Initial Study

NORTH CAPITOL VILLAS

PDC10-025

May 9, 2011

CITY OF SAN JOSE

Initial Study

NORTH CAPITOL VILLAS

Planned Development (PD) Rezoning (PDC10-025)

May 9, 2011

CITY OF SAN JOSE

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- Photographs of Ordinance Sized Trees
- Burrowing Owl Survey
- Historical and Architectural Evaluation
- Preliminary Geotechnical Investigation
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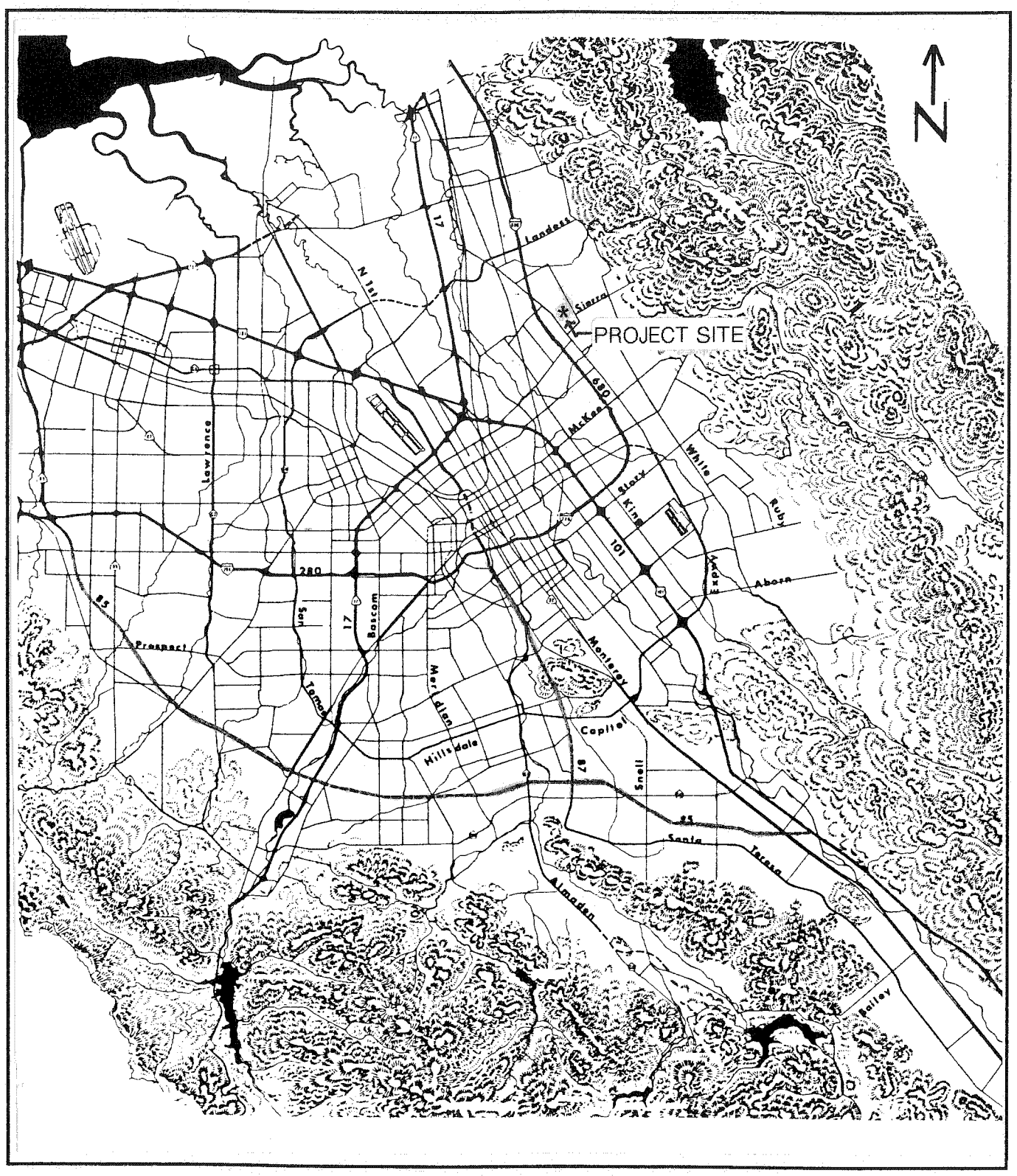
I. PROJECT DESCRIPTION

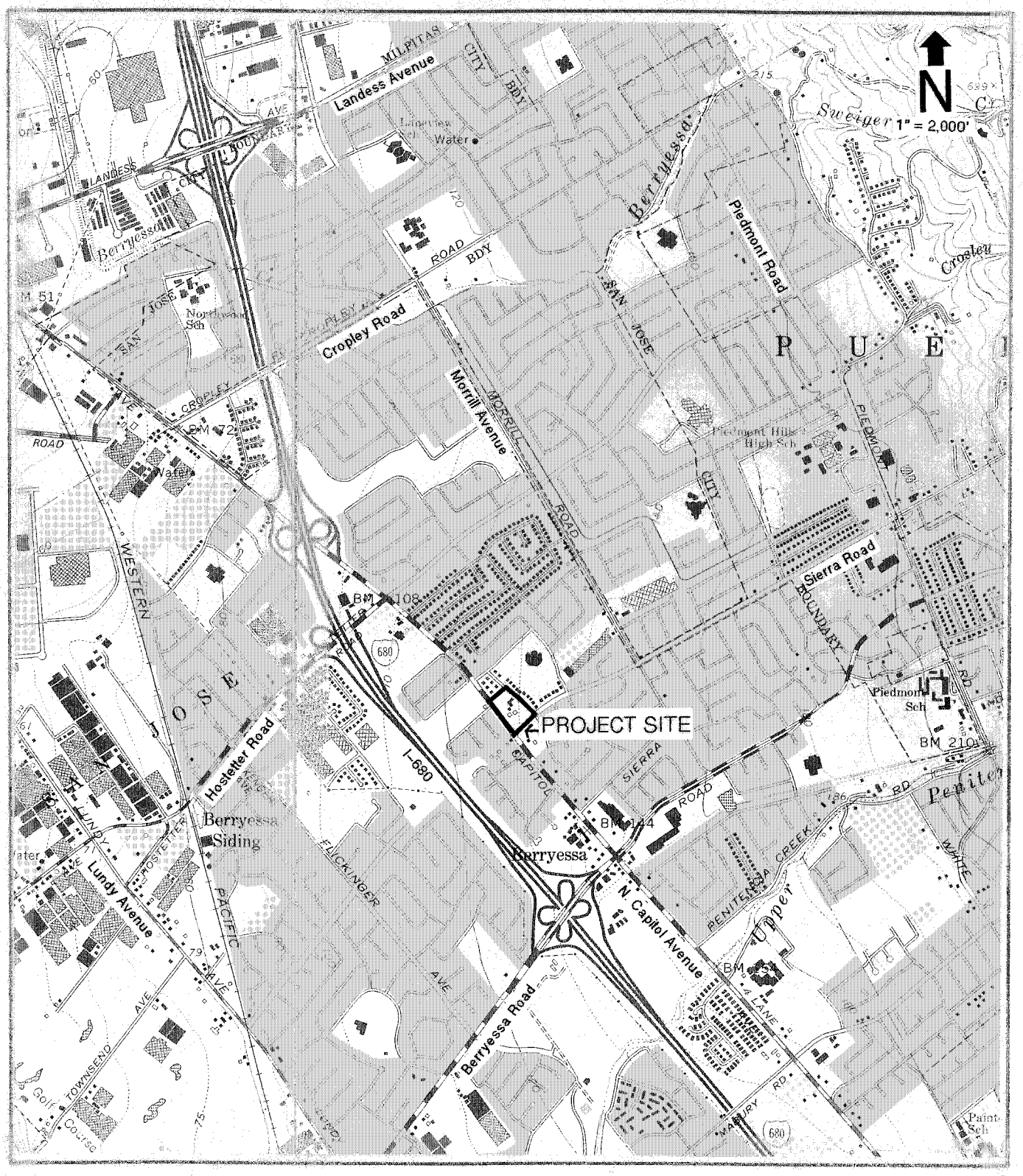
A. GENERAL INFORMATION

Lead Agency Contact:	Lesley Xavier, Project Manager City of San Jose Planning, Building and Code Enforcement 200 East Santa Clara Street, 3rd Floor San Jose, CA 95113 408-535-7852 lesley.xavier@sanjoseca.gov
Applicant:	Trumark Companies 4185 Blackhawk Plaza Circle, Suite 200 Danville, CA 94506-4668 925-648-8300; (fax) 925-648-3130 Attn: Chris Davenport cdavenport@trumark-co.com
Property Owners:	William A. & Jacqueline M. Orlando; Julie A. & Larry S. Lamantia, Maryann Gambucci, and Diane M. Mahan Contact: Julie A. Lamantia 684 Chapman Street San Jose, CA 95126 (fax) 408-286-2635 Julie.Lamantia@go.AAA.com
Environmental Consultant:	Mindigo & Associates 1984 The Alameda, Suite 1 San Jose, CA 95126 408-554-6531, (fax) 408-554-6577 rmindigo@aol.com
Name of Project:	**NORTH CAPITOL VILLAS**
Location and Address:	Northeasterly quadrant of N. Capitol Avenue and Sierra Road (1328 N. Capitol Avenue)
Brief Description of Project:	A **Planned Development (PD) Rezoning** application for a 94-unit single family attached residential development on approximately 4.3 gross acres
Assessor's Parcel Number(s):	589-19-063



Santa Clara Valley Map

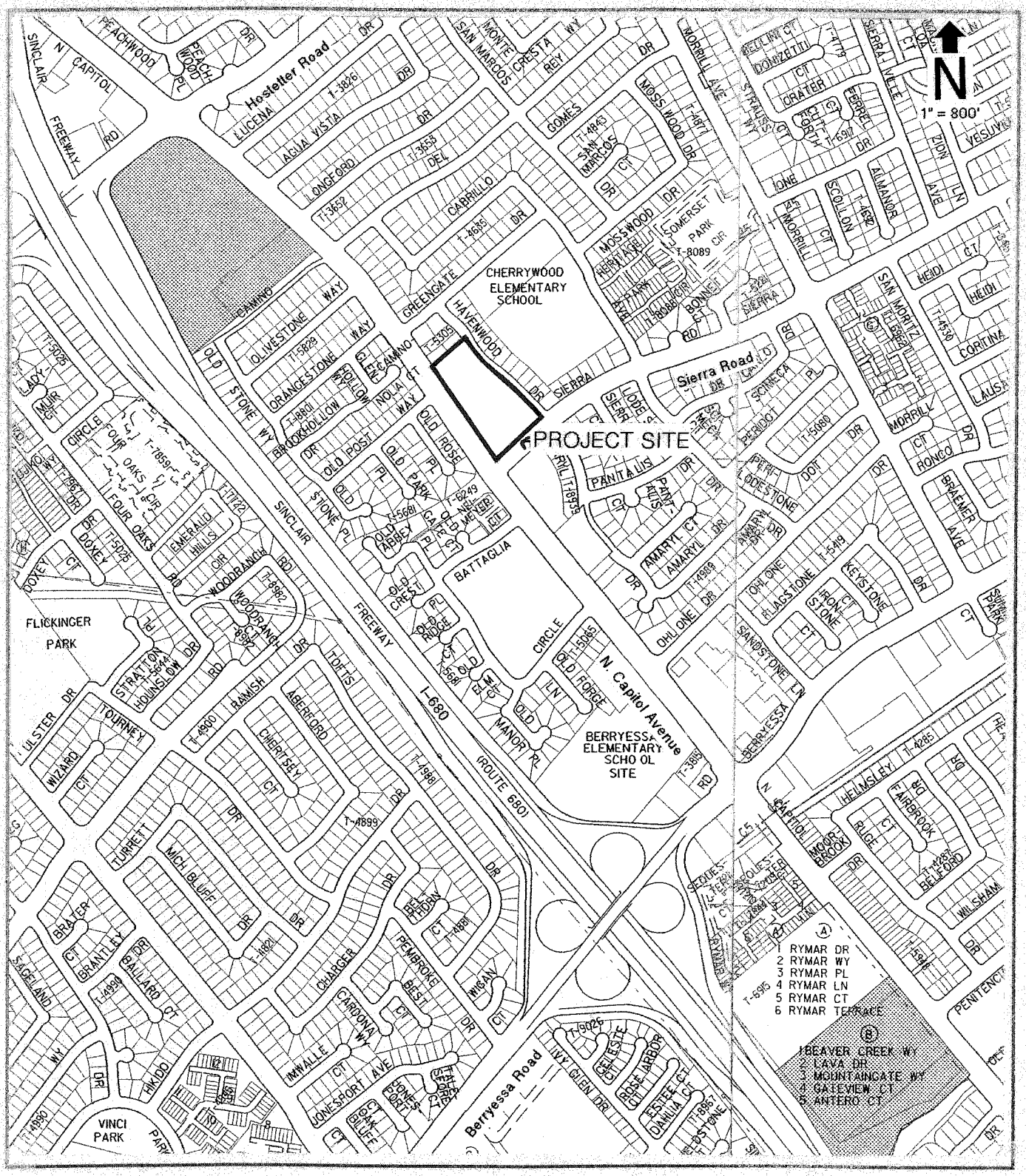
Figure 1



Source: Milpitas and Calaveras Reservoir Quadrangles (1961, photorevised 1980)

