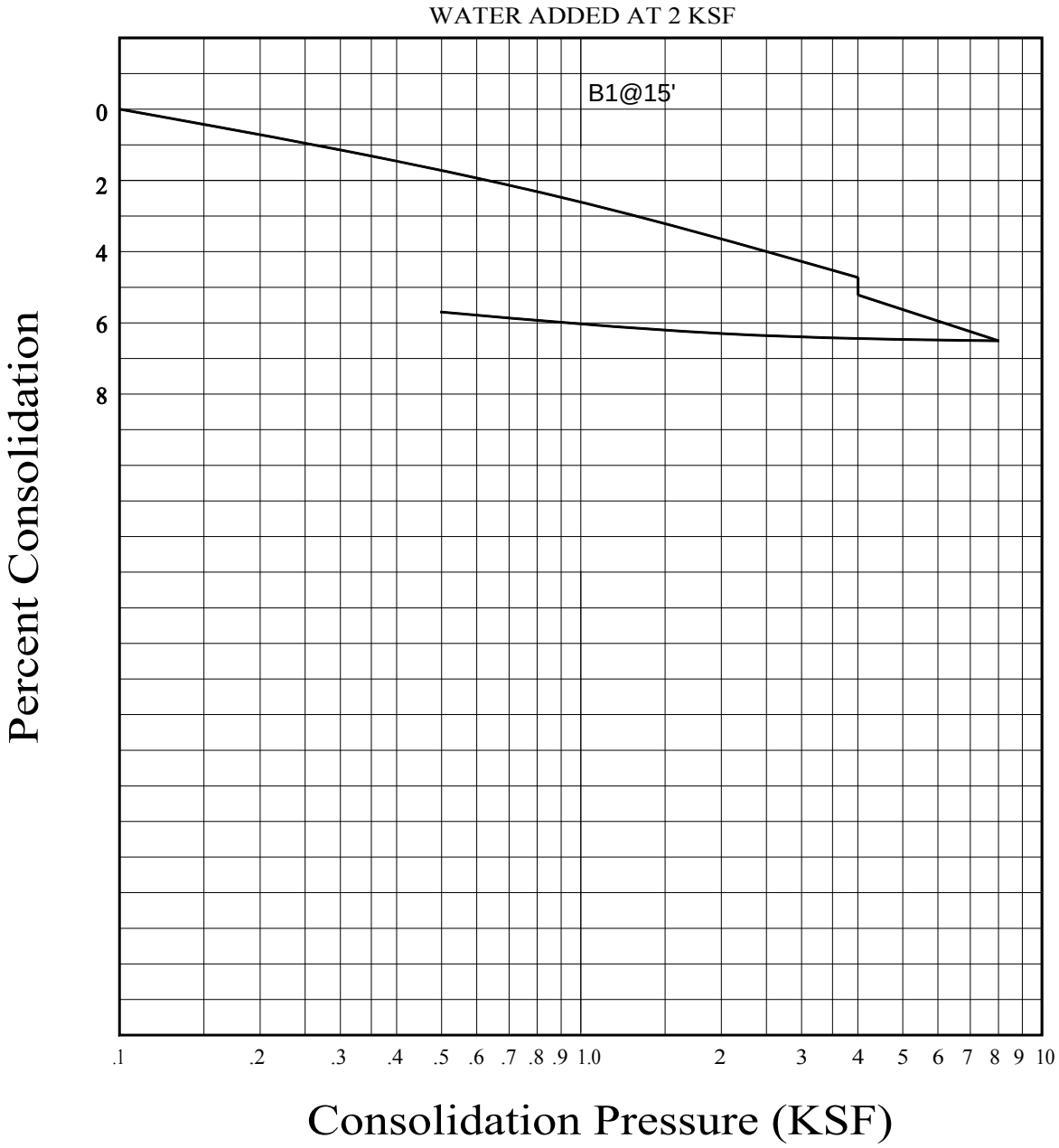
3303 N. SAN FERNANDO BLVD. - SUITE 100 - BURBANK, CA 91504
PHONE (818) 841-8388 - FAX (818) 841-1704

JMT		8000

CONSOLIDATION TEST RESULTS

HHH HEALTH CENTER - URGENT CARE EXP.
LOS ANGELES COUNTY DEPT. OF PUBLIC WORKS
5850 SOUTH MAIN STREET
LOS ANGELES, CALIFORNIA

NOV. 15, 2010	PROJECT NO. A8559-06-36	FIG. B5



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JMT		8000

CONSOLIDATION TEST RESULTS

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LOS ANGELES, CALIFORNIA

NOV. 15, 2010	PROJECT NO. A8559-06-36	FIG. B6

SUMMARY OF LABORATORY EXPANSION INDEX TEST RESULTS
ASTM D 4829-08A

Sample No.	Moisture Content (%)		Dry Density (pcf)	Expansion Index	*UBC Classification	**CBC Classification
	Before	After				
B1 & B4 @ 0-5'	6.7	15.2	118.4	2	Very Low	Non Expansive

* Reference: 1997 Uniform Building Code, Table 18-I-B.

** Reference: 2007 California Building Code, Section 1802.3.2

SUMMARY OF LABORATORY MAXIMUM DENSITY AND AND OPTIMUM MOISTURE CONTENT TEST RESULTS
ASTM D 1557-07

Sample No.	Soil Description	Maximum Dry Density (pcf)	Optimum Moisture (%)
B1 @ 0-5'	Dark Brown Silty Sand	129.0	10.0
B2 & B4 @ 0-5'	Brown Silty Sand	132.0	7.5
TP1 @ 6-9'	Grayish Brown Silty Sand	129.0	8.8
TP2 @ 5-8'	Grayish Brown Silty Sand	127.0	10.0

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LABORATORY TEST RESULTS

HHH HEALTH CENTER - URGENT CARE EXP.
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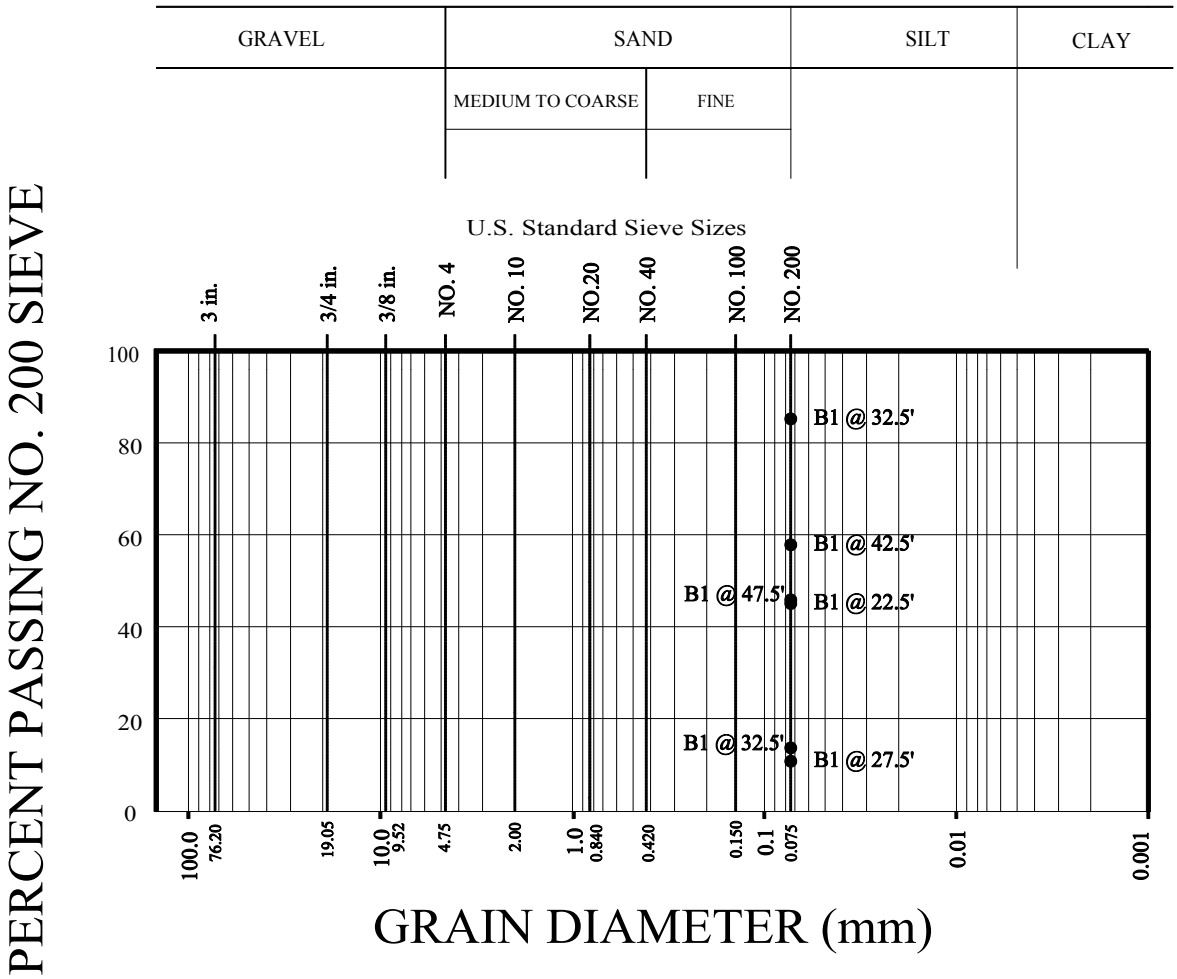
5850 SOUTH MAIN STREET
LOS ANGELES, CALIFORNIA

JMT		8000	NOV. 15, 2010	PROJECT NO. A8253-06-03	FIG. B7



SAMPLE	PERCENT PASSING NO. 200 SIEVE
B1 @ 22.5'	45.0
B1 @ 27.5'	7.7
B1 @ 32.5'	85.2
B1 @ 37.5'	13.6
B1 @ 42.5'	57.8
B1 @ 47.5'	45.8

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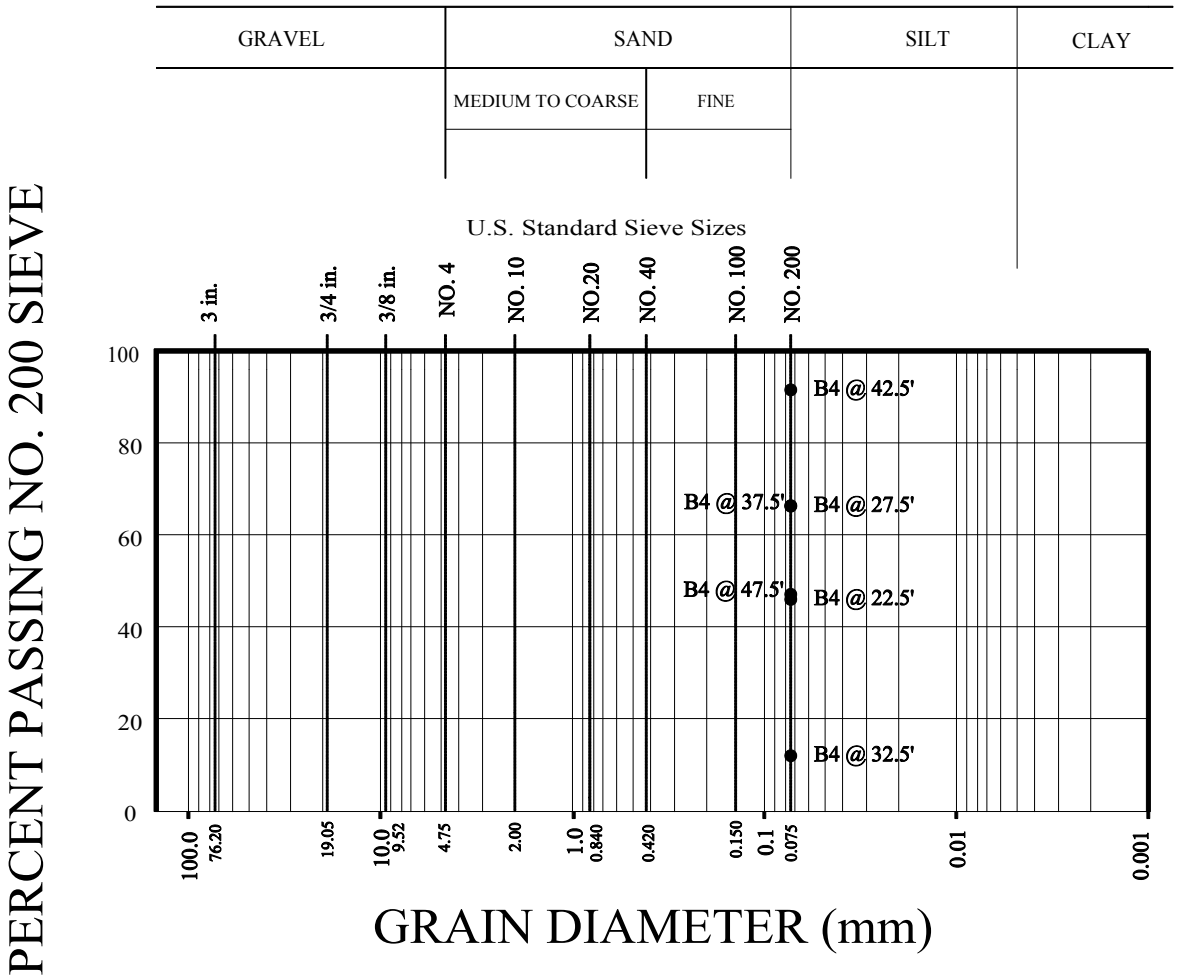
NDB		8000

GRAIN SIZE ANALYSIS

HHH HEALTH CENTER - URGENT CARE EXP.
LOS ANGELES COUNTY DEPT. OF PUBLIC WORKS
5850 SOUTH MAIN STREET
LOS ANGELES, CALIFORNIA

NOV. 15, 2010	PROJECT NO. A8559-06-36	FIG. B8



SAMPLE	PERCENT PASSING NO. 200 SIEVE
B4 @ 22.5'	45.9
B4 @ 27.5'	66.2
B4 @ 32.5'	11.9
B4 @ 37.5'	66.3
B4 @ 42.5'	91.5
B4 @ 47.5'	47.0

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NDB		8000

GRAIN SIZE ANALYSIS

HHH HEALTH CENTER - URGENT CARE EXP.
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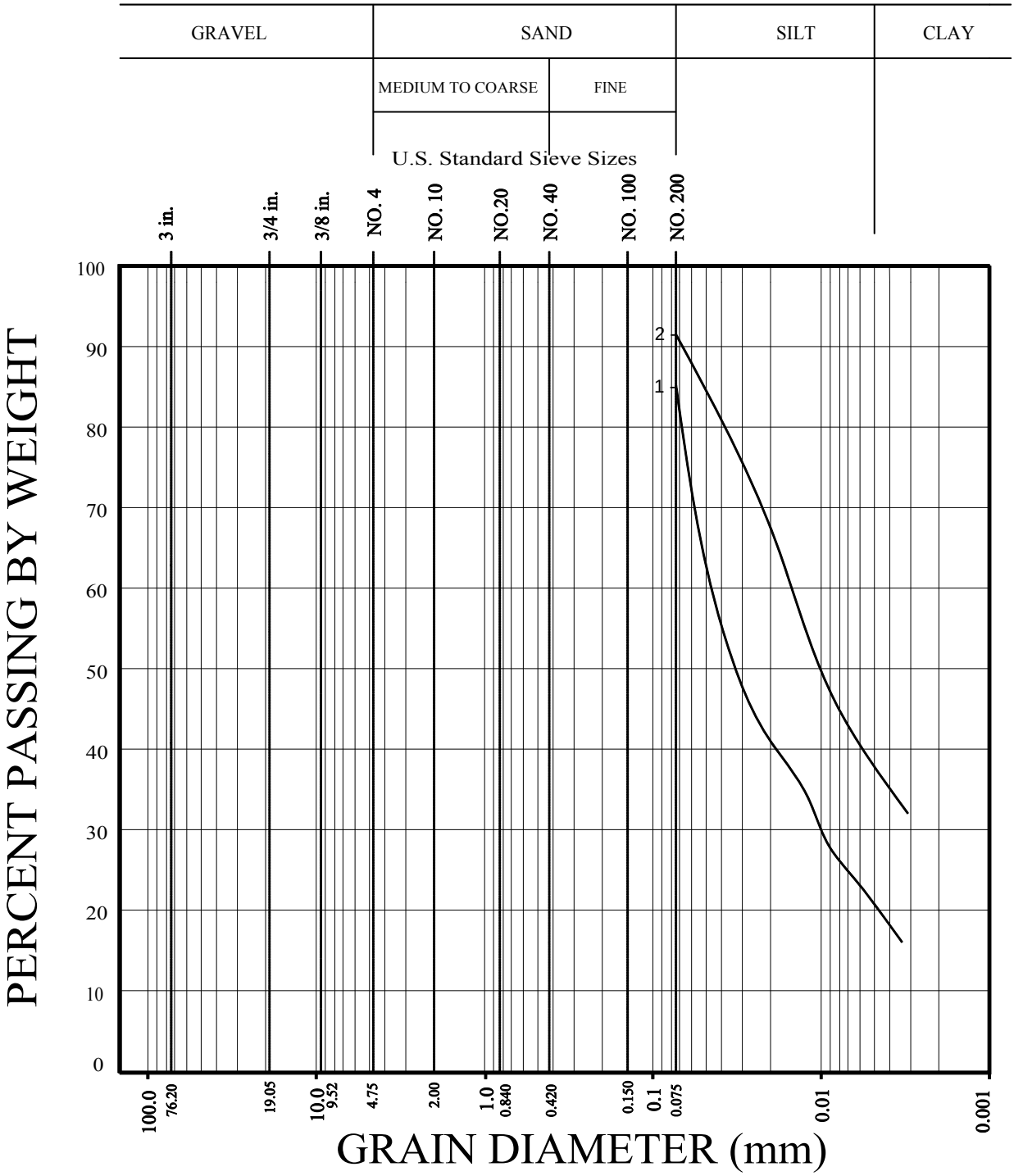
5850 SOUTH MAIN STREET
LOS ANGELES, CALIFORNIA

NOV. 15, 2010	PROJECT NO. A8559-06-36	FIG. B9



SAMPLE	UNIFIED SOIL CLASSIFICATION
1- B1 @ 32.5'	ML
2- B4 @ 42.5'	ML

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NDB		8000

GRAIN SIZE DISTRIBUTION

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LOS ANGELES, CALIFORNIA

NOV. 15, 2010	PROJECT NO. A8559-06-36	FIG. 10

SUMMARY OF LABORATORY POTENTIAL OF HYDROGEN (pH) AND RESISTIVITY TEST RESULTS CALIFORNIA TEST NO. 643

Sample No.	pH	Resistivity (ohm centimeters)
B2 & B4 @ 0-5'	9.3	5500 (Moderately Corrosive)

SUMMARY OF LABORATORY CHLORIDE CONTENT TEST RESULTS EPA NO. 325.3

Sample No.	Chloride Ion Content (%)
B2 & B4 @ 0-5'	0.004

SUMMARY OF LABORATORY WATER SOLUBLE SULFATE TEST RESULTS CALIFORNIA TEST NO. 417

Sample No.	Water Soluble Sulfate (% SO_4)	Sulfate Exposure*
B2 & B4 @ 0-5'	0.008	Negligible

* Reference: 2007 California Building Code, Section 1904.3 and ACI 381 Section 4.3.

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JMT		8000

CORROSIVITY TEST RESULTS

HHH HEALTH CENTER - URGENT CARE EXP.
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5850 SOUTH MAIN STREET
LOS ANGELES, CALIFORNIA

NOV. 15, 2010	PROJECT NO. A8559-06-36	FIG. B11

APPENDIX C

TABLE 1, SUMMARY OF ENVIRONMENTAL SAMPLE ANALYTICAL RESULTS

LABORATORY REPORT

TABLE 1

SUMMARY OF ENVIRONMENTAL SAMPLE ANALYTICAL RESULTS

PROPOSED URGENT CARE EXPANSION

5850 SOUTH MAIN STREET

LOS ANGELES COUNTY, CALIFORNIA

SAMPLE ID	METALS																	TPH		VOCs	Pesticides	SVOCs
	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	lead	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Mercury	(C8-C40)	(C6-12)			
B1-8	<2.0	3.7	150	<1.0	<1.0	20	6.2	67	25	1.6	19	<1.0	<1.0	<1.0	28	29	<0.10	110	<0.79	PCE = 7.7 µg/kg TCE = 7.0 µg/kg	All ND	All ND
B2-8	<2.0	1.7	57	<1.0	1.0	8.6	4.2	8.3	1.8	<1.0	4.9	<1.0	<1.0	<1.0	30	11	<0.10	<10	<1.0	All ND	All ND	All ND
B3-8	<2.0	1.1	54	<1.0	<1.0	5.9	3.9	7.2	1.4	<1.0	4.3	<1.0	<1.0	<1.0	20	8.0	<0.10	<10	<1.0	All ND	All ND	All ND
B4-8	<2.0	1.2	61	<1.0	<1.0	8.0	4.1	9.6	1.7	<1.0	4.9	<1.0	<1.0	<1.0	25	10	<0.10	<10	<1.0	All ND	All ND	All ND
CHHSLs/RSLs	30	0.07	5,200	16	1.7	10,000	600	3,000	80	380	1,600	380	380	5.0	530	23,000	18	---	---	PCE-550 TCE-2,800	---	---

Notes:

Metals by EPA Test Method 6010B/7471A

TPH = Total Petroluem Hydrocarbons, with carbon chain breakdown as shown, by modified EPA Test Method 8015B

VOCs = Volatile Organic Compounds by EPA Test Method 8260B

Pesticides = Organochlorine Pesticides and Organophosphorous Pesticides by EPA Test Method 8081A and 8141A

SVOCs = Semi Volatile Organic Compounds by EPA Test Method 8270C

Results shown in milligrams per kilogram (mg/kg) exept for VOCs which are shown in micrograms per kilogram (µg/kg)

< = Not detected above the laboratory reporting limit

ND = Not Detected

TTLC = Total Threshold Limit Concentration

STLC = Soluble Threshold Limit Concentration

CHHSLs = California Environmental Protection Agency, California Human Health Screening Levels for residential use

RSLs = US Environmental Protection Agency, Region 9, Regional Screening Levels for residential use

October 28, 2010

ELAP No.: 1838
NELAP No.: 02107CA
CSDLAC No.: 10196

Jelisa Thomas
Geocon Consultants, Inc.
3303 N. San Fernando Blvd., Suite 100
Burbank, CA 91504

TEL: (818) 841-8388
FAX: (818) 841-1704

Workorder No.: 114335

RE: HHMC - EP, A8559-06-36

Attention: Jelisa Thomas

Enclosed are the results for sample(s) received on October 20, 2010 by Advanced Technology Laboratories . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (562)989-4045 if I can be of further assistance to your company.

Sincerely,

Eddie F. Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and cannot be reproduced in part or in its entirety without written permission from the client and Advanced Technology Laboratories.

Advanced Technology Laboratories

Date: *28-Oct-10*

CLIENT: Geocon Consultants, Inc.
Project: HHMC - EP, A8559-06-36
Lab Order: 114335

CASE NARRATIVE

Samples for Herbicides (8151) were subcontracted to Sierra Analytical Laboratories, Inc. with ELAP Cert.#2320.

Analytical Comments for Method 8270

Dilution was necessary for sample 114335-001A, due to sample matrix.

Advanced Technology Laboratories
3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562. 989.4045 Fax: 562.989.4040

Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: *28-Oct-10*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	B1.8'
Lab Order:	114335	**Collection Date:**	10/19/2010 12:10:00 PM
Project:	HHMC - EP, A8559-06-36	**Matrix:**	SOIL
Lab ID:	114335-001A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
EPA 3050B				**EPA 6010B**		
RunID: ICP10_101025D	QC Batch: 67664				PrepDate: 10/25/2010	Analyst: **SRB**
Antimony	ND	2.0		mg/Kg	1	10/25/2010 06:31 PM
Arsenic	3.7	1.0		mg/Kg	1	10/25/2010 06:31 PM
Barium	150	1.0		mg/Kg	1	10/25/2010 06:31 PM
Beryllium	ND	1.0		mg/Kg	1	10/25/2010 06:31 PM
Cadmium	ND	1.0		mg/Kg	1	10/25/2010 06:31 PM
Chromium	20	1.0		mg/Kg	1	10/25/2010 06:31 PM
Cobalt	6.2	1.0		mg/Kg	1	10/25/2010 06:31 PM
Copper	67	2.0		mg/Kg	1	10/25/2010 06:31 PM
Lead	25	1.0		mg/Kg	1	10/25/2010 06:31 PM
Molybdenum	1.6	1.0		mg/Kg	1	10/25/2010 06:31 PM
Nickel	19	1.0		mg/Kg	1	10/25/2010 06:31 PM
Selenium	ND	1.0		mg/Kg	1	10/25/2010 06:31 PM
Silver	ND	1.0		mg/Kg	1	10/25/2010 06:31 PM
Thallium	ND	1.0		mg/Kg	1	10/25/2010 06:31 PM
Vanadium	28	1.0		mg/Kg	1	10/25/2010 06:31 PM
Zinc	29	1.0		mg/Kg	1	10/25/2010 06:31 PM
HYDROCARBON CHAIN IDENTIFICATION						
LUFT				**EPA 8015B(M)**		
RunID: GC16_101022E	QC Batch: 67616				PrepDate: 10/22/2010	Analyst: **CBR**
T/R Hydrocarbons: C8-C10	ND	10		mg/Kg	1	10/23/2010 02:58 AM
T/R Hydrocarbons: C10-C18	ND	10		mg/Kg	1	10/23/2010 02:58 AM
T/R Hydrocarbons: C18-C28	ND	10		mg/Kg	1	10/23/2010 02:58 AM
T/R Hydrocarbons: C28-C36	49	10		mg/Kg	1	10/23/2010 02:58 AM
T/R Hydrocarbons: C36-C40	62	10		mg/Kg	1	10/23/2010 02:58 AM
T/R Hydrocarbons: C8-C40 Total	110	10		mg/Kg	1	10/23/2010 02:58 AM
Surr: p-Terphenyl	110	63-152		%REC	1	10/23/2010 02:58 AM
ORGANOCHLORINE PESTICIDES BY GC/ECD						
EPA 3550B				**EPA 8081A**		
RunID: GC10_101026A	QC Batch: 67737				PrepDate: 10/26/2010	Analyst: **HL**
4,4´-DDD	ND	2.0		µg/Kg	1	10/26/2010 08:19 PM
4,4´-DDE	ND	2.0		µg/Kg	1	10/26/2010 08:19 PM
4,4´-DDT	ND	2.0		µg/Kg	1	10/26/2010 08:19 PM
Aldrin	ND	1.0		µg/Kg	1	10/26/2010 08:19 PM
alpha-BHC	ND	1.0		µg/Kg	1	10/26/2010 08:19 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

Advanced Technology Laboratories

3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562. 989.4045 Fax: 562.989.4040

Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: *28-Oct-10*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	B1.8'
Lab Order:	114335	**Collection Date:**	10/19/2010 12:10:00 PM
Project:	HHMC - EP, A8559-06-36	**Matrix:**	SOIL
Lab ID:	114335-001A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES BY GC/ECD						
EPA 3550B				**EPA 8081A**		
RunID: GC10_101026A	QC Batch: 67737			PrepDate: 10/26/2010		Analyst: **HL**
alpha-Chlordane	ND	1.0		µg/Kg	1	10/26/2010 08:19 PM
beta-BHC	ND	1.0		µg/Kg	1	10/26/2010 08:19 PM
Chlordane	ND	8.5		µg/Kg	1	10/26/2010 08:19 PM
delta-BHC	ND	1.0		µg/Kg	1	10/26/2010 08:19 PM
Dieldrin	ND	2.0		µg/Kg	1	10/26/2010 08:19 PM
Endosulfan I	ND	1.0		µg/Kg	1	10/26/2010 08:19 PM
Endosulfan II	ND	2.0		µg/Kg	1	10/26/2010 08:19 PM
Endosulfan sulfate	ND	2.0		µg/Kg	1	10/26/2010 08:19 PM
Endrin	ND	2.0		µg/Kg	1	10/26/2010 08:19 PM
Endrin aldehyde	ND	2.0		µg/Kg	1	10/26/2010 08:19 PM
Endrin ketone	ND	2.0		µg/Kg	1	10/26/2010 08:19 PM
gamma-BHC	ND	1.0		µg/Kg	1	10/26/2010 08:19 PM
gamma-Chlordane	ND	1.0		µg/Kg	1	10/26/2010 08:19 PM
Heptachlor	ND	1.0		µg/Kg	1	10/26/2010 08:19 PM
Heptachlor epoxide	ND	1.0		µg/Kg	1	10/26/2010 08:19 PM
Methoxychlor	ND	5.0		µg/Kg	1	10/26/2010 08:19 PM
Toxaphene	ND	50		µg/Kg	1	10/26/2010 08:19 PM
Surr: Decachlorobiphenyl	88.9	21-132		%REC	1	10/26/2010 08:19 PM
Surr: Tetrachloro-m-xylene	81.2	22-110		%REC	1	10/26/2010 08:19 PM
ORGANOPHOSPHOROUS PESTICIDES BY GC/NPD						
EPA 3545				**EPA 8141A**		
RunID: GC17_101026A	QC Batch: 67735			PrepDate: 10/26/2010		Analyst: **HL**
Azinphosmethyl	ND	5.0		µg/Kg	1	10/27/2010 02:48 AM
Bolstar	ND	5.0		µg/Kg	1	10/27/2010 02:48 AM
Chlorpyrifos	ND	5.0		µg/Kg	1	10/27/2010 02:48 AM
Coumaphos	ND	5.0		µg/Kg	1	10/27/2010 02:48 AM
Demeton-O	ND	5.0		µg/Kg	1	10/27/2010 02:48 AM
Demeton-S	ND	5.0		µg/Kg	1	10/27/2010 02:48 AM
Diazinon	ND	5.0		µg/Kg	1	10/27/2010 02:48 AM
Dichlorvos	ND	5.0		µg/Kg	1	10/27/2010 02:48 AM
Disulfoton	ND	5.0		µg/Kg	1	10/27/2010 02:48 AM
Ethoprop	ND	5.0		µg/Kg	1	10/27/2010 02:48 AM
Fensulfothion	ND	5.0		µg/Kg	1	10/27/2010 02:48 AM
Fenthion	ND	5.0		µg/Kg	1	10/27/2010 02:48 AM
Malathion	ND	5.0		µg/Kg	1	10/27/2010 02:48 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: *28-Oct-10*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	B1.8'
Lab Order:	114335	**Collection Date:**	10/19/2010 12:10:00 PM
Project:	HHMC - EP, A8559-06-36	**Matrix:**	SOIL
Lab ID:	114335-001A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ORGANOPHOSPHOROUS PESTICIDES BY GC/NPD						
EPA 3545				**EPA 8141A**		
RunID: GC17_101026A	QC Batch: 67735			PrepDate: 10/26/2010		Analyst: **HL**
Merphos oxone	ND	5.0		µg/Kg	1	10/27/2010 02:48 AM
Merphos, unoxidized	ND	5.0		µg/Kg	1	10/27/2010 02:48 AM
Mevinphos	ND	5.0		µg/Kg	1	10/27/2010 02:48 AM
Naled	ND	5.0		µg/Kg	1	10/27/2010 02:48 AM
Parathion, methyl	ND	5.0		µg/Kg	1	10/27/2010 02:48 AM
Phorate	ND	5.0		µg/Kg	1	10/27/2010 02:48 AM
Ronnel	ND	5.0		µg/Kg	1	10/27/2010 02:48 AM
Tetrachlorvinphos	ND	5.0		µg/Kg	1	10/27/2010 02:48 AM
Tokuthion	ND	5.0		µg/Kg	1	10/27/2010 02:48 AM
Trichloronate	ND	5.0		µg/Kg	1	10/27/2010 02:48 AM
Merphos	ND	5.0		µg/Kg	1	10/27/2010 02:48 AM
Surr: Tributyl Phosphate	66.1	50-150		%REC	1	10/27/2010 02:48 AM
Surr: Triphenyl phosphate	55.8	50-150		%REC	1	10/27/2010 02:48 AM
MERCURY BY COLD VAPOR TECHNIQUE						
				EPA 7471A		
RunID: AA5_101022B	QC Batch: 67609			PrepDate: 10/22/2010		Analyst: **IL**
Mercury	0.40	0.10		mg/Kg	1	10/22/2010 02:23 PM
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS						
EPA 3550B				**EPA 8270C**		
RunID: MS15_101024B	QC Batch: 67635			PrepDate: 10/22/2010		Analyst: **DMP**
1,2,4-Trichlorobenzene	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
1,2-Dichlorobenzene	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
1,3-Dichlorobenzene	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
1,4-Dichlorobenzene	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
2,4,5-Trichlorophenol	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
2,4,6-Trichlorophenol	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
2,4-Dichlorophenol	ND	4100		µg/Kg	2.5	10/25/2010 04:15 PM
2,4-Dimethylphenol	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
2,4-Dinitrophenol	ND	4100		µg/Kg	2.5	10/25/2010 04:15 PM
2,4-Dinitrotoluene	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
2,6-Dinitrotoluene	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
2-Chloronaphthalene	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
2-Chlorophenol	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
2-Methylnaphthalene	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: *28-Oct-10*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	B1.8'
Lab Order:	114335	**Collection Date:**	10/19/2010 12:10:00 PM
Project:	HHMC - EP, A8559-06-36	**Matrix:**	SOIL
Lab ID:	114335-001A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS						
EPA 3550B				**EPA 8270C**		
RunID: MS15_101024B	QC Batch: 67635				PrepDate: 10/22/2010	Analyst: **DMP**
2-Methylphenol	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
2-Nitroaniline	ND	4100		µg/Kg	2.5	10/25/2010 04:15 PM
2-Nitrophenol	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
3,3´-Dichlorobenzidine	ND	1600		µg/Kg	2.5	10/25/2010 04:15 PM
3-Nitroaniline	ND	4100		µg/Kg	2.5	10/25/2010 04:15 PM
4,6-Dinitro-2-methylphenol	ND	4100		µg/Kg	2.5	10/25/2010 04:15 PM
4-Bromophenyl-phenylether	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
4-Chloro-3-methylphenol	ND	1600		µg/Kg	2.5	10/25/2010 04:15 PM
4-Chloroaniline	ND	1600		µg/Kg	2.5	10/25/2010 04:15 PM
4-Chlorophenyl-phenylether	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
4-Methylphenol	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
4-Nitroaniline	ND	4100		µg/Kg	2.5	10/25/2010 04:15 PM
4-Nitrophenol	ND	4100		µg/Kg	2.5	10/25/2010 04:15 PM
Acenaphthene	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
Acenaphthylene	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
Anthracene	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
Benzidine (M)	ND	4100		µg/Kg	2.5	10/25/2010 04:15 PM
Benzo(a)anthracene	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
Benzo(a)pyrene	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
Benzo(b)fluoranthene	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
Benzo(g,h,i)perylene	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
Benzo(k)fluoranthene	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
Benzoic acid	ND	4100		µg/Kg	2.5	10/25/2010 04:15 PM
Benzyl alcohol	ND	1600		µg/Kg	2.5	10/25/2010 04:15 PM
Bis(2-chloroethoxy)methane	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
Bis(2-chloroethyl)ether	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
Bis(2-chloroisopropyl)ether	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
Bis(2-ethylhexyl)phthalate	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
Butylbenzylphthalate	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
Chrysene	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
Di-n-butylphthalate	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
Di-n-octylphthalate	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
Dibenz(a,h)anthracene	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
Dibenzofuran	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
Diethylphthalate	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM

Qualifiers:

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S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: *28-Oct-10*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	B1.8'
Lab Order:	114335	**Collection Date:**	10/19/2010 12:10:00 PM
Project:	HHMC - EP, A8559-06-36	**Matrix:**	SOIL
Lab ID:	114335-001A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS						
EPA 3550B				**EPA 8270C**		
RunID: MS15_101024B	QC Batch: 67635				PrepDate: 10/22/2010	Analyst: **DMP**
Dimethylphthalate	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
Fluoranthene	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
Fluorene	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
Hexachlorobenzene	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
Hexachlorobutadiene	ND	1600		µg/Kg	2.5	10/25/2010 04:15 PM
Hexachlorocyclopentadiene	ND	1600		µg/Kg	2.5	10/25/2010 04:15 PM
Hexachloroethane	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
Indeno(1,2,3-cd)pyrene	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
Isophorone	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
N-Nitrosodi-n-propylamine	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
N-Nitrosodiphenylamine	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
Naphthalene	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
Nitrobenzene	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
Pentachlorophenol	ND	4100		µg/Kg	2.5	10/25/2010 04:15 PM
Phenanthrene	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
Phenol	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
Pyrene	ND	820		µg/Kg	2.5	10/25/2010 04:15 PM
Surr: 1,2-Dichlorobenzene-d4	75.5	45-105		%REC	2.5	10/25/2010 04:15 PM
Surr: 2,4,6-Tribromophenol	94.3	41-129		%REC	2.5	10/25/2010 04:15 PM
Surr: 2-Chlorophenol-d4	82.1	55-108		%REC	2.5	10/25/2010 04:15 PM
Surr: 2-Fluorobiphenyl	87.6	56-114		%REC	2.5	10/25/2010 04:15 PM
Surr: 2-Fluorophenol	75.7	50-108		%REC	2.5	10/25/2010 04:15 PM
Surr: 4-Terphenyl-d14	99.6	59-141		%REC	2.5	10/25/2010 04:15 PM
Surr: Nitrobenzene-d5	74.7	45-114		%REC	2.5	10/25/2010 04:15 PM
Surr: Phenol-d5	82.0	46-118		%REC	2.5	10/25/2010 04:15 PM

Qualifiers:

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DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: *28-Oct-10*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	B1.8'
Lab Order:	114335	**Collection Date:**	10/19/2010 12:10:00 PM
Project:	HHMC - EP, A8559-06-36	**Matrix:**	SOIL
Lab ID:	114335-001C		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
			EPA 8260B			
RunID: MS4_101025A	QC Batch: K10VS278			PrepDate: 10/20/2010	Analyst: **BD**	
1,1,1,2-Tetrachloroethane	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
1,1,1-Trichloroethane	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
1,1,2,2-Tetrachloroethane	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
1,1,2-Trichloroethane	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
1,1-Dichloroethane	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
1,1-Dichloroethene	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
1,1-Dichloropropene	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
1,2,3-Trichlorobenzene	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
1,2,3-Trichloropropane	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
1,2,4-Trichlorobenzene	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
1,2,4-Trimethylbenzene	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
1,2-Dibromo-3-chloropropane	ND	7.2		µg/Kg	1	10/25/2010 03:04 PM
1,2-Dibromoethane	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
1,2-Dichlorobenzene	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
1,2-Dichloroethane	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
1,2-Dichloropropane	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
1,3,5-Trimethylbenzene	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
1,3-Dichlorobenzene	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
1,3-Dichloropropane	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
1,4-Dichlorobenzene	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
2,2-Dichloropropane	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
2-Chlorotoluene	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
4-Chlorotoluene	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
4-Isopropyltoluene	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
Benzene	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
Bromobenzene	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
Bromodichloromethane	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
Bromoform	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
Bromomethane	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
Carbon tetrachloride	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
Chlorobenzene	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
Chloroethane	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
Chloroform	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
Chloromethane	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
cis-1,2-Dichloroethene	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: *28-Oct-10*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	B1.8'
Lab Order:	114335	**Collection Date:**	10/19/2010 12:10:00 PM
Project:	HHMC - EP, A8559-06-36	**Matrix:**	SOIL
Lab ID:	114335-001C		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
			EPA 8260B			
RunID: MS4_101025A	QC Batch: K10VS278			PrepDate: 10/20/2010		Analyst: **BD**
cis-1,3-Dichloropropene	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
Dibromochloromethane	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
Dibromomethane	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
Dichlorodifluoromethane	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
Ethylbenzene	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
Hexachlorobutadiene	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
Isopropylbenzene	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
m,p-Xylene	ND	7.2		µg/Kg	1	10/25/2010 03:04 PM
Methylene chloride	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
n-Butylbenzene	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
n-Propylbenzene	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
Naphthalene	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
o-Xylene	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
sec-Butylbenzene	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
Styrene	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
tert-Butylbenzene	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
Tetrachloroethene	7.7	3.6		µg/Kg	1	10/25/2010 03:04 PM
Toluene	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
trans-1,2-Dichloroethene	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
Trichloroethene	7.0	3.6		µg/Kg	1	10/25/2010 03:04 PM
Trichlorofluoromethane	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
Vinyl chloride	ND	3.6		µg/Kg	1	10/25/2010 03:04 PM
Surr: 1,2-Dichloroethane-d4	85.4	70-150		%REC	1	10/25/2010 03:04 PM
Surr: 4-Bromofluorobenzene	97.0	64-126		%REC	1	10/25/2010 03:04 PM
Surr: Dibromofluoromethane	89.8	69-138		%REC	1	10/25/2010 03:04 PM
Surr: Toluene-d8	87.3	70-128		%REC	1	10/25/2010 03:04 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: *28-Oct-10*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	B1.8'
Lab Order:	114335	**Collection Date:**	10/19/2010 12:10:00 PM
Project:	HHMC - EP, A8559-06-36	**Matrix:**	SOIL
Lab ID:	114335-001E		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
HYDROCARBON CHAIN IDENTIFICATION						
EPA 8015B(M)						
RunID: GC2_101021A	QC Batch: E10VS328			PrepDate: 10/19/2010		Analyst: **DDL**
T/R Hydrocarbons: C6-C12	ND	0.79		mg/Kg	1	10/21/2010 07:51 PM
Surr: Bromofluorobenzene (FID)	130	53-158		%REC	1	10/21/2010 07:51 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