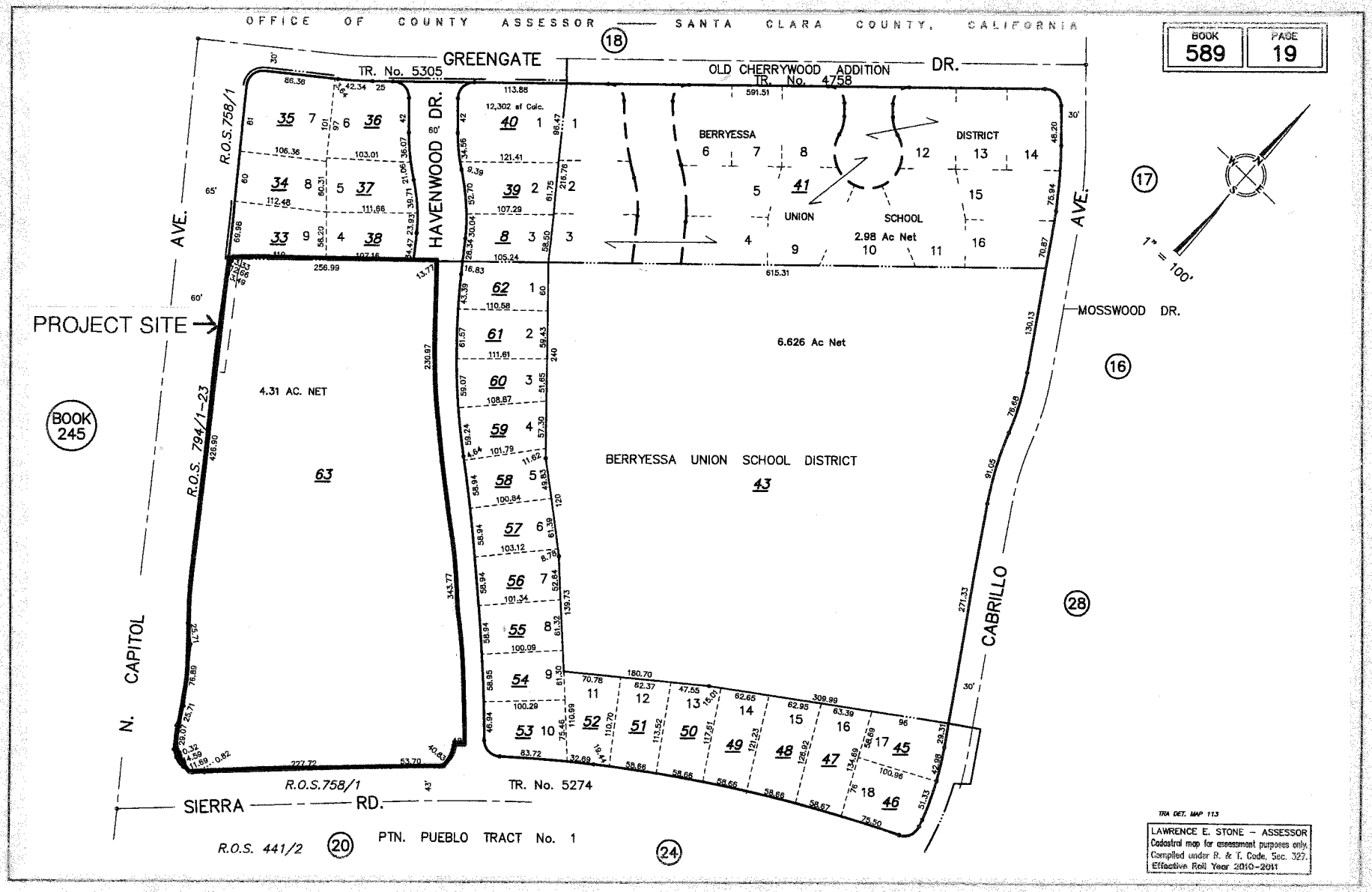
USGS Map

Figure 2



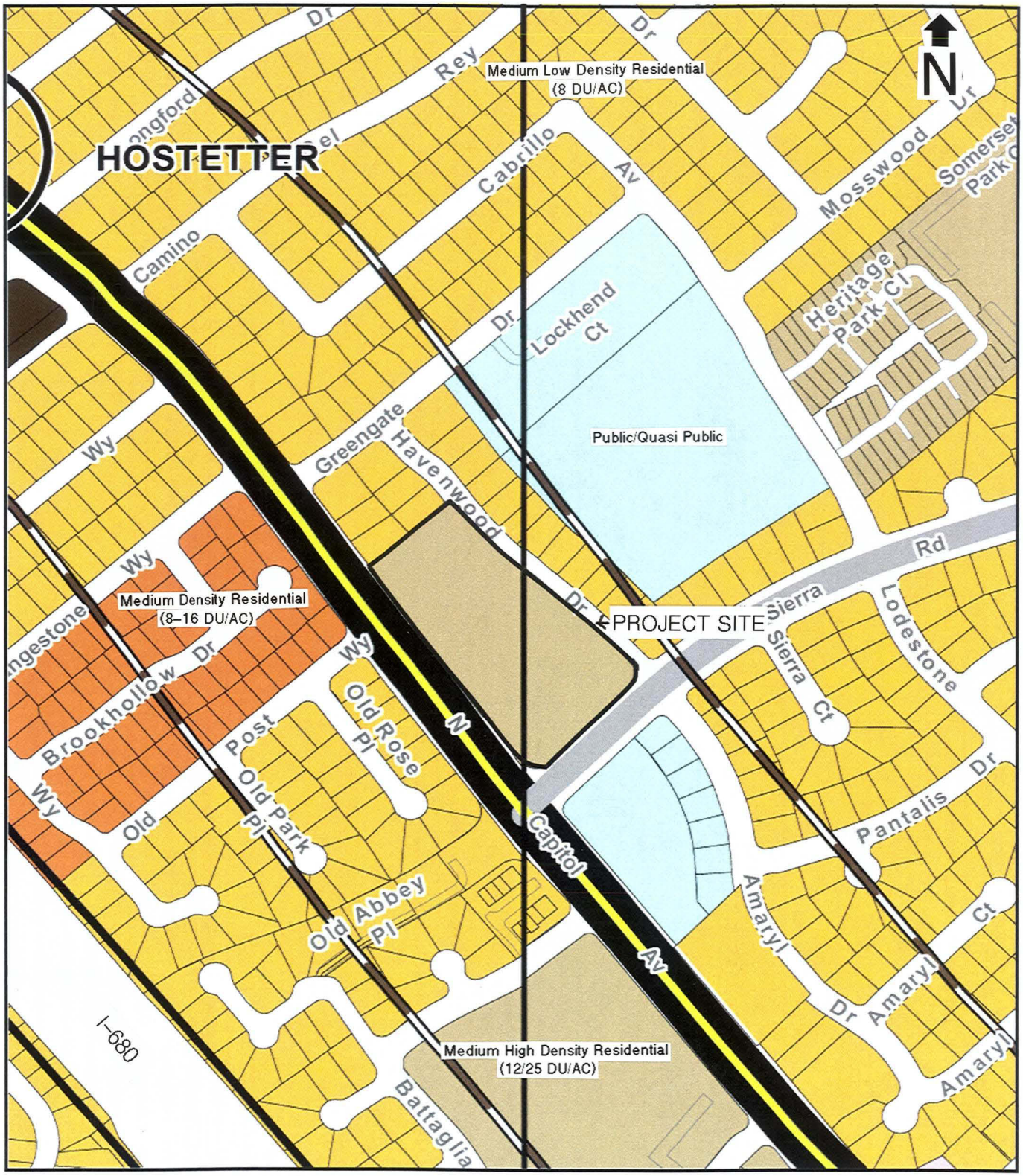
Vicinity Map

Figure 3



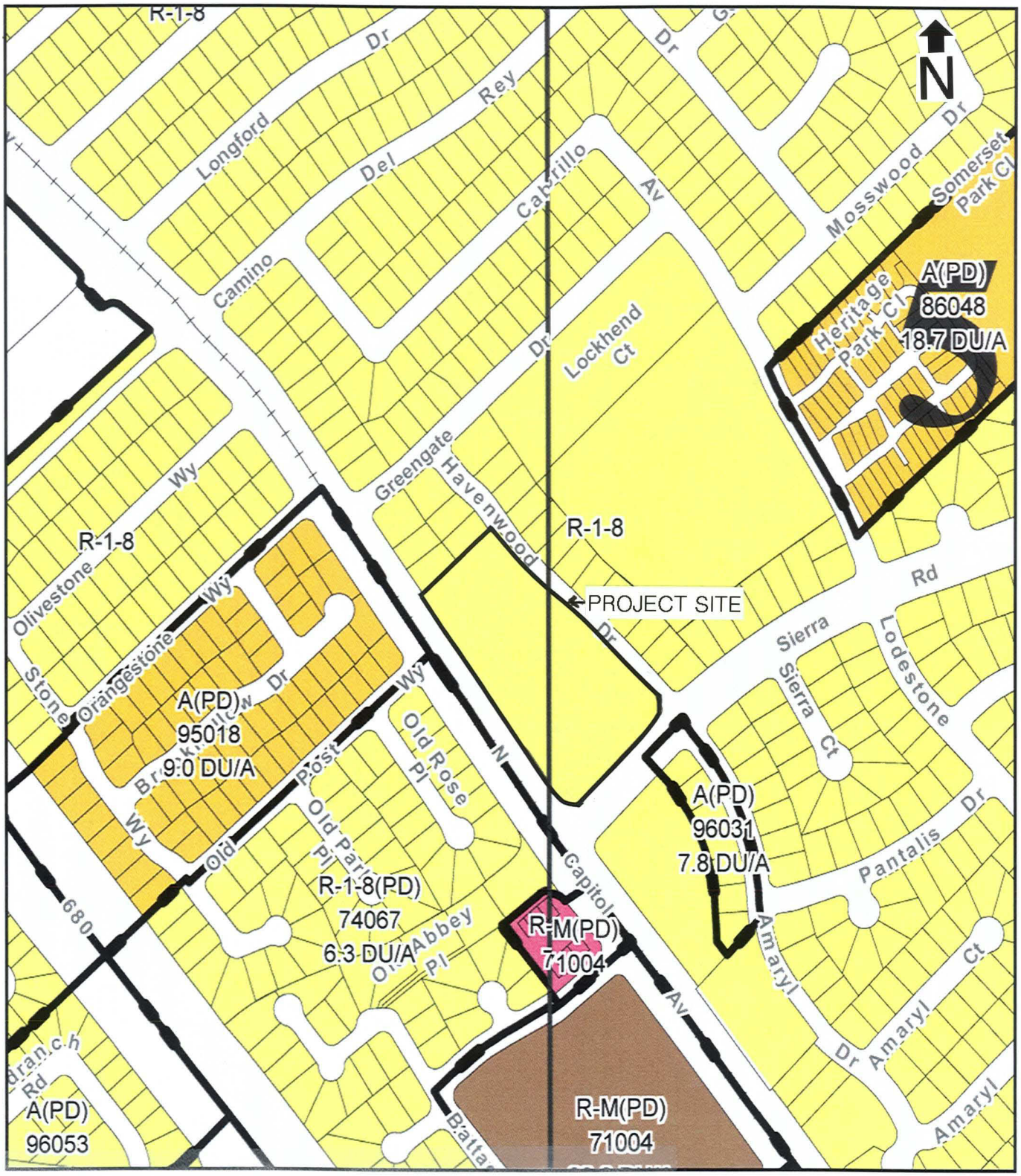
Assessor's Parcels

Figure 4



General Plan Map

Figure 5

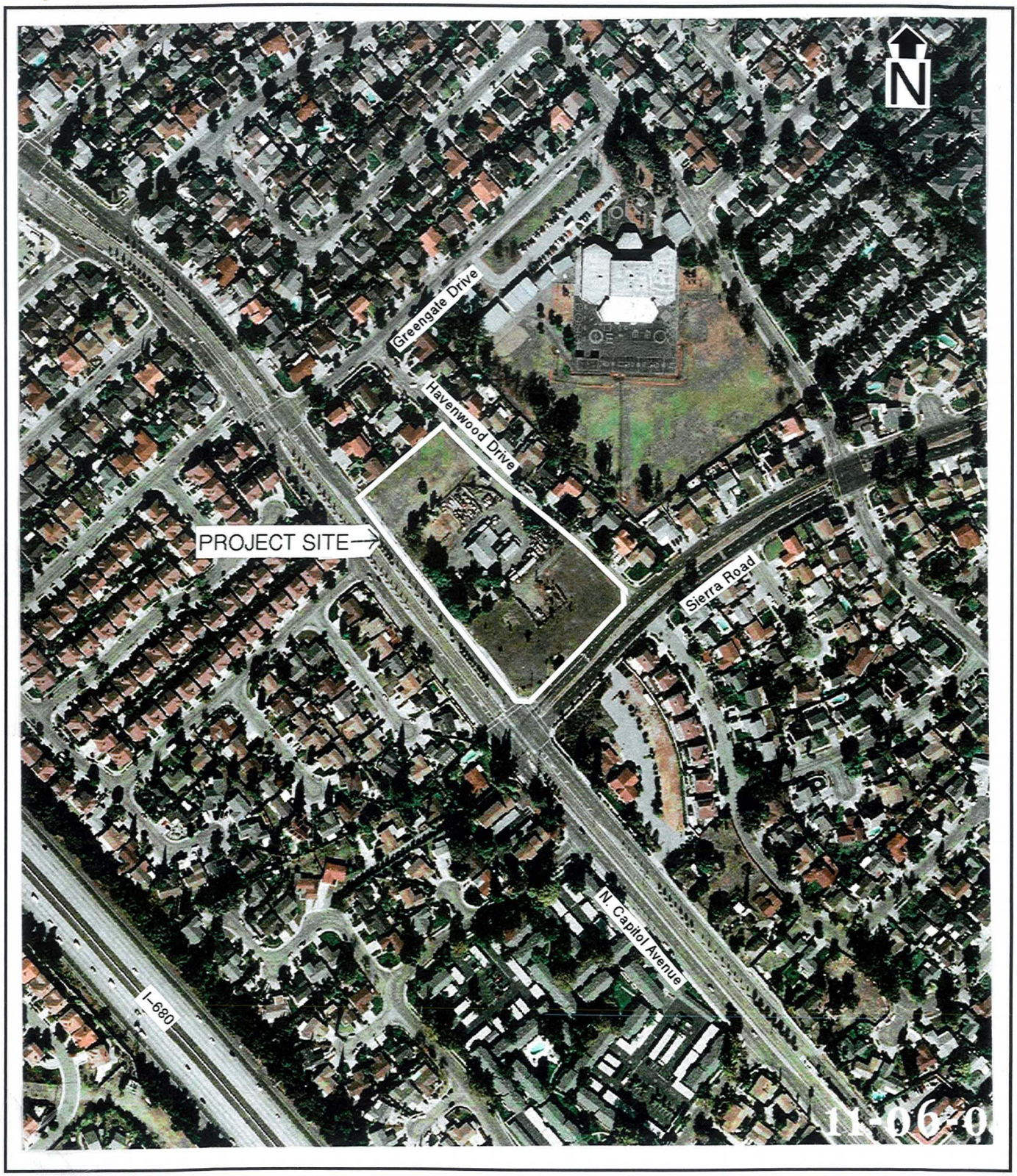


R-1-8 Single Family Residential District, 8 units per acre

A(PD) / R-1-8(PD) / R-M(PD) Planned Development District

Zoning Map

Figure 6



Aerial Photo of the Vicinity

November 6, 2008 Figure 7

Aerial Photo of the Site

November 6, 2008

Figure 8

Viewing northerly from the southerly corner at N. Capitol Avenue and Sierra Road.

Viewing easterly from the westerly corner along N. Capitol Avenue.

View of the Site

July 16, 2010 Figure 9

Viewing westerly from the easterly corner at Sierra Road and Havenwood Drive.

Viewing southerly from the northerly corner along Havenwood Drive.

View of the Site

July 16, 2010 Figure 10

B. PROJECT OBJECTIVE

The objective of this project is to rezone the site in order to construct high quality, single family homes on the site in proximity to public transit, in accordance with the goals and policies of the City of San Jose.

C. DESCRIPTION

EXISTING USE

The project site is currently developed with a single-family residence as well as commercial uses including: seasonal sales of Christmas trees and pumpkins; firewood sales; a searchlight rental business; and storage of old collected searchlights and associated power generators, used vehicles and other miscellaneous items.

PD ZONING

The project is a **Planned Development (PD) Zoning** from R-1-8, Single Family Residence District, to A(PD), Planned Development District, to allow the construction of up to 94 residential units and subsequent subdivision, located on the northeasterly quadrant of N. Capitol Avenue and Sierra Road (1328 N. Capitol Avenue). The project is a single family attached residential development located on public and private streets. The Conceptual Site Plan, Figure 12, provides for 94 units. The Project Data table and reduced copies of the project plans follow, Figures 11 through 18. Full size copies are available for review at the City of San Jose Planning Division.

Unit Types

The townhomes are planned to be three story, wood frame structures with cement plaster, fiber-cement siding and/or brick veneer exteriors and concrete tile roofs. Each unit has two, three or four bedrooms; a private patio or deck; and a 2-car tuck-under garage. There are 12 buildings with 7, 8 or 10 units per building. There are six different unit plans, as follows:

Plan	No. of Stories	No. of Bedrooms	No. of Baths	Square Footage
1	3	2	2.5	1,366
2	3	3	2	1,547
3	3	3	3	1,641
4	3	4	3.5	1,815
5	3	2	2	1,396
6	3	2	3	1,518

Landscaping

The landscaping proposed is shown in schematic form on the Conceptual Landscape Plan, Figure 18. Street trees, accent trees, shrubs, lawn and groundcover are planned throughout the

project. Enhanced paving is to be provided at the main entry off N. Capitol Avenue and at all crosswalks within the project.

Recreation Facilities

Recreation facilities planned with the project include a private park in the center of the site. As shown on the Conceptual Landscape Plan, Figure 18, the park is planned to include a play area, a barbecue/picnic area, and a turf play area for active or passive recreation.

Access and Street System

Access to the project is from N. Capitol Avenue and Sierra Road. The internal project street system is to be private. The private streets are to be constructed of asphaltic concrete on a rock base, with concrete curbs, gutters and sidewalks, and street trees and electroliers in accordance with City standards.

Parking

Parking for the project is provided by a combination of covered and open spaces. Covered parking is provided in tuck-under garages. Common and guest parking spaces are located throughout the project as shown on the Conceptual Site Plan, Figure 12.

Exterior Lighting

Standard electroliers using low pressure sodium vapor lights in accordance with the City's Outdoor Lighting on Private Developments Policy are to be provided along the public and private streets. Normal exterior household lighting is to be provided with the residences. All exterior lighting is subject to the City's Outdoor Lighting Policy 4-3.

Utilities

All utilities required to serve the project, including sanitary sewer, wastewater treatment, water supply, storm drainage, natural gas, electricity and telephone, as further described in the following Utilities and Service Systems section, would be provided with the project. All of the utilities within the project are to be underground.

Demolition

The project proposes the demolition of all the onsite structures. A discussion of potential asbestos-containing materials (ACM) and/or lead based paint (LBP) hazards is included in the following Hazards and Hazardous Materials section.

Hazardous Materials

Hazardous materials other than those for normal household and yard use will not be used as a part of the operation of any of the establishments on the project site.

Grading

Grading planned for the project is shown on the following Conceptual Grading & Drainage Plan, Figure 16. The final lot and street grading for the project is to be designed to conform to the natural ground as closely as possible. The amount of grading planned is the minimum required

to provide public streets that meet requirements for structural section and rate of grade, and to allow the construction of level building pads with positive drainage. In addition to the lot and street excavation, trenching is required for the underground utilities and sewer system. Approximately 10,000 to 15,000 cubic yards of material are estimated to be moved during the grading operations. The maximum finished cut or fill is estimated to be less than 3 feet, and no significant import or export of natural material is expected.

Water Quality Treatment

In accordance with the Santa Clara Valley Urban Runoff Pollution Prevention Program NPDES MS4 permit and City Council Policies 6-29 and 8-14, the project includes bioswales, a CDS media filter unit(s) and disconnected roof drains, as further discussed in the following Hydrology and Water Quality section.

Tree Removal

There are 35 existing trees onsite, all of which are to be removed, as further discussed in the following Biological Resources section.

Public Improvements

Public improvements planned with the project include the additional dedication (as required) and improvement of Havenwood Drive adjacent to the project site. The precise dedication and improvement width and public street right-of-way are to be in conformance with City plans and requirements.

Public Land Reservations

There are no public land reservations with this project.

Other Related Permits

In addition to the proposed **Planned Development (PD) Rezoning**, other related permits to be obtained from the City of San Jose and/or any other public agency approvals required for this project by other local, State or Federal agencies are as follows:

Agency	Permit / Approval
City of San Jose	PD Permit, Tentative Map, Final Map, Grading Permit, Building Permit(s)

Community Meeting

A community meeting to discuss the proposed project with neighbors was held on March 2, 2011. The following issues were covered: density, parking, desire for jobs not housing, safety for children going to school, and the desire for a median break on Sierra Road at Havenwood Drive.