Advanced Technology Laboratories

3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562. 989.4045 Fax: 562.989.4040

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ANALYTICAL RESULTS

Print Date: *28-Oct-10*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	B2.8'
Lab Order:	114335	**Collection Date:**	10/19/2010 11:02:00 AM
Project:	HHMC - EP, A8559-06-36	**Matrix:**	SOIL
Lab ID:	114335-002A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
EPA 3050B				**EPA 6010B**		
RunID: ICP10_101025D	QC Batch: 67664			PrepDate:	10/25/2010	Analyst: **SRB**
Antimony	ND	2.0		mg/Kg	1	10/25/2010 06:33 PM
Arsenic	1.7	1.0		mg/Kg	1	10/25/2010 06:33 PM
Barium	57	1.0		mg/Kg	1	10/25/2010 06:33 PM
Beryllium	ND	1.0		mg/Kg	1	10/25/2010 06:33 PM
Cadmium	ND	1.0		mg/Kg	1	10/25/2010 06:33 PM
Chromium	8.6	1.0		mg/Kg	1	10/25/2010 06:33 PM
Cobalt	4.2	1.0		mg/Kg	1	10/25/2010 06:33 PM
Copper	8.3	2.0		mg/Kg	1	10/25/2010 06:33 PM
Lead	1.8	1.0		mg/Kg	1	10/25/2010 06:33 PM
Molybdenum	ND	1.0		mg/Kg	1	10/25/2010 06:33 PM
Nickel	4.9	1.0		mg/Kg	1	10/25/2010 06:33 PM
Selenium	ND	1.0		mg/Kg	1	10/25/2010 06:33 PM
Silver	ND	1.0		mg/Kg	1	10/25/2010 06:33 PM
Thallium	ND	1.0		mg/Kg	1	10/25/2010 06:33 PM
Vanadium	30	1.0		mg/Kg	1	10/25/2010 06:33 PM
Zinc	11	1.0		mg/Kg	1	10/25/2010 06:33 PM
HYDROCARBON CHAIN IDENTIFICATION						
LUFT				**EPA 8015B(M)**		
RunID: GC16_101022E	QC Batch: 67616			PrepDate:	10/22/2010	Analyst: **CBR**
T/R Hydrocarbons: C8-C10	ND	10		mg/Kg	1	10/23/2010 02:00 AM
T/R Hydrocarbons: C10-C18	ND	10		mg/Kg	1	10/23/2010 02:00 AM
T/R Hydrocarbons: C18-C28	ND	10		mg/Kg	1	10/23/2010 02:00 AM
T/R Hydrocarbons: C28-C36	ND	10		mg/Kg	1	10/23/2010 02:00 AM
T/R Hydrocarbons: C36-C40	ND	10		mg/Kg	1	10/23/2010 02:00 AM
T/R Hydrocarbons: C8-C40 Total	ND	10		mg/Kg	1	10/23/2010 02:00 AM
Surr: p-Terphenyl	105	63-152		%REC	1	10/23/2010 02:00 AM
ORGANOCHLORINE PESTICIDES BY GC/ECD						
EPA 3550B				**EPA 8081A**		
RunID: GC10_101026A	QC Batch: 67737			PrepDate:	10/26/2010	Analyst: **HL**
4,4´-DDD	ND	2.0		µg/Kg	1	10/26/2010 08:33 PM
4,4´-DDE	ND	2.0		µg/Kg	1	10/26/2010 08:33 PM
4,4´-DDT	ND	2.0		µg/Kg	1	10/26/2010 08:33 PM
Aldrin	ND	1.0		µg/Kg	1	10/26/2010 08:33 PM
alpha-BHC	ND	1.0		µg/Kg	1	10/26/2010 08:33 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
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DO	Surrogate Diluted Out		

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Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: *28-Oct-10*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	B2.8'
Lab Order:	114335	**Collection Date:**	10/19/2010 11:02:00 AM
Project:	HHMC - EP, A8559-06-36	**Matrix:**	SOIL
Lab ID:	114335-002A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES BY GC/ECD						
EPA 3550B				**EPA 8081A**		
RunID: GC10_101026A	QC Batch: 67737			PrepDate: 10/26/2010		Analyst: **HL**
alpha-Chlordane	ND	1.0		µg/Kg	1	10/26/2010 08:33 PM
beta-BHC	ND	1.0		µg/Kg	1	10/26/2010 08:33 PM
Chlordane	ND	8.5		µg/Kg	1	10/26/2010 08:33 PM
delta-BHC	ND	1.0		µg/Kg	1	10/26/2010 08:33 PM
Dieldrin	ND	2.0		µg/Kg	1	10/26/2010 08:33 PM
Endosulfan I	ND	1.0		µg/Kg	1	10/26/2010 08:33 PM
Endosulfan II	ND	2.0		µg/Kg	1	10/26/2010 08:33 PM
Endosulfan sulfate	ND	2.0		µg/Kg	1	10/26/2010 08:33 PM
Endrin	ND	2.0		µg/Kg	1	10/26/2010 08:33 PM
Endrin aldehyde	ND	2.0		µg/Kg	1	10/26/2010 08:33 PM
Endrin ketone	ND	2.0		µg/Kg	1	10/26/2010 08:33 PM
gamma-BHC	ND	1.0		µg/Kg	1	10/26/2010 08:33 PM
gamma-Chlordane	ND	1.0		µg/Kg	1	10/26/2010 08:33 PM
Heptachlor	ND	1.0		µg/Kg	1	10/26/2010 08:33 PM
Heptachlor epoxide	ND	1.0		µg/Kg	1	10/26/2010 08:33 PM
Methoxychlor	ND	5.0		µg/Kg	1	10/26/2010 08:33 PM
Toxaphene	ND	50		µg/Kg	1	10/26/2010 08:33 PM
Surr: Decachlorobiphenyl	90.8	21-132		%REC	1	10/26/2010 08:33 PM
Surr: Tetrachloro-m-xylene	86.2	22-110		%REC	1	10/26/2010 08:33 PM
ORGANOPHOSPHOROUS PESTICIDES BY GC/NPD						
EPA 3545				**EPA 8141A**		
RunID: GC17_101026A	QC Batch: 67735			PrepDate: 10/26/2010		Analyst: **HL**
Azinphosmethyl	ND	5.0		µg/Kg	1	10/27/2010 03:36 AM
Bolstar	ND	5.0		µg/Kg	1	10/27/2010 03:36 AM
Chlorpyrifos	ND	5.0		µg/Kg	1	10/27/2010 03:36 AM
Coumaphos	ND	5.0		µg/Kg	1	10/27/2010 03:36 AM
Demeton-O	ND	5.0		µg/Kg	1	10/27/2010 03:36 AM
Demeton-S	ND	5.0		µg/Kg	1	10/27/2010 03:36 AM
Diazinon	ND	5.0		µg/Kg	1	10/27/2010 03:36 AM
Dichlorvos	ND	5.0		µg/Kg	1	10/27/2010 03:36 AM
Disulfoton	ND	5.0		µg/Kg	1	10/27/2010 03:36 AM
Ethoprop	ND	5.0		µg/Kg	1	10/27/2010 03:36 AM
Fensulfothion	ND	5.0		µg/Kg	1	10/27/2010 03:36 AM
Fenthion	ND	5.0		µg/Kg	1	10/27/2010 03:36 AM
Malathion	ND	5.0		µg/Kg	1	10/27/2010 03:36 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: *28-Oct-10*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	B2.8'
Lab Order:	114335	**Collection Date:**	10/19/2010 11:02:00 AM
Project:	HHMC - EP, A8559-06-36	**Matrix:**	SOIL
Lab ID:	114335-002A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ORGANOPHOSPHOROUS PESTICIDES BY GC/NPD						
EPA 3545				**EPA 8141A**		
RunID: GC17_101026A	QC Batch: 67735			PrepDate: 10/26/2010		Analyst: **HL**
Merphos oxone	ND	5.0		µg/Kg	1	10/27/2010 03:36 AM
Merphos, unoxidized	ND	5.0		µg/Kg	1	10/27/2010 03:36 AM
Mevinphos	ND	5.0		µg/Kg	1	10/27/2010 03:36 AM
Naled	ND	5.0		µg/Kg	1	10/27/2010 03:36 AM
Parathion, methyl	ND	5.0		µg/Kg	1	10/27/2010 03:36 AM
Phorate	ND	5.0		µg/Kg	1	10/27/2010 03:36 AM
Ronnel	ND	5.0		µg/Kg	1	10/27/2010 03:36 AM
Tetrachlorvinphos	ND	5.0		µg/Kg	1	10/27/2010 03:36 AM
Tokuthion	ND	5.0		µg/Kg	1	10/27/2010 03:36 AM
Trichloronate	ND	5.0		µg/Kg	1	10/27/2010 03:36 AM
Merphos	ND	5.0		µg/Kg	1	10/27/2010 03:36 AM
Surr: Tributyl Phosphate	60.6	50-150		%REC	1	10/27/2010 03:36 AM
Surr: Triphenyl phosphate	67.3	50-150		%REC	1	10/27/2010 03:36 AM
MERCURY BY COLD VAPOR TECHNIQUE						
				EPA 7471A		
RunID: AA5_101022B	QC Batch: 67609			PrepDate: 10/22/2010		Analyst: **IL**
Mercury	ND	0.10		mg/Kg	1	10/22/2010 02:29 PM
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS						
EPA 3550B				**EPA 8270C**		
RunID: MS15_101024B	QC Batch: 67635			PrepDate: 10/22/2010		Analyst: **DMP**
1,2,4-Trichlorobenzene	ND	330		µg/Kg	1	10/25/2010 03:12 AM
1,2-Dichlorobenzene	ND	330		µg/Kg	1	10/25/2010 03:12 AM
1,3-Dichlorobenzene	ND	330		µg/Kg	1	10/25/2010 03:12 AM
1,4-Dichlorobenzene	ND	330		µg/Kg	1	10/25/2010 03:12 AM
2,4,5-Trichlorophenol	ND	330		µg/Kg	1	10/25/2010 03:12 AM
2,4,6-Trichlorophenol	ND	330		µg/Kg	1	10/25/2010 03:12 AM
2,4-Dichlorophenol	ND	1600		µg/Kg	1	10/25/2010 03:12 AM
2,4-Dimethylphenol	ND	330		µg/Kg	1	10/25/2010 03:12 AM
2,4-Dinitrophenol	ND	1600		µg/Kg	1	10/25/2010 03:12 AM
2,4-Dinitrotoluene	ND	330		µg/Kg	1	10/25/2010 03:12 AM
2,6-Dinitrotoluene	ND	330		µg/Kg	1	10/25/2010 03:12 AM
2-Chloronaphthalene	ND	330		µg/Kg	1	10/25/2010 03:12 AM
2-Chlorophenol	ND	330		µg/Kg	1	10/25/2010 03:12 AM
2-Methylnaphthalene	ND	330		µg/Kg	1	10/25/2010 03:12 AM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: *28-Oct-10*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	B2.8'
Lab Order:	114335	**Collection Date:**	10/19/2010 11:02:00 AM
Project:	HHMC - EP, A8559-06-36	**Matrix:**	SOIL
Lab ID:	114335-002A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS						
EPA 3550B				**EPA 8270C**		
RunID: MS15_101024B	QC Batch: 67635			PrepDate:	10/22/2010	Analyst: **DMP**
2-Methylphenol	ND	330		µg/Kg	1	10/25/2010 03:12 AM
2-Nitroaniline	ND	1600		µg/Kg	1	10/25/2010 03:12 AM
2-Nitrophenol	ND	330		µg/Kg	1	10/25/2010 03:12 AM
3,3´-Dichlorobenzidine	ND	660		µg/Kg	1	10/25/2010 03:12 AM
3-Nitroaniline	ND	1600		µg/Kg	1	10/25/2010 03:12 AM
4,6-Dinitro-2-methylphenol	ND	1600		µg/Kg	1	10/25/2010 03:12 AM
4-Bromophenyl-phenylether	ND	330		µg/Kg	1	10/25/2010 03:12 AM
4-Chloro-3-methylphenol	ND	660		µg/Kg	1	10/25/2010 03:12 AM
4-Chloroaniline	ND	660		µg/Kg	1	10/25/2010 03:12 AM
4-Chlorophenyl-phenylether	ND	330		µg/Kg	1	10/25/2010 03:12 AM
4-Methylphenol	ND	330		µg/Kg	1	10/25/2010 03:12 AM
4-Nitroaniline	ND	1600		µg/Kg	1	10/25/2010 03:12 AM
4-Nitrophenol	ND	1600		µg/Kg	1	10/25/2010 03:12 AM
Acenaphthene	ND	330		µg/Kg	1	10/25/2010 03:12 AM
Acenaphthylene	ND	330		µg/Kg	1	10/25/2010 03:12 AM
Anthracene	ND	330		µg/Kg	1	10/25/2010 03:12 AM
Benzidine (M)	ND	1600		µg/Kg	1	10/25/2010 03:12 AM
Benzo(a)anthracene	ND	330		µg/Kg	1	10/25/2010 03:12 AM
Benzo(a)pyrene	ND	330		µg/Kg	1	10/25/2010 03:12 AM
Benzo(b)fluoranthene	ND	330		µg/Kg	1	10/25/2010 03:12 AM
Benzo(g,h,i)perylene	ND	330		µg/Kg	1	10/25/2010 03:12 AM
Benzo(k)fluoranthene	ND	330		µg/Kg	1	10/25/2010 03:12 AM
Benzoic acid	ND	1600		µg/Kg	1	10/25/2010 03:12 AM
Benzyl alcohol	ND	660		µg/Kg	1	10/25/2010 03:12 AM
Bis(2-chloroethoxy)methane	ND	330		µg/Kg	1	10/25/2010 03:12 AM
Bis(2-chloroethyl)ether	ND	330		µg/Kg	1	10/25/2010 03:12 AM
Bis(2-chloroisopropyl)ether	ND	330		µg/Kg	1	10/25/2010 03:12 AM
Bis(2-ethylhexyl)phthalate	ND	330		µg/Kg	1	10/25/2010 03:12 AM
Butylbenzylphthalate	ND	330		µg/Kg	1	10/25/2010 03:12 AM
Chrysene	ND	330		µg/Kg	1	10/25/2010 03:12 AM
Di-n-butylphthalate	ND	330		µg/Kg	1	10/25/2010 03:12 AM
Di-n-octylphthalate	ND	330		µg/Kg	1	10/25/2010 03:12 AM
Dibenz(a,h)anthracene	ND	330		µg/Kg	1	10/25/2010 03:12 AM
Dibenzofuran	ND	330		µg/Kg	1	10/25/2010 03:12 AM
Diethylphthalate	ND	330		µg/Kg	1	10/25/2010 03:12 AM

Qualifiers:

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H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

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3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562. 989.4045 Fax: 562.989.4040

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ANALYTICAL RESULTS

Print Date: *28-Oct-10*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	B2.8'
Lab Order:	114335	**Collection Date:**	10/19/2010 11:02:00 AM
Project:	HHMC - EP, A8559-06-36	**Matrix:**	SOIL
Lab ID:	114335-002A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS						
EPA 3550B				**EPA 8270C**		
RunID: MS15_101024B	QC Batch: 67635			PrepDate: 10/22/2010	Analyst: **DMP**	
Dimethylphthalate	ND	330		µg/Kg	1	10/25/2010 03:12 AM
Fluoranthene	ND	330		µg/Kg	1	10/25/2010 03:12 AM
Fluorene	ND	330		µg/Kg	1	10/25/2010 03:12 AM
Hexachlorobenzene	ND	330		µg/Kg	1	10/25/2010 03:12 AM
Hexachlorobutadiene	ND	660		µg/Kg	1	10/25/2010 03:12 AM
Hexachlorocyclopentadiene	ND	660		µg/Kg	1	10/25/2010 03:12 AM
Hexachloroethane	ND	330		µg/Kg	1	10/25/2010 03:12 AM
Indeno(1,2,3-cd)pyrene	ND	330		µg/Kg	1	10/25/2010 03:12 AM
Isophorone	ND	330		µg/Kg	1	10/25/2010 03:12 AM
N-Nitrosodi-n-propylamine	ND	330		µg/Kg	1	10/25/2010 03:12 AM
N-Nitrosodiphenylamine	ND	330		µg/Kg	1	10/25/2010 03:12 AM
Naphthalene	ND	330		µg/Kg	1	10/25/2010 03:12 AM
Nitrobenzene	ND	330		µg/Kg	1	10/25/2010 03:12 AM
Pentachlorophenol	ND	1600		µg/Kg	1	10/25/2010 03:12 AM
Phenanthrene	ND	330		µg/Kg	1	10/25/2010 03:12 AM
Phenol	ND	330		µg/Kg	1	10/25/2010 03:12 AM
Pyrene	ND	330		µg/Kg	1	10/25/2010 03:12 AM
Surr: 1,2-Dichlorobenzene-d4	70.8	45-105		%REC	1	10/25/2010 03:12 AM
Surr: 2,4,6-Tribromophenol	92.8	41-129		%REC	1	10/25/2010 03:12 AM
Surr: 2-Chlorophenol-d4	73.7	55-108		%REC	1	10/25/2010 03:12 AM
Surr: 2-Fluorobiphenyl	76.7	56-114		%REC	1	10/25/2010 03:12 AM
Surr: 2-Fluorophenol	71.3	50-108		%REC	1	10/25/2010 03:12 AM
Surr: 4-Terphenyl-d14	90.6	59-141		%REC	1	10/25/2010 03:12 AM
Surr: Nitrobenzene-d5	70.9	45-114		%REC	1	10/25/2010 03:12 AM
Surr: Phenol-d5	75.2	46-118		%REC	1	10/25/2010 03:12 AM

Qualifiers:

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S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: *28-Oct-10*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	B2.8'
Lab Order:	114335	**Collection Date:**	10/19/2010 11:02:00 AM
Project:	HHMC - EP, A8559-06-36	**Matrix:**	SOIL
Lab ID:	114335-002B		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
			EPA 8260B			
RunID: MS5_101022A	QC Batch: T10VS201			PrepDate: 10/20/2010		Analyst: **TT**
1,1,1,2-Tetrachloroethane	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
1,1,1-Trichloroethane	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
1,1,2,2-Tetrachloroethane	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
1,1,2-Trichloroethane	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
1,1-Dichloroethane	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
1,1-Dichloroethene	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
1,1-Dichloropropene	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
1,2,3-Trichlorobenzene	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
1,2,3-Trichloropropane	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
1,2,4-Trichlorobenzene	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
1,2,4-Trimethylbenzene	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/Kg	1	10/22/2010 03:34 PM
1,2-Dibromoethane	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
1,2-Dichlorobenzene	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
1,2-Dichloroethane	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
1,2-Dichloropropane	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
1,3,5-Trimethylbenzene	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
1,3-Dichlorobenzene	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
1,3-Dichloropropane	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
1,4-Dichlorobenzene	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
2,2-Dichloropropane	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
2-Chlorotoluene	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
4-Chlorotoluene	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
4-Isopropyltoluene	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
Benzene	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
Bromobenzene	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
Bromodichloromethane	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
Bromoform	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
Bromomethane	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
Carbon tetrachloride	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
Chlorobenzene	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
Chloroethane	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
Chloroform	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
Chloromethane	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
cis-1,2-Dichloroethene	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: *28-Oct-10*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	B2.8'
Lab Order:	114335	**Collection Date:**	10/19/2010 11:02:00 AM
Project:	HHMC - EP, A8559-06-36	**Matrix:**	SOIL
Lab ID:	114335-002B		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
			EPA 8260B			
RunID: MS5_101022A	QC Batch: T10VS201			PrepDate: 10/20/2010	Analyst: **TT**	
cis-1,3-Dichloropropene	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
Dibromochloromethane	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
Dibromomethane	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
Dichlorodifluoromethane	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
Ethylbenzene	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
Hexachlorobutadiene	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
Isopropylbenzene	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
m,p-Xylene	ND	10		µg/Kg	1	10/22/2010 03:34 PM
Methylene chloride	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
n-Butylbenzene	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
n-Propylbenzene	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
Naphthalene	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
o-Xylene	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
sec-Butylbenzene	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
Styrene	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
tert-Butylbenzene	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
Tetrachloroethene	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
Toluene	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
trans-1,2-Dichloroethene	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
Trichloroethene	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
Trichlorofluoromethane	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
Vinyl chloride	ND	5.2		µg/Kg	1	10/22/2010 03:34 PM
Surr: 1,2-Dichloroethane-d4	108	70-150		%REC	1	10/22/2010 03:34 PM
Surr: 4-Bromofluorobenzene	101	64-126		%REC	1	10/22/2010 03:34 PM
Surr: Dibromofluoromethane	108	69-138		%REC	1	10/22/2010 03:34 PM
Surr: Toluene-d8	108	70-128		%REC	1	10/22/2010 03:34 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: *28-Oct-10*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	B2.8'
Lab Order:	114335	**Collection Date:**	10/19/2010 11:02:00 AM
Project:	HHMC - EP, A8559-06-36	**Matrix:**	SOIL
Lab ID:	114335-002E		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
HYDROCARBON CHAIN IDENTIFICATION						
EPA 8015B(M)						
RunID: GC2_101021A	QC Batch: E10VS328			PrepDate: 10/19/2010		Analyst: **DDL**
T/R Hydrocarbons: C6-C12	ND	1.0		mg/Kg	1	10/21/2010 08:06 PM
Surr: Bromofluorobenzene (FID)	137	53-158		%REC	1	10/21/2010 08:06 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

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ANALYTICAL RESULTS

Print Date: *28-Oct-10*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	B3.8'
Lab Order:	114335	**Collection Date:**	10/19/2010 10:18:00 AM
Project:	HHMC - EP, A8559-06-36	**Matrix:**	SOIL
Lab ID:	114335-003A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
EPA 3050B			**EPA 6010B**			
RunID: ICP10_101025D	QC Batch: 67664			PrepDate:	10/25/2010	Analyst: **SRB**
Antimony	ND	2.0		mg/Kg	1	10/25/2010 06:35 PM
Arsenic	1.1	1.0		mg/Kg	1	10/25/2010 06:35 PM
Barium	54	1.0		mg/Kg	1	10/25/2010 06:35 PM
Beryllium	ND	1.0		mg/Kg	1	10/25/2010 06:35 PM
Cadmium	ND	1.0		mg/Kg	1	10/25/2010 06:35 PM
Chromium	5.9	1.0		mg/Kg	1	10/25/2010 06:35 PM
Cobalt	3.9	1.0		mg/Kg	1	10/25/2010 06:35 PM
Copper	7.2	2.0		mg/Kg	1	10/25/2010 06:35 PM
Lead	1.4	1.0		mg/Kg	1	10/25/2010 06:35 PM
Molybdenum	ND	1.0		mg/Kg	1	10/25/2010 06:35 PM
Nickel	4.3	1.0		mg/Kg	1	10/25/2010 06:35 PM
Selenium	ND	1.0		mg/Kg	1	10/25/2010 06:35 PM
Silver	ND	1.0		mg/Kg	1	10/25/2010 06:35 PM
Thallium	ND	1.0		mg/Kg	1	10/25/2010 06:35 PM
Vanadium	20	1.0		mg/Kg	1	10/25/2010 06:35 PM
Zinc	8.0	1.0		mg/Kg	1	10/25/2010 06:35 PM
HYDROCARBON CHAIN IDENTIFICATION						
LUFT			**EPA 8015B(M)**			
RunID: GC16_101022E	QC Batch: 67616			PrepDate:	10/22/2010	Analyst: **CBR**
T/R Hydrocarbons: C8-C10	ND	10		mg/Kg	1	10/23/2010 02:10 AM
T/R Hydrocarbons: C10-C18	ND	10		mg/Kg	1	10/23/2010 02:10 AM
T/R Hydrocarbons: C18-C28	ND	10		mg/Kg	1	10/23/2010 02:10 AM
T/R Hydrocarbons: C28-C36	ND	10		mg/Kg	1	10/23/2010 02:10 AM
T/R Hydrocarbons: C36-C40	ND	10		mg/Kg	1	10/23/2010 02:10 AM
T/R Hydrocarbons: C8-C40 Total	ND	10		mg/Kg	1	10/23/2010 02:10 AM
Surr: p-Terphenyl	103	63-152		%REC	1	10/23/2010 02:10 AM
ORGANOCHLORINE PESTICIDES BY GC/ECD						
EPA 3550B			**EPA 8081A**			
RunID: GC10_101026A	QC Batch: 67737			PrepDate:	10/26/2010	Analyst: **HL**
4,4´-DDD	ND	2.0		µg/Kg	1	10/26/2010 08:46 PM
4,4´-DDE	ND	2.0		µg/Kg	1	10/26/2010 08:46 PM
4,4´-DDT	ND	2.0		µg/Kg	1	10/26/2010 08:46 PM
Aldrin	ND	1.0		µg/Kg	1	10/26/2010 08:46 PM
alpha-BHC	ND	1.0		µg/Kg	1	10/26/2010 08:46 PM

Qualifiers:

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S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

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ANALYTICAL RESULTS

Print Date: *28-Oct-10*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	B3.8'
Lab Order:	114335	**Collection Date:**	10/19/2010 10:18:00 AM
Project:	HHMC - EP, A8559-06-36	**Matrix:**	SOIL
Lab ID:	114335-003A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES BY GC/ECD						
EPA 3550B				**EPA 8081A**		
RunID: GC10_101026A	QC Batch: 67737			PrepDate: 10/26/2010		Analyst: **HL**
alpha-Chlordane	ND	1.0		µg/Kg	1	10/26/2010 08:46 PM
beta-BHC	ND	1.0		µg/Kg	1	10/26/2010 08:46 PM
Chlordane	ND	8.5		µg/Kg	1	10/26/2010 08:46 PM
delta-BHC	ND	1.0		µg/Kg	1	10/26/2010 08:46 PM
Dieldrin	ND	2.0		µg/Kg	1	10/26/2010 08:46 PM
Endosulfan I	ND	1.0		µg/Kg	1	10/26/2010 08:46 PM
Endosulfan II	ND	2.0		µg/Kg	1	10/26/2010 08:46 PM
Endosulfan sulfate	ND	2.0		µg/Kg	1	10/26/2010 08:46 PM
Endrin	ND	2.0		µg/Kg	1	10/26/2010 08:46 PM
Endrin aldehyde	ND	2.0		µg/Kg	1	10/26/2010 08:46 PM
Endrin ketone	ND	2.0		µg/Kg	1	10/26/2010 08:46 PM
gamma-BHC	ND	1.0		µg/Kg	1	10/26/2010 08:46 PM
gamma-Chlordane	ND	1.0		µg/Kg	1	10/26/2010 08:46 PM
Heptachlor	ND	1.0		µg/Kg	1	10/26/2010 08:46 PM
Heptachlor epoxide	ND	1.0		µg/Kg	1	10/26/2010 08:46 PM
Methoxychlor	ND	5.0		µg/Kg	1	10/26/2010 08:46 PM
Toxaphene	ND	50		µg/Kg	1	10/26/2010 08:46 PM
Surr: Decachlorobiphenyl	86.6	21-132		%REC	1	10/26/2010 08:46 PM
Surr: Tetrachloro-m-xylene	79.8	22-110		%REC	1	10/26/2010 08:46 PM
ORGANOPHOSPHOROUS PESTICIDES BY GC/NPD						
EPA 3545				**EPA 8141A**		
RunID: GC17_101026A	QC Batch: 67735			PrepDate: 10/26/2010		Analyst: **HL**
Azinphosmethyl	ND	5.0		µg/Kg	1	10/27/2010 04:23 AM
Bolstar	ND	5.0		µg/Kg	1	10/27/2010 04:23 AM
Chlorpyrifos	ND	5.0		µg/Kg	1	10/27/2010 04:23 AM
Coumaphos	ND	5.0		µg/Kg	1	10/27/2010 04:23 AM
Demeton-O	ND	5.0		µg/Kg	1	10/27/2010 04:23 AM
Demeton-S	ND	5.0		µg/Kg	1	10/27/2010 04:23 AM
Diazinon	ND	5.0		µg/Kg	1	10/27/2010 04:23 AM
Dichlorvos	ND	5.0		µg/Kg	1	10/27/2010 04:23 AM
Disulfoton	ND	5.0		µg/Kg	1	10/27/2010 04:23 AM
Ethoprop	ND	5.0		µg/Kg	1	10/27/2010 04:23 AM
Fensulfothion	ND	5.0		µg/Kg	1	10/27/2010 04:23 AM
Fenthion	ND	5.0		µg/Kg	1	10/27/2010 04:23 AM
Malathion	ND	5.0		µg/Kg	1	10/27/2010 04:23 AM

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ANALYTICAL RESULTS

Print Date: *28-Oct-10*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	B3.8'
Lab Order:	114335	**Collection Date:**	10/19/2010 10:18:00 AM
Project:	HHMC - EP, A8559-06-36	**Matrix:**	SOIL
Lab ID:	114335-003A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ORGANOPHOSPHOROUS PESTICIDES BY GC/NPD						
EPA 3545				**EPA 8141A**		
RunID: GC17_101026A	QC Batch: 67735			PrepDate: 10/26/2010		Analyst: **HL**
Merphos oxone	ND	5.0		µg/Kg	1	10/27/2010 04:23 AM
Merphos, unoxidized	ND	5.0		µg/Kg	1	10/27/2010 04:23 AM
Mevinphos	ND	5.0		µg/Kg	1	10/27/2010 04:23 AM
Naled	ND	5.0		µg/Kg	1	10/27/2010 04:23 AM
Parathion, methyl	ND	5.0		µg/Kg	1	10/27/2010 04:23 AM
Phorate	ND	5.0		µg/Kg	1	10/27/2010 04:23 AM
Ronnel	ND	5.0		µg/Kg	1	10/27/2010 04:23 AM
Tetrachlorvinphos	ND	5.0		µg/Kg	1	10/27/2010 04:23 AM
Tokuthion	ND	5.0		µg/Kg	1	10/27/2010 04:23 AM
Trichloronate	ND	5.0		µg/Kg	1	10/27/2010 04:23 AM
Merphos	ND	5.0		µg/Kg	1	10/27/2010 04:23 AM
Surr: Tributyl Phosphate	66.6	50-150		%REC	1	10/27/2010 04:23 AM
Surr: Triphenyl phosphate	72.8	50-150		%REC	1	10/27/2010 04:23 AM
MERCURY BY COLD VAPOR TECHNIQUE						
				EPA 7471A		
RunID: AA5_101022B	QC Batch: 67609			PrepDate: 10/22/2010		Analyst: **IL**
Mercury	ND	0.10		mg/Kg	1	10/22/2010 02:31 PM
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS						
EPA 3550B				**EPA 8270C**		
RunID: MS15_101024B	QC Batch: 67635			PrepDate: 10/22/2010		Analyst: **DMP**
1,2,4-Trichlorobenzene	ND	330		µg/Kg	1	10/25/2010 03:49 AM
1,2-Dichlorobenzene	ND	330		µg/Kg	1	10/25/2010 03:49 AM
1,3-Dichlorobenzene	ND	330		µg/Kg	1	10/25/2010 03:49 AM
1,4-Dichlorobenzene	ND	330		µg/Kg	1	10/25/2010 03:49 AM
2,4,5-Trichlorophenol	ND	330		µg/Kg	1	10/25/2010 03:49 AM
2,4,6-Trichlorophenol	ND	330		µg/Kg	1	10/25/2010 03:49 AM
2,4-Dichlorophenol	ND	1600		µg/Kg	1	10/25/2010 03:49 AM
2,4-Dimethylphenol	ND	330		µg/Kg	1	10/25/2010 03:49 AM
2,4-Dinitrophenol	ND	1600		µg/Kg	1	10/25/2010 03:49 AM
2,4-Dinitrotoluene	ND	330		µg/Kg	1	10/25/2010 03:49 AM
2,6-Dinitrotoluene	ND	330		µg/Kg	1	10/25/2010 03:49 AM
2-Chloronaphthalene	ND	330		µg/Kg	1	10/25/2010 03:49 AM
2-Chlorophenol	ND	330		µg/Kg	1	10/25/2010 03:49 AM
2-Methylnaphthalene	ND	330		µg/Kg	1	10/25/2010 03:49 AM

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ANALYTICAL RESULTS

Print Date: *28-Oct-10*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	B3.8'
Lab Order:	114335	**Collection Date:**	10/19/2010 10:18:00 AM
Project:	HHMC - EP, A8559-06-36	**Matrix:**	SOIL
Lab ID:	114335-003A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS						
EPA 3550B				**EPA 8270C**		
RunID: MS15_101024B	QC Batch: 67635				PrepDate: 10/22/2010	Analyst: **DMP**
2-Methylphenol	ND	330		µg/Kg	1	10/25/2010 03:49 AM
2-Nitroaniline	ND	1600		µg/Kg	1	10/25/2010 03:49 AM
2-Nitrophenol	ND	330		µg/Kg	1	10/25/2010 03:49 AM
3,3´-Dichlorobenzidine	ND	660		µg/Kg	1	10/25/2010 03:49 AM
3-Nitroaniline	ND	1600		µg/Kg	1	10/25/2010 03:49 AM
4,6-Dinitro-2-methylphenol	ND	1600		µg/Kg	1	10/25/2010 03:49 AM
4-Bromophenyl-phenylether	ND	330		µg/Kg	1	10/25/2010 03:49 AM
4-Chloro-3-methylphenol	ND	660		µg/Kg	1	10/25/2010 03:49 AM
4-Chloroaniline	ND	660		µg/Kg	1	10/25/2010 03:49 AM
4-Chlorophenyl-phenylether	ND	330		µg/Kg	1	10/25/2010 03:49 AM
4-Methylphenol	ND	330		µg/Kg	1	10/25/2010 03:49 AM
4-Nitroaniline	ND	1600		µg/Kg	1	10/25/2010 03:49 AM
4-Nitrophenol	ND	1600		µg/Kg	1	10/25/2010 03:49 AM
Acenaphthene	ND	330		µg/Kg	1	10/25/2010 03:49 AM
Acenaphthylene	ND	330		µg/Kg	1	10/25/2010 03:49 AM
Anthracene	ND	330		µg/Kg	1	10/25/2010 03:49 AM
Benzidine (M)	ND	1600		µg/Kg	1	10/25/2010 03:49 AM
Benzo(a)anthracene	ND	330		µg/Kg	1	10/25/2010 03:49 AM
Benzo(a)pyrene	ND	330		µg/Kg	1	10/25/2010 03:49 AM
Benzo(b)fluoranthene	ND	330		µg/Kg	1	10/25/2010 03:49 AM
Benzo(g,h,i)perylene	ND	330		µg/Kg	1	10/25/2010 03:49 AM
Benzo(k)fluoranthene	ND	330		µg/Kg	1	10/25/2010 03:49 AM
Benzoic acid	ND	1600		µg/Kg	1	10/25/2010 03:49 AM
Benzyl alcohol	ND	660		µg/Kg	1	10/25/2010 03:49 AM
Bis(2-chloroethoxy)methane	ND	330		µg/Kg	1	10/25/2010 03:49 AM
Bis(2-chloroethyl)ether	ND	330		µg/Kg	1	10/25/2010 03:49 AM
Bis(2-chloroisopropyl)ether	ND	330		µg/Kg	1	10/25/2010 03:49 AM
Bis(2-ethylhexyl)phthalate	ND	330		µg/Kg	1	10/25/2010 03:49 AM
Butylbenzylphthalate	ND	330		µg/Kg	1	10/25/2010 03:49 AM
Chrysene	ND	330		µg/Kg	1	10/25/2010 03:49 AM
Di-n-butylphthalate	ND	330		µg/Kg	1	10/25/2010 03:49 AM
Di-n-octylphthalate	ND	330		µg/Kg	1	10/25/2010 03:49 AM
Dibenz(a,h)anthracene	ND	330		µg/Kg	1	10/25/2010 03:49 AM
Dibenzofuran	ND	330		µg/Kg	1	10/25/2010 03:49 AM
Diethylphthalate	ND	330		µg/Kg	1	10/25/2010 03:49 AM

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ANALYTICAL RESULTS

Print Date: *28-Oct-10*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	B3.8'
Lab Order:	114335	**Collection Date:**	10/19/2010 10:18:00 AM
Project:	HHMC - EP, A8559-06-36	**Matrix:**	SOIL
Lab ID:	114335-003A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS						
EPA 3550B				**EPA 8270C**		
RunID: MS15_101024B	QC Batch: 67635			PrepDate:	10/22/2010	Analyst: **DMP**
Dimethylphthalate	ND	330		µg/Kg	1	10/25/2010 03:49 AM
Fluoranthene	ND	330		µg/Kg	1	10/25/2010 03:49 AM
Fluorene	ND	330		µg/Kg	1	10/25/2010 03:49 AM
Hexachlorobenzene	ND	330		µg/Kg	1	10/25/2010 03:49 AM
Hexachlorobutadiene	ND	660		µg/Kg	1	10/25/2010 03:49 AM
Hexachlorocyclopentadiene	ND	660		µg/Kg	1	10/25/2010 03:49 AM
Hexachloroethane	ND	330		µg/Kg	1	10/25/2010 03:49 AM
Indeno(1,2,3-cd)pyrene	ND	330		µg/Kg	1	10/25/2010 03:49 AM
Isophorone	ND	330		µg/Kg	1	10/25/2010 03:49 AM
N-Nitrosodi-n-propylamine	ND	330		µg/Kg	1	10/25/2010 03:49 AM
N-Nitrosodiphenylamine	ND	330		µg/Kg	1	10/25/2010 03:49 AM
Naphthalene	ND	330		µg/Kg	1	10/25/2010 03:49 AM
Nitrobenzene	ND	330		µg/Kg	1	10/25/2010 03:49 AM
Pentachlorophenol	ND	1600		µg/Kg	1	10/25/2010 03:49 AM
Phenanthrene	ND	330		µg/Kg	1	10/25/2010 03:49 AM
Phenol	ND	330		µg/Kg	1	10/25/2010 03:49 AM
Pyrene	ND	330		µg/Kg	1	10/25/2010 03:49 AM
Surr: 1,2-Dichlorobenzene-d4	70.0	45-105		%REC	1	10/25/2010 03:49 AM
Surr: 2,4,6-Tribromophenol	97.5	41-129		%REC	1	10/25/2010 03:49 AM
Surr: 2-Chlorophenol-d4	72.1	55-108		%REC	1	10/25/2010 03:49 AM
Surr: 2-Fluorobiphenyl	75.3	56-114		%REC	1	10/25/2010 03:49 AM
Surr: 2-Fluorophenol	69.0	50-108		%REC	1	10/25/2010 03:49 AM
Surr: 4-Terphenyl-d14	93.0	59-141		%REC	1	10/25/2010 03:49 AM
Surr: Nitrobenzene-d5	69.7	45-114		%REC	1	10/25/2010 03:49 AM
Surr: Phenol-d5	73.3	46-118		%REC	1	10/25/2010 03:49 AM

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ANALYTICAL RESULTS

Print Date: *28-Oct-10*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	B3.8'
Lab Order:	114335	**Collection Date:**	10/19/2010 10:18:00 AM
Project:	HHMC - EP, A8559-06-36	**Matrix:**	SOIL
Lab ID:	114335-003B		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
			EPA 8260B			
RunID: MS5_101022A	QC Batch: T10VS201			PrepDate: 10/20/2010	Analyst: **TT**	
1,1,1,2-Tetrachloroethane	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
1,1,1-Trichloroethane	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
1,1,2,2-Tetrachloroethane	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
1,1,2-Trichloroethane	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
1,1-Dichloroethane	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
1,1-Dichloroethene	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
1,1-Dichloropropene	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
1,2,3-Trichlorobenzene	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
1,2,3-Trichloropropane	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
1,2,4-Trichlorobenzene	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
1,2,4-Trimethylbenzene	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/Kg	1	10/22/2010 03:56 PM
1,2-Dibromoethane	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
1,2-Dichlorobenzene	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
1,2-Dichloroethane	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
1,2-Dichloropropane	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
1,3,5-Trimethylbenzene	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
1,3-Dichlorobenzene	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
1,3-Dichloropropane	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
1,4-Dichlorobenzene	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
2,2-Dichloropropane	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
2-Chlorotoluene	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
4-Chlorotoluene	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
4-Isopropyltoluene	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
Benzene	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
Bromobenzene	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
Bromodichloromethane	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
Bromoform	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
Bromomethane	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
Carbon tetrachloride	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
Chlorobenzene	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
Chloroethane	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
Chloroform	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
Chloromethane	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
cis-1,2-Dichloroethene	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM

Qualifiers:

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ANALYTICAL RESULTS

Print Date: *28-Oct-10*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	B3.8'
Lab Order:	114335	**Collection Date:**	10/19/2010 10:18:00 AM
Project:	HHMC - EP, A8559-06-36	**Matrix:**	SOIL
Lab ID:	114335-003B		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
			EPA 8260B			
RunID: MS5_101022A	QC Batch: T10VS201			PrepDate: 10/20/2010	Analyst: **TT**	
cis-1,3-Dichloropropene	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
Dibromochloromethane	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
Dibromomethane	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
Dichlorodifluoromethane	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
Ethylbenzene	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
Hexachlorobutadiene	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
Isopropylbenzene	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
m,p-Xylene	ND	10		µg/Kg	1	10/22/2010 03:56 PM
Methylene chloride	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
n-Butylbenzene	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
n-Propylbenzene	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
Naphthalene	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
o-Xylene	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
sec-Butylbenzene	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
Styrene	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
tert-Butylbenzene	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
Tetrachloroethene	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
Toluene	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
trans-1,2-Dichloroethene	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
Trichloroethene	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
Trichlorofluoromethane	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
Vinyl chloride	ND	5.0		µg/Kg	1	10/22/2010 03:56 PM
Surr: 1,2-Dichloroethane-d4	107	70-150		%REC	1	10/22/2010 03:56 PM
Surr: 4-Bromofluorobenzene	96.6	64-126		%REC	1	10/22/2010 03:56 PM
Surr: Dibromofluoromethane	106	69-138		%REC	1	10/22/2010 03:56 PM
Surr: Toluene-d8	105	70-128		%REC	1	10/22/2010 03:56 PM