Table 1. Project Data

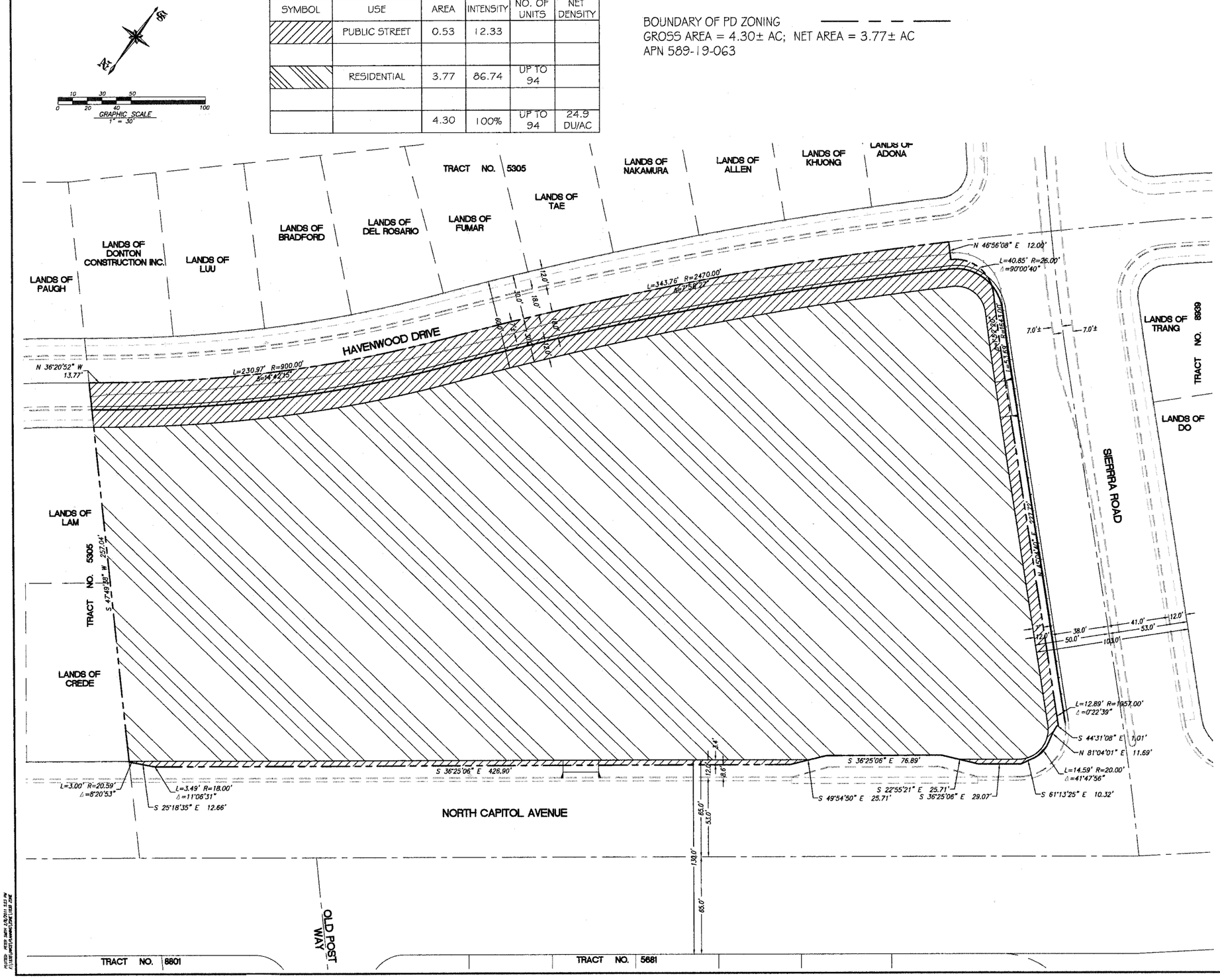
Category		Figure
Gross Acreage		4.3
Public Streets		0.5
Net Acreage		3.8
Number of Single Family Homes		
Two bedroom units		53
Three bedroom units		30
Four bedroom units		11
Total		94
Maximum Building Height *(feet)*		50
Estimated Population *		288
Estimated School Children		
K-8 *(0.21)*		20
9-12 *(0.20)*		19
Total		39
Estimated Wastewater *(gallons/day)*		16,900
Estimated Water Demand *(gallons/day)*		34,600
Estimated Solid Waste *(tons/year)*		86
Coverage Factors	Acres	Percent
Homes & Garages	1.9	44
Private Open Space	0.8	19
Private Park	0.3	7
Private Vehicular Area	0.8	18
Public Streets	0.5	12
Total	4.3	100
Impervious Areas	Square Feet	Percent
Existing	62,520	33
Project	154,582	83
Density *(units/net acre)*		94 / 3.8 = 24.7
Start/Completion Dates		Spring, 2011 / Spring, 2012

* Based on 2000 Census average of 3.06 persons per SFA dwelling unit.

LAND USE TABLE-CONDOMINIUM/TOWNHOUSE/PODIUM

SYMBOL	USE	AREA	INTENSITY	NO. OF UNITS	NET DENSITY
	PUBLIC STREET	0.53	12.33		
	RESIDENTIAL	3.77	86.74	UP TO 94	
		4.30	100%	UP TO 94	24.9 DU/AC

BOUNDARY OF PD ZONING
GROSS AREA = 4.30± AC; NET AREA = 3.77± AC
APN 589-19-063



PDC 10-025

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SUPERVISED BY
REGISTERED CIVIL ENGINEER NO. 14218
EXPIRES 3/31/07

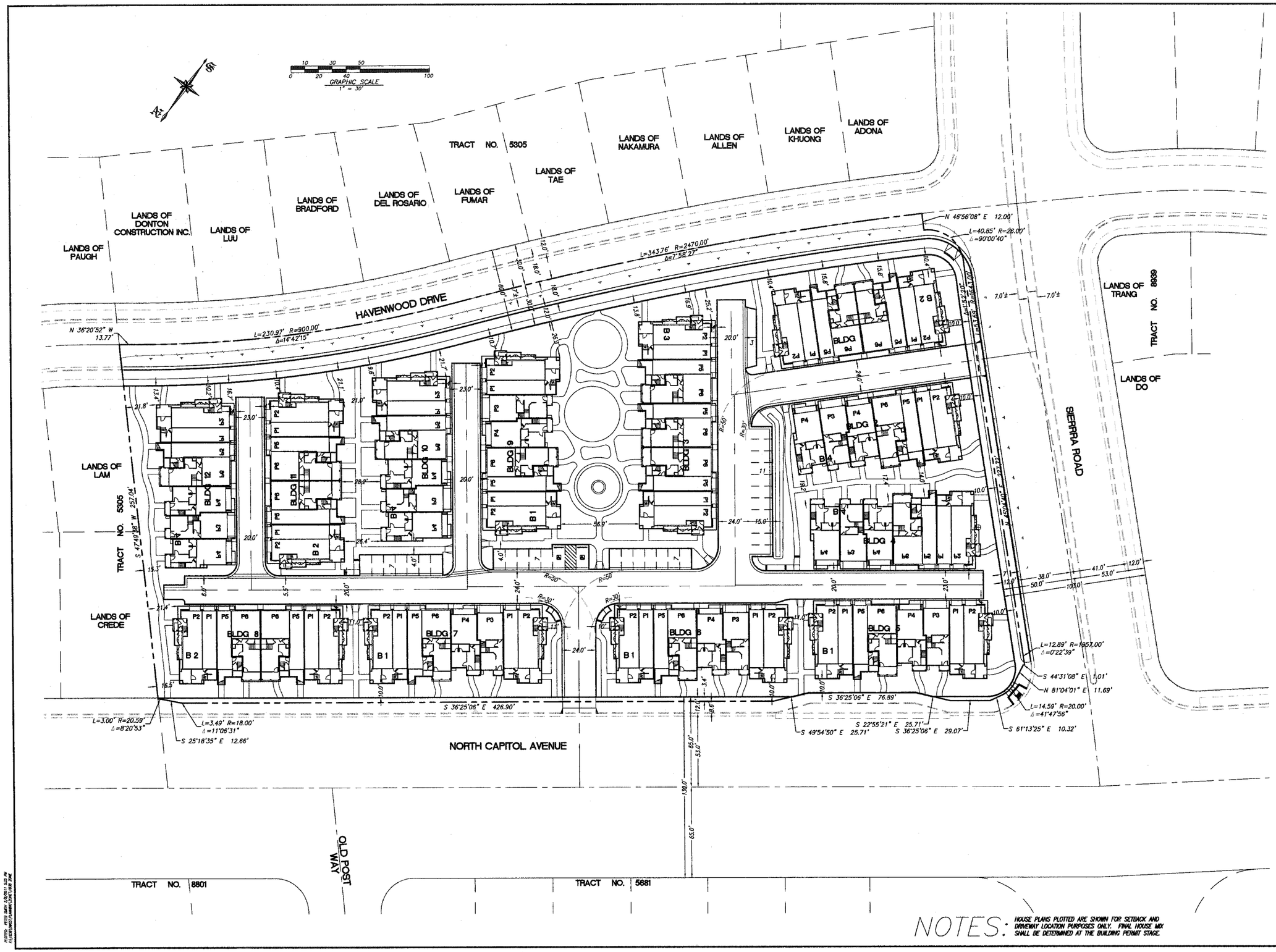
LAND USE PLAN
LANDS OF TRUMARK
NORTH CAPITOL AVENUE & SIERRA ROAD
SAN JOSE, CALIFORNIA

DATE Feb. 11, 2011
SCALE 1" = 30'
DRAWN BY MHF
CHECKED BY

REVISIONS
DATE

JOB NO. 1838
SHEET 2.1
OF

Figure 11



NOTES: HOUSE PLANS PLOTTED ARE SHOWN FOR SETBACK AND DRIVEWAY LOCATION PURPOSES ONLY. FINAL HOUSE MIX SHALL BE DETERMINED AT THE BUILDING PERMIT STAGE.

PDC 10-025

DATE	Feb. 11, 2011
SCALE	1" = 30'
DRAWN BY	MHF
CHECKED BY	

REVISIONS

DATE

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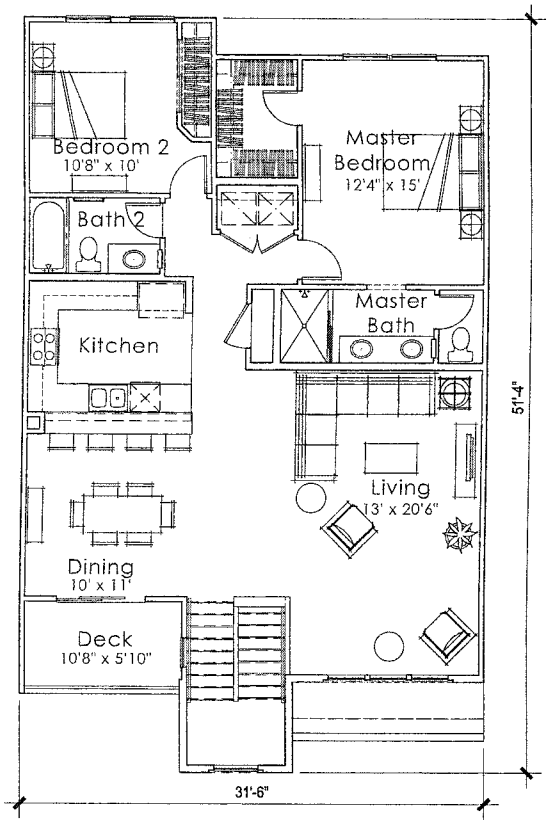
EXPIRES 3/31/07