Qualifiers:

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H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: *28-Oct-10*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	B3.8'
Lab Order:	114335	**Collection Date:**	10/19/2010 10:18:00 AM
Project:	HHMC - EP, A8559-06-36	**Matrix:**	SOIL
Lab ID:	114335-003E		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
HYDROCARBON CHAIN IDENTIFICATION						
EPA 8015B(M)						
RunID: GC2_101021A	QC Batch: E10VS328			PrepDate: 10/19/2010		Analyst: **DDL**
T/R Hydrocarbons: C6-C12	ND	1.0		mg/Kg	1	10/21/2010 08:21 PM
Surr: Bromofluorobenzene (FID)	137	53-158		%REC	1	10/21/2010 08:21 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

Advanced Technology Laboratories

3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562. 989.4045 Fax: 562.989.4040

Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: *28-Oct-10*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	B4.8'
Lab Order:	114335	**Collection Date:**	10/19/2010 8:31:00 AM
Project:	HHMC - EP, A8559-06-36	**Matrix:**	SOIL
Lab ID:	114335-004A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
EPA 3050B				**EPA 6010B**		
RunID: ICP10_101025D	QC Batch: 67664			PrepDate:	10/25/2010	Analyst: **SRB**
Antimony	ND	2.0		mg/Kg	1	10/25/2010 06:37 PM
Arsenic	1.2	1.0		mg/Kg	1	10/25/2010 06:37 PM
Barium	61	1.0		mg/Kg	1	10/25/2010 06:37 PM
Beryllium	ND	1.0		mg/Kg	1	10/25/2010 06:37 PM
Cadmium	ND	1.0		mg/Kg	1	10/25/2010 06:37 PM
Chromium	8.0	1.0		mg/Kg	1	10/25/2010 06:37 PM
Cobalt	4.1	1.0		mg/Kg	1	10/25/2010 06:37 PM
Copper	9.6	2.0		mg/Kg	1	10/25/2010 06:37 PM
Lead	1.7	1.0		mg/Kg	1	10/25/2010 06:37 PM
Molybdenum	ND	1.0		mg/Kg	1	10/25/2010 06:37 PM
Nickel	4.9	1.0		mg/Kg	1	10/25/2010 06:37 PM
Selenium	ND	1.0		mg/Kg	1	10/25/2010 06:37 PM
Silver	ND	1.0		mg/Kg	1	10/25/2010 06:37 PM
Thallium	ND	1.0		mg/Kg	1	10/25/2010 06:37 PM
Vanadium	25	1.0		mg/Kg	1	10/25/2010 06:37 PM
Zinc	10	1.0		mg/Kg	1	10/25/2010 06:37 PM
HYDROCARBON CHAIN IDENTIFICATION						
LUFT				**EPA 8015B(M)**		
RunID: GC16_101022E	QC Batch: 67616			PrepDate:	10/22/2010	Analyst: **CBR**
T/R Hydrocarbons: C8-C10	ND	10		mg/Kg	1	10/23/2010 02:19 AM
T/R Hydrocarbons: C10-C18	ND	10		mg/Kg	1	10/23/2010 02:19 AM
T/R Hydrocarbons: C18-C28	ND	10		mg/Kg	1	10/23/2010 02:19 AM
T/R Hydrocarbons: C28-C36	ND	10		mg/Kg	1	10/23/2010 02:19 AM
T/R Hydrocarbons: C36-C40	ND	10		mg/Kg	1	10/23/2010 02:19 AM
T/R Hydrocarbons: C8-C40 Total	ND	10		mg/Kg	1	10/23/2010 02:19 AM
Surr: p-Terphenyl	105	63-152		%REC	1	10/23/2010 02:19 AM
ORGANOCHLORINE PESTICIDES BY GC/ECD						
EPA 3550B				**EPA 8081A**		
RunID: GC10_101026A	QC Batch: 67737			PrepDate:	10/26/2010	Analyst: **HL**
4,4´-DDD	ND	2.0		µg/Kg	1	10/26/2010 09:00 PM
4,4´-DDE	ND	2.0		µg/Kg	1	10/26/2010 09:00 PM
4,4´-DDT	ND	2.0		µg/Kg	1	10/26/2010 09:00 PM
Aldrin	ND	1.0		µg/Kg	1	10/26/2010 09:00 PM
alpha-BHC	ND	1.0		µg/Kg	1	10/26/2010 09:00 PM

Qualifiers:

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DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: *28-Oct-10*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	B4.8'
Lab Order:	114335	**Collection Date:**	10/19/2010 8:31:00 AM
Project:	HHMC - EP, A8559-06-36	**Matrix:**	SOIL
Lab ID:	114335-004A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ORGANOCHLORINE PESTICIDES BY GC/ECD						
EPA 3550B				**EPA 8081A**		
RunID: GC10_101026A	QC Batch: 67737			PrepDate: 10/26/2010		Analyst: **HL**
alpha-Chlordane	ND	1.0		µg/Kg	1	10/26/2010 09:00 PM
beta-BHC	ND	1.0		µg/Kg	1	10/26/2010 09:00 PM
Chlordane	ND	8.5		µg/Kg	1	10/26/2010 09:00 PM
delta-BHC	ND	1.0		µg/Kg	1	10/26/2010 09:00 PM
Dieldrin	ND	2.0		µg/Kg	1	10/26/2010 09:00 PM
Endosulfan I	ND	1.0		µg/Kg	1	10/26/2010 09:00 PM
Endosulfan II	ND	2.0		µg/Kg	1	10/26/2010 09:00 PM
Endosulfan sulfate	ND	2.0		µg/Kg	1	10/26/2010 09:00 PM
Endrin	ND	2.0		µg/Kg	1	10/26/2010 09:00 PM
Endrin aldehyde	ND	2.0		µg/Kg	1	10/26/2010 09:00 PM
Endrin ketone	ND	2.0		µg/Kg	1	10/26/2010 09:00 PM
gamma-BHC	ND	1.0		µg/Kg	1	10/26/2010 09:00 PM
gamma-Chlordane	ND	1.0		µg/Kg	1	10/26/2010 09:00 PM
Heptachlor	ND	1.0		µg/Kg	1	10/26/2010 09:00 PM
Heptachlor epoxide	ND	1.0		µg/Kg	1	10/26/2010 09:00 PM
Methoxychlor	ND	5.0		µg/Kg	1	10/26/2010 09:00 PM
Toxaphene	ND	50		µg/Kg	1	10/26/2010 09:00 PM
Surr: Decachlorobiphenyl	85.9	21-132		%REC	1	10/26/2010 09:00 PM
Surr: Tetrachloro-m-xylene	79.6	22-110		%REC	1	10/26/2010 09:00 PM
ORGANOPHOSPHOROUS PESTICIDES BY GC/NPD						
EPA 3545				**EPA 8141A**		
RunID: GC17_101026A	QC Batch: 67735			PrepDate: 10/26/2010		Analyst: **HL**
Azinphosmethyl	ND	5.0		µg/Kg	1	10/27/2010 11:41 AM
Bolstar	ND	5.0		µg/Kg	1	10/27/2010 11:41 AM
Chlorpyrifos	ND	5.0		µg/Kg	1	10/27/2010 11:41 AM
Coumaphos	ND	5.0		µg/Kg	1	10/27/2010 11:41 AM
Demeton-O	ND	5.0		µg/Kg	1	10/27/2010 11:41 AM
Demeton-S	ND	5.0		µg/Kg	1	10/27/2010 11:41 AM
Diazinon	ND	5.0		µg/Kg	1	10/27/2010 11:41 AM
Dichlorvos	ND	5.0		µg/Kg	1	10/27/2010 11:41 AM
Disulfoton	ND	5.0		µg/Kg	1	10/27/2010 11:41 AM
Ethoprop	ND	5.0		µg/Kg	1	10/27/2010 11:41 AM
Fensulfothion	ND	5.0		µg/Kg	1	10/27/2010 11:41 AM
Fenthion	ND	5.0		µg/Kg	1	10/27/2010 11:41 AM
Malathion	ND	5.0		µg/Kg	1	10/27/2010 11:41 AM

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DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: *28-Oct-10*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	B4.8'
Lab Order:	114335	**Collection Date:**	10/19/2010 8:31:00 AM
Project:	HHMC - EP, A8559-06-36	**Matrix:**	SOIL
Lab ID:	114335-004A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ORGANOPHOSPHOROUS PESTICIDES BY GC/NPD						
EPA 3545				**EPA 8141A**		
RunID: GC17_101026A	QC Batch: 67735			PrepDate: 10/26/2010		Analyst: **HL**
Merphos oxone	ND	5.0		µg/Kg	1	10/27/2010 11:41 AM
Merphos, unoxidized	ND	5.0		µg/Kg	1	10/27/2010 11:41 AM
Mevinphos	ND	5.0		µg/Kg	1	10/27/2010 11:41 AM
Naled	ND	5.0		µg/Kg	1	10/27/2010 11:41 AM
Parathion, methyl	ND	5.0		µg/Kg	1	10/27/2010 11:41 AM
Phorate	ND	5.0		µg/Kg	1	10/27/2010 11:41 AM
Ronnel	ND	5.0		µg/Kg	1	10/27/2010 11:41 AM
Tetrachlorvinphos	ND	5.0		µg/Kg	1	10/27/2010 11:41 AM
Tokuthion	ND	5.0		µg/Kg	1	10/27/2010 11:41 AM
Trichloronate	ND	5.0		µg/Kg	1	10/27/2010 11:41 AM
Merphos	ND	5.0		µg/Kg	1	10/27/2010 11:41 AM
Surr: Tributyl Phosphate	63.9	50-150		%REC	1	10/27/2010 11:41 AM
Surr: Triphenyl phosphate	67.4	50-150		%REC	1	10/27/2010 11:41 AM
MERCURY BY COLD VAPOR TECHNIQUE						
				EPA 7471A		
RunID: AA5_101022B	QC Batch: 67609			PrepDate: 10/22/2010		Analyst: **IL**
Mercury	ND	0.10		mg/Kg	1	10/22/2010 02:33 PM
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS						
EPA 3550B				**EPA 8270C**		
RunID: MS15_101024B	QC Batch: 67635			PrepDate: 10/22/2010		Analyst: **DMP**
1,2,4-Trichlorobenzene	ND	330		µg/Kg	1	10/25/2010 01:37 PM
1,2-Dichlorobenzene	ND	330		µg/Kg	1	10/25/2010 01:37 PM
1,3-Dichlorobenzene	ND	330		µg/Kg	1	10/25/2010 01:37 PM
1,4-Dichlorobenzene	ND	330		µg/Kg	1	10/25/2010 01:37 PM
2,4,5-Trichlorophenol	ND	330		µg/Kg	1	10/25/2010 01:37 PM
2,4,6-Trichlorophenol	ND	330		µg/Kg	1	10/25/2010 01:37 PM
2,4-Dichlorophenol	ND	1600		µg/Kg	1	10/25/2010 01:37 PM
2,4-Dimethylphenol	ND	330		µg/Kg	1	10/25/2010 01:37 PM
2,4-Dinitrophenol	ND	1600		µg/Kg	1	10/25/2010 01:37 PM
2,4-Dinitrotoluene	ND	330		µg/Kg	1	10/25/2010 01:37 PM
2,6-Dinitrotoluene	ND	330		µg/Kg	1	10/25/2010 01:37 PM
2-Chloronaphthalene	ND	330		µg/Kg	1	10/25/2010 01:37 PM
2-Chlorophenol	ND	330		µg/Kg	1	10/25/2010 01:37 PM
2-Methylnaphthalene	ND	330		µg/Kg	1	10/25/2010 01:37 PM

Qualifiers:

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Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: *28-Oct-10*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	B4.8'
Lab Order:	114335	**Collection Date:**	10/19/2010 8:31:00 AM
Project:	HHMC - EP, A8559-06-36	**Matrix:**	SOIL
Lab ID:	114335-004A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS						
EPA 3550B				**EPA 8270C**		
RunID: MS15_101024B	QC Batch: 67635				PrepDate: 10/22/2010	Analyst: **DMP**
2-Methylphenol	ND	330		µg/Kg	1	10/25/2010 01:37 PM
2-Nitroaniline	ND	1600		µg/Kg	1	10/25/2010 01:37 PM
2-Nitrophenol	ND	330		µg/Kg	1	10/25/2010 01:37 PM
3,3´-Dichlorobenzidine	ND	660		µg/Kg	1	10/25/2010 01:37 PM
3-Nitroaniline	ND	1600		µg/Kg	1	10/25/2010 01:37 PM
4,6-Dinitro-2-methylphenol	ND	1600		µg/Kg	1	10/25/2010 01:37 PM
4-Bromophenyl-phenylether	ND	330		µg/Kg	1	10/25/2010 01:37 PM
4-Chloro-3-methylphenol	ND	660		µg/Kg	1	10/25/2010 01:37 PM
4-Chloroaniline	ND	660		µg/Kg	1	10/25/2010 01:37 PM
4-Chlorophenyl-phenylether	ND	330		µg/Kg	1	10/25/2010 01:37 PM
4-Methylphenol	ND	330		µg/Kg	1	10/25/2010 01:37 PM
4-Nitroaniline	ND	1600		µg/Kg	1	10/25/2010 01:37 PM
4-Nitrophenol	ND	1600		µg/Kg	1	10/25/2010 01:37 PM
Acenaphthene	ND	330		µg/Kg	1	10/25/2010 01:37 PM
Acenaphthylene	ND	330		µg/Kg	1	10/25/2010 01:37 PM
Anthracene	ND	330		µg/Kg	1	10/25/2010 01:37 PM
Benzidine (M)	ND	1600		µg/Kg	1	10/25/2010 01:37 PM
Benzo(a)anthracene	ND	330		µg/Kg	1	10/25/2010 01:37 PM
Benzo(a)pyrene	ND	330		µg/Kg	1	10/25/2010 01:37 PM
Benzo(b)fluoranthene	ND	330		µg/Kg	1	10/25/2010 01:37 PM
Benzo(g,h,i)perylene	ND	330		µg/Kg	1	10/25/2010 01:37 PM
Benzo(k)fluoranthene	ND	330		µg/Kg	1	10/25/2010 01:37 PM
Benzoic acid	ND	1600		µg/Kg	1	10/25/2010 01:37 PM
Benzyl alcohol	ND	660		µg/Kg	1	10/25/2010 01:37 PM
Bis(2-chloroethoxy)methane	ND	330		µg/Kg	1	10/25/2010 01:37 PM
Bis(2-chloroethyl)ether	ND	330		µg/Kg	1	10/25/2010 01:37 PM
Bis(2-chloroisopropyl)ether	ND	330		µg/Kg	1	10/25/2010 01:37 PM
Bis(2-ethylhexyl)phthalate	ND	330		µg/Kg	1	10/25/2010 01:37 PM
Butylbenzylphthalate	ND	330		µg/Kg	1	10/25/2010 01:37 PM
Chrysene	ND	330		µg/Kg	1	10/25/2010 01:37 PM
Di-n-butylphthalate	ND	330		µg/Kg	1	10/25/2010 01:37 PM
Di-n-octylphthalate	ND	330		µg/Kg	1	10/25/2010 01:37 PM
Dibenz(a,h)anthracene	ND	330		µg/Kg	1	10/25/2010 01:37 PM
Dibenzofuran	ND	330		µg/Kg	1	10/25/2010 01:37 PM
Diethylphthalate	ND	330		µg/Kg	1	10/25/2010 01:37 PM

Qualifiers:

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H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: *28-Oct-10*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	B4.8'
Lab Order:	114335	**Collection Date:**	10/19/2010 8:31:00 AM
Project:	HHMC - EP, A8559-06-36	**Matrix:**	SOIL
Lab ID:	114335-004A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS						
EPA 3550B				**EPA 8270C**		
RunID: MS15_101024B	QC Batch: 67635			PrepDate:	10/22/2010	Analyst: **DMP**
Dimethylphthalate	ND	330		µg/Kg	1	10/25/2010 01:37 PM
Fluoranthene	ND	330		µg/Kg	1	10/25/2010 01:37 PM
Fluorene	ND	330		µg/Kg	1	10/25/2010 01:37 PM
Hexachlorobenzene	ND	330		µg/Kg	1	10/25/2010 01:37 PM
Hexachlorobutadiene	ND	660		µg/Kg	1	10/25/2010 01:37 PM
Hexachlorocyclopentadiene	ND	660		µg/Kg	1	10/25/2010 01:37 PM
Hexachloroethane	ND	330		µg/Kg	1	10/25/2010 01:37 PM
Indeno(1,2,3-cd)pyrene	ND	330		µg/Kg	1	10/25/2010 01:37 PM
Isophorone	ND	330		µg/Kg	1	10/25/2010 01:37 PM
N-Nitrosodi-n-propylamine	ND	330		µg/Kg	1	10/25/2010 01:37 PM
N-Nitrosodiphenylamine	ND	330		µg/Kg	1	10/25/2010 01:37 PM
Naphthalene	ND	330		µg/Kg	1	10/25/2010 01:37 PM
Nitrobenzene	ND	330		µg/Kg	1	10/25/2010 01:37 PM
Pentachlorophenol	ND	1600		µg/Kg	1	10/25/2010 01:37 PM
Phenanthrene	ND	330		µg/Kg	1	10/25/2010 01:37 PM
Phenol	ND	330		µg/Kg	1	10/25/2010 01:37 PM
Pyrene	ND	330		µg/Kg	1	10/25/2010 01:37 PM
Surr: 1,2-Dichlorobenzene-d4	72.5	45-105		%REC	1	10/25/2010 01:37 PM
Surr: 2,4,6-Tribromophenol	94.9	41-129		%REC	1	10/25/2010 01:37 PM
Surr: 2-Chlorophenol-d4	74.3	55-108		%REC	1	10/25/2010 01:37 PM
Surr: 2-Fluorobiphenyl	77.7	56-114		%REC	1	10/25/2010 01:37 PM
Surr: 2-Fluorophenol	71.9	50-108		%REC	1	10/25/2010 01:37 PM
Surr: 4-Terphenyl-d14	93.8	59-141		%REC	1	10/25/2010 01:37 PM
Surr: Nitrobenzene-d5	71.4	45-114		%REC	1	10/25/2010 01:37 PM
Surr: Phenol-d5	75.6	46-118		%REC	1	10/25/2010 01:37 PM

Qualifiers:

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H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: *28-Oct-10*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	B4.8'
Lab Order:	114335	**Collection Date:**	10/19/2010 8:31:00 AM
Project:	HHMC - EP, A8559-06-36	**Matrix:**	SOIL
Lab ID:	114335-004B		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
			EPA 8260B			
RunID: MS5_101022A	QC Batch: T10VS201			PrepDate: 10/20/2010		Analyst: **TT**
1,1,1,2-Tetrachloroethane	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
1,1,1-Trichloroethane	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
1,1,2,2-Tetrachloroethane	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
1,1,2-Trichloroethane	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
1,1-Dichloroethane	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
1,1-Dichloroethene	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
1,1-Dichloropropene	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
1,2,3-Trichlorobenzene	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
1,2,3-Trichloropropane	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
1,2,4-Trichlorobenzene	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
1,2,4-Trimethylbenzene	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
1,2-Dibromo-3-chloropropane	ND	9.5		µg/Kg	1	10/22/2010 04:18 PM
1,2-Dibromoethane	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
1,2-Dichlorobenzene	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
1,2-Dichloroethane	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
1,2-Dichloropropane	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
1,3,5-Trimethylbenzene	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
1,3-Dichlorobenzene	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
1,3-Dichloropropane	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
1,4-Dichlorobenzene	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
2,2-Dichloropropane	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
2-Chlorotoluene	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
4-Chlorotoluene	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
4-Isopropyltoluene	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
Benzene	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
Bromobenzene	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
Bromodichloromethane	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
Bromoform	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
Bromomethane	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
Carbon tetrachloride	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
Chlorobenzene	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
Chloroethane	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
Chloroform	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
Chloromethane	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
cis-1,2-Dichloroethene	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: *28-Oct-10*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	B4.8'
Lab Order:	114335	**Collection Date:**	10/19/2010 8:31:00 AM
Project:	HHMC - EP, A8559-06-36	**Matrix:**	SOIL
Lab ID:	114335-004B		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
			EPA 8260B			
RunID: MS5_101022A	QC Batch: T10VS201			PrepDate: 10/20/2010	Analyst: **TT**	
cis-1,3-Dichloropropene	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
Dibromochloromethane	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
Dibromomethane	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
Dichlorodifluoromethane	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
Ethylbenzene	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
Hexachlorobutadiene	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
Isopropylbenzene	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
m,p-Xylene	ND	9.5		µg/Kg	1	10/22/2010 04:18 PM
Methylene chloride	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
n-Butylbenzene	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
n-Propylbenzene	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
Naphthalene	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
o-Xylene	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
sec-Butylbenzene	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
Styrene	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
tert-Butylbenzene	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
Tetrachloroethene	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
Toluene	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
trans-1,2-Dichloroethene	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
Trichloroethene	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
Trichlorofluoromethane	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
Vinyl chloride	ND	4.8		µg/Kg	1	10/22/2010 04:18 PM
Surr: 1,2-Dichloroethane-d4	108	70-150		%REC	1	10/22/2010 04:18 PM
Surr: 4-Bromofluorobenzene	97.6	64-126		%REC	1	10/22/2010 04:18 PM
Surr: Dibromofluoromethane	105	69-138		%REC	1	10/22/2010 04:18 PM
Surr: Toluene-d8	105	70-128		%REC	1	10/22/2010 04:18 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: *28-Oct-10*

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	B4.8'
Lab Order:	114335	**Collection Date:**	10/19/2010 8:31:00 AM
Project:	HHMC - EP, A8559-06-36	**Matrix:**	SOIL
Lab ID:	114335-004E		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
HYDROCARBON CHAIN IDENTIFICATION						
EPA 8015B(M)						
RunID: GC2_101021A	QC Batch: E10VS328			PrepDate: 10/19/2010		Analyst: **DDL**
T/R Hydrocarbons: C6-C12	ND	1.0		mg/Kg	1	10/21/2010 08:35 PM
Surr: Bromofluorobenzene (FID)	138	53-158		%REC	1	10/21/2010 08:35 PM

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT: Geocon Consultants, Inc.
Work Order: 114335
Project: HHMC - EP, A8559-06-36

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: **MB-67664** SampType: **MBLK** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **10/25/2010** RunNo: **126126**
Client ID: **PBS** Batch ID: **67664** TestNo: **EPA 6010B** **EPA 3050B** Analysis Date: **10/25/2010** SeqNo: **2031860**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	2.0									
Arsenic	ND	1.0									
Barium	ND	1.0									
Beryllium	ND	1.0									
Cadmium	ND	1.0									
Chromium	ND	1.0									
Cobalt	ND	1.0									
Copper	ND	2.0									
Lead	0.149	1.0									
Molybdenum	0.044	1.0									
Nickel	ND	1.0									
Selenium	ND	1.0									
Silver	ND	1.0									
Thallium	ND	1.0									
Vanadium	ND	1.0									
Zinc	ND	1.0									

Sample ID: **LCS-67664** SampType: **LCS** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **10/25/2010** RunNo: **126126**
Client ID: **LCSS** Batch ID: **67664** TestNo: **EPA 6010B** **EPA 3050B** Analysis Date: **10/25/2010** SeqNo: **2031861**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	48.778	2.0	50.00	0	97.6	80	120				
Arsenic	49.144	1.0	50.00	0	98.3	80	120				
Barium	51.843	1.0	50.00	0	104	80	120				
Beryllium	52.741	1.0	50.00	0	105	80	120				
Cadmium	49.764	1.0	50.00	0	99.5	80	120				
Chromium	48.506	1.0	50.00	0	97.0	80	120				
Cobalt	50.783	1.0	50.00	0	102	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: Geocon Consultants, Inc.
Work Order: 114335
Project: HHMC - EP, A8559-06-36

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: **LCS-67664** SampType: **LCS** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **10/25/2010** RunNo: **126126**
Client ID: **LCSS** Batch ID: **67664** TestNo: **EPA 6010B** **EPA 3050B** Analysis Date: **10/25/2010** SeqNo: **2031861**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	51.151	2.0	50.00	0	102	80	120				
Lead	50.350	1.0	50.00	0.1485	100	80	120				
Molybdenum	53.741	1.0	50.00	0.04426	107	80	120				
Nickel	50.269	1.0	50.00	0	101	80	120				
Selenium	48.217	1.0	50.00	0	96.4	80	120				
Silver	49.285	1.0	50.00	0	98.6	80	120				
Thallium	48.431	1.0	50.00	0	96.9	80	120				
Vanadium	51.941	1.0	50.00	0	104	80	120				
Zinc	49.930	1.0	50.00	0	99.9	80	120				

Sample ID: **114337-009G-MS** SampType: **MS** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **10/25/2010** RunNo: **126126**
Client ID: **ZZZZZZ** Batch ID: **67664** TestNo: **EPA 6010B** **EPA 3050B** Analysis Date: **10/25/2010** SeqNo: **2031871**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	84.908	2.0	125.0	0.3739	67.6	32	105				
Arsenic	105.573	1.0	125.0	2.980	82.1	49	106				
Barium	232.324	1.0	125.0	148.3	67.3	31	133				
Beryllium	104.215	1.0	125.0	0	83.4	56	106				
Cadmium	93.030	1.0	125.0	0.03238	74.4	51	103				
Chromium	115.640	1.0	125.0	19.19	77.2	45	114				
Cobalt	102.413	1.0	125.0	9.194	74.6	52	106				
Copper	131.315	2.0	125.0	24.39	85.5	54	125				
Lead	100.512	1.0	125.0	5.887	75.7	34	126				
Molybdenum	98.086	1.0	125.0	0	78.5	54	106				
Nickel	108.449	1.0	125.0	16.32	73.7	45	111				
Selenium	102.330	1.0	125.0	0	81.9	47	104				
Silver	108.129	1.0	125.0	0	86.5	56	112				
Thallium	90.974	1.0	125.0	0	72.8	46	101				
Vanadium	136.968	1.0	125.0	33.08	83.1	54	114				
Zinc	120.119	1.0	125.0	22.18	78.4	28	125				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

Advanced Technology Laboratories
3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562. 989.4045 Fax: 562.989.4040

CLIENT: Geocon Consultants, Inc.
Work Order: 114335
Project: HHMC - EP, A8559-06-36

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: **114337-009G-MSD** SampType: **MSD** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **10/25/2010** RunNo: **126126**
Client ID: **ZZZZZZ** Batch ID: **67664** TestNo: **EPA 6010B** **EPA 3050B** Analysis Date: **10/25/2010** SeqNo: **2031872**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	83.143	2.0	125.0	0.3739	66.2	32	105	84.91	2.10	20	
Arsenic	106.297	1.0	125.0	2.980	82.7	49	106	105.6	0.683	20	
Barium	229.700	1.0	125.0	148.3	65.2	31	133	232.3	1.14	20	
Beryllium	103.699	1.0	125.0	0	83.0	56	106	104.2	0.496	20	
Cadmium	90.724	1.0	125.0	0.03238	72.6	51	103	93.03	2.51	20	
Chromium	111.651	1.0	125.0	19.19	74.0	45	114	115.6	3.51	20	
Cobalt	98.786	1.0	125.0	9.194	71.7	52	106	102.4	3.61	20	
Copper	128.054	2.0	125.0	24.39	82.9	54	125	131.3	2.51	20	
Lead	96.611	1.0	125.0	5.887	72.6	34	126	100.5	3.96	20	
Molybdenum	95.669	1.0	125.0	0	76.5	54	106	98.09	2.49	20	
Nickel	104.391	1.0	125.0	16.32	70.5	45	111	108.4	3.81	20	
Selenium	101.044	1.0	125.0	0	80.8	47	104	102.3	1.26	20	
Silver	106.567	1.0	125.0	0	85.3	56	112	108.1	1.46	20	
Thallium	87.419	1.0	125.0	0	69.9	46	101	90.97	3.98	20	
Vanadium	132.755	1.0	125.0	33.08	79.7	54	114	137.0	3.12	20	
Zinc	116.678	1.0	125.0	22.18	75.6	28	125	120.1	2.91	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: Geocon Consultants, Inc.
Work Order: 114335
Project: HHMC - EP, A8559-06-36

ANALYTICAL QC SUMMARY REPORT

TestCode: 7471_S

Sample ID: **MB-67609** SampType: **MBLK** TestCode: **7471_S** Units: **mg/Kg** Prep Date: **10/22/2010** RunNo: **126034**
Client ID: **PBS** Batch ID: **67609** TestNo: **EPA 7471A** Analysis Date: **10/22/2010** SeqNo: **2029848**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.10									

Sample ID: **LCS-67609** SampType: **LCS** TestCode: **7471_S** Units: **mg/Kg** Prep Date: **10/22/2010** RunNo: **126034**
Client ID: **LCSS** Batch ID: **67609** TestNo: **EPA 7471A** Analysis Date: **10/22/2010** SeqNo: **2029849**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.811	0.10	0.8300	0	97.7	80	120				

Sample ID: **114298-022A-MS** SampType: **MS** TestCode: **7471_S** Units: **mg/Kg** Prep Date: **10/22/2010** RunNo: **126034**
Client ID: **ZZZZZZ** Batch ID: **67609** TestNo: **EPA 7471A** Analysis Date: **10/22/2010** SeqNo: **2029850**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.972	0.10	0.8300	0.1641	97.3	70	130				

Sample ID: **114298-022A-MSD** SampType: **MSD** TestCode: **7471_S** Units: **mg/Kg** Prep Date: **10/22/2010** RunNo: **126034**
Client ID: **ZZZZZZ** Batch ID: **67609** TestNo: **EPA 7471A** Analysis Date: **10/22/2010** SeqNo: **2029851**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.971	0.10	0.8300	0.1641	97.2	70	130	0.9716	0.0491	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

Advanced Technology Laboratories
3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562. 989.4045 Fax: 562.989.4040

CLIENT: Geocon Consultants, Inc.
Work Order: 114335
Project: HHMC - EP, A8559-06-36

ANALYTICAL QC SUMMARY REPORT

TestCode: 8081_S

Sample ID: **MB-67737** SampType: **MBLK** TestCode: **8081_S** Units: **µg/Kg** Prep Date: **10/26/2010** RunNo: **126163**
Client ID: **PBS** Batch ID: **67737** TestNo: **EPA 8081A** **EPA 3550B** Analysis Date: **10/26/2010** SeqNo: **2032730**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4´-DDD	ND	2.0									
4,4´-DDE	ND	2.0									
4,4´-DDT	ND	2.0									
Aldrin	ND	1.0									
alpha-BHC	ND	1.0									
alpha-Chlordane	ND	1.0									
beta-BHC	ND	1.0									
Chlordane	ND	8.5									
delta-BHC	ND	1.0									
Dieldrin	ND	2.0									
Endosulfan I	ND	1.0									
Endosulfan II	ND	2.0									
Endosulfan sulfate	ND	2.0									
Endrin	ND	2.0									
Endrin aldehyde	ND	2.0									
Endrin ketone	ND	2.0									
gamma-BHC	ND	1.0									
gamma-Chlordane	ND	1.0									
Heptachlor	ND	1.0									
Heptachlor epoxide	ND	1.0									
Methoxychlor	ND	5.0									
Toxaphene	ND	50									
Surr: Tetrachloro-m-xylene	14.312		16.67		85.9	22	110				
Surr: Decachlorobiphenyl	15.806		16.67		94.8	21	132				

Sample ID: **LCS-67737** SampType: **LCS** TestCode: **8081_S** Units: **µg/Kg** Prep Date: **10/26/2010** RunNo: **126163**
Client ID: **LCSS** Batch ID: **67737** TestNo: **EPA 8081A** **EPA 3550B** Analysis Date: **10/26/2010** SeqNo: **2032731**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aldrin	13.002	1.0	16.67	0	78.0	53	107				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

Advanced Technology Laboratories
3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562. 989.4045 Fax: 562.989.4040

CLIENT: Geocon Consultants, Inc.
Work Order: 114335
Project: HHMC - EP, A8559-06-36

ANALYTICAL QC SUMMARY REPORT

TestCode: 8081_S

Sample ID: **LCS-67737** SampType: **LCS** TestCode: **8081_S** Units: **µg/Kg** Prep Date: **10/26/2010** RunNo: **126163**
Client ID: **LCSS** Batch ID: **67737** TestNo: **EPA 8081A** **EPA 3550B** Analysis Date: **10/26/2010** SeqNo: **2032731**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dieldrin	13.942	2.0	16.67	0	83.6	53	107				
Endrin	14.306	2.0	16.67	0	85.8	51	110				
gamma-BHC	13.889	1.0	16.67	0	83.3	52	107				
Heptachlor	14.375	1.0	16.67	0	86.2	50	108				
Surr: Tetrachloro-m-xylene	12.710		16.67		76.2	22	110				
Surr: Decachlorobiphenyl	13.303		16.67		79.8	21	132				

Sample ID: **MB-67737MS** SampType: **MS** TestCode: **8081_S** Units: **µg/Kg** Prep Date: **10/26/2010** RunNo: **126163**
Client ID: **ZZZZZZ** Batch ID: **67737** TestNo: **EPA 8081A** **EPA 3550B** Analysis Date: **10/26/2010** SeqNo: **2032732**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4´-DDT	17.757	2.0	16.67	0	107	33	130				
Aldrin	14.738	1.0	16.67	0	88.4	39	121				
Dieldrin	15.886	2.0	16.67	0	95.3	29	140				
Endrin	16.297	2.0	16.67	0	97.8	36	130				
gamma-BHC	15.700	1.0	16.67	0	94.2	38	122				
Heptachlor	16.339	1.0	16.67	0	98.0	36	123				
Surr: Tetrachloro-m-xylene	13.910		16.67		83.4	22	110				
Surr: Decachlorobiphenyl	15.325		16.67		91.9	21	132				

Sample ID: **MB-67737MSD** SampType: **MSD** TestCode: **8081_S** Units: **µg/Kg** Prep Date: **10/26/2010** RunNo: **126163**
Client ID: **ZZZZZZ** Batch ID: **67737** TestNo: **EPA 8081A** **EPA 3550B** Analysis Date: **10/26/2010** SeqNo: **2032733**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4´-DDT	15.810	2.0	16.67	0	94.8	33	130	17.76	11.6	20	
Aldrin	12.985	1.0	16.67	0	77.9	39	121	14.74	12.6	20	
Dieldrin	14.020	2.0	16.67	0	84.1	29	140	15.89	12.5	20	
Endrin	14.307	2.0	16.67	0	85.8	36	130	16.30	13.0	20	
gamma-BHC	13.773	1.0	16.67	0	82.6	38	122	15.70	13.1	20	
Heptachlor	14.314	1.0	16.67	0	85.9	36	123	16.34	13.2	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: Geocon Consultants, Inc.
Work Order: 114335
Project: HHMC - EP, A8559-06-36

ANALYTICAL QC SUMMARY REPORT

TestCode: 8081_S

Sample ID: **MB-67737MSD**	SampType: **MSD**	TestCode: **8081_S**	Units: **µg/Kg**	Prep Date: **10/26/2010**	RunNo: **126163**
Client ID: **ZZZZZZ**	Batch ID: **67737**	TestNo: **EPA 8081A**	**EPA 3550B**	Analysis Date: **10/26/2010**	SeqNo: **2032733**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Tetrachloro-m-xylene	12.235		16.67		73.4	22	110		0	0	
Surr: Decachlorobiphenyl	13.417		16.67		80.5	21	132		0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: Geocon Consultants, Inc.
Work Order: 114335
Project: HHMC - EP, A8559-06-36

ANALYTICAL QC SUMMARY REPORT

TestCode: 8141_S

Sample ID: **MB-67735** SampType: **MBLK** TestCode: **8141_S** Units: **µg/Kg** Prep Date: **10/26/2010** RunNo: **126246**
Client ID: **PBS** Batch ID: **67735** TestNo: **EPA 8141A** **EPA 3545** Analysis Date: **10/26/2010** SeqNo: **2034638**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Azinphosmethyl	ND	5.0									
Bolstar	ND	5.0									
Chlorpyrifos	ND	5.0									
Coumaphos	ND	5.0									
Demeton-O	ND	5.0									
Demeton-S	ND	5.0									
Diazinon	ND	5.0									
Dichlorvos	ND	5.0									
Disulfoton	ND	5.0									
Ethoprop	ND	5.0									
Fensulfothion	ND	5.0									
Fenthion	ND	5.0									
Malathion	ND	5.0									
Merphos oxone	ND	5.0									
Merphos, unoxidized	ND	5.0									
Mevinphos	ND	5.0									
Naled	ND	5.0									
Parathion, methyl	ND	5.0									
Phorate	ND	5.0									
Ronnel	ND	5.0									
Tetrachlorvinphos	ND	5.0									
Tokuthion	ND	5.0									
Trichloronate	ND	5.0									
Merphos	ND	5.0									
Surr: Tributyl Phosphate	25.967		33.33		77.9	50	150				
Surr: Triphenyl phosphate	24.633		33.33		73.9	50	150				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: Geocon Consultants, Inc.
Work Order: 114335
Project: HHMC - EP, A8559-06-36

ANALYTICAL QC SUMMARY REPORT

TestCode: 8141_S

Sample ID: **LCS-67735** SampType: **LCS** TestCode: **8141_S** Units: **µg/Kg** Prep Date: **10/26/2010** RunNo: **126246**
Client ID: **LCSS** Batch ID: **67735** TestNo: **EPA 8141A** **EPA 3545** Analysis Date: **10/26/2010** SeqNo: **2034639**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Azinphosmethyl	25.900	5.0	33.33	0	77.7	50	150				
Bolstar	34.633	5.0	33.33	0	104	50	150				
Chlorpyrifos	25.200	5.0	33.33	0	75.6	50	150				
Coumaphos	24.067	5.0	33.33	0	72.2	50	150				
Demeton-O	23.800	5.0	33.33	0	71.4	50	150				
Demeton-S	26.433	5.0	33.33	0	79.3	50	150				
Diazinon	28.267	5.0	33.33	0	84.8	50	150				
Dichlorvos	29.533	5.0	33.33	0	88.6	50	150				
Disulfoton	28.200	5.0	33.33	0	84.6	50	150				
Ethoprop	28.833	5.0	33.33	0	86.5	50	150				
Fensulfothion	23.200	5.0	33.33	0	69.6	50	150				
Fenthion	23.100	5.0	33.33	0	69.3	50	150				
Malathion	22.467	5.0	33.33	0	67.4	50	150				
Mevinphos	19.367	5.0	33.33	0	58.1	50	150				
Naled	17.900	5.0	33.33	0	53.7	0	150				
Parathion, methyl	25.700	5.0	33.33	0	77.1	50	150				
Phorate	26.833	5.0	33.33	0	80.5	50	150				
Ronnel	31.533	5.0	33.33	0	94.6	50	150				
Tetrachlorvinphos	28.300	5.0	33.33	0	84.9	50	150				
Tokuthion	25.900	5.0	33.33	0	77.7	50	150				
Trichloronate	25.067	5.0	33.33	0	75.2	50	150				
Merphos	63.067	5.0	66.66	0	94.6	50	150				
Surr: Tributyl Phosphate	27.733		33.33		83.2	50	150				
Surr: Triphenyl phosphate	29.067		33.33		87.2	50	150				

Sample ID: **114335-004AMSD** SampType: **MSD** TestCode: **8141_S** Units: **µg/Kg** Prep Date: **10/26/2010** RunNo: **126246**
Client ID: **B4.8'** Batch ID: **67735** TestNo: **EPA 8141A** **EPA 3545** Analysis Date: **10/27/2010** SeqNo: **2034640**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Azinphosmethyl	26.333	5.0	33.33	0	79.0	50	150	25.90	1.66	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

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CLIENT: Geocon Consultants, Inc.
Work Order: 114335
Project: HHMC - EP, A8559-06-36

ANALYTICAL QC SUMMARY REPORT

TestCode: 8141_S

Sample ID: **114335-004AMSD** SampType: **MSD** TestCode: **8141_S** Units: **µg/Kg** Prep Date: **10/26/2010** RunNo: **126246**
Client ID: **B4.8'** Batch ID: **67735** TestNo: **EPA 8141A** **EPA 3545** Analysis Date: **10/27/2010** SeqNo: **2034640**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bolstar	31.433	5.0	33.33	0	94.3	50	150	29.30	7.03	20	
Chlorpyrifos	27.500	5.0	33.33	0	82.5	50	150	27.07	1.59	20	
Coumaphos	23.167	5.0	33.33	0	69.5	50	150	22.80	1.60	20	
Demeton-O	19.667	5.0	33.33	0	59.0	50	150	20.00	1.68	20	
Demeton-S	22.800	5.0	33.33	0	68.4	50	150	22.63	0.734	20	
Diazinon	25.167	5.0	33.33	0	75.5	50	150	24.33	3.37	20	
Dichlorvos	21.500	5.0	33.33	0	64.5	50	150	23.20	7.61	20	
Disulfoton	23.133	5.0	33.33	0	69.4	50	150	23.20	0.288	20	
Ethoprop	25.967	5.0	33.33	0	77.9	50	150	22.17	15.8	20	
Fensulfothion	17.333	5.0	33.33	0	52.0	50	150	17.60	1.53	20	
Fenthion	28.633	5.0	33.33	0	85.9	50	150	28.07	2.00	20	
Malathion	23.567	5.0	33.33	0	70.7	50	150	23.47	0.425	20	
Mevinphos	17.700	5.0	33.33	0	53.1	50	150	16.97	4.23	20	
Naled	18.033	5.0	33.33	0	54.1	0	150	18.40	2.01	20	
Parathion, methyl	27.300	5.0	33.33	0	81.9	50	150	26.60	2.60	20	
Phorate	23.367	5.0	33.33	0	70.1	50	150	22.80	2.45	20	
Ronnel	28.600	5.0	33.33	0	85.8	50	150	27.57	3.68	20	
Tetrachlorvinphos	26.000	5.0	33.33	0	78.0	50	150	26.57	2.16	20	
Tokuthion	24.800	5.0	33.33	0	74.4	50	150	24.63	0.674	20	
Trichloronate	26.033	5.0	33.33	0	78.1	50	150	25.73	1.16	20	
Merphos	62.700	5.0	66.66	0	94.1	50	150	62.40	0.480	20	
Surr: Tributyl Phosphate	25.967		33.33		77.9	50	150		0	0	
Surr: Triphenyl phosphate	29.333		33.33		88.0	50	150		0	0	

Sample ID: **114335-004AMS** SampType: **MSD** TestCode: **8141_S** Units: **µg/Kg** Prep Date: **10/26/2010** RunNo: **126246**
Client ID: **B4.8'** Batch ID: **67735** TestNo: **EPA 8141A** **EPA 3545** Analysis Date: **10/27/2010** SeqNo: **2034645**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Azinphosmethyl	25.900	5.0	33.33	0	77.7	50	150				
Bolstar	29.300	5.0	33.33	0	87.9	50	150				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

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CLIENT: Geocon Consultants, Inc.
Work Order: 114335
Project: HHMC - EP, A8559-06-36

ANALYTICAL QC SUMMARY REPORT

TestCode: 8141_S

Sample ID: **114335-004AMS**	SampType: **MSD**	TestCode: **8141_S**	Units: **µg/Kg**	Prep Date: **10/26/2010**	RunNo: **126246**
Client ID: **B4.8'**	Batch ID: **67735**	TestNo: **EPA 8141A**	**EPA 3545**	Analysis Date: **10/27/2010**	SeqNo: **2034645**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorpyrifos	27.067	5.0	33.33	0	81.2	50	150				
Coumaphos	22.800	5.0	33.33	0	68.4	50	150				
Demeton-O	20.000	5.0	33.33	0	60.0	50	150				
Demeton-S	22.633	5.0	33.33	0	67.9	50	150				
Diazinon	24.333	5.0	33.33	0	73.0	50	150				
Dichlorvos	23.200	5.0	33.33	0	69.6	50	150				
Disulfoton	23.200	5.0	33.33	0	69.6	50	150				
Ethoprop	22.167	5.0	33.33	0	66.5	50	150				
Fensulfothion	17.600	5.0	33.33	0	52.8	50	150				
Fenthion	28.067	5.0	33.33	0	84.2	50	150				
Malathion	23.467	5.0	33.33	0	70.4	50	150				
Mevinphos	16.967	5.0	33.33	0	50.9	50	150				
Naled	18.400	5.0	33.33	0	55.2	0	150				
Parathion, methyl	26.600	5.0	33.33	0	79.8	50	150				
Phorate	22.800	5.0	33.33	0	68.4	50	150				
Ronnel	27.567	5.0	33.33	0	82.7	50	150				
Tetrachlorvinphos	26.567	5.0	33.33	0	79.7	50	150				
Tokuthion	24.633	5.0	33.33	0	73.9	50	150				
Trichloronate	25.733	5.0	33.33	0	77.2	50	150				
Merphos	62.400	5.0	66.66	0	93.6	50	150				
Surr: Tributyl Phosphate	22.833		33.33		68.5	50	150				
Surr: Triphenyl phosphate	29.067		33.33		87.2	50	150				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

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CLIENT: Geocon Consultants, Inc.
Work Order: 114335
Project: HHMC - EP, A8559-06-36

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: **K101025LCS1** SampType: **LCS** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: RunNo: **126100**
Client ID: **LCSS** Batch ID: **K10VS278** TestNo: **EPA 8260B** Analysis Date: **10/25/2010** SeqNo: **2031154**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	48.920	5.0	50.00	0	97.8	70	130				
Benzene	104.150	5.0	100.0	0	104	70	130				
Chlorobenzene	50.860	5.0	50.00	0	102	70	130				
MTBE	51.210	5.0	50.00	0	102	70	130				
Toluene	104.660	5.0	100.0	0	105	70	130				
Trichloroethene	54.320	5.0	50.00	0	109	70	130				
Surr: 1,2-Dichloroethane-d4	43.530		50.00		87.1	70	150				
Surr: 4-Bromofluorobenzene	43.290		50.00		86.6	64	126				
Surr: Dibromofluoromethane	43.010		50.00		86.0	69	138				
Surr: Toluene-d8	44.080		50.00		88.2	70	128				

Sample ID: **K101025MB2MS** SampType: **MS** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: RunNo: **126100**
Client ID: **ZZZZZZ** Batch ID: **K10VS278** TestNo: **EPA 8260B** Analysis Date: **10/25/2010** SeqNo: **2031155**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	48.760	5.0	50.00	0	97.5	70	130				
Benzene	104.430	5.0	100.0	0	104	70	130				
Chlorobenzene	51.730	5.0	50.00	0	103	70	130				
Toluene	105.060	5.0	100.0	0	105	70	130				
Trichloroethene	55.330	5.0	50.00	0	111	70	130				
Surr: 1,2-Dichloroethane-d4	40.420		50.00		80.8	70	150				
Surr: 4-Bromofluorobenzene	43.340		50.00		86.7	64	126				
Surr: Dibromofluoromethane	42.320		50.00		84.6	69	138				
Surr: Toluene-d8	43.930		50.00		87.9	70	128				

Sample ID: **K101025MB2MSD** SampType: **MSD** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: RunNo: **126100**
Client ID: **ZZZZZZ** Batch ID: **K10VS278** TestNo: **EPA 8260B** Analysis Date: **10/25/2010** SeqNo: **2031156**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	49.010	5.0	50.00	0	98.0	70	130	48.76	0.511	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

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CLIENT: Geocon Consultants, Inc.
Work Order: 114335
Project: HHMC - EP, A8559-06-36

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: **K101025MB2MSD** SampType: **MSD** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: RunNo: **126100**
Client ID: **ZZZZZZ** Batch ID: **K10VS278** TestNo: **EPA 8260B** Analysis Date: **10/25/2010** SeqNo: **2031156**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	103.020	5.0	100.0	0	103	70	130	104.4	1.36	20	
Chlorobenzene	51.520	5.0	50.00	0	103	70	130	51.73	0.407	20	
Toluene	103.460	5.0	100.0	0	103	70	130	105.1	1.53	20	
Trichloroethene	53.860	5.0	50.00	0	108	70	130	55.33	2.69	20	
Surr: 1,2-Dichloroethane-d4	42.670		50.00		85.3	70	150		0	0	
Surr: 4-Bromofluorobenzene	43.460		50.00		86.9	64	126		0	0	
Surr: Dibromofluoromethane	43.790		50.00		87.6	69	138		0	0	
Surr: Toluene-d8	43.750		50.00		87.5	70	128		0	0	

Sample ID: **K101025MB2** SampType: **MBLK** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: RunNo: **126100**
Client ID: **PBS** Batch ID: **K10VS278** TestNo: **EPA 8260B** Analysis Date: **10/25/2010** SeqNo: **2031157**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0									
1,1,1-Trichloroethane	ND	5.0									
1,1,2,2-Tetrachloroethane	ND	5.0									
1,1,2-Trichloroethane	ND	5.0									
1,1-Dichloroethane	ND	5.0									
1,1-Dichloroethene	ND	5.0									
1,1-Dichloropropene	ND	5.0									
1,2,3-Trichlorobenzene	ND	5.0									
1,2,3-Trichloropropane	ND	5.0									
1,2,4-Trichlorobenzene	ND	5.0									
1,2,4-Trimethylbenzene	ND	5.0									
1,2-Dibromo-3-chloropropane	ND	10									
1,2-Dibromoethane	ND	5.0									
1,2-Dichlorobenzene	ND	5.0									
1,2-Dichloroethane	ND	5.0									
1,2-Dichloropropane	ND	5.0									
1,3,5-Trimethylbenzene	ND	5.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: Geocon Consultants, Inc.
Work Order: 114335
Project: HHMC - EP, A8559-06-36

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: **K101025MB2** SampType: **MBLK** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: RunNo: **126100**
Client ID: **PBS** Batch ID: **K10VS278** TestNo: **EPA 8260B** Analysis Date: **10/25/2010** SeqNo: **2031157**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	ND	5.0									
1,3-Dichloropropane	ND	5.0									
1,4-Dichlorobenzene	ND	5.0									
2,2-Dichloropropane	ND	5.0									
2-Chlorotoluene	ND	5.0									
4-Chlorotoluene	ND	5.0									
4-Isopropyltoluene	ND	5.0									
Benzene	ND	5.0									
Bromobenzene	ND	5.0									
Bromodichloromethane	ND	5.0									
Bromoform	ND	5.0									
Bromomethane	ND	5.0									
Carbon tetrachloride	ND	5.0									
Chlorobenzene	ND	5.0									
Chloroethane	ND	5.0									
Chloroform	ND	5.0									
Chloromethane	ND	5.0									
cis-1,2-Dichloroethene	ND	5.0									
cis-1,3-Dichloropropene	ND	5.0									
Dibromochloromethane	ND	5.0									
Dibromomethane	ND	5.0									
Dichlorodifluoromethane	ND	5.0									
Ethylbenzene	ND	5.0									
Hexachlorobutadiene	ND	5.0									
Isopropylbenzene	ND	5.0									
m,p-Xylene	ND	10									
Methylene chloride	ND	5.0									
n-Butylbenzene	ND	5.0									
n-Propylbenzene	ND	5.0									
Naphthalene	ND	5.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

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CLIENT: Geocon Consultants, Inc.
Work Order: 114335
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ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: **K101025MB2** SampType: **MBLK** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: RunNo: **126100**
Client ID: **PBS** Batch ID: **K10VS278** TestNo: **EPA 8260B** Analysis Date: **10/25/2010** SeqNo: **2031157**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
o-Xylene	ND	5.0									
sec-Butylbenzene	ND	5.0									
Styrene	ND	5.0									
tert-Butylbenzene	ND	5.0									
Tetrachloroethene	ND	5.0									
Toluene	ND	5.0									
trans-1,2-Dichloroethene	ND	5.0									
Trichloroethene	ND	5.0									
Trichlorofluoromethane	ND	5.0									
Vinyl chloride	ND	5.0									
Surr: 1,2-Dichloroethane-d4	40.110		50.00		80.2	70	150				
Surr: 4-Bromofluorobenzene	43.260		50.00		86.5	64	126				
Surr: Dibromofluoromethane	42.940		50.00		85.9	69	138				
Surr: Toluene-d8	44.800		50.00		89.6	70	128				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: Geocon Consultants, Inc.
Work Order: 114335
Project: HHMC - EP, A8559-06-36

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: **T101022LCS1** SampType: **LCS** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: RunNo: **126067**
Client ID: **LCSS** Batch ID: **T10VS201** TestNo: **EPA 8260B** Analysis Date: **10/22/2010** SeqNo: **2030694**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	49.550	5.0	50.00	0	99.1	70	130				
Benzene	105.290	5.0	100.0	0	105	70	130				
Chlorobenzene	47.580	5.0	50.00	0	95.2	70	130				
MTBE	50.340	5.0	50.00	0	101	70	130				
Toluene	106.950	5.0	100.0	0	107	70	130				
Trichloroethene	49.840	5.0	50.00	0	99.7	70	130				
Surr: 1,2-Dichloroethane-d4	44.590		50.00		89.2	70	150				
Surr: 4-Bromofluorobenzene	48.860		50.00		97.7	64	126				
Surr: Dibromofluoromethane	48.130		50.00		96.3	69	138				
Surr: Toluene-d8	51.800		50.00		104	70	128				

Sample ID: **T101022MB3MS** SampType: **MS** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: RunNo: **126067**
Client ID: **ZZZZZZ** Batch ID: **T10VS201** TestNo: **EPA 8260B** Analysis Date: **10/22/2010** SeqNo: **2030695**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	56.280	5.0	50.00	0	113	70	130				
Benzene	118.800	5.0	100.0	0	119	70	130				
Chlorobenzene	52.210	5.0	50.00	0	104	70	130				
Toluene	115.550	5.0	100.0	0	116	70	130				
Trichloroethene	57.200	5.0	50.00	0	114	70	130				
Surr: 1,2-Dichloroethane-d4	44.240		50.00		88.5	70	150				
Surr: 4-Bromofluorobenzene	51.140		50.00		102	64	126				
Surr: Dibromofluoromethane	49.440		50.00		98.9	69	138				
Surr: Toluene-d8	51.220		50.00		102	70	128				

Sample ID: **T101022MB3MSD** SampType: **MSD** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: RunNo: **126067**
Client ID: **ZZZZZZ** Batch ID: **T10VS201** TestNo: **EPA 8260B** Analysis Date: **10/22/2010** SeqNo: **2030696**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	56.100	5.0	50.00	0	112	70	130	56.28	0.320	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

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CLIENT: Geocon Consultants, Inc.
Work Order: 114335
Project: HHMC - EP, A8559-06-36

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: **T101022MB3MSD** SampType: **MSD** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: RunNo: **126067**
Client ID: **ZZZZZZ** Batch ID: **T10VS201** TestNo: **EPA 8260B** Analysis Date: **10/22/2010** SeqNo: **2030696**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	114.940	5.0	100.0	0	115	70	130	118.8	3.30	20	
Chlorobenzene	51.180	5.0	50.00	0	102	70	130	52.21	1.99	20	
Toluene	115.340	5.0	100.0	0	115	70	130	115.6	0.182	20	
Trichloroethene	55.100	5.0	50.00	0	110	70	130	57.20	3.74	20	
Surr: 1,2-Dichloroethane-d4	41.850		50.00		83.7	70	150		0	0	
Surr: 4-Bromofluorobenzene	49.370		50.00		98.7	64	126		0	0	
Surr: Dibromofluoromethane	46.700		50.00		93.4	69	138		0	0	
Surr: Toluene-d8	49.750		50.00		99.5	70	128		0	0	

Sample ID: **T101022MB3** SampType: **MBLK** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: RunNo: **126067**
Client ID: **PBS** Batch ID: **T10VS201** TestNo: **EPA 8260B** Analysis Date: **10/22/2010** SeqNo: **2030697**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0									
1,1,1-Trichloroethane	ND	5.0									
1,1,2,2-Tetrachloroethane	ND	5.0									
1,1,2-Trichloroethane	ND	5.0									
1,1-Dichloroethane	ND	5.0									
1,1-Dichloroethene	ND	5.0									
1,1-Dichloropropene	ND	5.0									
1,2,3-Trichlorobenzene	ND	5.0									
1,2,3-Trichloropropane	ND	5.0									
1,2,4-Trichlorobenzene	ND	5.0									
1,2,4-Trimethylbenzene	ND	5.0									
1,2-Dibromo-3-chloropropane	ND	10									
1,2-Dibromoethane	ND	5.0									
1,2-Dichlorobenzene	ND	5.0									
1,2-Dichloroethane	ND	5.0									
1,2-Dichloropropane	ND	5.0									
1,3,5-Trimethylbenzene	ND	5.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: Geocon Consultants, Inc.
Work Order: 114335
Project: HHMC - EP, A8559-06-36

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: **T101022MB3** SampType: **MBLK** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: RunNo: **126067**
Client ID: **PBS** Batch ID: **T10VS201** TestNo: **EPA 8260B** Analysis Date: **10/22/2010** SeqNo: **2030697**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	ND	5.0									
1,3-Dichloropropane	ND	5.0									
1,4-Dichlorobenzene	ND	5.0									
2,2-Dichloropropane	ND	5.0									
2-Chlorotoluene	ND	5.0									
4-Chlorotoluene	ND	5.0									
4-Isopropyltoluene	ND	5.0									
Benzene	ND	5.0									
Bromobenzene	ND	5.0									
Bromodichloromethane	ND	5.0									
Bromoform	ND	5.0									
Bromomethane	ND	5.0									
Carbon tetrachloride	ND	5.0									
Chlorobenzene	ND	5.0									
Chloroethane	ND	5.0									
Chloroform	ND	5.0									
Chloromethane	ND	5.0									
cis-1,2-Dichloroethene	ND	5.0									
cis-1,3-Dichloropropene	ND	5.0									
Dibromochloromethane	ND	5.0									
Dibromomethane	ND	5.0									
Dichlorodifluoromethane	ND	5.0									
Ethylbenzene	ND	5.0									
Hexachlorobutadiene	ND	5.0									
Isopropylbenzene	ND	5.0									
m,p-Xylene	ND	10									
Methylene chloride	ND	5.0									
n-Butylbenzene	ND	5.0									
n-Propylbenzene	ND	5.0									
Naphthalene	ND	5.0									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
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CLIENT: Geocon Consultants, Inc.
Work Order: 114335
Project: HHMC - EP, A8559-06-36

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: **T101022MB3** SampType: **MBLK** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: RunNo: **126067**
Client ID: **PBS** Batch ID: **T10VS201** TestNo: **EPA 8260B** Analysis Date: **10/22/2010** SeqNo: **2030697**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
o-Xylene	ND	5.0									
sec-Butylbenzene	ND	5.0									
Styrene	ND	5.0									
tert-Butylbenzene	ND	5.0									
Tetrachloroethene	ND	5.0									
Toluene	ND	5.0									
trans-1,2-Dichloroethene	ND	5.0									
Trichloroethene	ND	5.0									
Trichlorofluoromethane	ND	5.0									
Vinyl chloride	ND	5.0									
Surr: 1,2-Dichloroethane-d4	46.970		50.00		93.9	70	150				
Surr: 4-Bromofluorobenzene	50.290		50.00		101	64	126				
Surr: Dibromofluoromethane	51.740		50.00		103	69	138				
Surr: Toluene-d8	53.990		50.00		108	70	128				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
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CLIENT: Geocon Consultants, Inc.
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ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_FULL

Sample ID: **MB-67635** SampType: **MBLK** TestCode: **8270_S_FUL** Units: **µg/Kg** Prep Date: **10/22/2010** RunNo: **126108**
Client ID: **PBS** Batch ID: **67635** TestNo: **EPA 8270C** **EPA 3550B** Analysis Date: **10/24/2010** SeqNo: **2031353**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	ND	330									
1,2-Dichlorobenzene	ND	330									
1,3-Dichlorobenzene	ND	330									
1,4-Dichlorobenzene	ND	330									
2,4,5-Trichlorophenol	ND	330									
2,4,6-Trichlorophenol	ND	330									
2,4-Dichlorophenol	ND	1600									
2,4-Dimethylphenol	ND	330									
2,4-Dinitrophenol	ND	1600									
2,4-Dinitrotoluene	ND	330									
2,6-Dinitrotoluene	ND	330									
2-Chloronaphthalene	ND	330									
2-Chlorophenol	ND	330									
2-Methylnaphthalene	ND	330									
2-Methylphenol	ND	330									
2-Nitroaniline	ND	1600									
2-Nitrophenol	ND	330									
3,3´-Dichlorobenzidine	ND	660									
3-Nitroaniline	ND	1600									
4,6-Dinitro-2-methylphenol	ND	1600									
4-Bromophenyl-phenylether	ND	330									
4-Chloro-3-methylphenol	ND	660									
4-Chloroaniline	ND	660									
4-Chlorophenyl-phenylether	ND	330									
4-Methylphenol	ND	330									
4-Nitroaniline	ND	1600									
4-Nitrophenol	ND	1600									
Acenaphthene	ND	330									
Acenaphthylene	ND	330									
Anthracene	ND	330									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
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DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: Geocon Consultants, Inc.
Work Order: 114335
Project: HHMC - EP, A8559-06-36

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_FULL

Sample ID: **MB-67635** SampType: **MBLK** TestCode: **8270_S_FUL** Units: **µg/Kg** Prep Date: **10/22/2010** RunNo: **126108**
Client ID: **PBS** Batch ID: **67635** TestNo: **EPA 8270C** **EPA 3550B** Analysis Date: **10/24/2010** SeqNo: **2031353**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzidine (M)	ND	1600									
Benzo(a)anthracene	ND	330									
Benzo(a)pyrene	ND	330									
Benzo(b)fluoranthene	ND	330									
Benzo(g,h,i)perylene	ND	330									
Benzo(k)fluoranthene	ND	330									
Benzoic acid	ND	1600									
Benzyl alcohol	ND	660									
Bis(2-chloroethoxy)methane	ND	330									
Bis(2-chloroethyl)ether	ND	330									
Bis(2-chloroisopropyl)ether	ND	330									
Bis(2-ethylhexyl)phthalate	ND	330									
Butylbenzylphthalate	ND	330									
Chrysene	ND	330									
Di-n-butylphthalate	ND	330									
Di-n-octylphthalate	ND	330									
Dibenz(a,h)anthracene	ND	330									
Dibenzofuran	ND	330									
Diethylphthalate	ND	330									
Dimethylphthalate	ND	330									
Fluoranthene	ND	330									
Fluorene	ND	330									
Hexachlorobenzene	ND	330									
Hexachlorobutadiene	ND	660									
Hexachlorocyclopentadiene	ND	660									
Hexachloroethane	ND	330									
Indeno(1,2,3-cd)pyrene	ND	330									
Isophorone	ND	330									
N-Nitrosodi-n-propylamine	ND	330									
N-Nitrosodiphenylamine	ND	330									

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: Geocon Consultants, Inc.
Work Order: 114335
Project: HHMC - EP, A8559-06-36

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_FULL

Sample ID: **MB-67635** SampType: **MBLK** TestCode: **8270_S_FUL** Units: **µg/Kg** Prep Date: **10/22/2010** RunNo: **126108**
Client ID: **PBS** Batch ID: **67635** TestNo: **EPA 8270C** **EPA 3550B** Analysis Date: **10/24/2010** SeqNo: **2031353**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	330									
Nitrobenzene	ND	330									
Pentachlorophenol	ND	1600									
Phenanthrene	ND	330									
Phenol	ND	330									
Pyrene	ND	330									
Surr: 1,2-Dichlorobenzene-d4	2343.333		3330		70.4	45	105				
Surr: 2,4,6-Tribromophenol	2822.333		3330		84.8	41	129				
Surr: 2-Chlorophenol-d4	2444.333		3330		73.4	55	108				
Surr: 2-Fluorobiphenyl	2437.000		3330		73.2	56	114				
Surr: 2-Fluorophenol	2372.000		3330		71.2	50	108				
Surr: 4-Terphenyl-d14	2784.667		3330		83.6	59	141				
Surr: Nitrobenzene-d5	2320.000		3330		69.7	45	114				
Surr: Phenol-d5	2460.667		3330		73.9	46	118				

Sample ID: **LCS-67635** SampType: **LCS** TestCode: **8270_S_FUL** Units: **µg/Kg** Prep Date: **10/22/2010** RunNo: **126108**
Client ID: **LCSS** Batch ID: **67635** TestNo: **EPA 8270C** **EPA 3550B** Analysis Date: **10/24/2010** SeqNo: **2031354**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	2565.667	330	3330	0	77.0	67	107				
1,4-Dichlorobenzene	2392.333	330	3330	0	71.8	64	99				
2,4-Dinitrotoluene	3291.000	330	3330	0	98.8	81	122				
2-Chlorophenol	2474.667	330	3330	0	74.3	62	112				
4-Chloro-3-methylphenol	3059.667	660	3330	0	91.9	64	138				
4-Nitrophenol	3118.667	1600	3330	0	93.7	60	142				
Acenaphthene	2767.000	330	3330	0	83.1	70	116				
N-Nitrosodi-n-propylamine	2716.333	330	3330	0	81.6	73	115				
Pentachlorophenol	3195.333	1600	3330	0	96.0	59	135				
Phenol	2501.333	330	3330	0	75.1	61	120				
Pyrene	2811.333	330	3330	0	84.4	75	117				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

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3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562. 989.4045 Fax: 562.989.4040

CLIENT: Geocon Consultants, Inc.
Work Order: 114335
Project: HHMC - EP, A8559-06-36

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_FULL

Sample ID: **LCS-67635** SampType: **LCS** TestCode: **8270_S_FUL** Units: **µg/Kg** Prep Date: **10/22/2010** RunNo: **126108**
Client ID: **LCSS** Batch ID: **67635** TestNo: **EPA 8270C** **EPA 3550B** Analysis Date: **10/24/2010** SeqNo: **2031354**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1,2-Dichlorobenzene-d4	2340.000		3330		70.3	45	105				
Surr: 2,4,6-Tribromophenol	3165.333		3330		95.1	41	129				
Surr: 2-Chlorophenol-d4	2476.333		3330		74.4	55	108				
Surr: 2-Fluorobiphenyl	2707.667		3330		81.3	56	114				
Surr: 2-Fluorophenol	2374.000		3330		71.3	50	108				
Surr: 4-Terphenyl-d14	3135.667		3330		94.2	59	141				
Surr: Nitrobenzene-d5	2645.000		3330		79.4	45	114				
Surr: Phenol-d5	2475.333		3330		74.3	46	118				

Sample ID: **114309-008GMS** SampType: **MS** TestCode: **8270_S_FUL** Units: **µg/Kg** Prep Date: **10/22/2010** RunNo: **126108**
Client ID: **ZZZZZZ** Batch ID: **67635** TestNo: **EPA 8270C** **EPA 3550B** Analysis Date: **10/24/2010** SeqNo: **2031414**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	2470.000	330	3330	0	74.2	62	109				
1,4-Dichlorobenzene	2319.333	330	3330	0	69.6	57	99				
2,4-Dinitrotoluene	3316.667	330	3330	0	99.6	76	126				
2-Chlorophenol	2382.667	330	3330	0	71.6	52	120				
4-Chloro-3-methylphenol	2961.000	660	3330	0	88.9	63	137				
4-Nitrophenol	3243.000	1600	3330	0	97.4	52	144				
Acenaphthene	2723.000	330	3330	0	81.8	61	121				
N-Nitrosodi-n-propylamine	2663.667	330	3330	0	80.0	67	116				
Pentachlorophenol	3231.000	1600	3330	0	97.0	47	143				
Phenol	2395.333	330	3330	0	71.9	54	126				
Pyrene	2901.333	330	3330	0	87.1	68	121				
Surr: 1,2-Dichlorobenzene-d4	2250.333		3330		67.6	45	105				
Surr: 2,4,6-Tribromophenol	3211.667		3330		96.4	41	129				
Surr: 2-Chlorophenol-d4	2324.333		3330		69.8	55	108				
Surr: 2-Fluorobiphenyl	2581.000		3330		77.5	56	114				
Surr: 2-Fluorophenol	2241.333		3330		67.3	50	108				
Surr: 4-Terphenyl-d14	3047.000		3330		91.5	59	141				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: Geocon Consultants, Inc.
Work Order: 114335
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ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_FULL

Sample ID: **114309-008GMS** SampType: **MS** TestCode: **8270_S_FUL** Units: **µg/Kg** Prep Date: **10/22/2010** RunNo: **126108**
Client ID: **ZZZZZZ** Batch ID: **67635** TestNo: **EPA 8270C** **EPA 3550B** Analysis Date: **10/24/2010** SeqNo: **2031414**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Nitrobenzene-d5	2464.333		3330		74.0	45	114				
Surr: Phenol-d5	2333.000		3330		70.1	46	118				

Sample ID: **114309-008GMSD** SampType: **MSD** TestCode: **8270_S_FUL** Units: **µg/Kg** Prep Date: **10/22/2010** RunNo: **126108**
Client ID: **ZZZZZZ** Batch ID: **67635** TestNo: **EPA 8270C** **EPA 3550B** Analysis Date: **10/24/2010** SeqNo: **2031415**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	2510.333	330	3330	0	75.4	62	109	2470	1.62	20	
1,4-Dichlorobenzene	2360.000	330	3330	0	70.9	57	99	2319	1.74	20	
2,4-Dinitrotoluene	3325.333	330	3330	0	99.9	76	126	3317	0.261	20	
2-Chlorophenol	2464.667	330	3330	0	74.0	52	120	2383	3.38	20	
4-Chloro-3-methylphenol	3004.333	660	3330	0	90.2	63	137	2961	1.45	20	
4-Nitrophenol	3222.667	1600	3330	0	96.8	52	144	3243	0.629	20	
Acenaphthene	2717.000	330	3330	0	81.6	61	121	2723	0.221	20	
N-Nitrosodi-n-propylamine	2699.333	330	3330	0	81.1	67	116	2664	1.33	20	
Pentachlorophenol	3245.333	1600	3330	0	97.5	47	143	3231	0.443	20	
Phenol	2455.000	330	3330	0	73.7	54	126	2395	2.46	20	
Pyrene	2814.000	330	3330	0	84.5	68	121	2901	3.06	20	
Surr: 1,2-Dichlorobenzene-d4	2316.000		3330		69.5	45	105		0	0	
Surr: 2,4,6-Tribromophenol	3176.333		3330		95.4	41	129		0	0	
Surr: 2-Chlorophenol-d4	2418.000		3330		72.6	55	108		0	0	
Surr: 2-Fluorobiphenyl	2623.333		3330		78.8	56	114		0	0	
Surr: 2-Fluorophenol	2293.667		3330		68.9	50	108		0	0	
Surr: 4-Terphenyl-d14	2997.000		3330		90.0	59	141		0	0	
Surr: Nitrobenzene-d5	2563.333		3330		77.0	45	114		0	0	
Surr: Phenol-d5	2395.333		3330		71.9	46	118		0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

Advanced Technology Laboratories
3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562. 989.4045 Fax: 562.989.4040

CLIENT: Geocon Consultants, Inc.
Work Order: 114335
Project: HHMC - EP, A8559-06-36

ANALYTICAL QC SUMMARY REPORT

BatchID: 67616

Sample ID: **MB-67616** SampType: **MBLK** TestCode: **8015_S_DM** Units: **mg/Kg** Prep Date: **10/22/2010** RunNo: **126103**
Client ID: **PBS** Batch ID: **67616** TestNo: **EPA 8015B(M LUFT** Analysis Date: **10/22/2010** SeqNo: **2031187**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
DRO	ND	10									
ORO	ND	10									
Surr: p-Terphenyl	95.190		80.00		119	63	152				

Sample ID: **LCS-67616** SampType: **LCS** TestCode: **8015_S_DM** Units: **mg/Kg** Prep Date: **10/22/2010** RunNo: **126103**
Client ID: **LCSS** Batch ID: **67616** TestNo: **EPA 8015B(M LUFT** Analysis Date: **10/22/2010** SeqNo: **2031188**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
DRO	1236.350	10	1000	0	124	76	139				
Surr: p-Terphenyl	110.650		80.00		138	63	152				

Sample ID: **114282-010AMS** SampType: **MS** TestCode: **8015_S_DM** Units: **mg/Kg** Prep Date: **10/22/2010** RunNo: **126103**
Client ID: **ZZZZZZ** Batch ID: **67616** TestNo: **EPA 8015B(M LUFT** Analysis Date: **10/23/2010** SeqNo: **2031205**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
DRO	1245.140	10	1000	0	125	60	158				
Surr: p-Terphenyl	106.480		80.00		133	63	152				

Sample ID: **114282-010AMSD** SampType: **MSD** TestCode: **8015_S_DM** Units: **mg/Kg** Prep Date: **10/22/2010** RunNo: **126103**
Client ID: **ZZZZZZ** Batch ID: **67616** TestNo: **EPA 8015B(M LUFT** Analysis Date: **10/23/2010** SeqNo: **2031206**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
DRO	1203.940	10	1000	0	120	60	158	1245	3.36	20	
Surr: p-Terphenyl	101.990		80.00		127	63	152		0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

CLIENT: Geocon Consultants, Inc.
Work Order: 114335
Project: HHMC - EP, A8559-06-36

ANALYTICAL QC SUMMARY REPORT

BatchID: 67616

Sample ID: **MB-67616**	SampType: **MBLK**	TestCode: **HC_S_ATL**	Units: **mg/Kg**	Prep Date: **10/22/2010**	RunNo: **126103**
Client ID: **PBS**	Batch ID: **67616**	TestNo: **EPA 8015B(M LUFT**		Analysis Date: **10/22/2010**	SeqNo: **2031243**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C8-C10	ND	10									
T/R Hydrocarbons: C10-C18	ND	10									
T/R Hydrocarbons: C18-C28	ND	10									
T/R Hydrocarbons: C28-C36	ND	10									
T/R Hydrocarbons: C36-C40	ND	10									
T/R Hydrocarbons: C8-C40 Total	ND	10									
Surr: p-Terphenyl	95.190		80.00		119	63	152				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

Advanced Technology Laboratories
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CLIENT: Geocon Consultants, Inc.
Work Order: 114335
Project: HHMC - EP, A8559-06-36

ANALYTICAL QC SUMMARY REPORT

BatchID: E10VS328

Sample ID: **E101021LCS1** SampType: **LCS** TestCode: **HC_S_VOA50** Units: **mg/Kg** Prep Date: RunNo: **126027**
Client ID: **LCSS** Batch ID: **E10VS328** TestNo: **EPA 8015B(M** Analysis Date: **10/21/2010** SeqNo: **2030182**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C6-C12	4.427	1.0	5.000	0	88.5	70	130				
Surr: Bromofluorobenzene (FID)	104.091		100.0		104	53	158				

Sample ID: **114301-037AMS** SampType: **MS** TestCode: **HC_S_VOA50** Units: **mg/Kg** Prep Date: RunNo: **126027**
Client ID: **ZZZZZZ** Batch ID: **E10VS328** TestNo: **EPA 8015B(M** Analysis Date: **10/21/2010** SeqNo: **2030183**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C6-C12	4.576	1.0	5.000	0	91.5	44	131				
Surr: Bromofluorobenzene (FID)	104.889		100.0		105	53	158				

Sample ID: **114301-037AMSD** SampType: **MSD** TestCode: **HC_S_VOA50** Units: **mg/Kg** Prep Date: RunNo: **126027**
Client ID: **ZZZZZZ** Batch ID: **E10VS328** TestNo: **EPA 8015B(M** Analysis Date: **10/21/2010** SeqNo: **2030184**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C6-C12	4.502	1.0	5.000	0	90.0	44	131	4.576	1.63	20	
Surr: Bromofluorobenzene (FID)	110.376		100.0		110	53	158		0	0	

Sample ID: **E101021MB1** SampType: **MBLK** TestCode: **HC_S_VOA50** Units: **mg/Kg** Prep Date: RunNo: **126027**
Client ID: **PBS** Batch ID: **E10VS328** TestNo: **EPA 8015B(M** Analysis Date: **10/21/2010** SeqNo: **2030185**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C6-C12	ND	1.0									
Surr: Bromofluorobenzene (FID)	105.455		100.0		105	53	158				

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike/Surrogate outside of limits due to matrix interference
DO	Surrogate Diluted Out		Calculations are based on raw values		

Advanced Technology Laboratories
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SIERRA ANALYTICAL

Advanced Technology Labs 3275 Walnut Avenue Signal Hill CA, 90755	Project: NA Project Number: PO#SC05968 Project Manager: Diane Galvan	**Reported:** 11/01/10 13:20

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
114335-001H / B1.8'	1010385-01	Soil	10/19/10 12:10	10/21/10 13:00
114335-002H / B2.8'	1010385-02	Soil	10/19/10 11:02	10/21/10 13:00
114335-003H / B3.8'	1010385-03	Soil	10/19/10 10:18	10/21/10 13:00
114335-004H / B4.8'	1010385-04	Soil	10/19/10 08:31	10/21/10 13:00

CASE NARRATIVE

SAMPLE RECEIPT:	Samples were received intact, at 4 °C, and accompanied by chain of custody documentation.
PRESERVATION:	Samples requiring preservation were verified prior to sample preparation and analysis.
HOLDING TIMES:	All holding times were met, unless otherwise noted in the report with data qualifiers.
QA/QC CRITERIA:	All quality objective criteria were met, except as noted in the report with data qualifiers.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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TELEPHONE: (949) 348-9389 FAX: (949) 348-9115
E-MAIL: SIERRALABS @ SIERRALABS.NET

SIERRA ANALYTICAL

Advanced Technology Labs	Project: NA	
3275 Walnut Avenue	Project Number: PO#SC05968	**Reported:**
Signal Hill CA, 90755	Project Manager: Diane Galvan	11/01/10 13:20

Chlorinated Herbicides by EPA Method 8151A

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
114335-001H / B1.8' (1010385-01) Soil Sampled: 10/19/10 12:10 Received: 10/21/10 13:00									
2,4,5-T	ND	1.6	µg/kg	1	B0J2809	10/28/10	10/29/10 09:50	EPA 8151A	
2,4,5-TP (Silvex)	ND	1.6	"	"	"	"	"	"	
2,4-D	ND	1.6	"	"	"	"	"	"	
2,4-DB	ND	4.0	"	"	"	"	"	"	
3,5-Dichlorobenzoic acid	ND	2.0	"	"	"	"	"	"	
4-Nitrophenol	ND	2.0	"	"	"	"	"	"	
Acifluorfen	ND	1.6	"	"	"	"	"	"	
Bentazon	ND	1.6	"	"	"	"	"	"	
Chloramben	ND	1.6	"	"	"	"	"	"	
Dalapon	ND	20	"	"	"	"	"	"	
DCPA diacid	ND	1.6	"	"	"	"	"	"	
Dicamba	ND	1.6	"	"	"	"	"	"	
Dichlorprop	ND	1.6	"	"	"	"	"	"	
Dinoseb	ND	1.6	"	"	"	"	"	"	
Pentachlorophenol	ND	1.6	"	"	"	"	"	"	
Picloram	ND	1.6	"	"	"	"	"	"	
Surrogate: 2,4-Dichlorophenylacetic Acid		*123 %*	*35-150*		"	"	"	"	
114335-002H / B2.8' (1010385-02) Soil Sampled: 10/19/10 11:02 Received: 10/21/10 13:00									
2,4,5-T	ND	1.6	µg/kg	1	B0J2809	10/28/10	10/29/10 09:50	EPA 8151A	
2,4,5-TP (Silvex)	ND	1.6	"	"	"	"	"	"	
2,4-D	ND	1.6	"	"	"	"	"	"	
2,4-DB	ND	4.0	"	"	"	"	"	"	
3,5-Dichlorobenzoic acid	ND	2.0	"	"	"	"	"	"	
4-Nitrophenol	ND	2.0	"	"	"	"	"	"	
Acifluorfen	ND	1.6	"	"	"	"	"	"	
Bentazon	ND	1.6	"	"	"	"	"	"	
Chloramben	ND	1.6	"	"	"	"	"	"	
Dalapon	ND	20	"	"	"	"	"	"	
DCPA diacid	ND	1.6	"	"	"	"	"	"	
Dicamba	ND	1.6	"	"	"	"	"	"	
Dichlorprop	ND	1.6	"	"	"	"	"	"	
Dinoseb	ND	1.6	"	"	"	"	"	"	
Pentachlorophenol	ND	1.6	"	"	"	"	"	"	
Picloram	ND	1.6	"	"	"	"	"	"	
Surrogate: 2,4-Dichlorophenylacetic Acid		*107 %*	*35-150*		"	"	"	"	

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SIERRA ANALYTICAL

Advanced Technology Labs	Project: NA	
3275 Walnut Avenue	Project Number: PO#SC05968	**Reported:**
Signal Hill CA, 90755	Project Manager: Diane Galvan	11/01/10 13:20

Chlorinated Herbicides by EPA Method 8151A

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
114335-003H / B3.8' (1010385-03) Soil Sampled: 10/19/10 10:18 Received: 10/21/10 13:00									
2,4,5-T	ND	1.6	µg/kg	1	B0J2809	10/28/10	10/29/10 09:50	EPA 8151A	
2,4,5-TP (Silvex)	ND	1.6	"	"	"	"	"	"	
2,4-D	ND	1.6	"	"	"	"	"	"	
2,4-DB	ND	4.0	"	"	"	"	"	"	
3,5-Dichlorobenzoic acid	ND	2.0	"	"	"	"	"	"	
4-Nitrophenol	ND	2.0	"	"	"	"	"	"	
Acifluorfen	ND	1.6	"	"	"	"	"	"	
Bentazon	ND	1.6	"	"	"	"	"	"	
Chloramben	ND	1.6	"	"	"	"	"	"	
Dalapon	ND	20	"	"	"	"	"	"	
DCPA diacid	ND	1.6	"	"	"	"	"	"	
Dicamba	ND	1.6	"	"	"	"	"	"	
Dichlorprop	ND	1.6	"	"	"	"	"	"	
Dinoseb	ND	1.6	"	"	"	"	"	"	
Pentachlorophenol	ND	1.6	"	"	"	"	"	"	
Picloram	ND	1.6	"	"	"	"	"	"	
Surrogate: 2,4-Dichlorophenylacetic Acid		*124 %*	*35-150*		"	"	"	"	
114335-004H / B4.8' (1010385-04) Soil Sampled: 10/19/10 08:31 Received: 10/21/10 13:00									
2,4,5-T	ND	1.6	µg/kg	1	B0J2809	10/28/10	10/29/10 09:50	EPA 8151A	
2,4,5-TP (Silvex)	ND	1.6	"	"	"	"	"	"	
2,4-D	ND	1.6	"	"	"	"	"	"	
2,4-DB	ND	4.0	"	"	"	"	"	"	
3,5-Dichlorobenzoic acid	ND	2.0	"	"	"	"	"	"	
4-Nitrophenol	ND	2.0	"	"	"	"	"	"	
Acifluorfen	ND	1.6	"	"	"	"	"	"	
Bentazon	ND	1.6	"	"	"	"	"	"	
Chloramben	ND	1.6	"	"	"	"	"	"	
Dalapon	ND	20	"	"	"	"	"	"	
DCPA diacid	ND	1.6	"	"	"	"	"	"	
Dicamba	ND	1.6	"	"	"	"	"	"	
Dichlorprop	ND	1.6	"	"	"	"	"	"	
Dinoseb	ND	1.6	"	"	"	"	"	"	
Pentachlorophenol	ND	1.6	"	"	"	"	"	"	
Picloram	ND	1.6	"	"	"	"	"	"	
Surrogate: 2,4-Dichlorophenylacetic Acid		*92.2 %*	*35-150*		"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

SIERRA ANALYTICAL

Advanced Technology Labs	Project: NA	
3275 Walnut Avenue	Project Number: PO#SC05968	**Reported:**
Signal Hill CA, 90755	Project Manager: Diane Galvan	11/01/10 13:20

Chlorinated Herbicides by EPA Method 8151A - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B0J2809 - EPA 3550B Solid Ext										
Blank (B0J2809-BLK1)				Prepared: 10/28/10		Analyzed: 10/29/10				
2,4,5-T	ND	1.6	µg/kg							
2,4,5-TP (Silvex)	ND	1.6	"							
2,4-D	ND	1.6	"							
2,4-DB	ND	4.0	"							
3,5-Dichlorobenzoic acid	ND	2.0	"							
4-Nitrophenol	ND	2.0	"							
Acifluorfen	ND	1.6	"							
Bentazon	ND	1.6	"							
Chloramben	ND	1.6	"							
Dalapon	ND	20	"							
DCPA diacid	ND	1.6	"							
Dicamba	ND	1.6	"							
Dichlorprop	ND	1.6	"							
Dinoseb	ND	1.6	"							
Pentachlorophenol	ND	1.6	"							
Picloram	ND	1.6	"							
Surrogate: 2,4-Dichlorophenylacetic Acid	*123*		*"*	*100*		*123*	*35-150*			
LCS (B0J2809-BS1)				Prepared: 10/28/10		Analyzed: 10/29/10				
2,4,5-T	7.61	1.6	µg/kg	10.0		76.1	20-150			
2,4,5-TP (Silvex)	7.93	1.6	"	10.0		79.3	20-150			
Dichlorprop	7.46	1.6	"	10.0		74.6	20-150			
Dinoseb	7.00	1.6	"	10.0		70.0	20-150			
Matrix Spike (B0J2809-MS1)		**Source: 1010385-01**		Prepared: 10/28/10		Analyzed: 10/29/10				
2,4,5-T	8.11	1.6	µg/kg	10.0	ND	81.1	20-150			
2,4,5-TP (Silvex)	7.62	1.6	"	10.0	ND	76.2	20-150			
Dichlorprop	8.48	1.6	"	10.0	ND	84.8	20-150			
Dinoseb	8.93	1.6	"	10.0	ND	89.3	20-150			

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Advanced Technology Labs	Project: NA	
3275 Walnut Avenue	Project Number: PO#SC05968	**Reported:**
Signal Hill CA, 90755	Project Manager: Diane Galvan	11/01/10 13:20

Chlorinated Herbicides by EPA Method 8151A - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B0J2809 - EPA 3550B Solid Ext										
Matrix Spike Dup (B0J2809-MSD1)		**Source: 1010385-01**		Prepared: 10/28/10	Analyzed: 10/29/10					
2,4,5-T	7.24	1.6	µg/kg	10.0	ND	72.4	20-150	11.3	30	
2,4,5-TP (Silvex)	7.29	1.6	"	10.0	ND	72.9	20-150	4.43	30	
Dichlorprop	8.58	1.6	"	10.0	ND	85.8	20-150	1.17	30	
Dinoseb	8.17	1.6	"	10.0	ND	81.7	20-150	8.89	30	

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E-MAIL: SIERRALABS @ SIERRALABS.NET

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

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Advanced Technology Laboratories
3275 Walnut Avenue, Signal Hill, CA 90755-5225
www.atlglobal.com
TEL: (562) 989-4045 FAX: (562) 989-4040

CHAIN-OF-CUSTODY RECORD

1010385

QC Level: RTNE

Subcontractor:

Sierra Laboratories
26052 Merit Circle Suite 105
Laguna Hills, CA 92653

TEL: (949) 348-9389
FAX: (949) 348-9115
Acct #:

Field Sampler: Jelisa Thomas

20-Oct-10

	Sample ID	Matrix	Date Collected	Bottle Type	Requested Tests: EPA 8151		
01	114335-001H / B1.8'	Soil	10/19/2010 12:10:00 PM	4OZG	1		
02	114335-002H / B2.8'	Soil	10/19/2010 11:02:00 AM	4OZG	1		
03	114335-003H / B3.8'	Soil	10/19/2010 10:18:00 AM	4OZG	1		
04	114335-004H / B4.8'	Soil	10/19/2010 8:31:00 AM	4OZG	1		

General Comments: Please email sample receipt acknowledgement to the PM.