CONCEPTUAL SITE PLAN
LANDS OF TRUMARK
NORTH CAPITOL AVENUE & SIERRA ROAD
SAN JOSE, CALIFORNIA

JOB NO. 1838

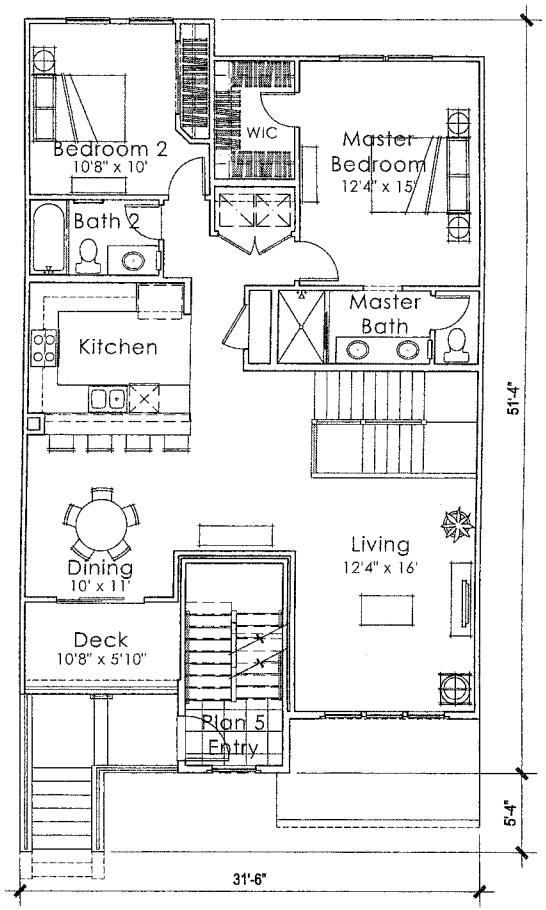
SHEET 3 OF

Figure 12



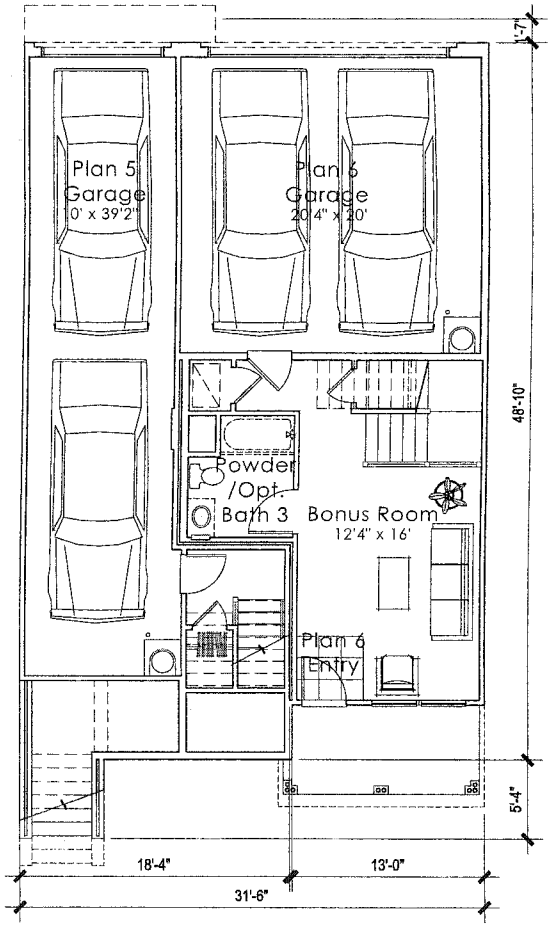
THIRD FLOOR
PLAN 5

2 Bedroom/2 Bath
1,396 NET SQ. FT.



SECOND FLOOR
PLAN 6

2 Bedroom/2 ½ Bath + Bonus
1,518 NET SQ. FT.



SECOND FLOOR
PLAN 5 & 6

5.12

OCTOBER 25, 2010

PLAN TYPE 5 & 6 CONCEPTUAL FLOOR PLANS

SCALE: 1/4" = 1'-0"

GENERAL DEVELOPMENT PLAN - EXHIBIT C

Trumark

KTGY NO. 2010-0303

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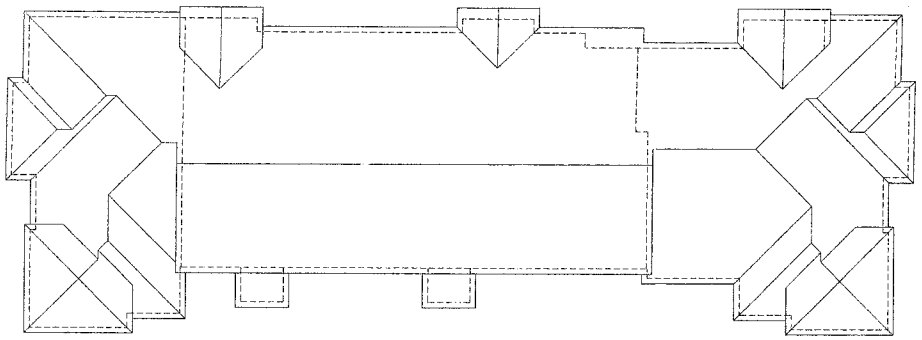
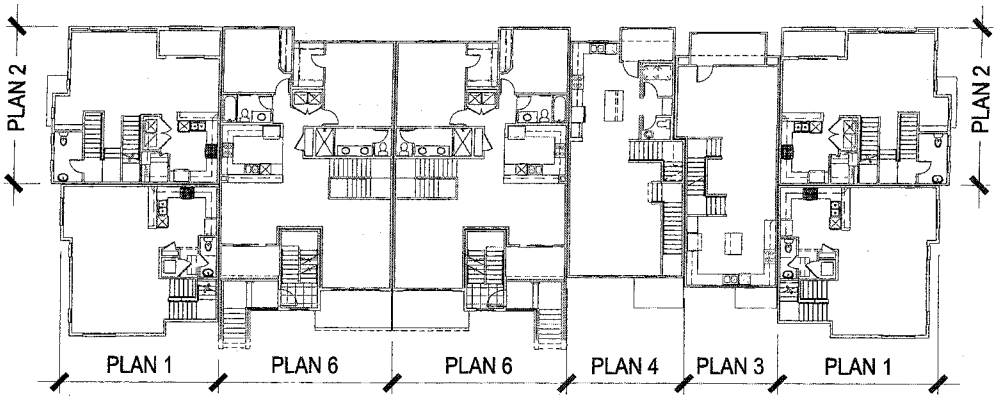
283 4th Street Third Floor
Oakland, California 94607
ktgy.com
510.272.2910 Main
510.292.2911 Fax

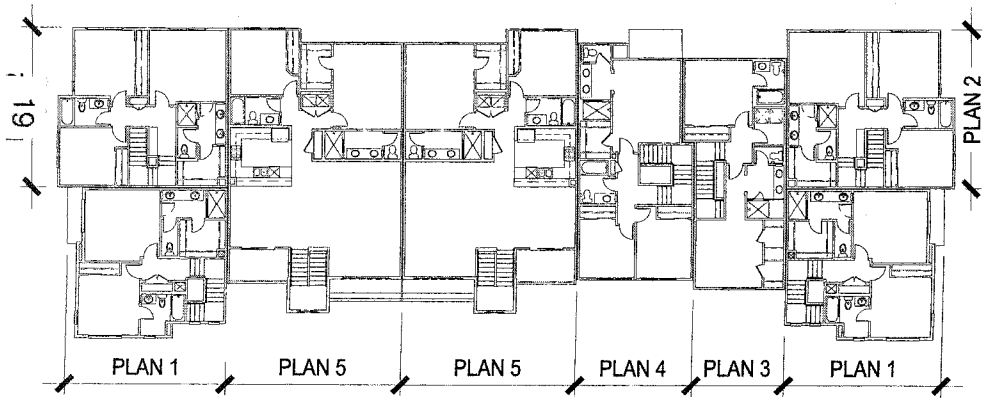
Figure 13



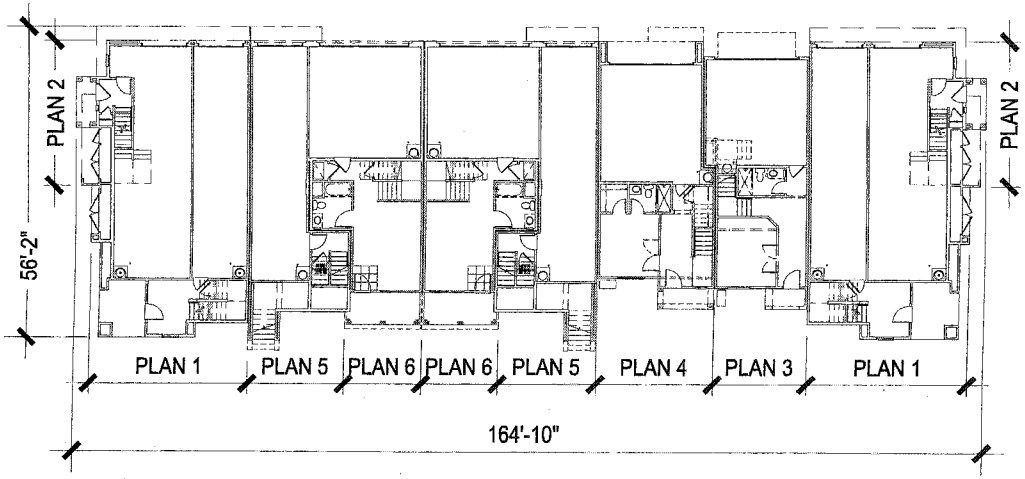
ROOF PLAN



SECOND FLOOR PLAN



THIRD FLOOR PLAN



FIRST FLOOR PLAN

5.6

OCTOBER 25, 2010

BUILDING TYPE 3 CONCEPTUAL PLANS • 10-PLEX SCALE: 3/32" = 1'-0" GENERAL DEVELOPMENT PLAN - EXHIBIT C

Trumark

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SAN JOSE, CALIFORNIA

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Figure 14

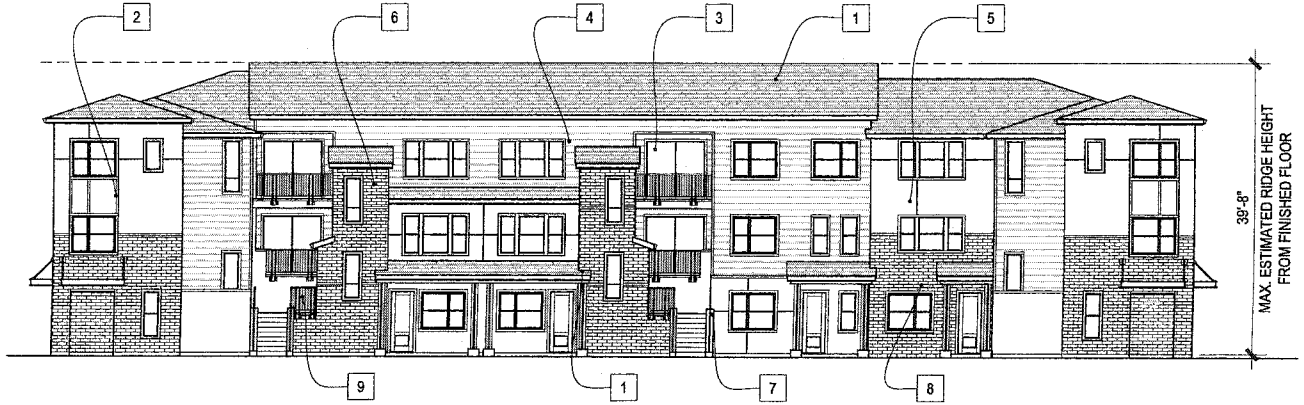
SIDE ELEVATION

REAR ELEVATION

Materials Legend

1. Flat Concrete Tile Roof
2. Window
3. Cement Plaster
4. Fiber-cement siding
5. Fiber-cement panel & tri
6. Brick Veneer
7. Decorative Pipe Column
8. Metal Canopy
9. Metal Guardrail