Please use PO#: SC05968 Please fax results by: NORMAL TAT

PLEASE SEND REPORT TO DIANE GALVAN

A-5500C

		Date/Time			Date/Time
Relinquished by:		10/20/10	**Received by:**		10/21/10 1045
Relinquished by:		10/21/10 1300	**Received by:**		10-21-10 1:00pm

CHAIN OF CUSTODY RECORD

Pg 1 of 1

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755
(562) 989-4045 • Fax (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#:

Logged By: Date: 10/20/10

Method of Transport: Client ☐ ATL ☑ CA OverN ☐ FEDEX ☐ Other:

Sample Condition Upon Receipt
1. CHILLED 5.2 Y☑ N☐ 4. SEALED Y☐ N☑
2. HEADSPACE (VOA) N/A Y☐ N☐ 5. # OF SPLS MATCH COC Y☑ N☐
3. CONTAINER INTACT Y☑ N☐ 6. PRESERVED Y☑ N☑

Client: Geocon
Attn: Jelisa Thomas
Address: 3303 N. San Fernando Blvd #100
City Burbank State CA Zip Code 91504
TEL: (818) 841 8388
FAX: (818) 841 1704

Project Name: HHMC - EP
Project #: A8559-06-36
Sampler: (Printed Name) Jelisa Thomas (Signature)

Relinquished by: (Signature and Printed Name) Mike Hecto	Date: 10/20/2010	Time: 1200	Received by: (Signature and Printed Name)	Date: 10/20/10	Time: 1200
Relinquished by: (Signature and Printed Name)	Date: 10/20/10	Time: 1605	Received by: (Signature and Printed Name) FPDIWA	Date: 10/20/10	Time: 1605
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Jelisa Thomas 10/19/10 (Print Name / Date)
Jelisa Thomas (Signature)

Send Report To: Attn: Jelisa Thomas; Co: Geocon; Address: 3303 N. San Fernando Blvd; City Burbank State CA Zip 91504

Bill To: Attn: Same; Co:; Address; City State Zip

Special Instructions/Comments:

Sample/Records - Archival & Disposal
Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.

Storage Fees (applies when storage is requested):
- Sample : $2.00 / sample / mo (after 45 days)
- Records : $1.00 / ATL workorder / mo (after 1 year)

Circle or Add Analysis(es) Requested; SPECIFY APPROPRIATE MATRIX; PRESERVATION; Q A / Q C: RTNE ☐ CT ☐ SWRCB ☐ Logcode ____ OTHER ____

ITEM	LAB USE ONLY: Batch #: / Lab No.	Sample Description: Sample I.D. / Location	Date	Time	8081A (Pesticides)	8082 (PCB)	8260B (Volatiles)	8270C (BNA)	8010B (Total Metal)	8015B (GRO) / 8020 (BTEX)	8015B (DRO)	8021 (BTEX)	TITLE 22 / CAM 17 (6010 / 7000)	TPH (GC-FID)	8141A	8151A	SOIL	WATER	GROUND WATER	WASTEWATER				TAT	Container(s) #	Type	PRESERVATION	REMARKS
	114335 - 001	B1 • 8'	10/19	12:10	X		X	X					X	X	X	X	X							E	7	T V		
	- 2	B2 • 8'	10/19	11:02	X		X	X					X	X	X	X	X							E	7	T V		
	- 3	B3 • 8'	10/19	10:18	X		X	X					X	X	X	X	X							E	7	T V		
	- 4	B4 • 8	10/19	8:31	X		X	X					X	X	X	X	X							E	7	T V		

• TAT starts 8 a.m. following day if samples received after 3 p.m.

TAT: A= Overnight ≤ 24 hr; B= Emergency Next workday; C= Critical 2 Workdays; D= Urgent 3 Workdays; E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

APPENDIX E

SCREENING LEVEL RISK EVALUATION

coffey environments
SPECIALISTS IN ENVIRONMENTAL,
SOCIAL AND SAFETY PERFORMANCE

June 17, 2011

Hoda EL Sokkary, PE
Los Angeles County Department of Public Works
PMDI – Health Section I
900 South Fremont Ave, 5th Floor
Alhambra, California 91803

Re: Screening Level Risk Evaluation, Hubert H. Humphrey Comprehensive Health Center, 5850 S. Main Street, Los Angeles, California 90003

Coffey Environments Project No. 411-0134

Dear Hoda EL Sokkary:

Coffey Environments is pleased to present this screening level risk evaluation report to the Los Angeles County Department of Public Works for the Hubert H. Humphrey Comprehensive Health Center located at 5850 S. Main Street, Los Angeles California.

The objective of this Screening Level Risk Evaluation is to determine if subsurface soil and soil-gas impacts identified during previous environmental investigations represent a potential health risk to HHHCHC staff and visitors/customers, and to construction workers associated with the proposed facility expansion project. The scope of work, methods, findings, and conclusions are discussed in the attached report.

If you have any questions, please call me at (310) 530-5006.

For and on behalf of Coffey Environments

Ulf Lindmark, PE, BCEE
Senior Principal

cc: Nicholas Novoa, Project Geologist/Manager, Twining, Inc.

coffey environments
SPECIALISTS IN ENVIRONMENTAL,
SOCIAL AND SAFETY PERFORMANCE

SCREENING LEVEL RISK EVALUATION - HUBERT H. HUMPHREY COMPREHENSIVE HEALTH CENTER

Hubert H. Humphrey Comprehensive Health Center
5850 S. Main Street
Los Angeles, California 90003

Prepared for

Los Angeles County Department of Public Works

411-0134
June 17, 2011

Coffey Environments
3777 Long Beach Boulevard Annex Building
Long Beach CA 90807 United States of America

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PROFESSIONAL CERTIFICATION

This report has been prepared by

Heriberto Robles, Ph.D., D.A.B.T.
Board Certified Toxicologist
Enviro-Tox Services, Inc.

Jonathan Barkman, REA
Project Manager
Registered Environmental Assessor No. REA I-30179

under the professional supervision and review of

Ulf M. Lindmark, PE, BCEE
Senior Principal
Registered Civil Engineer
Registered Environmental Assessor No. REA I-00195
Certified Hazardous Materials Manager No. 2725

REGISTERED PROFESSIONAL ENGINEER
ULF M. LINDMARK
NO. 36787
EXPIRATION JUNE 30, 2012
CIVIL
STATE OF CALIFORNIA

1 INTRODUCTION

This report presents the results of a Screening Level Risk Evaluation (SLRE) performed by Coffey Environments for the Los Angeles County Department of Public Works expansion project at the Hubert H. Humphrey Comprehensive Health Center (HHHCHC) located at 5850 S. Main Street, Los Angeles California (site). An SLRE involves identifying chemicals of potential concern (COPCs), evaluating exposure pathways and media of concern, assessing chemical toxicity, and then characterizing risk. Estimated health risks are based on a calculated dose, which integrates exposure parameters for the receptors of concern with chemical-specific toxicity criteria. The calculated risks are then compared to health-based guidelines developed by the U.S. Environmental Protection Agency (USEPA) and the California Department of Toxic Substances Control (DTSC).

The objective of this SLRE is to determine if subsurface soil and soil-gas impacts identified during previous environmental investigations represent a potential health risk to HHHCHC staff and visitors/customers, and to construction workers associated with the proposed facility expansion project. The SLRE followed the guideline document in the California Environmental Protection Agency (Cal-EPA) entitled *Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air* (Department of Toxic Substances Control [DTSC], 2005).

The risk evaluation incorporates, to the extent possible, recent improvements and refinements in the practice of risk assessment. Current regulatory guidance requires risk assessments to be conservative in nature and to overestimate any potential risks. Therefore, actual risks associated with conditions evaluated in this SLRE are likely to be much lower than those described herein.

2 SITE CHARACTERIZATION

2.1 Site Background

The site is a rectangular parcel currently occupied by the HHHCHC, which includes a mixed-level one- to two-story on-grade structure and asphalt paved parking lot. The property is bounded by East Slauson Avenue to the north, by South Main Street to the west, by commercial and residential properties to the south, and by Woodlawn Avenue to the east. Proposed development at the site includes a 2,200 square-foot expansion to the existing Urgent Care facility and construction of a new single-story parking structure located in the northeastern and southern portions of the property, respectively.

2.2 Geology and Hydrogeology

2.2.1 Geologic Setting

Regionally, the site is located in the Peninsular Ranges geomorphic province, which is characterized by northwest-trending mountains, valleys, and associated faults extending southward to Baja California (DWR, 1961). This province is bordered to the north by the Transverse Ranges, an east-west trending series of mountains which include the Santa Monica and San Gabriel Mountains. Locally the site is situated in the central portion of the Los Angeles basin in an area known as the Downey Plain (DWR, 1961). The Downey Plain is a depositional feature formed by coalesced alluvial fans of the Los Angeles, Rio Hondo, and San

Gabriel River systems. Soils that form this extensive plain are composed primarily of Quaternary-age flood plain and overbank deposits. Quaternary deposits include younger alluvium and older Lakewood and San Pedro Formations. The alluvium is underlain by at least 1,000 feet of marine and nonmarine clastic deposits of the Lakewood and San Pedro Formations. These deposits are weakly cemented and composed of gravel, sand, sandy silt, silt and clay. Soils encountered during previous investigations consisted of poorly graded sand and silt to a depth of 26 feet bgs.

2.2.2 Hydrogeolgic Setting

The site is located in the Coastal Plain of the Los Angeles Groundwater Basin, Central Groundwater Subbasin. The Central Subbasin occupies a large portion of the southeastern part of the Coastal Plain of Los Angeles Groundwater Basin. The subbasin is bounded on the north by a surface divide called the La Brea high, on the northeast and east by the Elysian, Repetto, Merced, and Puente Hills (DWR, 2004). The southeast boundary roughly follows Coyote Creek, and the southwest boundary is formed by the Newport-Inglewood fault zone. The Exposition Aquifer occurs within the Lakewood Formation at 70 feet bgs in the vicinity of the site, and the Gage Aquifer at 200 feet bgs (DWR, 1961). Based on the Water Replenishment District Groundwater Elevation Contour Map, the depth to groundwater in the vicinity of the site is approximately 175 feet bgs (WRD, 2008). During previous investigations, groundwater was not encountered to a maximum depth of 50.5 feet bgs (Geocon, 2010).

2.3 Environmental Assessment History

2.3.1 Geocon

In November, 2010, Geocon completed a geotechnical investigation at the site (Geocon, 2010). Four borings were advanced using a truck-mounted hollow-stem auger drill rig to a maximum depth between 20.5 and 50.5 feet below ground surface (bgs). Additionally, two test pits were excavated to a depth of 20 feet bgs using hand tools and hand augers. Soil samples collected from each of the four borings at depths of approximately 8.0 to 8.5 feet bgs were submitted for laboratory analysis of chemical constituents of concern. The soil samples were submitted for analysis of Title 22 metals by EPA Method 6010B/7471A, total petroleum hydrocarbons (TPH) as carbon chain by EPA Method 8015B, volatile organic compounds (VOCs) by EPA Method 8260B, organochlorine pesticides (OCPs) by EPA Method 8081A, organophosphorous pesticides (OPPs) by EPA Method 8141A, and semi-volatile organic compounds (SVOCs) by EPA Method 8270C.

Each of the soil samples contained concentrations of various Title 22 metals. With the exception of arsenic, metals concentrations did not exceed their respective California Human Health Screening Levels (CHHSL). Concentrations of arsenic were found to be within the range of naturally occurring arsenic. The soil sample collected from B1, located in the northeastern portion of the property in the area of the Urgent Care expansion, reported concentrations of TPH (as oil range) at 110 mg/kg, tetrachloroethene (PCE) at a concentration of 7.7 μg/kg, and trichloroethene (TCE) at a concentration of 7.0 μg/kg. OCPs, OPPs, and SVOCs were not detected above laboratory detection limits.

2.3.2 Coffey Environments

In March of 2011, Coffey Environments began an environmental investigation of soil and soil-gas matrix in the vicinity of the planned site expansion project (Coffey, 2011). We coordinated with Strongarm Environmental Field Services, Inc. to drill 12 soil borings at the site (Figure 2). Borings B1 through B10 were placed in a grid pattern in the main asphalt-paved parking area, with deeper borings located along the north, east, and west footprint boundaries of the new construction, and shallow borings located in the center of the asphalt-paved parking area (within the future parking structure footprint). Borings B11 and B12 were located in the northeastern portion of the site near Slauson Avenue and Woodlawn Avenue, in the area of the building expansion. Borings B1, B2, B5, B6, B9 through B12 were advanced to a final depth of 26 feet bgs. Borings B3, B4, B7, and B8 were advanced to a final depth of 5 feet bgs. Soil matrix samples from each boring were analyzed for Title 22 Metals, TPH, VOCs, SVOCs, OCPs, OPPs, and chlorinated herbicides by a California-certified laboratory. Following drilling and soil-matrix sampling, we installed semi-permanent, triple-nested, soil-gas probes at depths of 5, 15, and 25 feet bgs in each of the eight deep borings (B1, B2, B5, B6, and B9 through B12). Soil-gas samples were collected from each interval and analyzed by an on-site mobile laboratory for VOCs.

The only chemical of potential concern identified in soil was arsenic with a maximum detected concentration of 20.3 milligrams per kilogram. Since metals are natural components of soil, metals detected at the site, including arsenic, could be naturally occurring and not the result of human activity.

VOCs were detected in soil gas samples collected at the site. Particularly; benzene, PCE and degradation compounds TCE, cis-1,2-dichloroethylene, trans-1,2-dichloroethylene, 1,1-dichloroethylene, and vinyl chloride, were detected primarily in the northeastern portion of the site.

The investigation report recommended further evaluation of the detected arsenic in soil matrix, and the detected benzene and chlorinated solvent VOCs in soil gas. All metals detected at the site and all VOCs detected between 5 and 15 feet bgs were included in this SLRE.

3 EXPOSURE ASSESSMENT

Exposure to chemicals can only occur if there is a complete pathway by which chemicals in onsite soil, water, or air can be contacted by humans. Therefore, the evaluation of exposure pathways is the first step in the human health screening evaluation. Potential hazard and risk are then calculated based on an evaluation of potential exposure concentrations of chemicals of concern, and the toxicity of the chemicals. The findings of the human health screening evaluation are summarized in the *Risk Characterization* section.

3.1 Conceptual Site Model

A Conceptual Site Model (CSM) shows all potentially complete exposure pathways for a given environmental source. The CSM identifies potential chemical sources, release mechanisms, transport media, routes of chemical migration through the environment, exposure media, and potential receptors. The CSM for the site and its immediate vicinity is presented in Appendix C. The following paragraphs define the exposure pathways evaluated in this SLRE and the rationale for their inclusion or elimination from consideration.

Consistent with DTSC (1999) risk assessment guidance, it is assumed that the entire site is uncovered and bare soil is available for contact. Under these hypothetical exposure conditions, it is assumed that future onsite workers may be exposed to chemicals detected in soil through incidental soil ingestion, dermal contact and inhalation of dust. Nonetheless, the site is fully developed and will be renovated for use as an urgent care medical facility and parking structure where future HHHCHC staff and visitors/customers will have no contact with soil[1]. Alternatively, construction workers will have potential contact with site soil. Therefore, a potential soil exposure pathway exists for future construction workers, but does not exist for future HHHCHC staff or vistors/customers.

The indoor air exposure pathway is also considered to be complete as VOCs were detected in soil gas samples. It is conceivable that chemicals detected in soil gas may volatilize and escape to the surface where they may enter an on-site building through its foundation or dissipate in ambient air. The migration of VOCs in the vadose zone is known to occur (ASTM, 1995). Thus, the volatilization and subsequent intrusion of vapors into the on-site building is considered to be a potential exposure pathway and is therefore evaluated in this SLRE. Since landscaped areas and parking spaces cover a good portion of the site, it is conceivable that VOCs will also escape to outdoor air. On-site receptors can be exposed to volatile chemical while outdoors. However, indoor vapor concentrations are expected to be higher than outdoor vapor concentrations given that ambient air significantly dilutes outdoor air concentrations of vapors and, given the enclosing nature of indoor spaces. Therefore, only the indoor air exposure pathway was evaluated.

A groundwater exposure pathway is not considered, as it is not applicable to the site.

3.2 Potential Receptors

It is assumed that the only potential receptors present at the site are adult on-site HHHCHC staff, occasional visitors/patients, and construction workers related to the expansion project. For purposes of this SLRE, HHHCHC staff is assumed to be at the site for 250 days a year for up to 25 years. This exposure duration is much longer than that of any occasional visitors. Thus, only the adult on-site worker exposure scenario is evaluated in this SLRE and it is assumed that any health risks encountered by visitors and construction workers will be much lower than those estimated for on-site workers.

It should be noted that some visitors to the site might include children. Children deserve special consideration in risk assessments since their response to chemical exposures might be different from those experienced by adult individuals (Miller, et al., 2002). Due to some physiological differences between adults and children, the later may present a slightly higher response when given the same chemical dose as that given to an adult individual. However, regardless of individual sensitivities, adverse effects for adult and child receptors are directly proportional to the exposure intensity and duration. The expected exposure

[1] It can be expected that dust might be generated during construction of the expansion building. However, current air quality standards require the use of dust suppression during construction activities. Therefore, hospital staff, visitors and offsite receptors are not expected to be exposed to construction related chemical-impacted soil or dust if construction activities are conducted in accordance with current South Coast Air Quality Management District requirements.

intensity and duration for occasional child visitors are orders of magnitude lower than those expected for onsite workers. For example, a typical child visitor may be at the site for a couple of hours a week and for no more than a few months. An onsite worker is assumed to be at the site 8 hours per day, 250 days per year for up to 25 years. Child exposure duration is not likely to exceed 20 to 30 hours over his/her lifespan. This exposure duration is more than 10,0000 times lower than the exposure duration assumed here (50,000 hours) for an adult onsite worker. Thus, if estimated chemical exposures for onsite workers are found to be within acceptable levels, it can be concluded that chemical exposures for occasional child visitors are also within acceptable levels. For these reasons, child receptors were not evaluated in this screening evaluation.

Although off-site residential populations (located at more than 60 feet from the site) and any potentially sensitive subpopulations located within a 1-mile radius of the site may have a potential to be exposed to site chemicals during construction related activities, their exposures should be substantially less than those estimated for on-site receptors[2]. Therefore, only potential exposure to on-site workers is quantitatively evaluated in this SLRE.

3.3 Chemicals of Potential Concern

In accordance with the DTSC (1999) risk assessment guidance, the maximum detected chemicals of potential concern (COPC) concentrations were evaluated as potential exposure point concentrations (EPCs). These EPCs were used in the health risk calculations.

3.3.1 Soil Matrix

Tables 1 through 7 summarize the chemicals detected in soil at the site. Except for metals detected in soil, all chemicals detected in soil were well within levels considered acceptable by California regulatory agencies. Therefore, only metals detected in soil at the site were considered to be chemicals of potential concern (COPCs) and evaluated in this SLRE.

3.3.2 Soil-Gas Matrix

Table 8 summarizes the chemicals detected in soil gas at the site. All chemicals detected in soil gas at depths of 5 and 15 feet bgs were considered to be COPCs and evaluated in this SLRE.

4 TOXICITY ASSESSMENT

The toxicity assessment characterizes the relationship between the magnitude of exposure to a COPC and the nature and magnitude of adverse health effects that may result from such exposure. For purposes of

[2] It can be expected that dust might be generated during construction of the expansion building. However, current air quality standards require the use of dust suppression during construction activities. Therefore, hospital staff, visitors and offsite receptors are not expected to be exposed to construction related chemical-impacted soil or dust if construction activities are conducted in accordance with current South Coast Air Quality Management District requirements.

calculating exposure criteria to be used in risk assessments, adverse health effects are classified into two broad categories – carcinogens, and non-carcinogens. Toxicity values/exposure criteria are generally developed based on the threshold approach for non-carcinogenic effects and the non-threshold approach for carcinogenic effects. Toxicity values may be based on epidemiological studies, short-term human studies, and sub-chronic or chronic animal data.

Reference doses (RfDs) and cancer slope factors (CSFs) were obtained according to the following hierarchy:

- For carcinogens, California-specific oral and inhalation cancer slope factors were obtained from the DTSC's Toxicity Criteria Database (DTSC, 2011). Cancer slope factors used in this evaluation are summarized in Table 9.
- For noncarcinogens, RfDs were obtained from the Toxicity Criteria Database or the USEPA's Regional Screening Levels (RSI) tables (USEPA, 2011). Reference doses used in this evaluation are summarized in Table 9.

5 RISK CHARACTERIZATION

Risk characterization combines information obtained in the exposure assessment with toxicological parameters to estimate the magnitude of the potential adverse health effects of the hazardous chemicals under study and making judgments about the nature of the health threat to the defined receptor populations. It combines the results of the dose-response (toxicity) and exposure assessment.

The potential for chemical volatilization and building intrusion and associated cancer risks was modeled using the USEPA (2003) spreadsheet program for the Johnson and Ettinger (1991) vapor intrusion model as modified by DTSC in February 2009 (SG-SCREEN version 2.0; last modified 2/4/09). The model contains a module for estimating potential doses, as well as associated cancer risks and health hazards Copies of the Johnson and Ettinger model spreadsheets used to estimate health risks and hazards are presented in Appendix E.

5.1 Non-carcinogenic Risk Evaluation

Non-cancer hazard quotients were estimated by calculating the ratio of the average daily dose (ADD) to the corresponding chronic reference dose for non-carcinogenic effects. The equation used to estimate the hazard quotient is:

$$Hazard\ Quotient = \frac{ADD}{RfD}$$

The estimated hazard quotients were compared to an acceptable hazard level. Hazard quotients less than or equal to the benchmark hazard level of 1.0 indicate that no adverse health effects are predicted from exposure to COPC at the site.

Using maximum detected concentrations for all metals detected in soil, the total hazard quotient for hypothetical construction worker exposure to site-related chemicals via incidental soil ingestion, dermal contact and fugitive dust inhalation was estimated to be 1 (Table 10). The estimated hazard quotient is

equal to the acceptable benchmark level for noncancer effects. Supporting calculations are presented in Attachment D.

For the Urgent Care expansion building, the total hazard quotient estimated to result from inhalation of vapors emanating from soil gas samples collected at depths of 5 feet and 15 feet bgs were estimated to be 0.04 and 0.009 (Tables 11 and 12), respectively.

For the proposed parking structure location, the total hazard quotient estimated to result from inhalation of vapors emanating from soil gas samples collected at depths of 5 feet and 15 feet bgs were estimated to be 0.02 and 0.009 (Tables 13 and 14), respectively. The estimated hazard quotients are below the benchmark value of 1.0. A copy of the model used to estimate health risks and hazard associated with exposure to indoor air are presented in Attachment E.

5.2 Carcinogenic Risk Evaluation

Excess cancer risks associated with soil and dust exposures were estimated by multiplying the lifetime-average daily dose (LADD) by the chemical carcinogenic toxicity criteria. The equation used to estimate the excess cancer risk is:

$$Excess\ Cancer\ Risk\ =\ LADD\ x\ CSF$$

The potential for chemical volatilization and building intrusion and associated cancer risks was modeled using the USEPA (2003) spreadsheet program for the Johnson and Ettinger (1991) vapor intrusion model as modified by DTSC in February 2009J (SG-SCREEN version 2.0; last modified 2/4/09).

The excess cancer risks were compared to the risk level considered acceptable by federal and state regulatory agencies. Cal-EPA has defined a risk of 1 in 100,000 as the “no significant level” for carcinogens under California’s Safe Water and Toxic Enforcement Act of 1985 (Proposition 65).

5.2.1 Metals

Using maximum detected concentrations for all metals detected in soil at the site, the total incremental cancer risk from hypothetical construction worker exposures to site-related chemicals via incidental soil ingestion, dermal contact and fugitive dust inhalation was estimated at 7 in a million (Table 10). This value is within acceptable risk levels as per Preposition 65. Supporting calculations are presented in Attachment D.

It can be said that other potential receptors (such as child visitors, onsite workers and offsite residents) could come in contact with soil or dust generated during construction of the new expansion building. Therefore, in an effort to be protective of most receptors, this risk assessment evaluated health risks for the potential receptors expected to experience the highest exposure levels. This risk assessment included the evaluation of onsite construction workers that might be exposed to chemical-impacted soil or dust through ingestion, dermal contact and dust inhalation. If residual chemicals in soil are found to pose no significant cancer risk for this highly exposed individual, then it can be said that exposure to traces of dust in the air do not pose a significant health risk to other human receptors whose exposure intensity and duration is order of magnitude lower than that estimated for onsite construction workers. Significant cancer risk is defined here as a cancer risk in excess of 1 in 100,000 exposed individuals (as per Proposition 65).

Potential health hazards that could results from vapor intrusion were evaluated using the Johnson and Ettinger model. The Johnson and Ettinger model contains a module for estimating potential doses as well as cancer risks and health hazards associated with a given dose. For this assessment the potential health risk and hazards posed by VOCs detected within the building expansion zone and the proposed parking garage area were evaluated separately. In addition, the health risks and hazards posed by VOCs detected in “shallow” and “deep” soil gas samples were also evaluated separately. Potential health risk and hazards posed by VOCs detected in shallow soil gas were evaluating using only analytical data collected at a depth of 5 feet bgs (Table 8). Potential health risk and hazards posed by VOCs detected in deep soil gas samples were evaluating using only analytical data collected at a depth of 15 feet bgs (Table 8). A copy of the Johnson and Ettinger model spreadsheets used in this evaluation is included in Attachment E.

5.2.2 VOCs

For the Urgent Care expansion building, the total cancer risks from indoor inhalation of vapors emanating from soil gas samples collected at depths of 5 feet and 15 feet bgs were estimated to be one-in-a-million (1E-06) and one-in-ten-million (1E-07; Tables 11 and 12), respectively. These values are lower than the Proposition 65 acceptable risk benchmark value of 1 in 100,000 (1E-05).

It can be said that other potential receptors (such as child visitors) could come in contact with indoor air while at the new building. Therefore, in an effort to be protective of most receptors, this risk assessment evaluated health risks for the potential receptors expected to experience the highest exposure levels. This risk assessment included the evaluation of onsite workers that might be exposed to indoor air 8 hours per day, 250 days per year for up to 25 years. If residual chemicals in soil gas are found to pose no significant cancer risk for this highly exposed individual, then it can be said that exposure to indoor air does not pose a significant cancer risk to other human receptors whose exposure intensity and duration is order of magnitude lower than that estimated for onsite workers. Significant cancer risk is defined here as a cancer risk in excess of 1 in 100,000 exposed individuals (as per Proposition 65).

For the proposed parking structure, it was assumed that a control booth will be constructed at ground level and that an attendant would be working at the booth. The total cancer risks from indoor inhalation of vapors emanating from soil gas samples collected at depths of 5 feet and 15 feet bgs were estimated to be 4 in 100,000,000 (4E-08) and zero (Tables 11 and 12), respectively. These values are lower than the Proposition 65 acceptable risk benchmark value of 1 in 100,000 (1E-05).

5.3 Lead Exposure Risk Assessment

Given the unique toxicological and pharmacological properties of lead, the Hazard Quotient method is inappropriate for this chemical. For lead, the DTSC (2009) recommends comparing detected soil lead concentrations to published soil screening levels. For this evaluation, the California Human Health Screening Level (CHHSL) for lead was used as the soil screening concentration. The CHHSL for soil lead under commercial/industrial exposure scenarios has been set at 320 milligrams per kilogram of soil (mg/kg; DTSC 2009). The maximum soil lead concentration detected in soil at the site was 49.4 mg/kg (Table 7). Therefore, lead in soil is not considered to pose a significant health risk to potential onsite and offsite receptors.

6 SUMMARY AND CONCLUSIONS

The health risk evaluation presented in this report evaluated the potential health risks posed by the presence of COPCs detected in soil gas under the site. The assessment included the evaluation of potential health risks to current on-site workers and occasional visitors/customers. It is assumed that any health risks encountered by visitors will be much lower than those estimated for on-site workers, and thus only the adult on-site worker exposure scenario is evaluated in this SLRE.

Using the methods of risk assessment as outlined in the DTSC, screening risk evaluation manual (DTSC, 1999), the estimated cancer risks and non-cancer hazards related to vapor intrusion from soil-gas are below the regulatory threshold values of 0.00001 and 1.0, respectively. The total incremental cancer risk from hypothetical construction worker exposures to site-related chemicals via incidental soil ingestion, dermal contact and fugitive dust inhalation was below the regulatory threshold values of 0.00001. The total hazard quotient for hypothetical construction worker exposure to site-related chemicals via incidental soil ingestion, dermal contact and fugitive dust inhalation was estimated to be equal to the acceptable benchmark level for noncancer effects.

No significant cancer risks or non-cancer hazards are anticipated to occur as a result of construction worker exposures to detected concentrations of constituents in soil and/or soil gas at the site. Results of the evaluation indicate that the levels of metals (including lead) and VOCs remaining in soil and soil gas do not represent a significant health risk to on-site workers and occasional visitors/customers (including children) of the Health Care facility to be constructed at the site.

It should be noted that the SLRE was based on conservative (health protective) assumptions, estimates, models, and parameters. Therefore, the results are not absolute estimates of health risks at the site, but are health protective estimates. All conclusions are based on reported soil and soil gas chemical concentrations and the proposed development of the site. The conclusions do not consider the potential for future contaminant concentration fluctuations as a result of possible contaminant migration.

7 UNCERTAINTY ANALYSIS

The purpose of a risk assessment is not to predict the actual risk of exposure to an individual. Rather, risk assessments are a management tool for developing conservative estimates of health risk and hazards that are unlikely to underestimate the true risk for potentially exposed populations.

In general, the numerical estimates in a risk assessment (risk values) have associated uncertainties reflecting the limitations in available knowledge about site concentrations, exposure assumptions (e.g., chronic exposure concentrations, intake rates, frequency of time spent at work), and chemical toxicity. Where information is incomplete, conservative (erring on being over-protective) assumptions must be made. The greater the uncertainty, the more conservative are the assumptions, in an attempt to be protective of public health. In other words, although calculations of exposure often must be simplified to a few pathways or subgroups within a population, the simplifying assumptions should be more likely to overestimate than underestimate risk so that public health is protected regardless of other unknown conditions. Even when actual characteristics of a population are known, assumptions on exposure are often biased toward producing over-protective rather than under-protective health risk estimates for the majority of the population.

In summary, because a screening evaluation contains multiple sources of uncertainty, simplifying assumptions are often made so that health risks can be estimated quantitatively. Since the exact amount of uncertainty cannot be quantified, the screening evaluation is intended to overestimate rather than underestimate probable health risk and hazards. The results of this assessment therefore, are likely to be protective of health despite the inherent uncertainties in the process.

8 ASSUMPTIONS AND LIMITATIONS

This report was prepared exclusively for use by the Los Angeles County Department of Public Works , and may not be relied upon by any other person or entity without Coffey Environments' express written permission. The information, conclusions and recommendations described in this report apply to conditions existing at certain locations when services were performed and are intended only for the specific purposes, locations, time frames and project parameters indicated. Coffey Environments cannot be responsible for the impact of any changes in environmental standards, practices or regulations after performance of services.

In performing our professional services, we have applied present engineering and scientific judgment and used a level of effort consistent with the current standard of practice for similar types of studies.

As applicable, Coffey Environments has relied in good faith upon representations and information furnished by individuals with respect to operations and existing property conditions, to the extent that they have not been contradicted by data obtained from other sources. Accordingly, Coffey Environments accepts no responsibility for any deficiencies, omissions, misrepresentations, or fraudulent acts of persons interviewed.

Coffey Environments will not accept any liability for loss, injury claim, or damage arising directly or indirectly from any use or reliance on this report. Coffey Environments makes no warranty, expressed or implied.

This report is issued with the understanding that the client, the property owner, or its representative is responsible for ensuring that the information, conclusions, and recommendations contained herein are brought to the attention of the appropriate regulatory agencies, as required.

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Appendix A

Tables

TABLE 1
Soil Matrix TPH Results by EPA Method 8015M
Hubert Humphrey Health Care Center
5850 Main Street, Los Angeles, California

Sample ID	Sample Date	TPH (mg/kg)		
		TPH GROs (C_6-C_{10})	TPH DROs (C_{10}-C_{28})	TPH OROs (C_{28+})
	PQL (mg/kg):	**1.0**	**5.0**	**5.0**
B1-3'	3/30/2011	ND	ND	**16.9**
B2-3'	3/29/2011	ND	ND	ND
B3-3'	3/29/2011	ND	ND	**7.77**
B4-3'	3/30/2011	ND	ND	ND
B5-3'	3/30/2011	ND	ND	ND
B6-3'	3/30/2011	ND	ND	ND
B7-3'	3/29/2011	ND	ND	ND
B8-3'	3/29/2011	ND	**1.71J**	ND
B9-3'	3/30/2011	ND	ND	ND
B10-3'	3/29/2011	ND	ND	**142**
B11-10'	3/29/2011	**0.179J**	**27.8**	**113**
B12-5'	3/29/2011	ND	ND	**19.1**

NOTES:
mg/kg = milligrams per kilogram
TPH GROs = Total Petroleum Hydrocarbons as gasoline range organics
TPH DROs = Total Petroleum Hydrocarbons as diesel range organics
TPH OROs = Total Petroleum Hydrocarbons as oil range organics
ND = Not Detected at the laboratory reporting limit
PQL = Practical Quantitation Limit

TABLE 2
Soil Matrix VOC Results by EPA Method 8260B
Hubert Humphrey Health Care Center
5850 Main Street, Los Angeles, California

Sample ID	VOCs in Soil Matrix																
	EPA Method 8260B - µg/kg																
	Sample Date	Benzene	1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Methyl-tert-butyl ether (MTBE)	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene	Toluene (Methyl benzene)	1,2,3-Trichlorobenzene	Trichloroethene	Vinyl chloride (Chloroethene)	o-Xylene	m,p-Xylenes	All Other VOCs
	PQL (µg/kg):	**10.00**	**10.00**	**10.00**	**10.00**	**10.00**	**10.00**	**10.00**	**10.00**	**10.00**	**10.00**	**10.00**	**10.00**	**30**	**10.0**	**20.0**	**10.0-50**
B10-3'	3/29/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B11-10'	3/29/2011	**4.50J**	ND	ND	ND	ND	ND	ND	ND	ND	**3.70J**	ND	ND	ND	ND	ND	ND
B12-5'	3/29/2011	**2.58J**	ND	ND	**4.77J**	ND	ND	ND	ND	ND	**1.51J**	ND	**9.65**	ND	ND	ND	ND
B2-3'	3/29/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B3-3'	3/29/2011	**1.82J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B7-3'	3/29/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B8-3'	3/29/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B1-3'	3/30/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B4-3'	3/30/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B5-3'	3/30/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B6-3'	3/30/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B9-3'	3/30/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:
VOC = Volatile Organic Compound
µg/kg = micrograms per kilogram
ND = Not Detected at the laboratory reporting limit
PQL = Practical Quantitation Limit

TABLE 3
Soil Matrix SVOC Results by EPA Method 8270C
Hubert Humphrey Health Care Center
5850 Main Street, Los Angeles, California

Sample ID	SVOCs in Soil Matrix EPA Method 8270C - mg/kg																						
	Sample Date	Acenaphthene	Acenaphthylene	Anthracene	Azobenzene	Benzidine	Dibenzofuran	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	3,3'-Dichlorobenzidine	Fluoranthene	Fluorene	Naphthalene	Phenanthrene	Phenol	Pyrene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	All Other SVOCs
	PQL (mg/kg):	**0.50**	**0.50**	**0.50**	**0.50**	**0.50**	**0.50**	**0.50**	**0.50**	**0.50**	**0.50**	**0.50**	**0.50**	**0.50**	**0.50**	**0.50**	**0.50**	**0.50**	**0.50**	**0.50**	**0.50**	**0.50**	**0.50**
COMPOSITE 1-5'	3/29/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
COMPOSITE 2-3'	3/29/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
COMPOSITE3-3'	3/30/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
COMPOSITE4-3'	3/30/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
COMPOSITE5-3'	3/30/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:
SOVC = Semi-Volatile Organic Compound
mg/kg = milligrams per kilogram
ND = Not Detected at the laboratory reporting limit
PQL = Practical Quantitation Limit

TABLE 4
Soil Matrix OCP Results by EPA Method 8081A
Hubert Humphrey Health Care Center
5850 Main Street, Los Angeles, California

Sample ID	Sample Date	OCPs in Soil Matrix																					
		EPA Method 8081A - µg/kg																					
		Aldrin	Chlordane (Total)	Chlordane (alpha)	4,4'-DDD (DDD)	4,4'-DDE (DDE)	4,4'-DDT (DDT)	Dieldrin	Endosulfan 1	Endosulfan 11	Endosulfan sulfate	Endrin	Endrin aldehyde	Endrin ketone	Chlordane (gamma)	Heptachlor	Heptachlor epoxide	alpha-Hexachlorocyclohexane (Alpha-BHC)	beta-Hexachlorocyclohexane (Betta-BHC)	delta-Hexachlorocyclohexane (Delta-BHC)	gamma-Hexachlorocyclohexane (Gamma BHC, Lindane)	Methoxychlor	Toxaphene
	PQL (µg/kg):	**2.0**	**2.0**	**2.0**	**2.0**	**2.0**	**2.0**	**2.0**	**2.0**	**2.0**	**2.0**	**2.0**	**2.0**	**2.0**	**2.0**	**2.0**	**2.0**	**2.0**	**2.0**	**2.0**	**2.0**	**2.0**	**2.0**
COMPOSITE 1-5'	3/29/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
COMPOSITE 2-3'	3/29/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
COMPOSITE3-3'	3/30/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
COMPOSITE4-3'	3/30/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
COMPOSITE5-3'	3/30/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:
OCP = Organochlorine Pesticide
µg/kg = micrograms per kilogram
ND = Not Detected at the laboratory reporting limit
PQL = Practical Quantitation Limit

TABLE 5
Soil Matrix OPP Results by EPA Method 8141A
Hubert Humphrey Health Care Center
5850 Main Street, Los Angeles, California

Sample ID	OPPs in Soil Matrix																				
	EPA Method 8141A - µg/kg																				
	Sample Date	Azinphos-methyl	Bolstar (Sulprofos)	Chloropyrifos (Dursban)	Coumaphos	Demeton-O & S	Diazinon	Dichlorvos (DDVP, Diclorovos)	Disulfoton	Ethoprop	Fensulfothion	Fenthion	Merphos	Methyl parathion (Parathion methyl)	Mevinphos	Naled	Phorate (Phosphorodithioic acid)	Ronnel	Tetrachlorvinphos (Stirophos)	Tokuthion (Prothiofos)	Trichloronate
PQL (µg/kg):		**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**100**	**100**	**50**	**50**	**50**	**50**	**50**
COMPOSITE 1-5'	3/29/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
COMPOSITE 2-3'	3/29/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
COMPOSITE3-3'	3/30/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
COMPOSITE4-3'	3/30/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
COMPOSITE5-3'	3/30/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:
OPP = Organophosphorus Pesticide
µg/kg = micrograms per kilogram
ND = Not Detected at the laboratory reporting limit
PQL = Practical Quantitation Limit

TABLE 6
Soil Matrix Chlorinated Herbicide Results by EPA Method 8151A
Hubert Humphrey Health Care Center
5850 Main Street, Los Angeles, California

Sample ID	Chlorinated Herbicides in Soil Matrix										
	EPA Method 8151A - µg/kg										
	Sample Date	2,4,5-T	2,4,5-TP	2,4-D	2,4-DB	Dalapon	Dicamba	Dichloroprop	Dinoseb	MCPA	MCPP
	PQL (µg/kg):	**20**	**20**	**200**	**200**	**500**	**20**	**200**	**100**	**20000**	**20000**
COMPOSITE 1-5'	3/29/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
COMPOSITE 2-3'	3/29/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
COMPOSITE3-3'	3/30/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
COMPOSITE4-3'	3/30/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
COMPOSITE5-3'	3/30/2011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:
µg/kg = micrograms per kilogram
ND = Not Detected at the laboratory reporting limit
PQL = Practical Quantitation Limit

TABLE 7
Soil Matrix Title 22 Metals Results by EPA Method 6010B/7471A
Hubert Humphrey Health Care Center
5850 Main Street, Los Angeles, California

Sample ID	Title 22 Metals																	
	EPA Method 6010B/7471A - mg/kg																	
	Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury (By EPA 7471)	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
	PQL (mg/kg):	**0.5**	**0.25**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.25**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.05**
COMPOSITE 1-5'	3/29/2011	ND	ND	**118**	ND	ND	**11.3**	**7.37**	**16.6**	**14.9**	**0.110J**	ND	**9.21**	ND	ND	ND	**25.8**	**73.9**
COMPOSITE 2-3'	3/29/2011	ND	ND	**78.5**	ND	ND	**9.19**	**7.05**	**9.23**	ND	ND	ND	**6.82**	ND	ND	ND	**22.0**	**37.0**
COMPOSITE3-3'	3/30/2011	ND	ND	**71.6**	ND	ND	**8.37**	**6.27**	**9.36**	**4.74J**	ND	ND	**6.09**	ND	ND	ND	**20.1**	**38.2**
COMPOSITE4-3'	3/30/2011	ND	**19.6**	**71.9**	ND	ND	**8.14**	**5.47**	**27.0**	**49.4**	ND	ND	**5.52**	ND	ND	ND	**17.0**	**121**
COMPOSITE5-3'	3/30/2011	ND	ND	**61.4**	ND	ND	**7.06**	**5.51**	**7.46**	**3.08J**	ND	ND	**5.23**	ND	ND	ND	**17.5**	**33.4**
CHSSL (mg/kg)		**30.0**	**0.070**	**5,200.0**	**150.0**	**1.7**	**1,000,017**	**660.0**	**3,000.0**	**150.0**	**18.0**	**380.0**	**1,600.0**	**380.0**	**380.0**	**5.0**	**530.0**	**23,000.0**
ECCM Range (mg/kg)		**0.15-1.95**	**0.6-11.0**	**133-1,400**	**0.25-2.70**	**0.05-1.70**	**23-1,579**	**2.7-46.9**	**9.1-96.4**	**14.3-107.9**	**0.1-9.6**	**9-509**	**0.14-0.43**	**0.1-8.3**	**0.17-1.10**	**39-288**	**88-236**	**0.05-0.90**
10x STLC (mg/kg)		**150**	**50**	**1,000**	**8**	**10**	**50**	**800**	**250**	**50**	**3,500**	**200**	**10**	**50**	**70**	**240**	**2,500**	**2**

NOTES:
mg/kg = milligrams per kilogram
ND = Not Detected at the laboratory reporting limit
PQL = Practical Quantitation Limit
CHSSL - California Human Health Screening Levels - Residential Setting
ECCM = Element concentration in California, mean (range); data show trace element concentrations in soils of the western US that are considered typical, normal, acceptable, and non-harmful (Bradford, G.R., et al., 1996)
10x STLC = Additional wet leaching tests may be necessary for waste characterization if concentration exceeds 10x STLC

TABLE 8
Soil Vapor VOC Results by EPA Method 8260B
Hubert Humphrey Health Care Center
5850 Main Street, Los Angeles, California

	Sample ID:	B1-5'	B1-15'	B1-25'	B1-25' DUP	B2-5'	B2-15'	B2-25'	B5-5'	B5-15'	B5-25'	B6-5'	B6-15'	B6-25'	B9-5'	B9-15'	B9-15' DUP
	Date:	4/1/2011	4/1/2011	4/1/2011	4/1/2011	4/1/2011	4/1/2011	4/1/2011	4/1/2011	4/1/2011	4/1/2011	4/1/2011	4/1/2011	4/1/2011	3/31/2011	3/31/2011	3/31/2011
VOCs	RL (µg/L):	Concentration (µg/L)															
Methyl tertiary-butyl ether (MTBE)	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diisopropyl ether (DIPE)	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl tert-butyl ether (ETBE)	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	0.10	ND	ND	ND	ND	ND	ND	0.18	ND	ND	ND	ND	ND	0.64	ND	ND	ND
1,1,1-Trichloroethane	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane (EDC)	0.10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tertiary-amyl methyl ether (TAME)	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	0.10	ND	ND	0.12	0.13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (TCE)	0.10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (PCE)	0.10	ND	ND	ND	ND	0.10	ND	1.9	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	0.05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m,p-Xylene	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tertiary-butyl alcohol (TBA)	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride (Dichloromethane)	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Other analyzed VOCs	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:
VOC = Volatile Organic Compound
RL = Reporting Limit
PV = Purge Volume
µg/L = micrograms per Liter

TABLE 8
Soil Vapor VOC Results by EPA Method 8260B
Hubert Humphrey Health Care Center
5850 Main Street, Los Angeles, California

VOCs	Sample ID:	B9-25'	B10-5'	B10-15'	B10-25'	B11-5' (1V)	B11-5' (3V)	B11-5' (7V)	B11-15'	B11-25'	B12-5'	B12-15'	B12-25'
	Date:	3/31/2011	3/31/2011	3/31/2011	3/31/2011	3/31/2011	3/31/2011	3/31/2011	3/31/2011	3/31/2011	3/31/2011	3/31/2011	3/31/2011
	RL (µg/L):	Concentration (µg/L)											
Methyl tertiary-butyl ether (MTBE)	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	0.50	ND	ND	ND	ND	ND	ND	0.61	ND	ND	ND	ND	ND
Diisopropyl ether (DIPE)	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl tert-butyl ether (ETBE)	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	0.50	ND	ND	ND	ND	0.62	1.2	1.5	ND	ND	0.55	ND	ND
Chloroform	0.10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.17
1,1,1-Trichloroethane	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane (EDC)	0.10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tertiary-amyl methyl ether (TAME)	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	0.10	ND	ND	ND	ND	ND	ND	ND	0.11	ND	ND	ND	ND
Trichloroethene (TCE)	0.10	ND	ND	ND	ND	1.1	2.8	3.9	ND	ND	0.42	ND	ND
Toluene	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (PCE)	0.10	ND	ND	ND	ND	0.24	0.15	0.14	ND	0.41	0.18	ND	0.59
Ethylbenzene	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	0.05	ND	ND	ND	ND	ND	ND	0.13	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m,p-Xylene	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tertiary-butyl alcohol (TBA)	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	0.50	ND	ND	ND	ND	ND	0.60	0.69	ND	ND	ND	ND	ND
Methylene chloride (Dichloromethane)	0.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Other analyzed VOCs	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:
VOC = Volatile Organic Compound
RL = Reporting Limit
PV = Purge Volume
µg/L = micrograms per Liter

Table 9
Toxicity Criteria of Chemicals of Potential Concern - Construction Worker Exposure Scenario
Hubert Humphrey Health Care Center
5850 South Main Street, Los Angeles, California

Chemical	Chronic Oral Reference Dose (RfDo)		Chronic Inhalation Reference Dose		Oral Cancer Slope Factor (CSFo)		Inhalation Cancer Slope Factor (CSFi)	
	[mg/kg-day]		[mg/kg-day]		$[mg/kg\text{-}day]^{-1}$		$[mg/kg\text{-}day]^{-1}$	
Metals								
Arsenic	3.0E-04	i	8.6E-06	c	9.5E+00	c	1.2E+01	c
Barium	7.0E-02	i	1.4E-04		NA		NA	
Chromium III	1.5E+00	i	NA		NA		NA	
Cobalt	2.0E-02	n	5.7E-06	n	NA		9.8E+00	n
Copper	4.0E-02	h	NA		NA		NA	
Mercury	3.0E-04	i	2.6E-05		NA		NA	
Nickel	2.0E-02		1.4E-05	c	NA		9.1E-01	c
Vanadium	7.0E-03	h	NA		NA		NA	
Zinc	3.0E-01	i	NA		NA		NA	
VOCs								
1,1-Dichloroethylene	5.0E-02	i	2.0E-02	c	NA		NA	
1,2,4-Trimethylbenzene	5.0E-02	n	1.7E-03	n	NA		NA	
4-Bromofluorobenzene	1.0E-02	i	1.0E-02	r	NA		NA	
Benzene	3.0E-03	n	1.7E-02	c	1.0E-01	c	1.0E-01	
1,2-Dichloroethylene (cis)	1.0E-02	h	1.0E-02	r	NA		NA	
Dibromofluoromethane	2.0E-02	i	2.0E-02	r	9.4E-02	c	9.4E-02	c
Tetrachloroethylene	1.0E-02	i	1.0E-02	c	5.4E-01	c	2.1E-02	c
1,2-Dichloroethylene (trans)	2.0E-02	i	2.0E-02	r	NA		NA	
Trichloroethylene	3.0E-04	n	1.7E-01	c	1.3E-02	c	7.0E-03	c
Vinyl chloride	3.0E-03	i	2.9E-02	i	2.7E-01	c	2.7E-01	c

Notes:

c = Cal/EPA Cancer Potency Database 2011

i = Integrated Risk Information System

n = National Center for Environmental Assessment

NA = Not available or not applicable.

r = Oral to Inhalation Route Extrapolation

Table 10
Estimated Cumulative Risks and Hazards - Construction Worker Exposure Scenario
Hubert Humphrey Health Care Center
5850 South Main Street, Los Angeles, California

Chemicals of Potential Concern	Maximum Detected Soil Concentration (mg/kg)	Cancer Risk (unitless)	Hazard Index (unitless)
Metals			
Arsenic	20.3	7.E-06	7.E-01
Barium	118	--	1.E-01
Chromium III	11.3	--	3.E-05
Cobalt	7.37	8.E-08	2.E-01
Copper	27	--	2.E-03
Mercury	0.11	--	2.E-03
Nickel	9.21	1.E-08	1.E-01
Vanadium	25.8	--	1.E-02
Zinc	121	--	1.E-03
TOTAL RISKS and HAZARDS		**7.E-06**	**1.E+00**

Notes:
" -- " Not Applicable
Includes Incidental Soil Ingestion, Dermal Contact, and Fugitive Dust Inhalation

Table 11
Estimated Incremental Cancer Risks and Health Hazards - Indoor Air Vapor Intrusion for VOCs Detected at 5 Feet BGS
Hubert Humphrey Health Care Center Expansion Building
5850 South Main Street, Los Angeles, California

Chemical of Potential Concern (COPC)	CAS Number	Exposure to Indoor Air			
		Soil-Gas Concentration (µg/L)	Indoor Chemical Air Concentration (ug/m^3)	Cancer Risk (unitless)	Hazard Index (unitless)
1,1-Dichloroethylene	75354	0.69	2.E-01	NA	2.E-03
1,2,4-Trimethylbenzene	95636	0.81	2.E-01	NA	2.E-02
4-Bromofluorobenzene	108907	3.11	8.E-01	NA	6.E-04
cis-1,2-Dichloroethylene	156592	1.5	4.E-01	NA	8.E-03
Dibromofluoromethane	75718	2.42	6.E-01	NA	2.E-03
Tetrachloroethylene	127184	0.24	6.E-02	9.E-08	1.E-03
trans-1,2-Dichloroethylene	156605	0.61	2.E-01	NA	2.E-03
Trichloroethylene	79016	3.9	1.E+00	5.E-07	1.E-03
Vinyl chloride	75014	0.13	4.E-02	9.E-07	3.E-04
TOTAL RISKS and HAZARDS				**1.E-06**	**4.E-02**

Notes:

µg/L = micrograms per liter
NA = Not applicable or not available

Table 12
Estimated Incremental Cancer Risks and Health Hazards - Indoor Air Vapor Intrusion for VOCs Detected at 15 Feet BGS
Hubert Humphrey Health Care Center Expansion Building
5850 South Main Street, Los Angeles, California

Chemical of Potential Concern (COPC)	CAS Number	Exposure to Indoor Air			
		Soil-Gas Concentration (µg/L)	Indoor Chemical Air Concentration (ug/m^3)	Cancer Risk (unitless)	Hazard Index (unitless)
1,2,4-Trimethylbenzene	95636	0.81	8.E-02	NA	7.E-03
4-Bromofluorobenzene	108907	2.61	3.E-01	NA	2.E-04
Benzene	71432	0.11	1.E-02	1.E-07	3.E-04
Dibromofluoromethane	75718	2.41	2.E-01	NA	8.E-04
TOTAL RISKS and HAZARDS				**1.E-07**	**9.E-03**

Notes:

µg/L = micrograms per liter
NA = Not applicable or not available

Table 13
Estimated Incremental Cancer Risks and Health Hazards - Indoor Air Vapor Intrusion for VOCs Detected at 5 Feet BGS
Proposed Parking Structure at Hubert Humphrey Health Care Center
5850 South Main Street, Los Angeles, California

Chemical of Potential Concern (COPC)	CAS Number	Exposure to Indoor Air			
		Soil-Gas Concentration (µg/L)	Indoor Chemical Air Concentration (ug/m^3)	Cancer Risk (unitless)	Hazard Index (unitless)
1,2,4-Trimethylbenzene	95636	0.81	2.E-01	NA	2.E-02
4-Bromofluorobenzene	108907	2.8	8.E-01	NA	5.E-04
Dibromofluoromethane	75718	2.98	8.E-01	NA	3.E-03
Tetrachloroethylene	127184	0.1	3.E-02	4.E-08	5.E-04
TOTAL RISKS and HAZARDS				**4.E-08**	**2.E-02**

Notes:

µg/L = micrograms per liter
NA = Not applicable or not available

Table 14
Estimated Incremental Cancer Risks and Health Hazards - Indoor Air Vapor Intrusion for VOCs Detected at 15 Feet BGS
Proposed Parking Structure at Hubert Humphrey Health Care Center
5850 South Main Street, Los Angeles, California

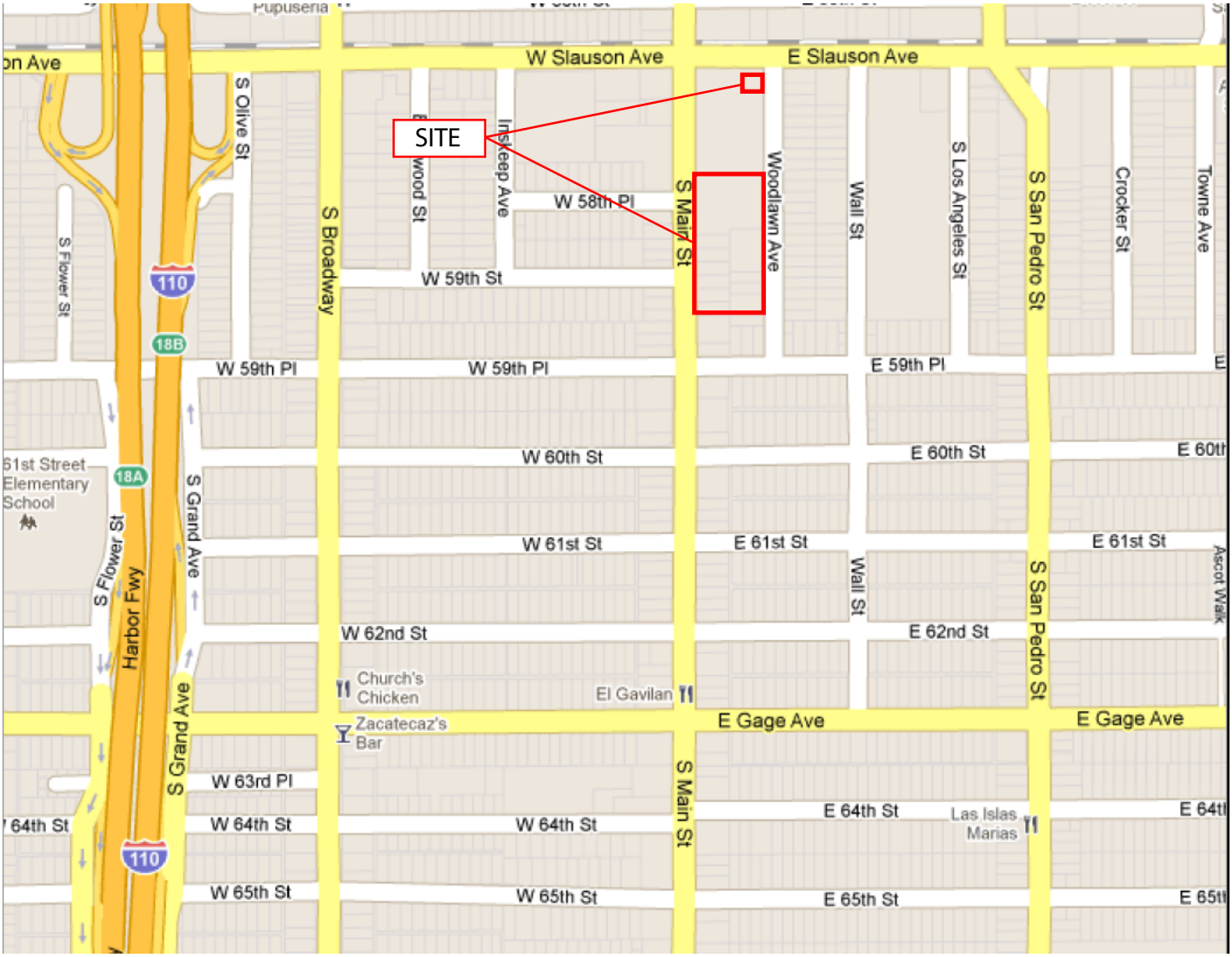
Chemical of Potential Concern (COPC)	CAS Number	Exposure to Indoor Air			
		Soil-Gas Concentration (µg/L)	Indoor Chemical Air Concentration (ug/m^3)	Cancer Risk (unitless)	Hazard Index (unitless)
1,2,4-Trimethylbenzene	95636	0.81	8.E-02	NA	7.E-03
4-Bromofluorobenzene	108907	2.83	3.E-01	NA	2.E-04
Dibromofluoromethane	75718	3.06	3.E-01	NA	1.E-03
TOTAL RISKS and HAZARDS				**0.E+00**	**9.E-03**

Notes:

µg/L = micrograms per liter
NA = Not applicable or not available

Appendix B

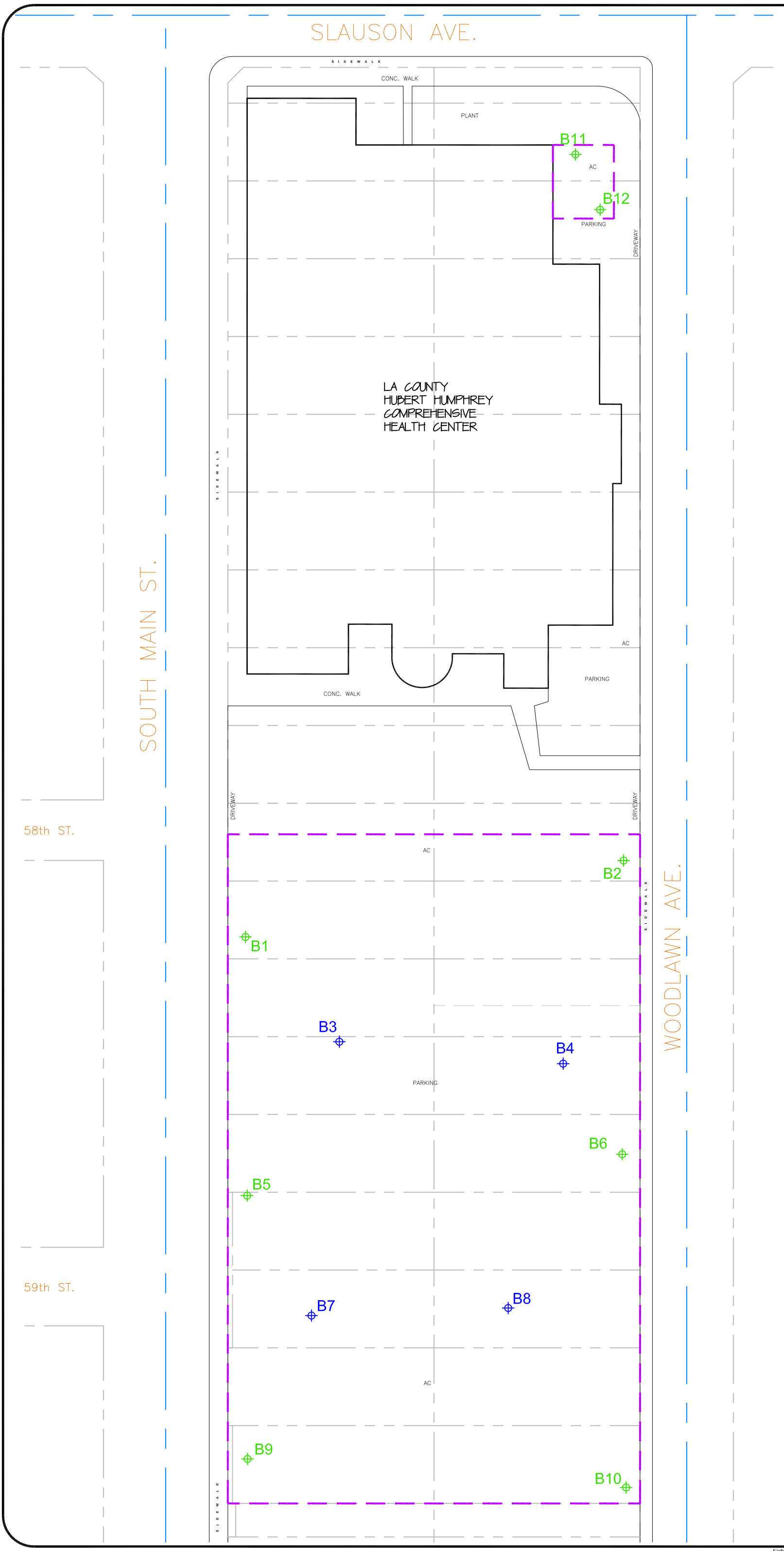
Figures



Approximate Outline of Site

FIGURE 1 - SITE VICINITY MAP

Site: Hubert Humphrey Comprehensive Health Ctr. 5850 S. Main Street	Client: Los Angeles County Dept. of Public Works
City/State: Los Angeles, California	Coffey Environments Project Number: 411-0134
coffey environments 3777 Long Beach Blvd., Annex Bldg. Long Beach, CA 90807 phone: (800) 777-0605 www.coffey.com	Google Earth Pro



LEGEND:

- Parcel Line
- Center Line
- Approx. Outline of Building
- Site Boundary
- Soil Matrix/Soil Vapor Boring Location
- Soil Matrix Boring Location

FIGURE 2:
Site Layout and Boring Location Map

CLIENT:
Los Angeles County Department of Public Works

SITE LOCATION:
LA County Hubert Humphrey Comprehensive Health Center
5850 South Main Street
Los Angeles, California

APPROVED: JB

DRAWN BY: KAD

DATE: 05/2011

SCALE: 1" = 60'

PROJECT #: 411-0134

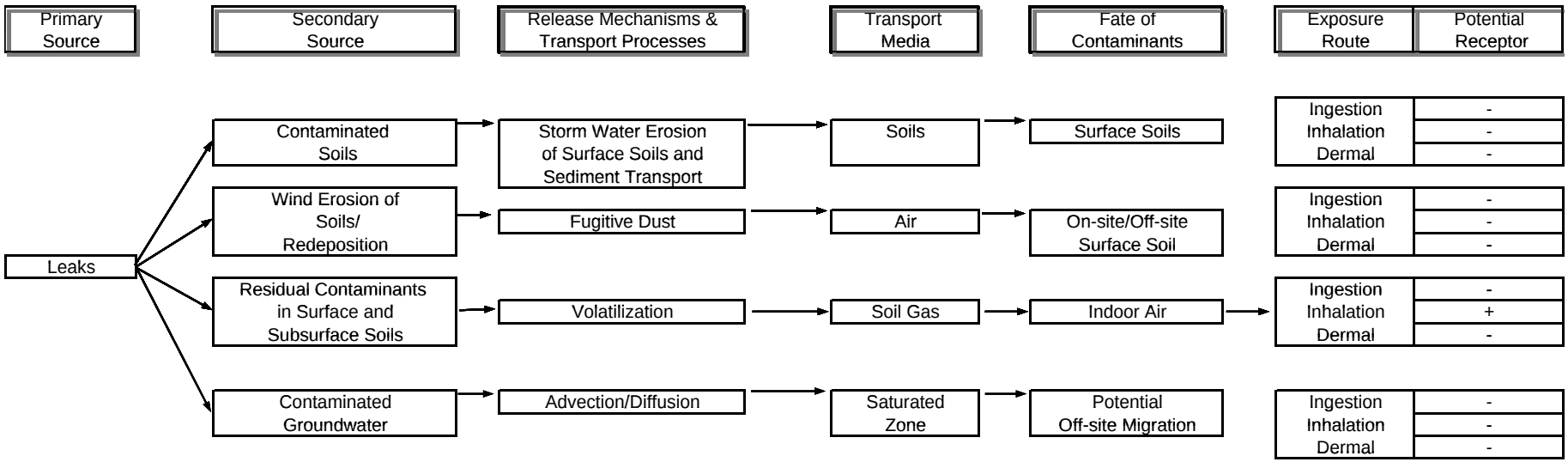
MAP #:
EENG/ 411-0134/ LADPWHealthCtrHRA.dwg

coffey environments
3777 Long Beach Boulevard, Annex
Long Beach, CA 90807
(310) 530-5006
www.coffey.com

F:\ctldata\2011 Projects\411-0134 LACDPW - HHH HRA\CAD drawings\LADPWHealthCtrHRA.dwg

Appendix C
Conceptual Site Model

FIGURE 3
CONCEPTUAL SITE MODEL



- Incomplete exposure pathway
+ Complete exposure pathway

Appendix D

Calculations

Calculations
Health Hazards from Incidental Soil Ingestion - Construction Worker Exposure Scenario
Hubert Humphrey Health Care Center
5850 South Main Street, Los Angeles, California

COPC	Maximum Soil Concentration (mg/kg)	Oral Reference Dose (mg/kg-d)	Construction Worker Average Daily Intake (mg/kg-day) Const.	Construction Worker Hazard Quotient (unitless) Const.
Metals				
Arsenic	20.3	3.0E-04	6.55E-05	2.18E-01
Barium	118	7.0E-02	3.81E-04	5.44E-03
Chromium III	11.3	1.5E+00	3.65E-05	2.43E-05
Cobalt	7.37	2.0E-02	2.38E-05	1.19E-03
Copper	27	4.0E-02	8.72E-05	2.18E-03
Lead	49.4	NA	1.60E-04	NA
Mercury	0.11	3.0E-04	3.55E-07	1.18E-03
Nickel	9.21	2.0E-02	2.97E-05	1.49E-03
Vanadium	25.8	7.0E-03	8.33E-05	1.19E-02
Zinc	121	3.0E-01	3.91E-04	1.30E-03
Total Hazard Index				**2.43E-01**

Notes:
"nd" not detected
" -- " not applicable or not available
" * " chemical not a COPC for combined soil

Equations:
Industrial Worker $INTAKE_{noncancer}$ (mg/kg-day) = ((CS * IR-iw * FE * EFiw * EDiw * CF) / (BWiw * $AT_{noncancer}$))
Construction Worker $INTAKE_{noncancer}$ (mg/kg-day) = ((CS * IR-Scw * FE * EFcw * EDcw * CF) / (BWcw * $AT_{noncancer}$))
Noncancer Hazard = ($INTAKE_{noncancer}$ / RfD)

Calculations
Health Hazards from Dermal Contact with Soil - Construction Worker Exposure Scenario
Hubert Humphrey Health Care Center
5850 South Main Street, Los Angeles, California

COPC	Maximum Soil Concentration (mg/kg)	Soil-to-Skin Absorption Factor (unitless)	Oral/Dermal Reference Dose (mg/kg-d)	Construction Worker	
				Average Daily Intake (mg/kg-day) Const.	Hazard Quotient (unitless) Const.
Metals					
Arsenic	20.3	0.03	3.0E-04	2.72E-05	9.06E-02
Barium	118	0.01	7.0E-02	5.26E-05	7.52E-04
Chromium III	11.3	0.01	1.5E+00	5.04E-06	3.36E-06
Cobalt	7.37	0.01	2.0E-02	3.29E-06	1.64E-04
Copper	27	0.01	4.0E-02	1.20E-05	3.01E-04
Lead	49.4	0.01	NA	2.20E-05	NA
Mercury	0.11	0.01	3.0E-04	4.91E-08	1.64E-04
Nickel	9.21	0.01	2.0E-02	4.11E-06	2.05E-04
Vanadium	25.8	0.01	7.0E-03	1.15E-05	1.64E-03
Zinc	121	0.01	3.0E-01	5.40E-05	1.80E-04
Total Hazard Index					**9.40E-02**

Notes:

"nd" not detected
" -- " not applicable or not available
" * " chemical not a COPC for combined soil

Equations:

Industrial Worker $INTAKE_{noncancer}$ (mg/kg-day) = ((CS * IR-iw * FE * EFiw * EDiw * CF) / (BWiw * $AT_{noncancer}$))
Construction Worker $INTAKE_{noncancer}$ (mg/kg-day) = ((CS * IR-Scw * FE * EFcw * EDcw * CF) / (BWcw * $AT_{noncancer}$))
Noncancer Hazard = ($INTAKE_{noncancer}$ / RfD)

Calculations
Health Hazards from Inhalation of Outdoor Air - Construction Worker Exposure Scenario
Hubert Humphrey Health Care Center
5850 South Main Street, Los Angeles, California

COPC	Maximum Soil Concentration (mg/kg)	PEF or VF (m^3/kg)	Inhalation Reference Dose[a] (mg/kg-d)	Construction Worker	
				Average Daily Intake (mg/kg-day) Const.	Hazard Quotient (unitless) Const.
Metals					
Arsenic	20.3	1.21E+06	8.6E-06	3.29E-06	3.84E-01
Barium	118	1.21E+06	1.4E-04	1.91E-05	1.34E-01
Chromium III	11.3	1.21E+06	NA	1.83E-06	NA
Cobalt	7.37	1.21E+06	5.7E-06	1.19E-06	2.09E-01
Copper	27	1.21E+06	NA	4.37E-06	NA
Lead	49.4	1.21E+06	NA	8.00E-06	NA
Mercury	0.11	1.21E+06	2.6E-05	1.78E-08	6.93E-04
Nickel	9.21	1.21E+06	1.4E-05	1.49E-06	1.04E-01
Vanadium	25.8	1.21E+06	NA	4.18E-06	NA
Zinc	121	1.21E+06	NA	1.96E-05	NA
Total Hazard Index					8.32E-01

Notes:

"nd" not detected

" -- " not applicable or not available

" * " chemical not a COPC for combined soil

Particulate Equations:

Industrial Worker $INTAKE_{noncancer}$ (mg/kg-day) = (CS * EFiw * EDiw * (1/PEF) * IR-Aiw) / (BWiw * $AT_{noncancer}$))

Construction Worker $INTAKE_{noncancer}$ (mg/kg-day) = (CS *EFcw * EDcw * (1/PEF) * IR-Acw) / (BWcw * $AT_{noncancer}$))

Noncancer Hazard = ($INTAKE_{noncancer}$ / RfD)

Calculations
Cumulative Health Hazards from Multipathway Soil Exposure Construction Worker Exposure Scenario
Hubert Humphrey Health Care Center
5850 South Main Street, Los Angeles, California

COPC	Maximum Soil Conc. (mg/kg)	Construction Worker			
		Ingestion	Dermal	Inhalation	Total HI
Metals					
Arsenic	20.3	2.18E-01	9.06E-02	3.84E-01	6.9E-01
Barium	118	5.44E-03	7.52E-04	1.34E-01	1.4E-01
Chromium III	11.3	2.43E-05	3.36E-06	NA	2.8E-05
Cobalt	7.37	1.19E-03	1.64E-04	2.09E-01	2.1E-01
Copper	27	2.18E-03	3.01E-04	NA	2.5E-03
Lead	49.4	NA	NA	NA	--
Mercury	0.11	1.18E-03	1.64E-04	6.93E-04	2.0E-03
Nickel	9.21	1.49E-03	2.05E-04	1.04E-01	1.1E-01
Vanadium	25.8	1.19E-02	1.64E-03	NA	1.4E-02
Zinc	121	1.30E-03	1.80E-04	NA	1.5E-03
Total Hazard Index					1.17E+00

Notes:
"nd" not detected
" -- " not applicable or not available
" * " chemical not a COPC for combined soil

Calculations
Cancer Risks from Incidental Soil Ingestion - Construction Worker Exposure Scenario
Hubert Humphrey Health Care Center
5850 South Main Street, Los Angeles, California

COPC	Maximum Soil Concentration (mg/kg)	Oral Slope Factor $(mg/kg\text{-}d)^{-1}$	Construction Worker	
			Average Daily Intake (mg/kg-day) Const.	Cancer Risk (unitless) Const.
Metals				
Arsenic	20.3	9.5E+00	4.68E-07	4.45E-06
Barium	118	NA	2.72E-06	NA
Chromium III	11.3	NA	2.61E-07	NA
Cobalt	7.37	NA	1.70E-07	NA
Copper	27	NA	6.23E-07	NA
Lead	49.4	NA	1.14E-06	NA
Mercury	0.11	NA	2.54E-09	NA
Nickel	9.21	NA	2.12E-07	NA
Vanadium	25.8	NA	5.95E-07	NA
Zinc	121	NA	2.79E-06	NA
Total Cancer Risk				4.45E-06

Notes:
"nd" not detected
" -- " not applicable or not available
" * " chemical not a COPC for combined soil

Equations:
Industrial Worker $INTAKE_{cancer}$ (mg/kg-day) = ((CS * IR-Siw * FE * EFiw * Ediw * CF) / (BWiw * AT_{cancer}))
Construction Worker $INTAKE_{cancer}$ (mg/kg-day) = ((CS * IR-Scw * FE * EFcw * EDcw * CF) / (BW_{cw} * AT_{cancer}))
Cancer Risk = ($INTAKE_{cancer}$ * CSF)

Calculations
Cancer Risks from Dermal Contact with Soil - Construction Worker Exposure Scenario
Hubert Humphrey Health Care Center
5850 South Main Street, Los Angeles, California

COPC	Maximum Soil Concentration (mg/kg)	Soil-to-Skin Absorption Factor (unitless)	Oral/Dermal Slope Factor $(mg/kg\text{-}d)^{-1}$	Construction Worker	
				Average Daily Intake (mg/kg-day) Const.	Cancer Risk (unitless) Const.
Metals					
Arsenic	20.3	0.03	9.5E+00	1.94E-07	1.84E-06
Barium	118	0.01	NA	3.76E-07	NA
Chromium III	11.3	0.01	NA	3.60E-08	NA
Cobalt	7.37	0.01	NA	2.35E-08	NA
Copper	27	0.01	NA	8.60E-08	NA
Lead	49.4	0.01	NA	1.57E-07	NA
Mercury	0.11	0.01	NA	3.51E-10	NA
Nickel	9.21	0.01	NA	2.94E-08	NA
Vanadium	25.8	0.01	NA	8.22E-08	NA
Zinc	121	0.01	NA	3.86E-07	NA
Total Cancer Risk					1.84E-06

Notes:
"nd" not detected
" -- " not applicable or not available
" * " chemical not a COPC for combined soil

Equations:
Industrial Worker $INTAKE_{cancer}$ (mg/kg-day) = ((CS * SAiw * AFiw * ABS * FE * EFiw * EDiw * CF) / (BWiw * AT_{cancer}))
Construction Worker $INTAKE_{cancer}$ (mg/kg-day) = ((CS * SAcw * AFcw * ABS * FE * EFcw * EDcw * CF) / (BWcw * AT_{cancer}))
Cancer Risk = ($INTAKE_{cancer}$ * CSF)

Calculations
Cancer Risks from Inhalation of Outdoor Air - Construction Worker Exposure Scenario
Hubert Humphrey Health Care Center
5850 South Main Street, Los Angeles, California

COPC	Maximum Soil Concentration (mg/kg)	PEF or VF (m3/kg)	Inhalation Slope Factor $(mg/kg\text{-}d)^{-1}$	Construction Worker	
				Daily Intake (mg/kg-d)	Cancer Risk (unitless)
Metals					
Arsenic	20.3	1.21E+06	1.2E+01	2.35E-08	2.82E-07
Barium	118	1.21E+06	NA	1.37E-07	NA
Chromium III	11.3	1.21E+06	NA	1.31E-08	NA
Cobalt	7.37	1.21E+06	9.8E+00	8.53E-09	8.36E-08
Copper	27	1.21E+06	NA	3.12E-08	NA
Lead	49.4	1.21E+06	NA	5.72E-08	NA
Mercury	0.11	1.21E+06	NA	1.27E-10	NA
Nickel	9.21	1.21E+06	9.1E-01	1.07E-08	9.70E-09
Vanadium	25.8	1.21E+06	NA	2.99E-08	NA
Zinc	121	1.21E+06	NA	1.40E-07	NA
Total Cancer Risk					3.75E-07

Notes:

"nd" not detected

" -- " not applicable or not available

" * " chemical not a COPC for combined soil

Particulate Equations:

Industrial Worker $INTAKE_{cancer}$ (mg/kg-day) = (CS * EFiw * EDiw * (1/PEF) * IR-Aiw) / (BWiw * AT_{cancer}))

Construction Worker $INTAKE_{cancer}$ (mg/kg-day) = (CS * EFcw * EDcw * (1/PEF) * IR-Acw) / (BWcw * AT_{cancer}))

Cancer Risk = ($INTAKE_{cancer}$ * CSF)

Calculations
Cumulative Cancer Risks from Multipathway Soil Exposure - Construction Worker Exposure Scenario
Hubert Humphrey Health Care Center
5850 South Main Street, Los Angeles, California

COPC	Maximum Soil Conc. (mg/kg)	Construction Worker			
		Ingestion	Dermal	Inhalation	Total Risk
Metals					
Arsenic	20.3	4.4E-06	1.8E-06	2.8E-07	6.6E-06
Barium	118	NA	NA	NA	--
Chromium III	11.3	NA	NA	NA	--
Cobalt	7.37	NA	NA	8.4E-08	8.4E-08
Copper	27	NA	NA	NA	--
Lead	49.4	NA	NA	NA	--
Mercury	0.11	NA	NA	NA	--
Nickel	9.21	NA	NA	9.7E-09	9.7E-09
Vanadium	25.8	NA	NA	NA	--
Zinc	121	NA	NA	NA	--
Total Cancer Risk					6.7E-06

Notes:

"nd" not detected

" -- " not applicable or not available

" * " chemical not a COPC for combined soil

Appendix E

Johnson and Ettinger Model Spreadsheets

SG-SCREEN
PA Version 2.0; 04/

Reset to Defaults

DTSC
Vapor Intrusion Guidance
Interim Final 12/04
(last modified 2/4/09)

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical	Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
	Soil Gas Concentration Data					
75354	6.90E+02			1,1-Dichloroethylene	NA	2.1E-03
95636	8.10E+02			1,2,4-Trimethylbenzene	NA	1.9E-02
108907	3.11E+03			Chlorobenzene	NA	5.8E-04
156592	1.50E+03			cis-1,2-Dichloroethylene	NA	8.0E-03
75718	2.42E+03			Dichlorodifluoromethane	NA	2.1E-03
127184	2.40E+02			Tetrachloroethylene	9.3E-08	1.3E-03
156605	6.10E+02			trans-1,2-Dichloroethylene	NA	1.9E-03
79016	3.90E+03			Trichloroethylene	5.5E-07	1.3E-03
75014	1.30E+02			Vinyl chloride (chloroethene)	8.5E-07	3.1E-04