SIDE ELEVATION



FRONT ELEVATION

5.5

OCTOBER 25, 2010

BUILDING TYPE 3 CONCEPTUAL ELEVATIONS SCALE: 1/8" = 1'-0" 0 10 40 5 20 GENERAL DEVELOPMENT PLAN - EXHIBIT C

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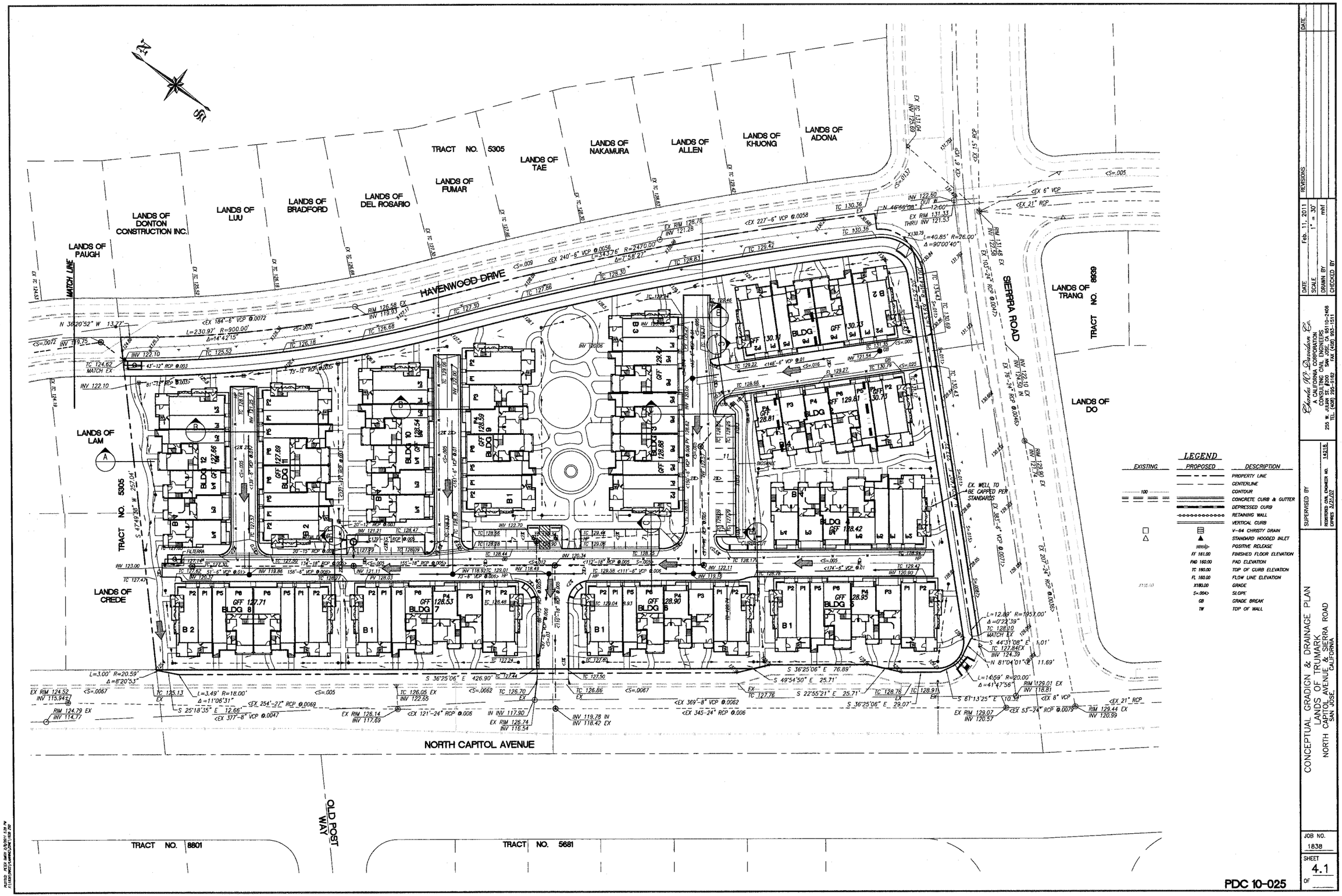
Figure 15



TRACT NO. 5305
LANDS OF PAUGH
LANDS OF DONTON CONSTRUCTION INC.
LANDS OF LUU
LANDS OF BRADFORD
LANDS OF DEL ROSARIO
LANDS OF FUMAR
LANDS OF TAE
LANDS OF NAKAMURA
LANDS OF ALLEN
LANDS OF KHUONG
LANDS OF ADONA
HAVENWOOD DRIVE
SIERRA ROAD
LANDS OF TRANG
TRACT NO. 8939
LANDS OF DO
LANDS OF LAM
LANDS OF CREDE
NORTH CAPITOL AVENUE
OLD POST WAY
TRACT NO. 8801
TRACT NO. 5681
MATCH LINE
LEGEND
EXISTING
PROPOSED
DESCRIPTION
PROPERTY LINE
CENTERLINE
CONTOUR
CONCRETE CURB & GUTTER
DEPRESSED CURB
RETAINING WALL
VERTICAL CURB
V-64 CHRISTY DRAIN
STANDARD HOODED INLET
POSITIVE RELEASE
FF 161.00 FINISHED FLOOR ELEVATION
PAD 160.00 PAD ELEVATION
TC 160.00 TOP OF CURB ELEVATION
FL 160.00 FLOW LINE ELEVATION
X160.00 GRADE
S=.004> SLOPE
GB GRADE BREAK
TW TOP OF WALL
CONCEPTUAL GRADIGN & DRAINAGE PLAN
LANDS OF TRUMARK
NORTH CAPITOL AVENUE & SIERRA ROAD
SAN JOSE, CALIFORNIA
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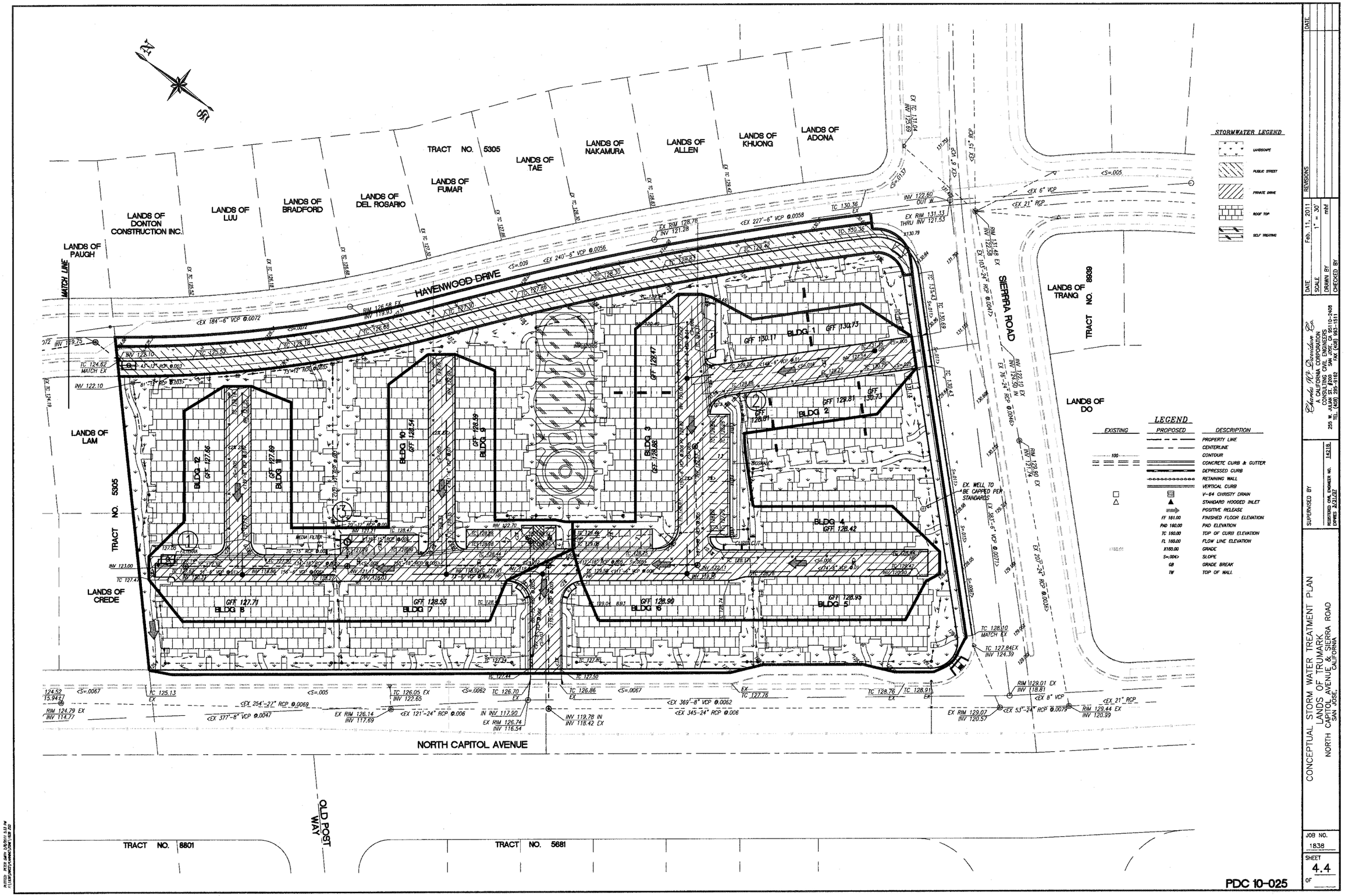
Figure 16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LANDS OF NAKAMURA
LANDS OF ALLEN
LANDS OF KHUONG
LANDS OF ADONA
LANDS OF PAUGH
MATCH LINE
HAVENWOOD DRIVE
SIERRA ROAD
LANDS OF TRANG
TRACT NO. 8839
LANDS OF DO
LANDS OF LAM
TRACT NO. 5305
LANDS OF CREDE
BLDG 1
BLDG 2
BLDG 3
BLDG 4
BLDG 5
BLDG 6
BLDG 7
BLDG 8
BLDG 9
BLDG 10
BLDG 11
BLDG 12
BLDG 15
BLDG 16
EX. WELL TO BE CAPPED PER STANDARDS
NORTH CAPITOL AVENUE
OLD POST WAY
TRACT NO. 8801
TRACT NO. 5681
STORMWATER LEGEND
LANDSCAPE
PUBLIC STREET
PRIVATE DRIVE
ROOF TOP
SELF TREATING
LEGEND
EXISTING
PROPOSED
DESCRIPTION
PROPERTY LINE
CENTERLINE
CONTOUR
CONCRETE CURB & GUTTER
DEPRESSED CURB
RETAINING WALL
VERTICAL CURB
V-64 CHRISTY DRAIN
STANDARD HOODED INLET
POSITIVE RELEASE
FF 161.00 FINISHED FLOOR ELEVATION
PAD 160.00 PAD ELEVATION
TC 160.00 TOP OF CURB ELEVATION
FL 160.00 FLOW LINE ELEVATION
X160.00 GRADE
S=.004> SLOPE
GB GRADE BREAK
TW TOP OF WALL
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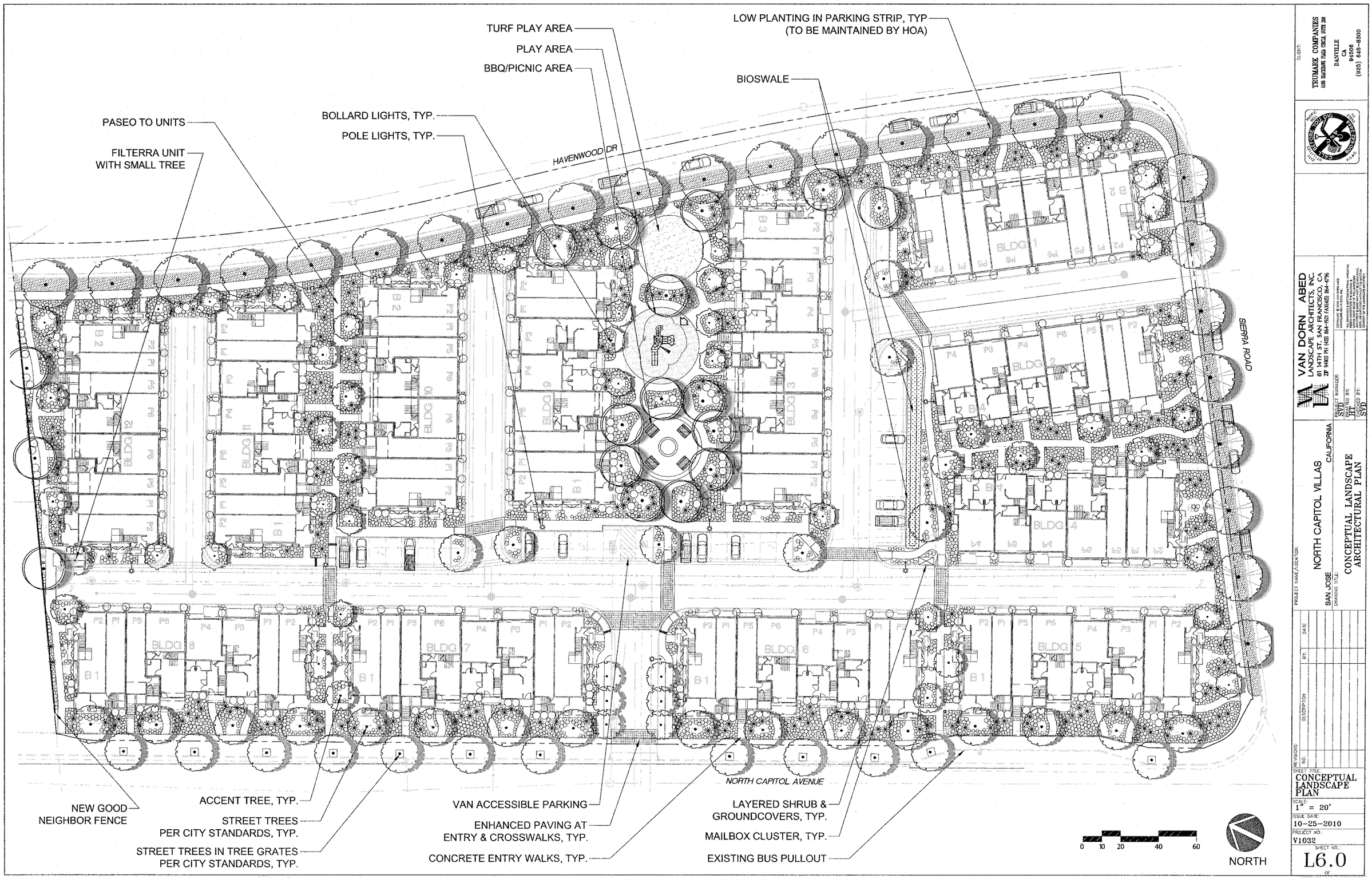
CONCEPTUAL STORM WATER TREATMENT PLAN
LANDS OF TRUMARK
NORTH CAPITOL AVENUE & SIERRA ROAD
SAN JOSE, CALIFORNIA
JOB NO. 1838
SHEET 4.4
PDC 10-025