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (15 or 200 cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (^oC)	ENTER Vadose zone SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined vadose zone soil vapor permeability, k_v (cm^2)
15	152.4	24			1.00E-08

Building =	Commercial/Industrial
Area of building sq.ft.	1,076
Area of building (cm2)	1,000,008
Height of building ft.	12
Volume of building (cm^3)	365,763,088
Air exchange per hour	1
Ventilation rate (cm^3/sec)	101,601
Seam perimeter (cm)	4,000
Depth below grade (ft)	5
Depth below grade (cm)	152.4
Exposure Duration (years)	25
Recommended Q_soil (L/m)/Building area (cm2) ratio	5.00E-06
Q_soil proportional to building size	5

MORE ↓

ENTER Vandose zone SCS soil type (Lookup Soil Parameters)	ENTER Vadose zone soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Vadose zone soil total porosity, n^V (unitless)	ENTER Vadose zone soil water-filled porosity, θ_w^V (cm^3/cm^3)	ENTER Average vapor flow rate into bldg. (Leave blank to calculate) Q_{soil} (L/m)
	1.5	0.43	0.15	5

MORE ↓

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	25	25	250

END

CHEMICAL PROPERTIES SHEET

Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Henry's law constant at reference temperature, H (atm-m^3/mol)	Henry's law constant reference temperature, T_R (^oC)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (^oK)	Critical temperature, T_C (^oK)	Unit risk factor, URF ($\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)	Molecular weight, MW (g/mol)
9.00E-02	1.04E-05	2.60E-02	25	6,247	304.75	576.05	0.0E+00	7.0E-02	96.94
6.06E-02	7.92E-06	6.14E-03	25	9,369	442.30	649.17	0.0E+00	7.0E-03	120.20
7.30E-02	8.70E-06	3.69E-03	25	8,410	404.87	632.40	0.0E+00	1.0E+00	112.56
7.36E-02	1.13E-05	4.07E-03	25	7,192	333.65	544.00	0.0E+00	3.5E-02	96.94
6.65E-02	9.92E-06	3.42E-01	25	9,421	243.20	384.95	0.0E+00	2.0E-01	120.92
7.20E-02	8.20E-06	1.84E-02	25	8,288	394.40	620.20	5.9E-06	3.5E-02	165.83
7.07E-02	1.19E-05	9.36E-03	25	6,717	320.85	516.50	0.0E+00	6.0E-02	96.94
7.90E-02	9.10E-06	1.03E-02	25	7,505	360.36	544.20	2.0E-06	6.0E-01	131.39
1.06E-01	1.23E-05	2.69E-02	25	5,250	259.25	432.00	7.8E-05	1.0E-01	62.50

END

INTERMEDIATE CALCULATIONS SHEET

Source-building separation, L_T (cm)	Vadose zone soil air-filled porosity, θ_a^V (cm^3/cm^3)	Vadose zone effective total fluid saturation, S_{te} (cm^3/cm^3)	Vadose zone soil intrinsic permeability, k_i (cm^2)	Vadose zone soil relative air permeability, k_{rg} (cm^2)	Vadose zone soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. ($\mu g/m^3$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
137.4	0.280	#N/A	#N/A	#N/A	1.00E-08	4,000	6.90E+02	1.02E+05
137.4	0.280	#N/A	#N/A	#N/A	1.00E-08	4,000	8.10E+02	1.02E+05
137.4	0.280	#N/A	#N/A	#N/A	1.00E-08	4,000	3.11E+03	1.02E+05
137.4	0.280	#N/A	#N/A	#N/A	1.00E-08	4,000	1.50E+03	1.02E+05
137.4	0.280	#N/A	#N/A	#N/A	1.00E-08	4,000	2.42E+03	1.02E+05
137.4	0.280	#N/A	#N/A	#N/A	1.00E-08	4,000	2.40E+02	1.02E+05
137.4	0.280	#N/A	#N/A	#N/A	1.00E-08	4,000	6.10E+02	1.02E+05
137.4	0.280	#N/A	#N/A	#N/A	1.00E-08	4,000	3.90E+03	1.02E+05
137.4	0.280	#N/A	#N/A	#N/A	1.00E-08	4,000	1.30E+02	1.02E+05

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Vadose zone effective diffusion coefficient, D^{eff}_V (cm^2/s)	Diffusion path length, L_d (cm)
1.00E+06	5.00E-03	15	6,299	2.51E-02	1.03E+00	1.80E-04	7.02E-03	137.4
1.00E+06	5.00E-03	15	11,516	5.76E-03	2.36E-01	1.80E-04	4.73E-03	137.4
1.00E+06	5.00E-03	15	9,661	3.49E-03	1.43E-01	1.80E-04	5.69E-03	137.4
1.00E+06	5.00E-03	15	7,592	3.90E-03	1.60E-01	1.80E-04	5.74E-03	137.4
1.00E+06	5.00E-03	15	7,961	3.27E-01	1.34E+01	1.80E-04	5.19E-03	137.4
1.00E+06	5.00E-03	15	9,410	1.74E-02	7.14E-01	1.80E-04	5.62E-03	137.4
1.00E+06	5.00E-03	15	6,986	8.99E-03	3.69E-01	1.80E-04	5.51E-03	137.4
1.00E+06	5.00E-03	15	8,382	9.80E-03	4.02E-01	1.80E-04	6.16E-03	137.4
1.00E+06	5.00E-03	15	4,840	2.62E-02	1.07E+00	1.80E-04	8.27E-03	137.4

Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $\exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)
15	6.90E+02	1.25	8.33E+01	7.02E-03	5.00E+03	2.04E+10	3.12E-04	2.15E-01
15	8.10E+02	1.25	8.33E+01	4.73E-03	5.00E+03	2.05E+15	2.40E-04	1.94E-01
15	3.11E+03	1.25	8.33E+01	5.69E-03	5.00E+03	5.14E+12	2.72E-04	8.47E-01
15	1.50E+03	1.25	8.33E+01	5.74E-03	5.00E+03	4.04E+12	2.74E-04	4.11E-01
15	2.42E+03	1.25	8.33E+01	5.19E-03	5.00E+03	9.00E+13	2.56E-04	6.19E-01
15	2.40E+02	1.25	8.33E+01	5.62E-03	5.00E+03	7.73E+12	2.70E-04	6.48E-02
15	6.10E+02	1.25	8.33E+01	5.51E-03	5.00E+03	1.33E+13	2.67E-04	1.63E-01
15	3.90E+03	1.25	8.33E+01	6.16E-03	5.00E+03	5.57E+11	2.87E-04	1.12E+00
15	1.30E+02	1.25	8.33E+01	8.27E-03	5.00E+03	5.68E+08	3.44E-04	4.47E-02

Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
NA	7.0E-02
NA	7.0E-03
NA	1.0E+00
NA	3.5E-02
NA	2.0E-01
5.9E-06	3.5E-02
NA	6.0E-02
2.0E-06	6.0E-01
7.8E-05	1.0E-01

END

RESULTS SHEET

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)	Chemical
NA	2.1E-03	1,1-Dichloroethylene
NA	1.9E-02	1,2,4-Trimethylbenzene
NA	5.8E-04	Chlorobenzene
NA	8.0E-03	cis-1,2-Dichloroethylene
NA	2.1E-03	Dichlorodifluoromethane
9.3E-08	1.3E-03	Tetrachloroethylene
NA	1.9E-03	trans-1,2-Dichloroethylene
5.5E-07	1.3E-03	Trichloroethylene
8.5E-07	3.1E-04	Vinyl chloride (chloroethene)

MESSAGE SUMMARY BELOW:

END

SG-SCREEN
PA Version 2.0; 04/

Reset to Defaults

DTSC
Vapor Intrusion Guidance
Interim Final 12/04
(last modified 2/4/09)

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical	Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
95636	8.10E+02			1,2,4-Trimethylbenzene	NA	7.4E-03
108907	2.61E+03			Chlorobenzene	NA	2.0E-04
71432	1.10E+02			Benzene	1.0E-07	3.2E-04
75718	2.41E+03			Dichlorodifluoromethane	NA	8.4E-04

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (15 or 200 cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (^oC)	ENTER Vadose zone SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined vadose zone soil vapor permeability, k_v (cm^2)
15	457.2	24			1.00E-08

Building =	Commercial/Industrial
Area of building sq.ft.	1,076
Area of building (cm2)	1,000,008
Height of building ft.	12
Volume of building (cm^3)	365,763,088
Air exchange per hour	1
Ventilation rate (cm^3/sec)	101,601
Seam perimeter (cm)	4,000
Depth below grade (ft)	15
Depth below grade (cm)	457.2
Exposure Duration (years)	25
Recommended Q_soil (L/m)/Building area (cm2) ratio	5.00E-06
Q_soil proportional to building size	5

MORE ↓

ENTER Vandose zone SCS soil type	ENTER Vadose zone soil dry bulk density, (g/cm³)	ENTER Vadose zone soil total porosity, n^V (unitless)	ENTER Vadose zone soil water-filled porosity, θ_w^V (cm^3/cm^3)	ENTER Average vapor flow rate into bldg. (Leave blank to calculate) Q_{soil} (L/m)
	1.5	0.43	0.15	5

Lookup Soil Parameters

MORE ↓

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	25	25	250

END

CHEMICAL PROPERTIES SHEET

Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Henry's law constant at reference temperature, H (atm-m^3/mol)	Henry's law constant reference temperature, T_R (^oC)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (^oK)	Critical temperature, T_C (^oK)	Unit risk factor, URF ($\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)	Molecular weight, MW (g/mol)
6.06E-02	7.92E-06	6.14E-03	25	9,369	442.30	649.17	0.0E+00	7.0E-03	120.20
7.30E-02	8.70E-06	3.69E-03	25	8,410	404.87	632.40	0.0E+00	1.0E+00	112.56
8.80E-02	9.80E-06	5.54E-03	25	7,342	353.24	562.16	2.9E-05	3.0E-02	78.11
6.65E-02	9.92E-06	3.42E-01	25	9,421	243.20	384.95	0.0E+00	2.0E-01	120.92

END

INTERMEDIATE CALCULATIONS SHEET

Source-building separation, L_T (cm)	Vadose zone soil air-filled porosity, θ_a^V (cm^3/cm^3)	Vadose zone effective total fluid saturation, S_{te} (cm^3/cm^3)	Vadose zone soil intrinsic permeability, k_i (cm^2)	Vadose zone soil relative air permeability, k_{rg} (cm^2)	Vadose zone soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. ($\mu g/m^3$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
442.2	0.280	#N/A	#N/A	#N/A	1.00E-08	4,000	8.10E+02	1.02E+05
442.2	0.280	#N/A	#N/A	#N/A	1.00E-08	4,000	2.61E+03	1.02E+05
442.2	0.280	#N/A	#N/A	#N/A	1.00E-08	4,000	1.10E+02	1.02E+05
442.2	0.280	#N/A	#N/A	#N/A	1.00E-08	4,000	2.41E+03	1.02E+05

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Vadose zone effective diffusion coefficient, D^{eff}_V (cm^2/s)	Diffusion path length, L_d (cm)
1.00E+06	5.00E-03	15	11,516	5.76E-03	2.36E-01	1.80E-04	4.73E-03	442.2
1.00E+06	5.00E-03	15	9,661	3.49E-03	1.43E-01	1.80E-04	5.69E-03	442.2
1.00E+06	5.00E-03	15	7,977	5.29E-03	2.17E-01	1.80E-04	6.86E-03	442.2
1.00E+06	5.00E-03	15	7,961	3.27E-01	1.34E+01	1.80E-04	5.19E-03	442.2

Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)
15	8.10E+02	1.25	8.33E+01	4.73E-03	5.00E+03	2.05E+15	9.33E-05	7.55E-02
15	2.61E+03	1.25	8.33E+01	5.69E-03	5.00E+03	5.14E+12	1.10E-04	2.87E-01
15	1.10E+02	1.25	8.33E+01	6.86E-03	5.00E+03	3.50E+10	1.29E-04	1.42E-02
15	2.41E+03	1.25	8.33E+01	5.19E-03	5.00E+03	9.00E+13	1.01E-04	2.44E-01

Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
NA	7.0E-03
NA	1.0E+00
2.9E-05	3.0E-02
NA	2.0E-01

END

RESULTS SHEET

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)	Chemical
NA	7.4E-03	1,2,4-Trimethylbenzene
NA	2.0E-04	Chlorobenzene
1.0E-07	3.2E-04	Benzene
NA	8.4E-04	Dichlorodifluoromethane

MESSAGE SUMMARY BELOW:

END

SG-SCREEN
?A Version 2.0; 04/

Reset to Defaults

DTSC
Vapor Intrusion Guidance
Interim Final 12/04
(last modified 2/4/09)

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical	Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
95636	8.10E+02			1,2,4-Trimethylbenzene	NA	1.9E-02
108907	2.80E+03			Chlorobenzene	NA	5.2E-04
75718	2.98E+03			Dichlorodifluoromethane	NA	2.6E-03
127184	1.00E+02			Tetrachloroethylene	3.9E-08	5.3E-04

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (15 or 200 cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (^oC)	ENTER Vadose zone SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined vadose zone soil vapor permeability, k_v (cm^2)
15	152.4	24			1.00E-08

Building =	Commercial/Industrial
Area of building sq.ft.	1,076
Area of building (cm2)	1,000,008
Height of building ft.	12
Volume of building (cm^3)	365,763,088
Air exchange per hour	1
Ventilation rate (cm^3/sec)	101,601
Seam perimeter (cm)	4,000
Depth below grade (ft)	5
Depth below grade (cm)	152.4
Exposure Duration (years)	25
Recommended Q_soil (L/m)/Building area (cm2) ratio	5.00E-06
Q_soil proportional to building size	5

MORE ↓

ENTER Vandose zone SCS soil type	ENTER Vadose zone soil dry bulk density, (g/cm³) (Lookup Soil Parameters)	ENTER Vadose zone soil total porosity, n^V (unitless)	ENTER Vadose zone soil water-filled porosity, θ_w^V (cm^3/cm^3)	ENTER Average vapor flow rate into bldg. (Leave blank to calculate) Q_{soil} (L/m)
	1.5	0.43	0.15	5

MORE ↓

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	25	25	250

END

CHEMICAL PROPERTIES SHEET

Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Henry's law constant at reference temperature, H (atm-m^3/mol)	Henry's law constant reference temperature, T_R (^oC)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (^oK)	Critical temperature, T_C (^oK)	Unit risk factor, URF ($\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)	Molecular weight, MW (g/mol)
6.06E-02	7.92E-06	6.14E-03	25	9,369	442.30	649.17	0.0E+00	7.0E-03	120.20
7.30E-02	8.70E-06	3.69E-03	25	8,410	404.87	632.40	0.0E+00	1.0E+00	112.56
6.65E-02	9.92E-06	3.42E-01	25	9,421	243.20	384.95	0.0E+00	2.0E-01	120.92
7.20E-02	8.20E-06	1.84E-02	25	8,288	394.40	620.20	5.9E-06	3.5E-02	165.83

END

INTERMEDIATE CALCULATIONS SHEET

Source-building separation, L_T (cm)	Vadose zone soil air-filled porosity, θ_a^V (cm^3/cm^3)	Vadose zone effective total fluid saturation, S_{te} (cm^3/cm^3)	Vadose zone soil intrinsic permeability, k_i (cm^2)	Vadose zone soil relative air permeability, k_{rg} (cm^2)	Vadose zone soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. ($\mu g/m^3$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
137.4	0.280	#N/A	#N/A	#N/A	1.00E-08	4,000	8.10E+02	1.02E+05
137.4	0.280	#N/A	#N/A	#N/A	1.00E-08	4,000	2.80E+03	1.02E+05
137.4	0.280	#N/A	#N/A	#N/A	1.00E-08	4,000	2.98E+03	1.02E+05
137.4	0.280	#N/A	#N/A	#N/A	1.00E-08	4,000	1.00E+02	1.02E+05

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Vadose zone effective diffusion coefficient, D^{eff}_V (cm^2/s)	Diffusion path length, L_d (cm)
1.00E+06	5.00E-03	15	11,516	5.76E-03	2.36E-01	1.80E-04	4.73E-03	137.4
1.00E+06	5.00E-03	15	9,661	3.49E-03	1.43E-01	1.80E-04	5.69E-03	137.4
1.00E+06	5.00E-03	15	7,961	3.27E-01	1.34E+01	1.80E-04	5.19E-03	137.4
1.00E+06	5.00E-03	15	9,410	1.74E-02	7.14E-01	1.80E-04	5.62E-03	137.4

Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)
15	8.10E+02	1.25	8.33E+01	4.73E-03	5.00E+03	2.05E+15	2.40E-04	1.94E-01
15	2.80E+03	1.25	8.33E+01	5.69E-03	5.00E+03	5.14E+12	2.72E-04	7.63E-01
15	2.98E+03	1.25	8.33E+01	5.19E-03	5.00E+03	9.00E+13	2.56E-04	7.62E-01
15	1.00E+02	1.25	8.33E+01	5.62E-03	5.00E+03	7.73E+12	2.70E-04	2.70E-02

Unit risk factor, URF ($\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
NA	7.0E-03
NA	1.0E+00
NA	2.0E-01
5.9E-06	3.5E-02

END

RESULTS SHEET

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)	Chemical
NA	1.9E-02	1,2,4-Trimethylbenzene
NA	5.2E-04	Chlorobenzene
NA	2.6E-03	Dichlorodifluoromethane
3.9E-08	5.3E-04	Tetrachloroethylene

MESSAGE SUMMARY BELOW:

END

SG-SCREEN
PA Version 2.0; 04/

Reset to Defaults

DTSC
Vapor Intrusion Guidance
Interim Final 12/04
(last modified 2/4/09)

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical	Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
95636	8.10E+02			1,2,4-Trimethylbenzene	NA	7.4E-03
108907	2.83E+03			Chlorobenzene	NA	2.1E-04
75718	3.06E+03			Dichlorodifluoromethane	NA	1.1E-03

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (15 or 200 cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (^oC)	ENTER Vadose zone SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined vadose zone soil vapor permeability, k_v (cm^2)
15	457.2	24			1.00E-08

Building =	Commercial/Industrial
Area of building sq.ft.	1,076
Area of building (cm2)	1,000,008
Height of building ft.	12
Volume of building (cm^3)	365,763,088
Air exchange per hour	1
Ventilation rate (cm^3/sec)	101,601
Seam perimeter (cm)	4,000
Depth below grade (ft)	15
Depth below grade (cm)	457.2
Exposure Duration (years)	25
Recommended Q_soil (L/m)/Building area (cm2) ratio	5.00E-06
Q_soil proportional to building size	5

MORE ↓

ENTER Vandose zone SCS soil type	ENTER Vadose zone soil dry bulk density, (g/cm³)	ENTER Vadose zone soil total porosity, n^V (unitless)	ENTER Vadose zone soil water-filled porosity, θ_w^V (cm^3/cm^3)	ENTER Average vapor flow rate into bldg. (Leave blank to calculate) Q_{soil} (L/m)
	1.5	0.43	0.15	5

Lookup Soil Parameters

MORE ↓

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	25	25	250

END

CHEMICAL PROPERTIES SHEET

Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Henry's law constant at reference temperature, H (atm-m^3/mol)	Henry's law constant reference temperature, T_R (^oC)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (^oK)	Critical temperature, T_C (^oK)	Unit risk factor, URF ($\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)	Molecular weight, MW (g/mol)
6.06E-02	7.92E-06	6.14E-03	25	9,369	442.30	649.17	0.0E+00	7.0E-03	120.20
7.30E-02	8.70E-06	3.69E-03	25	8,410	404.87	632.40	0.0E+00	1.0E+00	112.56
6.65E-02	9.92E-06	3.42E-01	25	9,421	243.20	384.95	0.0E+00	2.0E-01	120.92

END

INTERMEDIATE CALCULATIONS SHEET

Source-building separation, L_T (cm)	Vadose zone soil air-filled porosity, θ_a^V (cm^3/cm^3)	Vadose zone effective total fluid saturation, S_{te} (cm^3/cm^3)	Vadose zone soil intrinsic permeability, k_i (cm^2)	Vadose zone soil relative air permeability, k_{rg} (cm^2)	Vadose zone soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. ($\mu g/m^3$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
442.2	0.280	#N/A	#N/A	#N/A	1.00E-08	4,000	8.10E+02	1.02E+05
442.2	0.280	#N/A	#N/A	#N/A	1.00E-08	4,000	2.83E+03	1.02E+05
442.2	0.280	#N/A	#N/A	#N/A	1.00E-08	4,000	3.06E+03	1.02E+05

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Vadose zone effective diffusion coefficient, D^{eff}_V (cm^2/s)	Diffusion path length, L_d (cm)
1.00E+06	5.00E-03	15	11,516	5.76E-03	2.36E-01	1.80E-04	4.73E-03	442.2
1.00E+06	5.00E-03	15	9,661	3.49E-03	1.43E-01	1.80E-04	5.69E-03	442.2
1.00E+06	5.00E-03	15	7,961	3.27E-01	1.34E+01	1.80E-04	5.19E-03	442.2

Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, $exp(Pe^f)$ (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)
15	8.10E+02	1.25	8.33E+01	4.73E-03	5.00E+03	2.05E+15	9.33E-05	7.55E-02
15	2.83E+03	1.25	8.33E+01	5.69E-03	5.00E+03	5.14E+12	1.10E-04	3.11E-01
15	3.06E+03	1.25	8.33E+01	5.19E-03	5.00E+03	9.00E+13	1.01E-04	3.10E-01

Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
NA	7.0E-03
NA	1.0E+00
NA	2.0E-01

END

RESULTS SHEET

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)	Chemical
NA	7.4E-03	1,2,4-Trimethylbenzene
NA	2.1E-04	Chlorobenzene
NA	1.1E-03	Dichlorodifluoromethane

MESSAGE SUMMARY BELOW:

END

SCS Soil Type	K_s (cm/h)	α_1 (1/cm)	N (unitless)	M (unitless)	n (cm^3/cm^3)	θ_r (cm^3/cm^3)	ean Grain Diameter (cr	Bulk Density (g/cm^3)	θ_w (cm^3/cm^3)	SCS Soil Name
C	0.61	0.01496	1.253	0.2019	0.459	0.098	0.0092	1.43	0.215	Clay
CL	0.34	0.01581	1.416	0.2938	0.442	0.079	0.016	1.48	0.168	Clay Loam
L	0.50	0.01112	1.472	0.3207	0.399	0.061	0.020	1.59	0.148	Loam
LS	4.38	0.03475	1.746	0.4273	0.390	0.049	0.040	1.62	0.076	Loamy Sand
S	26.78	0.03524	3.177	0.6852	0.375	0.053	0.044	1.66	0.054	Sand
SC	0.47	0.03342	1.208	0.1722	0.385	0.117	0.025	1.63	0.197	Sandy Clay
SCL	0.55	0.02109	1.330	0.2481	0.384	0.063	0.029	1.63	0.146	Sandy Clay Loam
SI	1.82	0.00658	1.679	0.4044	0.489	0.050	0.0046	1.35	0.167	Silt
SIC	0.40	0.01622	1.321	0.2430	0.481	0.111	0.0039	1.38	0.216	Silty Clay
SICL	0.46	0.00839	1.521	0.3425	0.482	0.090	0.0056	1.37	0.198	Silty Clay Loam
SIL	0.76	0.00506	1.663	0.3987	0.439	0.065	0.011	1.49	0.180	Silt Loam
SL	1.60	0.02667	1.449	0.3099	0.387	0.039	0.030	1.62	0.103	Sandy Loam

		Chemical Properties Lookup Table										CalEPA Toxicity Criteria in bold (last updated 2/4/09 DTSC/HERD)					Original EPA Values			
CAS No.	Chemical	Organic carbon partition coefficient, K_{oc} (cm^3/g)	Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Pure component water solubility, S (mg/L)	Henry's law constant H' (unitless)	Henry's law constant at reference temperature, H (atm-m^3/mol)	Henry's law constant reference temperature, T_R (^oC)	Normal boiling point, T_B (^oK)	Critical temperature, T_C (^oK)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)	Molecular weight, MW (g/mol)	URF extrapolated (X)	RfC extrapolated (X)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)	URF extrapolated (X)	RfC extrapolated (X)
56235	Carbon tetrachloride	1.74E+02	7.80E-02	8.80E-06	7.93E+02	1.24E+00	3.03E-02	25	349.90	556.60	7,127	**4.2E-05**	**4.0E-02**	1.54E+02			1.5E-05	0.0E+00		
57749	Chlordane	1.20E+05	1.18E-02	4.37E-06	5.60E-02	1.99E-03	4.85E-05	25	624.24	885.73	14,000	**3.4E-04**	7.0E-04	4.10E+02			1.0E-04	7.0E-04		
58899	gamma-HCH (Lindane)	1.07E+03	1.42E-02	7.34E-06	7.30E+00	5.73E-04	1.40E-05	25	596.55	839.36	15,000	**3.1E-04**	1.1E-03	2.91E+02	?	X	3.7E-04	1.1E-03	X	X
60297	Ethyl ether	5.73E+00	7.82E-02	8.61E-06	5.68E+04	1.35E+00	3.29E-02	25	307.50	466.74	6,338	0.0E+00	7.0E-01	7.41E+01		X	0.0E+00	7.0E-01		X
60571	Dieldrin	2.14E+04	1.25E-02	4.74E-06	1.95E-01	6.18E-04	1.51E-05	25	613.32	842.25	17,000	**4.6E-03**	1.8E-04	3.81E+02		X	4.6E-03	1.8E-04		X
67641	Acetone	5.75E-01	1.24E-01	1.14E-05	1.00E+06	1.59E-03	3.87E-05	25	329.20	508.10	6,955	0.0E+00	**3.1E+01**	5.81E+01		X	0.0E+00	3.5E-01		X
67663	Chloroform	3.98E+01	1.04E-01	1.00E-05	7.92E+03	1.50E-01	3.66E-03	25	334.32	536.40	6,988	**5.3E-06**	**3.0E-01**	1.19E+02			2.3E-05	0.0E+00		
67721	Hexachloroethane	1.78E+03	2.50E-03	6.80E-06	5.00E+01	1.59E-01	3.88E-03	25	458.00	695.00	9,510	**1.1E-05**	3.5E-03	2.37E+02		X	4.0E-06	3.5E-03		X
71432	Benzene	5.89E+01	8.80E-02	9.80E-06	1.79E+03	2.27E-01	5.54E-03	25	353.24	562.16	7,342	**2.9E-05**	3.0E-02	7.81E+01			7.8E-06	0.0E+00		
71556	1,1,1-Trichloroethane	1.10E+02	7.80E-02	8.80E-06	1.33E+03	7.03E-01	1.72E-02	25	347.24	545.00	7,136	0.0E+00	**5.0E+00**	1.33E+02			0.0E+00	2.2E+00		
72435	Methoxychlor	9.77E+04	1.56E-02	4.46E-06	1.00E-01	6.46E-04	1.58E-05	25	651.02	848.49	16,000	0.0E+00	1.8E-02	3.46E+02		X	0.0E+00	1.8E-02		X
72559	DDE	4.47E+06	1.44E-02	5.87E-06	1.20E-01	8.59E-04	2.09E-05	25	636.44	860.38	15,000	**9.7E-05**	0.0E+00	3.18E+02	?		9.7E-05	0.0E+00	X	
74839	Methyl bromide	1.05E+01	7.28E-02	1.21E-05	1.52E+04	2.55E-01	6.22E-03	25	276.71	467.00	5,714	0.0E+00	**5.0E-03**	9.49E+01			0.0E+00	5.0E-03		
74873	Methyl chloride (chloromethane)	2.12E+00	1.26E-01	6.50E-06	5.33E+03	3.61E-01	8.80E-03	25	249.00	416.25	5,115	**1.8E-06**	9.0E-02	5.05E+01			1.0E-06	9.0E-02		
74908	Hydrogen cyanide	3.80E+00	1.93E-01	2.10E-05	1.00E+06	5.44E-03	1.33E-04	25	299.00	456.70	6,676	0.0E+00	3.0E-03	2.70E+01			0.0E+00	3.0E-03		
74953	Methylene bromide	1.26E+01	4.30E-02	8.44E-06	1.19E+04	3.52E-02	8.59E-04	25	370.00	583.00	7,868	0.0E+00	3.5E-02	1.74E+02		X	0.0E+00	3.5E-02		X
75003	Chloroethane (ethyl chloride)	4.40E+00	2.71E-01	1.15E-05	5.68E+03	3.61E-01	8.80E-03	25	285.30	460.40	5,879	8.3E-07	1.0E+01	6.45E+01	?		8.3E-07	1.0E+01	X	
75014	Vinyl chloride (chloroethene)	1.86E+01	1.06E-01	1.23E-05	8.80E+03	1.10E+00	2.69E-02	25	259.25	432.00	5,250	**7.8E-05**	1.0E-01	6.25E+01			8.8E-06	1.0E-01		
75058	Acetonitrile	4.20E+00	1.28E-01	1.66E-05	1.00E+06	1.42E-03	3.45E-05	25	354.60	545.50	7,110	0.0E+00	6.0E-02	4.11E+01			0.0E+00	6.0E-02		
75070	Acetaldehyde	1.06E+00	1.24E-01	1.41E-05	1.00E+06	3.23E-03	7.87E-05	25	293.10	466.00	6,157	**2.7E-06**	**9.0E-03**	4.41E+01			2.2E-06	9.0E-03		
75092	Methylene chloride	1.17E+01	1.01E-01	1.17E-05	1.30E+04	8.96E-02	2.18E-03	25	313.00	510.00	6,706	**1.0E-06**	**4.0E-01**	8.49E+01			4.7E-07	3.0E+00		
75150	Carbon disulfide	4.57E+01	1.04E-01	1.00E-05	1.19E+03	1.24E+00	3.02E-02	25	319.00	552.00	6,391	0.0E+00	7.0E-01	7.61E+01			0.0E+00	7.0E-01		
75218	Ethylene oxide	1.33E+00	1.04E-01	1.45E-05	3.04E+05	2.27E-02	5.54E-04	25	283.60	469.00	6,104	**8.8E-05**	**3.0E-02**	4.41E+01		?	1.0E-04	0.0E+00		
75252	Bromoform	8.71E+01	1.49E-02	1.03E-05	3.10E+03	2.41E-02	5.88E-04	25	422.35	696.00	9,479	1.1E-06	7.0E-02	2.53E+02		X	1.1E-06	7.0E-02		X
75274	Bromodichloromethane	5.50E+01	2.98E-02	1.06E-05	6.74E+03	6.54E-02	1.60E-03	25	363.15	585.85	7,800	**3.7E-05**	7.0E-02	1.64E+02	?	X	1.8E-05	7.0E-02	X	X
75296	2-Chloropropane	9.14E+00	8.88E-02	1.01E-05	3.73E+03	5.93E-01	1.45E-02	25	308.70	485.00	6,286	0.0E+00	1.0E-01	7.85E+01		?	0.0E+00	1.0E-01		
75343	1,1-Dichloroethane	3.16E+01	7.42E-02	1.05E-05	5.06E+03	2.30E-01	5.61E-03	25	330.55	523.00	6,895	**1.6E-06**	**7.0E-01**	9.90E+01		X	0.0E+00	5.0E-01		
75354	1,1-Dichloroethylene	5.89E+01	9.00E-02	1.04E-05	2.25E+03	1.07E+00	2.60E-02	25	304.75	576.05	6,247	0.0E+00	**7.0E-02**	9.69E+01			0.0E+00	2.0E-01		
75456	Chlorodifluoromethane	4.79E+01	1.01E-01	1.28E-05	2.00E+00	1.10E+00	2.70E-02	25	232.40	369.30	4,836	0.0E+00	5.0E+01	8.65E+01			0.0E+00	5.0E+01		
75694	Trichlorofluoromethane	4.97E+02	8.70E-02	9.70E-06	1.10E+03	3.97E+00	9.68E-02	25	296.70	471.00	5,999	0.0E+00	7.0E-01	1.37E+02			0.0E+00	7.0E-01		
75718	Dichlorodifluoromethane	4.57E+02	6.65E-02	9.92E-06	2.80E+02	1.40E+01	3.42E-01	25	243.20	384.95	9,421	0.0E+00	2.0E-01	1.21E+02			0.0E+00	2.0E-01		
76131	1,1,2-Trichloro-1,2,2-trifluoroethane	1.11E+04	7.80E-02	8.20E-06	1.70E+02	1.97E+01	4.80E-01	25	320.70	487.30	6,463	0.0E+00	3.0E+01	1.87E+02			0.0E+00	3.0E+01		
76448	Heptachlor	1.41E+06	1.12E-02	5.69E-06	1.80E-01	6.05E+01	1.48E+00	25	603.69	846.31	13,000	**1.2E-03**	1.8E-03	3.73E+02		X	1.3E-03	1.8E-03		X
77474	Hexachlorocyclopentadiene	2.00E+05	1.61E-02	7.21E-06	1.80E+00	1.10E+00	2.69E-02	25	512.15	746.00	10,931	0.0E+00	2.0E-04	2.73E+02			0.0E+00	2.0E-04		
78831	Isobutanol	2.59E+00	8.60E-02	9.30E-06	8.50E+04	4.83E-04	1.18E-05	25	381.04	547.78	10,936	0.0E+00	1.1E+00	7.41E+01		X	0.0E+00	1.1E+00		X
78875	1,2-Dichloropropane	4.37E+01	7.82E-02	8.73E-06	2.80E+03	1.15E-01	2.79E-03	25	369.52	572.00	7,590	**1.0E-05**	4.0E-03	1.13E+02	?		1.9E-05	4.0E-03	X	
78933	Methylethylketone (2-butanone)	2.30E+00	8.08E-02	9.80E-06	2.23E+05	2.29E-03	5.58E-05	25	352.50	536.78	7,481	0.0E+00	5.0E+00	7.21E+01			0.0E+00	1.0E+00		
79005	1,1,2-Trichloroethane	5.01E+01	7.80E-02	8.80E-06	4.42E+03	3.73E-02	9.11E-04	25	386.15	602.00	8,322	**1.6E-05**	1.4E-02	1.33E+02		X	1.6E-05	1.4E-02		X
79016	Trichloroethylene	1.66E+02	7.90E-02	9.10E-06	1.47E+03	4.21E-01	1.03E-02	25	360.36	544.20	7,505	**2.0E-06**	**6.0E-01**	1.31E+02	?		1.1E-04	4.0E-02	X	
79209	Methyl acetate	3.26E+00	1.04E-01	1.00E-05	2.00E+03	4.84E-03	1.18E-04	25	329.80	506.70	7,260	0.0E+00	3.5E+00	7.41E+01		X	0.0E+00	3.5E+00		X
79345	1,1,2,2-Tetrachloroethane	9.33E+01	7.10E-02	7.90E-06	2.96E+03	1.41E-02	3.44E-04	25	419.60	661.15	8,996	**5.8E-05**	**1.4E-02**	1.68E+02		X	5.8E-05	2.1E-01		X
79469	2-Nitropropane	1.17E+01	9.23E-02	1.01E-05	1.70E+04	5.03E-03	1.23E-04	25	393.20	594.00	8,383	2.7E-03	2.0E-02	8.91E+01			2.7E-03	2.0E-02		
80626	Methylmethacrylate	6.98E+00	7.70E-02	8.60E-06	1.50E+04	1.38E-02	3.36E-04	25	373.50	567.00	8,975	0.0E+00	7.0E-01	1.00E+02			0.0E+00	7.0E-01		
83329	Acenaphthene	7.08E+03	4.21E-02	7.69E-06	3.57E+00	6.34E-03	1.55E-04	25	550.54	803.15	12,155	0.0E+00	2.1E-01	1.54E+02		X	0.0E+00	2.1E-01		X
86737	Fluorene	1.38E+04	3.63E-02	7.88E-06	1.98E+00	2.60E-03	6.34E-05	25	570.44	870.00	12,666	0.0E+00	1.4E-01	1.66E+02		X	0.0E+00	1.4E-01		X
87683	Hexachloro-1,3-butadiene	5.37E+04	5.61E-02	6.16E-06	3.20E+00	3.33E-01	8.13E-03	25	486.15	738.00	10,206	2.2E-05	**3.5E-03**	2.61E+02		X	2.2E-05	7.0E-04		X
88722	o-Nitrotoluene	3.24E+02	5.87E-02	8.67E-06	6.50E+02	5.11E-04	1.25E-05	25	495.00	720.00	12,239	0.0E+00	**3.2E-03**	1.37E+02		X	0.0E+00	3.5E-02		X
91203	Naphthalene	2.00E+03	5.90E-02	7.50E-06	3.10E+01	1.98E-02	4.82E-04	25	491.14	748.40	10,373	**3.4E-05**	3.0E-03	1.28E+02			0.0E+00	3.0E-03		

SCS Soil Type	K_s (cm/h)	α_1 (1/cm)	N (unitless)	M (unitless)	n (cm^3/cm^3)	θ_r (cm^3/cm^3)	ean Grain Diameter (cr	Bulk Density (g/cm^3)	θ_w (cm^3/cm^3)	SCS Soil Name
C	0.61	0.01496	1.253	0.2019	0.459	0.098	0.0092	1.43	0.215	Clay
CL	0.34	0.01581	1.416	0.2938	0.442	0.079	0.016	1.48	0.168	Clay Loam
L	0.50	0.01112	1.472	0.3207	0.399	0.061	0.020	1.59	0.148	Loam
LS	4.38	0.03475	1.746	0.4273	0.390	0.049	0.040	1.62	0.076	Loamy Sand
S	26.78	0.03524	3.177	0.6852	0.375	0.053	0.044	1.66	0.054	Sand
SC	0.47	0.03342	1.208	0.1722	0.385	0.117	0.025	1.63	0.197	Sandy Clay
SCL	0.55	0.02109	1.330	0.2481	0.384	0.063	0.029	1.63	0.146	Sandy Clay Loam
SI	1.82	0.00658	1.679	0.4044	0.489	0.050	0.0046	1.35	0.167	Silt
SIC	0.40	0.01622	1.321	0.2430	0.481	0.111	0.0039	1.38	0.216	Silty Clay
SICL	0.46	0.00839	1.521	0.3425	0.482	0.090	0.0056	1.37	0.198	Silty Clay Loam
SIL	0.76	0.00506	1.663	0.3987	0.439	0.065	0.011	1.49	0.180	Silt Loam
SL	1.60	0.02667	1.449	0.3099	0.387	0.039	0.030	1.62	0.103	Sandy Loam

		Chemical Properties Lookup Table										CalEPA Toxicity Criteria in bold (last updated 2/4/09 DTSC/HERD)					Original EPA Values			
CAS No.	Chemical	Organic carbon partition coefficient, K_{oc} (cm^3/g)	Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Pure component water solubility, S (mg/L)	Henry's law constant H' (unitless)	Henry's law constant at reference temperature, H (atm-m^3/mol)	Henry's law constant reference temperature, T_R (^oC)	Normal boiling point, T_B (^oK)	Critical temperature, T_C (^oK)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)	Molecular weight, MW (g/mol)	URF extrapolated (X)	RfC extrapolated (X)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)	URF extrapolated (X)	RfC extrapolated (X)
91576	2-Methylnaphthalene	2.81E+03	5.22E-02	7.75E-06	2.46E+01	2.12E-02	5.17E-04	25	514.26	761.00	12,600	0.0E+00	**1.4E-02**	1.42E+02		X	0.0E+00	7.0E-02		X
92524	Biphenyl	4.38E+03	4.04E-02	8.15E-06	7.45E+00	1.23E-02	2.99E-04	25	529.10	789.00	10,890	0.0E+00	1.8E-01	1.54E+02		X	0.0E+00	1.8E-01		X
95476	o-Xylene	3.63E+02	8.70E-02	1.00E-05	1.78E+02	2.12E-01	5.18E-03	25	417.60	630.30	8,661	0.0E+00	1.0E-01	1.06E+02			0.0E+00	1.0E-01		
95501	1,2-Dichlorobenzene	6.17E+02	6.90E-02	7.90E-06	1.56E+02	7.77E-02	1.90E-03	25	453.57	705.00	9,700	0.0E+00	2.0E-01	1.47E+02			0.0E+00	2.0E-01		
95578	2-Chlorophenol	3.88E+02	5.01E-02	9.46E-06	2.20E+04	1.60E-02	3.90E-04	25	447.53	675.00	9,572	0.0E+00	1.8E-02	1.29E+02		X	0.0E+00	1.8E-02		X
95636	1,2,4-Trimethylbenzene	1.35E+03	6.06E-02	7.92E-06	5.70E+01	2.52E-01	6.14E-03	25	442.30	649.17	9,369	0.0E+00	**7.0E-03**	1.20E+02			0.0E+00	6.0E-03		
96184	1,2,3-Trichloropropane	2.20E+01	7.10E-02	7.90E-06	1.75E+03	1.67E-02	4.08E-04	25	430.00	652.00	9,171	**2.0E-03**	**2.1E-02**	1.47E+02	X	X	5.7E-04	4.9E-03	X	
96333	Methyl acrylate	4.53E+00	9.76E-02	1.02E-05	6.00E+04	7.68E-03	1.87E-04	25	353.70	536.00	7,749	0.0E+00	1.1E-01	8.61E+01		X	0.0E+00	1.1E-01		X
97632	Ethylmethacrylate	2.95E+01	6.53E-02	8.37E-06	3.67E+03	3.44E-02	8.40E-04	25	390.00	571.00	10,957	0.0E+00	3.2E-01	1.14E+02		X	0.0E+00	3.2E-01		X
98066	tert-Butylbenzene	7.71E+02	5.65E-02	8.02E-06	2.95E+01	4.87E-01	1.19E-02	25	442.10	1220.00	8,980	0.0E+00	1.4E-01	1.34E+02		X	0.0E+00	1.4E-01		X
98828	Cumene	4.89E+02	6.50E-02	7.10E-06	6.13E+01	4.74E+01	1.16E+00	25	425.56	631.10	10,335	0.0E+00	4.0E-01	1.20E+02			0.0E+00	4.0E-01		
98862	Acetophenone	5.77E+01	6.00E-02	8.73E-06	6.13E+03	4.38E-04	1.07E-05	25	475.00	709.50	11,732	0.0E+00	3.5E-01	1.20E+02		X	0.0E+00	3.5E-01		X
98953	Nitrobenzene	6.46E+01	7.60E-02	8.60E-06	2.09E+03	9.82E-04	2.39E-05	25	483.95	719.00	10,566	0.0E+00	2.0E-03	1.23E+02			0.0E+00	2.0E-03		
100414	Ethylbenzene	3.63E+02	7.50E-02	7.80E-06	1.69E+02	3.22E-01	7.86E-03	25	409.34	617.20	8,501	**2.5E-06**	1.0E+00	1.06E+02			0.0E+00	1.0E+00		
100425	Styrene	7.76E+02	7.10E-02	8.00E-06	3.10E+02	1.12E-01	2.74E-03	25	418.31	636.00	8,737	0.0E+00	**9.0E-01**	1.04E+02			0.0E+00	1.0E+00		
100447	Benzylchloride	6.14E+01	7.50E-02	7.80E-06	5.25E+02	1.70E-02	4.14E-04	25	452.00	685.00	8,773	**4.9E-05**	**1.0E-03**	1.27E+02	?		4.9E-05	0.0E+00	X	
100527	Benzaldehyde	4.59E+01	7.21E-02	9.07E-06	3.30E+03	9.73E-04	2.37E-05	25	452.00	695.00	11,658	0.0E+00	3.5E-01	1.06E+02		X	0.0E+00	3.5E-01		X
103651	n-Propylbenzene	5.62E+02	6.01E-02	7.83E-06	6.00E+01	4.37E-01	1.07E-02	25	432.20	630.00	9,123	0.0E+00	1.4E-01	1.20E+02		X	0.0E+00	1.4E-01		X
104518	n-Butylbenzene	1.11E+03	5.70E-02	8.12E-06	2.00E+00	5.38E-01	1.31E-02	25	456.46	660.50	9,290	0.0E+00	1.4E-01	1.34E+02		X	0.0E+00	1.4E-01		X
106423	p-Xylene	3.89E+02	7.69E-02	8.44E-06	1.85E+02	3.13E-01	7.64E-03	25	411.52	616.20	8,525	0.0E+00	1.0E-01	1.06E+02		?	0.0E+00	1.0E-01		
106467	1,4-Dichlorobenzene	6.17E+02	6.90E-02	7.90E-06	7.90E+01	9.82E-02	2.39E-03	25	447.21	684.75	9,271	**1.1E-05**	**8.0E-01**	1.47E+02			0.0E+00	8.0E-01		
106934	1,2-Dibromoethane (ethylene dibromide)	2.50E+01	2.17E-02	1.19E-05	4.18E+03	3.04E-02	7.41E-04	25	404.60	583.00	8,310	**7.1E-05**	**8.0E-04**	1.88E+02			6.0E-04	9.0E-03		
106990	1,3-Butadiene	1.91E+01	2.49E-01	1.08E-05	7.35E+02	3.01E+00	7.34E-02	25	268.60	425.00	5,370	**1.7E-04**	2.0E-03	5.41E+01			3.0E-05	0.0E+00		
107028	Acrolein	2.76E+00	1.05E-01	1.22E-05	2.13E+05	4.99E-03	1.22E-04	25	325.60	506.00	6,731	0.0E+00	2.0E-05	5.61E+01			0.0E+00	2.0E-05		
107062	1,2-Dichloroethane	1.74E+01	1.04E-01	9.90E-06	8.52E+03	4.00E-02	9.77E-04	25	356.65	561.00	7,643	**2.1E-05**	**4.0E-01**	9.90E+01			2.6E-05	0.0E+00		
107131	Acrylonitrile	5.90E+00	1.22E-01	1.34E-05	7.40E+04	4.21E-03	1.03E-04	25	350.30	519.00	7,786	**2.9E-04**	2.0E-03	5.31E+01			6.8E-05	2.0E-03		
108054	Vinyl acetate	5.25E+00	8.50E-02	9.20E-06	2.00E+04	2.09E-02	5.10E-04	25	345.65	519.13	7,800	0.0E+00	**2.0E-01**	8.61E+01			0.0E+00	2.0E-01		
108101	Methylisobutylketone (4-methyl-2-pentanone)	9.06E+00	7.50E-02	7.80E-06	1.90E+04	5.64E-03	1.38E-04	25	389.50	571.00	8,243	0.0E+00	**3.0E+00**	1.00E+02			0.0E+00	8.0E-02		
108383	m-Xylene	4.07E+02	7.00E-02	7.80E-06	1.61E+02	3.00E-01	7.32E-03	25	412.27	617.05	8,523	0.0E+00	1.0E-01	1.06E+02		?	0.0E+00	1.0E-01		
108678	1,3,5-Trimethylbenzene	1.35E+03	6.02E-02	8.67E-06	2.00E+00	2.41E-01	5.87E-03	25	437.89	637.25	9,321	0.0E+00	6.0E-03	1.20E+02			0.0E+00	6.0E-03		
108872	Methylcyclohexane	7.85E+01	7.35E-02	8.52E-06	1.40E+01	4.22E+00	1.03E-01	25	373.90	572.20	7,474	0.0E+00	3.0E+00	9.82E+01		?	0.0E+00	3.0E+00		
108883	Toluene	1.82E+02	8.70E-02	8.60E-06	5.26E+02	2.72E-01	6.62E-03	25	383.78	591.79	7,930	0.0E+00	**3.0E-01**	9.21E+01			0.0E+00	4.0E-01		
108907	Chlorobenzene	2.19E+02	7.30E-02	8.70E-06	4.72E+02	1.51E-01	3.69E-03	25	404.87	632.40	8,410	0.0E+00	**1.0E+00**	1.13E+02			0.0E+00	6.0E-02		
109693	1-Chlorobutane	1.72E+01	8.26E-02	1.00E-05	1.10E+03	6.93E-01	1.69E-02	25	351.60	542.00	7,263	0.0E+00	**1.4E-01**	9.26E+01		X	0.0E+00	1.4E+00		X
110009	Furan	1.86E+01	1.04E-01	1.22E-05	1.00E+04	2.21E-01	5.39E-03	25	304.60	490.20	6,477	0.0E+00	3.5E-03	6.81E+01		X	0.0E+00	3.5E-03		X
110543	Hexane	4.34E+01	2.00E-01	7.77E-06	1.24E+01	6.82E+01	1.66E+00	25	341.70	508.00	6,895	0.0E+00	**7.0E-01**	8.62E+01			0.0E+00	2.0E-01		
111444	Bis(2-chloroethyl)ether	1.55E+01	6.92E-02	7.53E-06	1.72E+04	7.36E-04	1.80E-05	25	451.15	659.79	10,803	**7.1E-04**	0.0E+00	1.43E+02			3.3E-04	0.0E+00		
115297	Endosulfan	2.14E+03	1.15E-02	4.55E-06	5.10E-01	4.58E-04	1.12E-05	25	674.43	942.94	14,000	0.0E+00	2.1E-02	4.07E+02		X	0.0E+00	2.1E-02		X
118741	Hexachlorobenzene	5.50E+04	5.42E-02	5.91E-06	5.00E-03	5.40E-02	1.32E-03	25	582.55	825.00	14,447	**5.1E-04**	2.8E-03	2.85E+02		X	4.6E-04	2.8E-03		X
120821	1,2,4-Trichlorobenzene	1.78E+03	3.00E-02	8.23E-06	4.88E+01	5.81E-02	1.42E-03	25	486.15	725.00	10,471	**0.0E+00**	**4.0E-03**	1.81E+02			0.0E+00	2.0E-01		
123739	Crotonaldehyde (2-butenal)	4.82E+00	9.56E-02	1.07E-05	3.69E+04	7.99E-04	1.95E-05	25	375.20	568.00	9	5.4E-04	0.0E+00	7.01E+01	X		5.4E-04	0.0E+00	X	
124481	Chlorodibromomethane	6.31E+01	1.96E-02	1.05E-05	2.60E+03	3.20E-02	7.81E-04	25	416.14	678.20	5,900	**2.7E-05**	7.0E-02	2.08E+02	?	X	2.4E-05	7.0E-02	X	X
126987	Methacrylonitrile	3.58E+01	1.12E-01	1.32E-05	2.54E+04	1.01E-02	2.46E-04	25	363.30	554.00	7,600	0.0E+00	7.0E-04	6.71E+01			0.0E+00	7.0E-04		
126998	2-Chloro-1,3-butadiene (chloroprene)	6.73E+01	8.58E-02	1.03E-05	2.12E+03	4.91E-01	1.20E-02	25	332.40	525.00	8,075	0.0E+00	7.0E-03	8.85E+01			0.0E+00	7.0E-03		
127184	Tetrachloroethylene	1.55E+02	7.20E-02	8.20E-06	2.00E+02	7.53E-01	1.84E-02	25	394.40	620.20	8,288	**5.9E-06**	**3.5E-02**	1.66E+02			3.0E-06	0.0E+00		
129000	Pyrene	1.05E+05	2.72E-02	7.24E-06	1.35E+00	4.50E-04	1.10E-05	25	667.95	936	14370	0.0E+00	1.1E-01	2.02E+02		X	0.0E+00	1.1E-01		X
132649	Dibenzofuran	5.15E+03	2.38E-02	6.00E-06	3.10E+00	5.15E-04	1.26E-05	25	560	824	66400	0.0E+00	1.4E-02	1.68E+02		X	0.0E+00	1.4E-02		X
135988	sec-Butylbenzene	9.66E+02	5.70E-02	8.12E-06	3.94E+00	5.68E-01	1.39E-02	25	446.5	679	88730	0.0E+00	1.4E-01	1.34E+02		X	0.0E+00	1.4E-01		X

SCS Soil Type	K_s (cm/h)	α_1 (1/cm)	N (unitless)	M (unitless)	n (cm^3/cm^3)	θ_r (cm^3/cm^3)	ean Grain Diameter (cr	Bulk Density (g/cm^3)	θ_w (cm^3/cm^3)	SCS Soil Name
C	0.61	0.01496	1.253	0.2019	0.459	0.098	0.0092	1.43	0.215	Clay
CL	0.34	0.01581	1.416	0.2938	0.442	0.079	0.016	1.48	0.168	Clay Loam
L	0.50	0.01112	1.472	0.3207	0.399	0.061	0.020	1.59	0.148	Loam
LS	4.38	0.03475	1.746	0.4273	0.390	0.049	0.040	1.62	0.076	Loamy Sand
S	26.78	0.03524	3.177	0.6852	0.375	0.053	0.044	1.66	0.054	Sand
SC	0.47	0.03342	1.208	0.1722	0.385	0.117	0.025	1.63	0.197	Sandy Clay
SCL	0.55	0.02109	1.330	0.2481	0.384	0.063	0.029	1.63	0.146	Sandy Clay Loam
SI	1.82	0.00658	1.679	0.4044	0.489	0.050	0.0046	1.35	0.167	Silt
SIC	0.40	0.01622	1.321	0.2430	0.481	0.111	0.0039	1.38	0.216	Silty Clay
SICL	0.46	0.00839	1.521	0.3425	0.482	0.090	0.0056	1.37	0.198	Silty Clay Loam
SIL	0.76	0.00506	1.663	0.3987	0.439	0.065	0.011	1.49	0.180	Silt Loam
SL	1.60	0.02667	1.449	0.3099	0.387	0.039	0.030	1.62	0.103	Sandy Loam

		Chemical Properties Lookup Table										CalEPA Toxicity Criteria in bold (last updated 2/4/09 DTSC/HERD)					Original EPA Values			
CAS No.	Chemical	Organic carbon partition coefficient, K_{oc} (cm^3/g)	Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Pure component water solubility, S (mg/L)	Henry's law constant H' (unitless)	Henry's law constant at reference temperature, H (atm-m^3/mol)	Henry's law constant reference temperature, T_R (^oC)	Normal boiling point, T_B (^oK)	Critical temperature, T_C (^oK)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)	Molecular weight, MW (g/mol)	URF extrapolated (X)	RfC extrapolated (X)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)	URF extrapolated (X)	RfC extrapolated (X)
141786	Ethylacetate	6.44E+00	7.32E-02	9.70E-06	8.03E+04	5.64E-03	1.38E-04	25	350.26	523.3	7633.66	0.0E+00	3.2E+00	8.81E+01		X	0.0E+00	3.2E+00		X
156592	cis-1,2-Dichloroethylene	3.55E+01	7.36E-02	1.13E-05	3.50E+03	1.67E-01	4.07E-03	25	333.65	544	7192	0.0E+00	3.5E-02	9.69E+01		X	0.0E+00	3.5E-02		X
156605	trans-1,2-Dichloroethylene	5.25E+01	7.07E-02	1.19E-05	6.30E+03	3.84E-01	9.36E-03	25	320.85	516.5	6717	0.0E+00	**6.0E-02**	9.69E+01		X	0.0E+00	7.0E-02		X
205992	Benzo(b)fluoranthene	1.23E+06	2.26E-02	5.56E-06	1.50E-03	4.54E-03	1.11E-04	25	715.9	969.27	17000	**1.1E-04**	0.0E+00	2.52E+02	?		2.1E-04	0.0E+00	X	
218019	Chrysene	3.98E+05	2.48E-02	6.21E-06	6.30E-03	3.87E-03	9.44E-05	25	714.15	979	16455	**1.1E-05**	0.0E+00	2.28E+02	?		2.1E-06	0.0E+00	X	
309002	Aldrin	2.45E+06	1.32E-02	4.86E-06	1.70E-02	6.95E-03	1.70E-04	25	603.01	839.37	15000	**4.9E-03**	1.1E-04	3.65E+02		X	4.9E-03	1.1E-04		X
319846	alpha-HCH (alpha-BHC)	1.23E+03	1.42E-02	7.34E-06	2.00E+00	4.34E-04	1.06E-05	25	596.55	839.36	15000	**7.7E-04**	0.0E+00	2.91E+02			1.8E-03	0.0E+00		
541731	1,3-Dichlorobenzene	1.98E+03	6.92E-02	7.86E-06	1.34E+02	1.27E-01	3.09E-03	25	446	684	9230.18	0.0E+00	1.1E-01	1.47E+02		X	0.0E+00	1.1E-01		X
542756	1,3-Dichloropropene	4.57E+01	6.26E-02	1.00E-05	2.80E+03	7.24E-01	1.77E-02	25	381.15	587.38	7900	**1.6E-05**	2.0E-02	1.11E+02			4.0E-06	2.0E-02		
630206	1,1,1,2-Tetrachloroethane	1.16E+02	7.10E-02	7.90E-06	1.10E+03	9.90E-02	2.41E-03	25	403.5	624	9768.282525	7.4E-06	1.1E-01	1.68E+02		X	7.4E-06	1.1E-01		X
1634044	MTBE	7.26E+00	1.02E-01	1.05E-05	5.10E+04	2.56E-02	6.23E-04	25	328.3	497.1	6677.66	**2.6E-07**	3.0E+00	8.82E+01			0.0E+00	3.0E+00		
7439976	Mercury (elemental)	5.20E+01	3.07E-02	6.30E-06	2.00E+01	4.40E-01	1.07E-02	25	629.88	1750	14127	0.0E+00	**3.0E-05**	2.01E+02			0.0E+00	3.0E-04		

APPENDIX F

PUBLIC REVIEW OF THE DRAFT INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION

PUBLIC REVIEW OF THE DRAFT INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION FOR HUBERT H. HUMPHREY COMPREHENSIVE HEALTH CENTER URGENT CARE EXPANSION

The County of Los Angeles Department of Public Works (DPW) placed the Draft Initial Study/Mitigated Negative Declaration for the proposed Urgent Care Expansion project (dated July 2011) on public review for a period of 30 days. Information on the notifications, document distribution and agency review are provided in this appendix.

F.1 Posting of Notice at the Project Site

DPW posted a Notice of Availability for the Draft Initial Study/Mitigated Negative Declaration for the proposed Urgent Care Expansion project on the fence of the Hubert H. Humphrey Comprehensive Health Center on July 11, 2011 (see photos). This notice indicated that the public review period for the document would close on August 9, 2011.

Exhibit F-1. Posting of Sign on Slauson Avenue

Exhibit F-2. Posting of Sign on Woodlawn Avenue

F.2 Filing at Los Angeles County Clerk

A Notice of Completion was filed with the Los Angeles County Clerk on July 8, 2011. A copy of the notice is provided as Exhibit F-3.

F.3 Filing at State Clearinghouse

Copies of the Draft Initial Study/Mitigated Negative Declaration for the proposed Urgent Care Expansion project were mailed to the California State Clearinghouse which posted a notice as shown in Exhibit F-4.

F.4 Distribution List

Copies of the Draft Initial Study/Mitigated Negative Declaration for the proposed Urgent Care Expansion project were mailed to 22 government agencies and organizations as shown in Exhibit F-5.

F.5 Comment Letters Received and Responses

Three agencies provided comments on the Draft Initial Study/Mitigated Negative Declaration. Each of these letters has been reprinted herein as shown in Exhibits F-6 through F-8. As shown on Exhibit F-9, the California State Clearinghouse indicated that no comments were received from any State agencies. A summary of comments raised and DPW responses is provided on Table F-1.

Table F-1. Responses to Comments Received on the Draft Initial Study/Mitigated Negative Declaration for Urgent Care Expansion Project

Comment Summary[1]	Response
Southern California Gas Company (July 27, 2011)	
Southern California Gas Company has no transmission facilities within your proposed improvement. However, our Pacific Coast Distribution Region may have some distribution facilities within your construction area. To assure no conflict with the local distribution's pipeline system, please contact them.	Thank you for your letter. The County of Los Angeles and its contractors will provide advance notification to Underground Service Alert at least 48 hours before commencing any ground-intrusion work at the site. Utilities in the work area will be marked and avoided by work crews. Your letter will be provided to the Board of Supervisors with the Final Mitigated Negative Declaration prior to any decision on the project.
City of Los Angeles Bureau of Sanitation, Wastewater Engineering Services Division (August 4, 2011)	
Provide more information about the building uses by square footage.	Thank you for your letter. This information was provided to the City on August 8, 2011. The proposed expansion would result in continuation of the current building use as a medical clinic. There would be no change in the existing use of this space. The existing Urgent Care clinic is approximately 12,500 sq ft in size and located at the northeast corner of the existing 125,770 sq ft health center. As indicated on Table 2 of the Initial Study, Phase 1 of the project would add 2,200 sq ft to the Urgent Care clinic. Phase 2 would result in remodeling of 4,400 sq ft of the clinic. Your letter will be provided to the Board of Supervisors with the Final Mitigated Negative Declaration prior to any decision on the project.
Please provide the buildings that are to be demolished, remaining, and proposed	One wall on the northeast side of the building would be demolished to allow for expansion of the Urgent Care. The remainder of the existing Urgent Care and the main health center would remain in place. A new parking deck is proposed to be constructed above the existing surface parking lot that serves the health center.
City of Los Angeles Bureau of Sanitation, Wastewater Engineering Services Division (August 17, 2011)	
Proposed wastewater discharges for the proposed project would be a net increase of 551 gallons per day (average daily flow).	Thank you for your letter. This information has been incorporated into Section 2.17(a) and (b) of the Initial Study/Mitigated Negative Declaration. Your letter will be provided to the Board of Supervisors with the Final Mitigated Negative Declaration prior to any decision on the project.
Information on the existing sewer infrastructure in the vicinity of the project.	This information is acknowledged by the County of Los Angeles Department of Public Works and will be incorporated into design plans as appropriate.
Based on estimated flows, it appears the sewer system might be able to accommodate the total flow for the proposed project. Sewage flow will be conveyed to the Hyperion Treatment Plant which has sufficient capacity for the project.	This information has been incorporated into Section 2.17 (b) of the Initial Study/Mitigated Negative Declaration.

Note: [1] Refer to letters reprinted in Exhibits F-6 through F-8.

Exhibit F-3. Filing of Notice of Completion at Los Angeles County Clerk

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

GAIL FARBER, Director

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (626) 458-5100
http://dpw.lacounty.gov

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

July 8, 2011

ORIGINAL FILED

JUL 08 2011

LOS ANGELES, COUNTY CLERK

IN REPLY PLEASE
REFER TO FILE: PJ-2

TO: All Interested Parties

FROM: Hoda El Sokkary
Project Management Division I - Health Section

HUBERT H. HUMPHREY COMPREHENSIVE HEALTH CENTER - URGENT CARE EXPANSION PROJECT
NOTICE OF COMPLETION OF DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

The County of Los Angeles Department of Public Works proposes to expand the Urgent Care clinic at the Hubert H. Humphrey Comprehensive Health Center at the southeast corner of Main Street and Slauson Avenue in the City of Los Angeles (Los Angeles County), California. The proposed project would include: reconfiguration of existing clinic space to expand the Urgent Care clinic; and, construction of a parking deck or structure with ramp. The Urgent Care clinic would be expanded by approximately 2,200 sq ft with cosmetic upgrade of approximately 6,600 sq ft of interior space. The new parking deck or structure would require removal of approximately 18,000 sq ft of asphalt from the existing parking lot. The Urgent Care would continue to be operated by the County of Los Angeles Department of Health Services.

In accordance with the California Environmental Quality Act, the County has prepared a Draft Initial Study and proposes to adopt a Mitigated Negative Declaration for this project. The document is available for review at the Los Angeles Public Library (Junipero Serra Branch, Vernon Public Library, Richard J. Riordan Central Library, and Exposition Park - Dr. Mary McLeod Bethune Regional Branch) and is also available during normal business hours, Monday through Thursday, at County of Los Angeles Department of Public Works, 900 South Fremont Avenue, 5th Floor Receptionist, Alhambra, CA 91803.

The public review period for the Mitigated Negative Declaration will close on August 9, 2011. Written comments may be mailed to:

Department of Public Works
Attention Ms. Hoda El Sokkary, Project Manager,
Project Management Division I - Health Section I
900 South Fremont Avenue, 5th Floor
Alhambra, California 91803

Exhibit F-3. Filing of Notice of Completion at Los Angeles County Clerk (Cont'd)

All Interested Parties
July 8, 2011
Page 2

All written comment letters must be postmarked or otherwise received no later than August 9, 2011. Comments may be emailed to helsokkary@dpw.lacounty.gov or faxed to the attention of Ms. El Sokkary at (626) 979-5321. Emailed and faxed comments must be received by close of business no later than August 9, 2011. Should you have any questions, please contact Ms. El Sokkary at (626) 300-2367.

Thank you for your interest in this project.

HE:he

Los Angeles County Registrar / Recorder
12400 Imperial Highway, Norwalk, CA
(800)201-8999

Business Filings

NORWALK

Cashier: T. PEREA

201107081240021

Friday, July 08, 2011 11:32 AM

Item(s)

Fee	Qty	Total
NoC - County Posting Fee	1	$75.00
Total		**$75.00**

Customer payment(s):

Check	$75.00
Check List: #4153	$75.00

Exhibit F-4. Filing of Notice of Completion at State Clearinghouse

California Home

Tuesday, August 9, 2011

OPR Home > CEQAnet Home > CEQAnet Query > Search Results > Document Description

Hubert H. Humphrey Comprehensive Health Center Urgent Care Expansion

SCH Number: 2011071034

Document Type: MND - Mitigated Negative Declaration

Project Lead Agency: Los Angeles County

Project Description

The County of Los Angeles Department of Public Works proposes to expand the Urgent Care clinic at the Hubert H. Humphrey Comprehensive Health Center. The Center is located at the southeast corner of Slauson Avenue and Main Street in the City of Los Angeles, CA. The proposed project would include: reconfiguration of existing clinic space to expand the Urgent Care clinic; and, construction of a parking deck or structure with ramp. The Urgent Care clinic would be expanded by ~2,200 s.f. with cosmetic upgrade of ~6,600 s.f. of interior space. The new parking deck or structure would require removal of ~18,000 s.f. of asphalt from the existing parking lot.

Contact Information

Primary Contact:
Hoda El Sokkary
Los Angeles County
626 300 2367
900 S. Fremont Ave., 5th Floor
Alhambra, CA 91803

Project Location

County: Los Angeles
City: Los Angeles, City of
Region:
Cross Streets: Main Street and Slauson Avenue
Latitude/Longitude:
Parcel No: 6006-001-900, -901, 907, 809, -910
Township: 2S
Range: 13W
Section: 19
Base:
Other Location Info:

Proximity To

Highways: I-110
Airports: No
Railways: Burlington Northern and Santa Fe
Waterways: No
Schools: Yes
Land Use: LU: Public Facilities Z: Public Facilities GPU: Public Facilities

Development Type

Other (Health Care Clinic)

Local Action

Project Issues

Aesthetic/Visual, Agricultural Land, Air Quality, Archaeologic-Historic, Wildlife, Growth Inducing, Toxic/Hazardous, Traffic/Circulation, Vegetation, Flood Plain/Flooding, Forest Land/Fire Hazard, Geologic/Seismic, Minerals, Drainage/Absorption, Landuse, Cumulative Effects, Other Issues (GHG), Soil Erosion/Compaction/Grading, Noise, Water Quality, Water Supply, Solid Waste, Public Services, Recreation/Parks

Reviewing Agencies (Agencies in **Bold Type** submitted comment letters to the State Clearinghouse)

Resources Agency; Department of Fish and Game, Region 5; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; California Highway Patrol; Caltrans, District 7; Regional Water Quality Control Board, Region 4; Department of Toxic Substances Control; Native American Heritage Commission

Date Received: 7/11/2011 **Start of Review:** 7/11/2011 **End of Review:** 8/9/2011

Exhibit F-5. Distribution List for the Draft Initial Study/Mitigated Negative Declaration

L.A. County Department of Regional Planning Attn: Paul McCarthy, Impact Analysis Section 320 W. Temple St. Los Angeles, CA 90012	County of Los Angeles Department of Health Services Office of Planning and Analysis 313 N. Figueroa Street, Room 704 Los Angeles, CA 90012	County of Los Angeles Public Health Attn: Patrick Nejadian, Program Director Land Use Program 5050 Commerce Drive Baldwin Park, CA 91706
City of Los Angeles Department of Transportation 100 S. Main St., 10th Floor Los Angeles, CA 90012	Los Angeles Police Department Planning and Research Division 100 West First Street, Room 868 Los Angeles, CA 90012	L.A. County Sheriff's Department Director of Facilities Planning Attn: Michael Kameya 1000 S. Fremont Ave. Bldg A9-East, 5th Floor North Alhambra, CA 91803
L.A. County Office of County Counsel Attn: Lauren Dods 652 Kenneth Hahn Hall of Administration 500 W. Temple St. Los Angeles, CA 90012	Los Angeles City Fire Department 200 N. Main Street, 18th Floor Los Angeles, CA 90012	City of Los Angeles Department of Public Works Bureau of Sanitation 200 N. Spring St. Los Angeles, CA 90012
Los Angeles County Chief Executive Office Attn: Alisa Cheipian Los Angeles County Hall of Administration 500 W. Temple Street Los Angeles, CA 90012	Los Angeles Department of Water and Power P.O. Box 51111 Los Angeles, California 90051-0100	State Clearinghouse 1400 Tenth Street Sacramento, CA 95814
Reference Librarian Los Angeles Public Library Junipero Serra Branch 4607 S. Main Street Los Angeles, CA 90037	Reference Librarian Exposition Park - Dr. Mary McLeod Bethune Regional Branch Library 3900 S. Western Avenue Los Angeles, CA 90062	Andy Salas, Chairman Shoshoneon Gabrieleno Band of Mission Indians P.O. Box 393 Covina, CA 91723
Reference Librarian Los Angeles Public Library Vernon Branch 4504 S. Central Avenue Los Angeles, CA 9001	George McKenna, Superintendent Los Angeles Unified School District Local District 7 10616 S. Western Ave. Los Angeles, CA 90047	Ron F. Silver, Project Manager Southern California Gas Company Gas Transmission Technical Services 9400 Oakdale Ave., Mail Location SC9314 Chatsworth, CA 91311-6511
Reference Librarian Los Angeles Public Library Richard J. Riordan Central Library 630 W. 5th Street Los Angeles, CA 90071	Councilwoman Jan Perry City of Los Angeles Council District 9 200 N. Spring Street, Room 420 Los Angeles, CA 90012	LAPD Newton Community Police Station 3400 South Central Ave. Los Angeles, CA 90011
Ruth Cronin-Fruitt, Regional Manager ExxonMobil Pipeline Company West Coast/Rockies ROW Department 12851 E. 166th Street Cerritos, CA 90703-21-03		

Exhibit F-6. Comment Letter No. 1

Southern California Gas Company

A Sempra Energy company

July 27, 2011

Southern California Gas Company

9400 Oakdale Avenue
Chatsworth, CA
91313

Mailing Address:
P. O. Box 2300
Chatsworth, CA
91313-2300
M.L.9314

tel 818-701-4546
fax 818-701-3441

County of Los Angeles
Department of Public Works
900 South Fremont Avenue
Alhambra, CA 91803-1331

Attn: Hoda El Sokkary

Subject: **Utility Request – Main St and Slauson Avenue.**
Hubert H. Humphrey Comperehensive Health Center - Urgent Care
Draft Initial Study/Mitigated Negative Declaration

Southern California Gas Company has no Transmission facilities within your proposed improvement. However, our Pacific Coast Distribution Region may have some distribution facilities within your construction area. To assure no conflict with the local distribution's pipeline system, please contact them at (310) 687-2023.

Sincerely,

Rosalyn Squires
Planning Assistant
Transmission Department

Exhibit F-7. Comment Letter No. 2

From: Denise Chow [mailto:denise.chow@lacity.org]
Sent: Thursday, August 04, 2011 5:30 PM
To: ElSokkary, Hoda
Subject: RFI: Hubert H Humphrey Comprehensive Health Center Urgent Care Expansion Project - Mitigated Negative Declaration

Hi Hoda,

My name is Denise Chow with the Bureau of Sanitation and I'm currently working on the wastewater capacity CEQA studies for the project stated above. To conduct an analysis, can you tell me more information about the building uses by square footage? Please provide the buildings that are to be demolished, remaining, and proposed. Thank you and please feel free to contact me if you have questions.

Denise Chow
Environmental Engineering Associate
Wastewater Engineering Services Division
p 323.342.1564
Bureau of Sanitation
City of Los Angeles

----------Confidentiality Notice----------
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Exhibit F-8. Comment Letter No. 3

CITY OF LOS ANGELES

CALIFORNIA

BOARD OF
PUBLIC WORKS
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COMMISSIONERS
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ANDREA A. ALARCÓN
BOARD PRESIDENT
JERILYN LÓPEZ MENDOZA
VICE PRESIDENT
PAULA A. DANIELS
PRESIDENT PRO-TEMPORE
STEVEN T. NUTTER
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VALERIE LYNNE SHAW
COMMISSIONER

ANTONIO R. VILLARAIGOSA
MAYOR

DEPARTMENT OF
PUBLIC WORKS
—
BUREAU OF SANITATION
—
ENRIQUE C. ZALDIVAR
DIRECTOR
TRACI J. MINAMIDE
CHIEF OPERATING OFFICER
VAROUJ S. ABKIAN
ADEL H. HAGEKHALIL
ALEXANDER E. HELOU
ASSISTANT DIRECTORS
—
WASTEWATER ENGINEERING SERVICES DIV.
2714 MEDIA CENTER DRIVE
LOS ANGELES, CA 90065
FAX: (323) 342-6210 OR 342-6211

August 17, 2011

File: SC.CE.

Hoda El Sokkary, Project Manager
COUNTY OF LOS ANGELES
Department of Public Works
900 South Fremont Ave, 5th Floor
Alhambra, CA 91803-1331

Dear Ms. El Sokkary:

Hubert H Humphrey Comprehensive Health Center Urgent Care Expansion Project – Mitigated Negative Declaration

This is in response to your July 8, 2011 letter requesting a review of your proposed project. The Bureau of Sanitation has conducted a preliminary evaluation of the potential impacts to the wastewater and stormwater systems for the proposed project.

WASTEWATER REQUIREMENT

The Bureau of Sanitation, Wastewater Engineering Services Division (WESD) is charged with the task of evaluating the local sewer conditions and to determine if available wastewater capacity exists for future developments. The evaluation will determine cumulative sewer impacts and guide the planning process for any future sewer improvements projects needed to provide future capacity as the City grows and develops.

Projected Wastewater Discharges for the Proposed Project:

Type Description	Average Daily Flow per Type Description (GPD/UNIT)	Proposed No. of Units	Average Daily Flow (GPD)
Existing			
Medical Clinic	250 GPD/1000 SQ.FT	125,770 SQ.FT	31,442
			31,993
Proposed			
Medical Clinic	250 GPD/1000 SQ.FT	127,970 SQ.FT	
Total			**551**

AN EQUAL EMPLOYMENT OPPORTUNITY — AFFIRMATIVE ACTION EMPLOYER Recyclable and made from recycled waste

Exhibit F-8. Comment Letter No. 3 (Cont'd)

SEWER AVAILABILITY

The sewer infrastructure in the vicinity of the proposed project includes two existing 8-inch lines on Main St. The sewage from the two existing 8-inch lines both continue into two separate 10-inch lines on Main St before joining and discharging into a 20-inch sewer line on Florence Ave. Figure 1 shows the details of the sewer system within the vicinity of the project. The current flow level (d/D) in the 8-inch and 10-inch lines cannot be determined at this time without additional gauging.

The current approximate flow level (d/D) and the design capacities at d/D of 50% in the sewer system are as follows:

Pipe Diameter (in)	Pipe Location	Current Gauging d/D (%)	50% Design Capacity
8	Main St	*	229,323 GPD
8	Main St	*	229,323 GPD
10	Main St	*	360,084 GPD
10	Main St	*	322,069 GPD
20	Florence Ave	64	1.45 MGD

* No gauging available

Based on the estimated flows, it appears the sewer system might be able to accommodate the total flow for your proposed project. Further detailed gauging and evaluation will be needed as part of the permit process to identify a specific sewer connection point. If the public sewer has insufficient capacity then the developer will be required to build sewer lines to a point in the sewer system with sufficient capacity. A final approval for sewer capacity and connection permit will be made at that time. Ultimately, this sewage flow will be conveyed to the Hyperion Treatment Plant, which has sufficient capacity for the project.

If you have any questions, please call Kwasi Berko of my staff at (323) 342-1562.

Sincerely,

Ali Poosti, Acting Division Manager
Wastewater Engineering Services Division
Bureau of Sanitation

Attachments: Figure 1 – Sewer Map

cc: Kosta Kaporis, BOS
Daniel Hackney, BOS
Rowena Lau, BOS

Div Files\SCAR\CEQA Review\Final CEQA Response Ltrs\Hubert Humphrey Comprehensive Health Care Urgent Care Expansion Project – Mitigated Negative Declaration

Exhibit F-8. Comment Letter No. 3 (Cont'd)

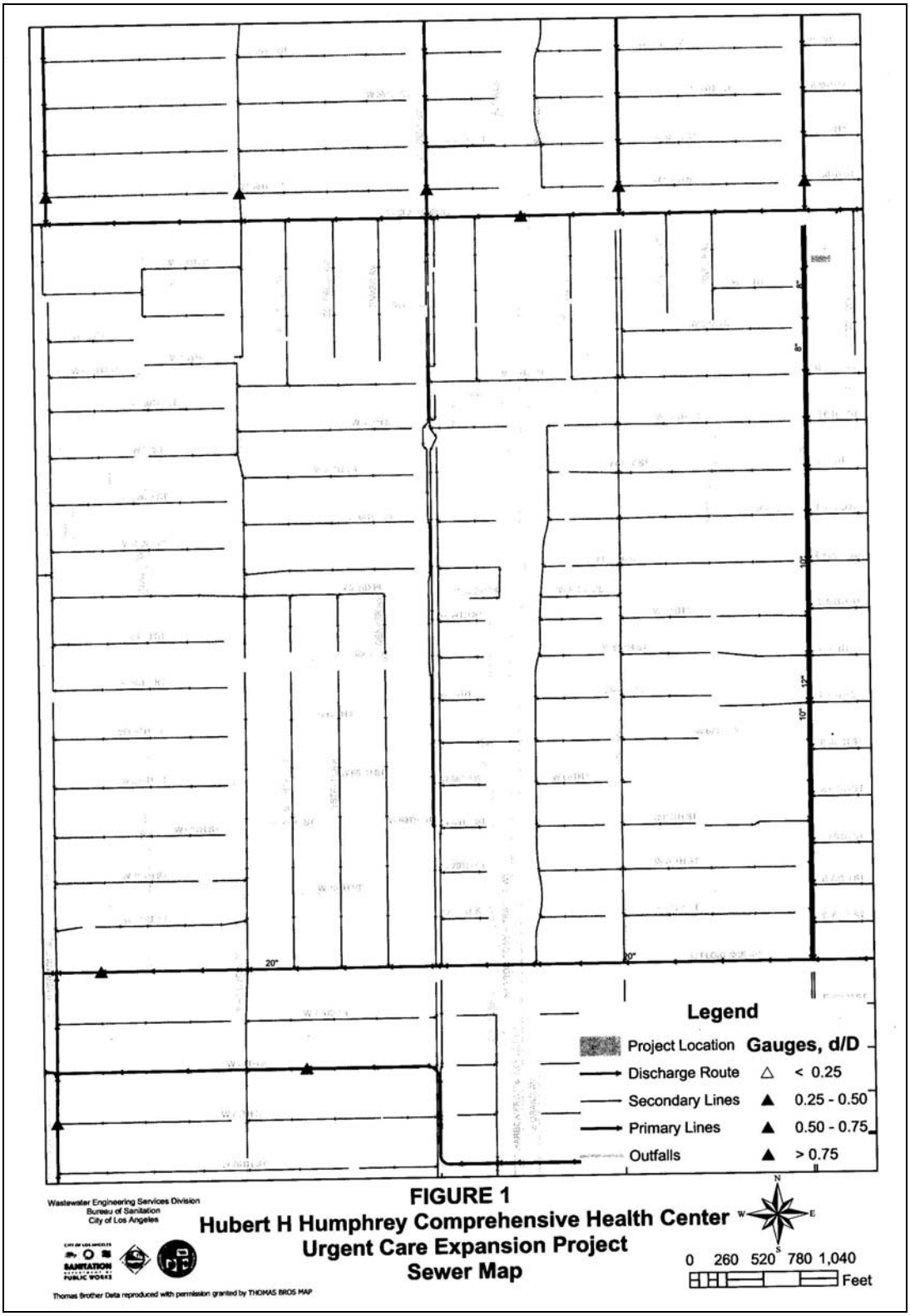

Exhibit F-9. Letter from California State Clearinghouse

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

Edmund G. Brown Jr.
Governor

Ken Alex
Director

August 10, 2011

Hoda El Sokkary
Los Angeles County Department of Public Works
900 S. Fremont Ave., 5th Floor
Alhambra, CA 91803

Subject: Hubert H. Humphrey Comprehensive Health Center Urgent Care Expansion
SCH#: 2011071034

Dear Hoda El Sokkary:

The State Clearinghouse submitted the above named Mitigated Negative Declaration to selected state agencies for review. The review period closed on August 9, 2011, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Scott Morgan
Director, State Clearinghouse

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Exhibit F-9. Letter from California State Clearinghouse (Cont'd)

Document Details Report
State Clearinghouse Data Base

SCH# 2011071034
Project Title Hubert H. Humphrey Comprehensive Health Center Urgent Care Expansion
Lead Agency Los Angeles County

Type MND Mitigated Negative Declaration

Description The County of Los Angeles Department of Public Works proposes to expand the Urgent Care clinic at the Hubert H. Humphrey Comprehensive Health Center. The Center is located at the southeast corner of Slauson Avenue and Main Street in the City of Los Angeles, CA. The proposed project would include: reconfiguration of existing clinic space to expand the Urgent Care clinic; and, construction of a parking deck or structure with ramp. The Urgent Care clinic would be expanded by ~2,200 s.f. with cosmetic upgrade of ~6,600 s.f. of interior space. The new parking deck or structure would require removal of ~18,000 s.f. of asphalt from the existing parking lot.

Lead Agency Contact

Name Hoda El Sokkary
Agency Los Angeles County Department of Public Works
Phone 626 300 2367 **Fax**
email
Address 900 S. Fremont Ave., 5th Floor
City Alhambra **State** CA **Zip** 91803

Project Location

County Los Angeles
City Los Angeles, City of
Region
Lat / Long
Cross Streets Main Street and Slauson Avenue
Parcel No. 6006-001-900, -901, 907, 809, -910
Township 2S **Range** 13W **Section** 19 **Base**

Proximity to:

Highways I-110
Airports No
Railways Burlington Northern and Santa Fe
Waterways No
Schools Yes
Land Use LU: Public Facilities
Z: Public Facilities (PF-1)
GPU: Public Facilities

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Wildlife; Growth Inducing; Toxic/Hazardous; Traffic/Circulation; Vegetation; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Minerals; Drainage/Absorption; Landuse; Cumulative Effects; Other Issues; Soil Erosion/Compaction/Grading; Noise; Water Quality; Water Supply; Solid Waste; Public Services; Recreation/Parks

Reviewing Agencies Resources Agency; Department of Fish and Game, Region 5; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; California Highway Patrol; Caltrans, District 7; Regional Water Quality Control Board, Region 4; Department of Toxic Substances Control; Native American Heritage Commission

Date Received 07/11/2011 **Start of Review** 07/11/2011 **End of Review** 08/09/2011

Note: Blanks in data fields result from insufficient information provided by lead agency.