Figure 17



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PROJECT MANAGER: SVD
DRAFTED BY: HT
CHECKED BY: SVD

PROJECT NAME/LOCATION:
NORTH CAPITOL VILLAS
SAN JOSE CALIFORNIA

DRAWING TITLE:
CONCEPTUAL LANDSCAPE
ARCHITECTURAL PLAN

REVISIONS: NO. DESCRIPTION BY: DATE

SHEET TITLE:
CONCEPTUAL
LANDSCAPE
PLAN

SCALE: 1" = 20'
ISSUE DATE: 10-25-2010
PROJECT NO.: V1032
SHEET NO.: L6.0

Figure 18

II. ENVIRONMENTAL SETTING, IMPACT CHECKLIST AND MITIGATION

1. AESTHETICS

SETTING

The current view of the project site consists primarily of a single-family residence, barn, commercial storage, firewood storage and open space, which can be seen in the preceding photographs, Figures 9 and 10.

Scenic Route

The project site is not located adjacent to a designated scenic route.

IMPACT AND MITIGATION

ISSUES	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT	SOURCES
1. AESTHETICS. Would the project:					
a. Have a substantial adverse effect on a scenic vista?			X		25,26,27
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and historic buildings within a state scenic highway?				X	25,26, 27,29,31
c. Substantially degrade the existing visual character or quality of the site and its surroundings?			X		25,26,27
d. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?			X		25, 26,28,32
e. Increase the amount of shading on public open space (e.g., parks, plazas and/or school yards)?			X		25,26,28

The project would change the view of the site from a single-family residence, barn, commercial storage, firewood storage and open space to a townhome residential development and a private park. The project would not have a substantial adverse effect on a scenic vista or substantially degrade the existing visual character or quality of the site and its surroundings. Replacement trees, street trees and landscaping will be provided as part of the project. Detailed architectural and landscape plans will be submitted for review and approval in accordance with the City's Residential Design Guidelines and PD Zoning procedure.

Light and Glare

The project could potentially produce offsite light and/or glare. The project will be designed to utilize downward-directed low pressure sodium vapor street lights in order to prevent offsite light and glare, in accordance with the City's Outdoor Lighting Policy.

Temporary Construction Visual Impacts

Construction of a typical project causes short-term visual impacts. The grading operations create a visual impact, and construction debris, rubbish and trash can accumulate on construction sites and are unsightly if visible from public streets. Public streets that are impacted by project construction activities will be swept and washed down daily. Debris, rubbish and trash will be cleared from any areas onsite that are visible from a public street. The completion of the project improvements and landscaping will eliminate the short-term visual impacts of the grading and construction operations.

STANDARD MEASURES INCLUDED IN THE PROJECT

Design

- The project design will conform to the City's Residential Design Guidelines.

Light and Glare

- Lighting on the site will conform to the City's Outdoor Lighting Policy (4-3).

MITIGATION MEASURES INCLUDED IN THE PROJECT

None required.

CONCLUSION

The implementation of the above design and light and glare standard measures would reduce the project's impact on aesthetics to a **less-than-significant impact**.

2. AGRICULTURE AND FOREST RESOURCES

SETTING

Agriculture Resources

The *Santa Clara County Important Farmland Map*, prepared by the California Department of Conservation and the USDA Natural Resources Conservation Service, classifies land in seven categories in order of significance: 1) prime farmland, 2) farmland of Statewide importance, 3) unique farmland, 4) farmland of local importance, 5) grazing land, 6) urban and built-up land and 7) other land. The project site is classified as "urban and built-up land," which is defined as land occupied by structures with a building density of at least one unit to one and one-half acres.

Williamson Act

The California Land Conservation Act ("Williamson Act") was enacted to help preserve agricultural and open space lands via a contract between the property owner and the local jurisdiction. Under the contract, the owner of the land agrees not to develop the land in exchange for reduced property taxes. The project site is not under a Williamson Act contract.

Forest Resources

"Forest land" is defined by the California Public Resources Code as land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. "Timberland" means land, other than land owned by the federal government and land designated as experimental forest land, which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees. The project site is currently residential/commercial and is not located on forest land or timberland.

IMPACT AND MITIGATION

ISSUES	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT	SOURCES
2. AGRICULTURE AND FOREST RESOURCES. 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	33,34
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X	35,64

ISSUES	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT	SOURCES
2. AGRICULTURE AND FOREST RESOURCES (Cont.). Would the project:					
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined in Public Resources Code section 4526)?				X	
d. Result in the loss of forest land or conversion of forest land to non-forest land?				X	25,26,28
e. Involve other changes in the existing environment which, 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	25,26,28

Agriculture Resources

The project site is classified as urban and built-up land on the *Important Farmland Map* for Santa Clara County. Since the site is not located in an area identified as prime farmland, nor is the site being used for or zoned for agricultural use or is under a Williamson Act contract, the project would not have a significant impact on agricultural land.

Forest Resources

Since the site is not located in an area identified as forest land or timberland, nor is the site being used for or zoned for forestry use, the project would not have a significant impact on forest resources.

MITIGATION MEASURES INCLUDED IN THE PROJECT

None required.

CONCLUSION

The proposed project would have **no impact** on agriculture or forest resources.

3. AIR QUALITY

Donald Ballanti conducted an air quality impact analysis, dated December, 2010 that is included in the Technical Appendix.

SETTING

Bay Area Air Quality Management District

The project site is located within the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The District includes seven Bay Area counties and portions of two others. Air quality emission and control standards are established by the BAAQMD and the California Air Resources Board, and by the Environmental Protection Agency (EPA) at the Federal level. These agencies are responsible for developing and enforcing regulations involving industrial and vehicular pollutant emissions, including transportation management and control mitigation measures.

Regional Climate

The air quality of a given area is not only dependent upon the amount of air pollutants emitted locally or within the air basin, but also is directly related to the weather patterns of the region. The wind speed and direction, the temperature profile of the atmosphere, and the amount of humidity and sunlight react with the emitted pollutants each day, and determine the resulting concentrations of air pollutants defining the "air quality."

The Bay Area climate is Mediterranean, with mild, rainy winters November through March, and warm, sunny and nearly dry summers June through September. Summer temperature inversions trap ground level pollutants. Winter conditions are less conducive to smog, but thin evening inversions sometimes concentrate carbon monoxide emissions at ground level.

Air Quality Standards

The U.S. EPA and the California Air Resources Board (CARB) have both established ambient air quality standards for common pollutants to avoid adverse health effects from each pollutant. The pollutants, which include ozone, carbon monoxide (CO), nitrogen dioxide, and particulate matter (PM_{10} and $PM_{2.5}$), and their standards are included in the Local Air Quality table that follows.

Regional Air Quality

The Federal Clean Air Act and the California Clean Air Act of 1988 require that the State Air Resources Board, based on air quality monitoring data, designate portions of the state where the federal or state ambient air quality standards are not met as "nonattainment areas". Because of the differences between the federal and state standards, the designation of nonattainment areas is different under Federal and State legislation.

The U.S. EPA has classified the San Francisco Bay Area as a nonattainment area for the federal 8-hour ozone and $PM_{2.5}$ standards. The Bay Area was designated as unclassifiable/attainment for the federal PM_{10} standard.

Under the California Clean Air Act, Santa Clara County is a nonattainment area for ozone and particulate matter (PM_{10} and $PM_{2.5}$). The county either meets attainment or is unclassified for the other pollutants. The California Clean Air Act requires local air pollution control districts to prepare air quality attainment plans; these plans must provide for district-wide emission reductions of five percent per year averaged over consecutive three-year periods or, if not, provide for adoption of "all feasible measures on an expeditious schedule".

Local Air Quality

Air quality in the project area is subject to the problems experienced by most of the Bay Area. Emissions from millions of vehicle-miles of travel each day often are not mixed and diluted, but are trapped near ground level by an atmospheric temperature inversion. Prevailing air currents generally sweep from the mouth of the Bay toward the south, picking up and concentrating pollutants along the way. A combination of pollutants emitted locally, the transport of pollutants from other areas, and the natural mountain barriers (the Diablo Range to the east and the Santa Cruz Range to the southwest) produce high concentrations. Air quality data from the last three years at the nearest BAAQMD monitoring station in San Jose, and Federal and State standards, are shown in the following table.

Table 2. Local Air Quality

Pollutant	Standard	Days Exceeding Standard 2007	2008	2009
OZONE				
State 1-hour	0.09 ppm	0	1	0
State 8-hour	0.07 ppm	0	3	0
Federal 8-hour	0.08 ppm	0	2	0
CARBON MONOXIDE				
State/Federal 8-hour	9.0 ppm	0	0	0
NITROGEN DIOXIDE				
State 1-hour	0.25 ppm	0	0	0
PARTICULATE MATTER (PM_{10})				
State 24-hour	50 $\mu g/m^3$	3	1	0
Federal 24-hour	150 $\mu g/m^3$	0	0	0
PARTICULATE MATTER ($PM_{2.5}$)				
Federal 24-hour	35 $\mu g/m^3$	9	5	0

ppm = parts per million $\mu g/m^3$ = micrograms per cubic meter

SOURCE: Bay Area Air Quality Management District monitoring data for San Jose.

Project Site

The project site is similar to other locations in the South Bay; air quality meets adopted State and/or Federal standards (the more stringent standard applies) on most days, and during periods when regional atmospheric conditions are stagnated, the air quality is poor throughout the extended South Bay area. There are no existing sources on the project site that currently adversely affect local air quality.

Sensitive Receptors

Some groups of people are more affected by air pollution than others. CARB has identified the following people who are most likely to be affected by air pollution: children under 14, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, elementary schools, and parks. The closest sensitive receptors are the single family residences located north, east, southeast and west of the project site and Cherrywood Elementary School further to the east.

IMPACT AND MITIGATION

ISSUES	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT	SOURCES
3. AIR QUALITY. Would the project:					
a. Conflict with or obstruct implementation of the applicable air quality plan?				X	29,37,100
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			X		26,37,100
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is classified as non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?			X		26,37,100
d. Expose sensitive receptors to substantial pollutant concentrations?		X			28,37,100
e. Create objectionable odors affecting a substantial number of people?				X	26,28,100

Local Impacts

Development projects in the Bay Area are most likely to violate an air quality standard or contribute substantially to an existing or projected air quality violation through generation of vehicle trips. New vehicle trips add to carbon monoxide concentrations near streets providing access to the site; CO concentrations are highest near intersections of major roads. The

BAAQMD has developed a preliminary screening methodology that provides a conservative indication of whether the implementation of a proposed project would result in CO emissions that exceed the CO thresholds of significance. A proposed development proposal would result in a less-than-significant impact to localized CO concentrations if the following screening criteria are met:

- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.
- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

The project would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour, and would not affect any intersections where vertical and/or horizontal mixing is substantially limited. Based on the BAAQMD criteria, the proposed project would have a less-than-significant impact on carbon dioxide concentrations.

Regional Impacts

Operation

Additional trips to and from the project and area sources associated with project land uses would result in new air pollutant emissions within the air basin. According to the BAAQMD guidelines, if a project generates over 54 lbs/day of reactive organic gases (ROG), nitrogen oxides (NO_x) or suspended particulate matter ($PM_{2.5}$ from exhaust) or over 82 lbs/day (PM_{10} from exhaust), it would have a significant air quality impact. As shown in the report in the Technical Appendix, modeled project emissions would not exceed BAAQMD thresholds of significance, so the proposed project would have a less-than-significant effect on regional air quality.

Construction

In addition to demolition, construction activities would include site excavation and grading as well as general construction. Heavy duty construction equipment, construction-related on-road trucks and worker vehicles would also result in exhaust emissions of ROG, NO_x, PM_{10} and $PM_{2.5}$ during construction of the proposed project. Exhaust emissions would vary depending on the number and type of construction equipment used, number of truck trips to the site, and number of workers present. As shown in the report in the Technical Appendix, the average modeled project emissions are well below the BAAQMD thresholds of significance, so the proposed project would have a less-than-significant impact.

Odors

The project would not generate objectionable odors or place sensitive receptors adjacent to a use that generates odors (i.e., landfill, composting, etc.).

Sensitive Receptors

The closest sensitive receptors (the single family residences located north, east, southeast and west of the project site and Cherrywood Elementary School further to the east) could be subjected to fugitive dust as a result of construction, as discussed below.

Temporary Construction Air Quality

The project would produce short-term fugitive dust generated as a result of demolition, site preparation and construction. The effects of construction activities would be increased dustfall and locally elevated levels of PM_{10} and $PM_{2.5}$ downwind of construction activity. Construction dust has the potential for creating a nuisance at nearby properties. This is considered a potentially significant impact. The BAAQMD threshold of significance for construction dust impacts is whether Best Management Practices (BMPs) are to be utilized. The following mitigation measures include all basic BMPs identified by the BAAQMD; according to the District threshold of significance for contruction impacts, implementation of the measures would reduce construction dust impacts of the project to a less-than-significant level.

MITIGATION MEASURES INCLUDED IN THE PROJECT

Temporary Construction Air Quality

- The following Best Management Practices shall be required of construction contracts and specifications for all construction to prevent visible dust emissions from leaving the site:
  - All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
  - All haul trucks transporting soil, sand or other loose material off-site shall be covered.
  - All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day The use of dry power sweeping is prohibited.
  - All vehicle speeds on unpaved roads shall be limited to 15 mph.
  - All roadways, driveways and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
  - Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by CCR Title 13). Clear signage shall be provided for construction workers at all access points.
  - All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
  - A publicly-visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints shall be posted. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

CONCLUSION

The implementation of the above temporary construction air quality mitigation measures would reduce the project's impact on air quality to a **less-than-significant impact with mitigation**.

4. BIOLOGICAL RESOURCES

HortScience, Inc. conducted an arborist's report dated October, 2010 that is included in the Technical Appendix. Live Oak Associates, Inc. conducted a burrowing owl survey on March 9, 2011 that is also included in the Technical Appendix.

SETTING

Vegetation

Vegetation on the project site consists of landscaping around the house and trees. No rare or endangered plant species are known to inhabit the site.

Trees

The City of San Jose has a Tree Ordinance that regulates the removal of trees. An "Ordinance-sized tree" is defined as any native or non-native tree with a circumference of 56 inches (diameter of 18 inches) measured at 24 inches above the natural grade. For multi-trunk trees, the circumference is measured as the sum of the circumferences of all trunks at 24 inches above grade. A "heritage tree" is defined as a tree of special significance to the community due to history, girth, height, species, or other unique quality.

A detailed tree survey of all trees on the site was conducted in September, 2010. A total of 35 trees, ranging in diameter from 7 inches to 46 inches, were tagged and evaluated. Two of the trees are native. Twenty (20) trees exceed 18 inches in diameter and come under the review of the City's Tree Ordinance. There are no designated Heritage Trees on the site. The approximate locations of the trees are shown on the following Tree Locations map, and their description by type, size and general condition is given in the following table. Ordinance-sized trees are shown in **bold** in the table. Photographs of each Ordinance-sized tree are included in the Technical Appendix.

General conditions of the trees were determined using a rating system for individual tree health and structure conditions, by assigning values for these categories from one to five, with values of one being the worst rating and values of five being the best. Trees with values of one to two were rated as "poor", values of three were rated as "fair", values of four were rated as "good", and values of five were rated as "excellent".

Riparian Corridor Habitat

Riparian corridor habitat is not located on or within 300 feet of the project site.

Table 3. Existing Trees

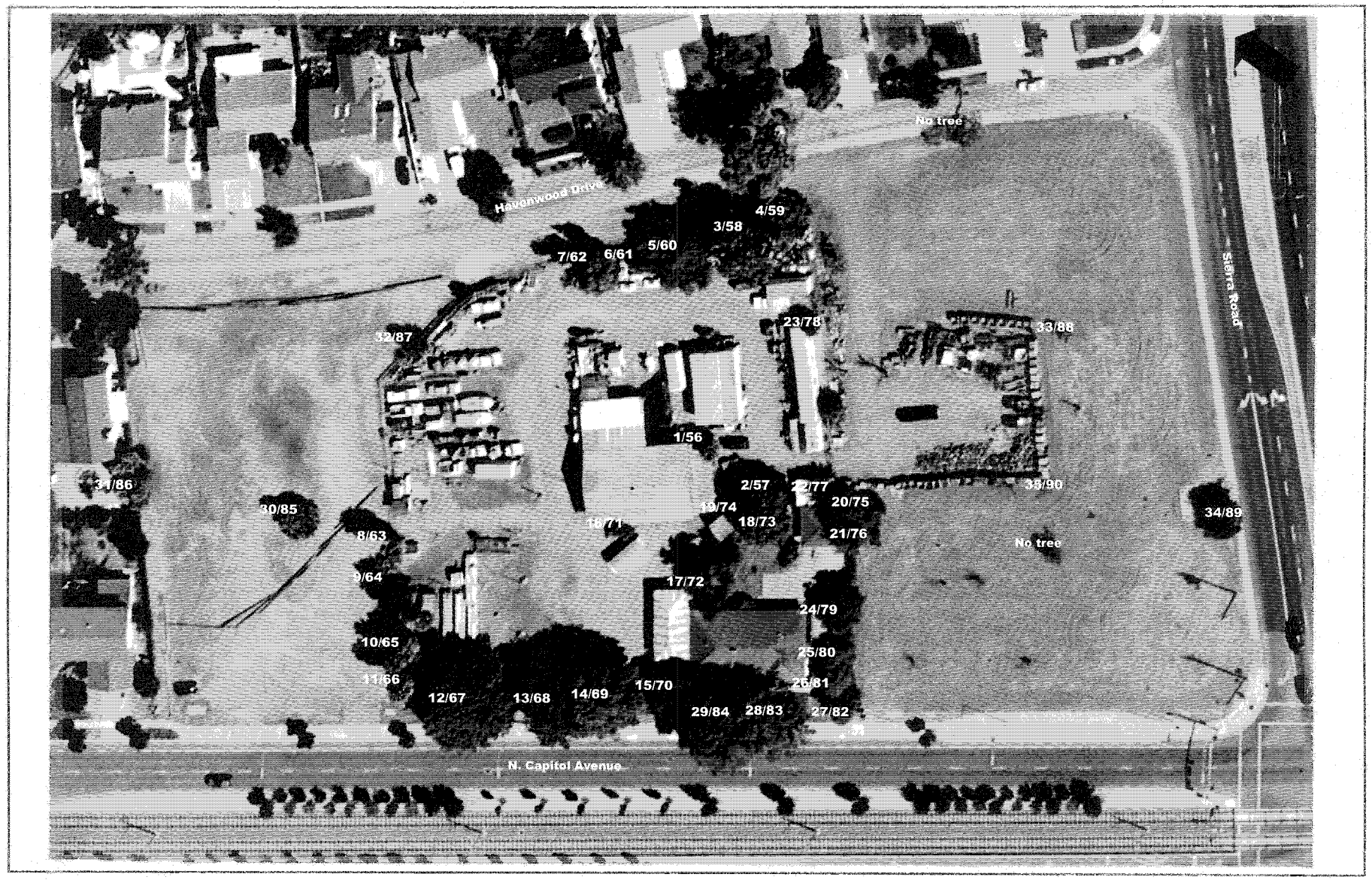
No.	Scientific Name	Common Name	Native Tree	Diameter * *(inches)*	General Condition	To Be Removed
1.	***Washingtonia robusta***	**Mexican Fan Palm**		**22**	**Good**	**X**
2.	*Eriobotrya japonica*	Loquat		4,3,2	Poor	X
3.	***Eucalyptus polyanthemos***	**Silver Dollar Gum**		**19**	**Fair**	**X**
4.	***Eucalyptus polyanthemos***	**Silver Dollar Gum**		**14,14 ****	**Fair**	**X†**
5.	***Schinus molle***	**California Pepper**		**14,12,8,7 ****	**Fair**	**X**
6.	*Juglans regia*	English Walnut		7	Fair	X
7.	***Eucalyptus polyanthemos***	**Silver Dollar Gum**		**15,10,8 ****	**Fair**	**X**
8.	***Washingtonia robusta***	**Mexican Fan Palm**		**22**	**Excellent**	**X**
9.	***Quercus ilex***	**Holly Oak**		**10,10 ****	**Fair**	**X**
10.	***Washingtonia robusta***	**Mexican Fan Palm**		**25,18**	**Good**	**X**
11.	***Washingtonia robusta***	**Mexican Fan Palm**		**23**	**Good**	**X**
12.	***Ailanthus altissima***	**Tree of Heaven**		**31**	**Fair**	**X**
13.	***Fraxinus uhdei***	**Evergreen Ash**		**24**	**Poor**	**X**
14.	***Fraxinus uhdei***	**Evergreen Ash**		**28**	**Good**	**X**
15.	***Persea americana***	**Avocado**		**23**	**Fair**	**X**
16.	*Persea americana*	Avocado		6,5,5	Fair	X
17.	*Quercus ilex*	Holly Oak		9	Fair	X
18.	***Umbellularia californica***	**California Bay**	**Y**	**46**	**Fair**	**X**
19.	*Umbellularia californica*	California Bay	Y	15	Poor	X
20.	*Ligustrum lucidum*	Glossy Privet		4,4,4,2	Poor	X
21.	***Diospyros kaki***	**Persimmon**		**14,9 ****	**Fair**	**X**
22.	*Quercus ilex*	Holly Oak		9	Fair	X
23.	*Persea americana*	Avocado		7	Fair	X
24.	*Eriobotrya japonica*	Loquat		12	Good	X
25.	*Callistemon citrinus*	Bottle Brush		6,5,5	Fair	X
26.	*Abies sp.*	Fir		11	Poor	X
27.	*Diospyros kaki*	Persimmon		6,5	Fair	X
28.	***Fraxinus uhdei***	**Evergreen Ash**		**27**	**Good**	**X†**
29.	***Fraxinus uhdei***	**Evergreen Ash**		**28**	**Good**	**X†**
30.	***Washingtonia robusta***	**Mexican Fan Palm**		**multi ****	**Fair**	**X**
31.	***Ligustrum lucidum***	**Glossy Privet**		**10,8,7 ****	**Fair**	**X**
32.	*Quercus ilex*	Holly Oak		7,3	Fair	X
33.	*Prunus serrulata*	Cherry		6,3	Poor	X
34.	***Eriobotrya japonica***	**Loquat**		**8,8,5****	**Fair**	**X**
35.	*Prunus serrulata*	Cherry		16	Poor	X

Note: Some trees have multiple stems from a single trunk. Ordinance-sized trees are shown in **bold**.

* Diameter at 2 feet above ground. Y = Native Tree.

** Combined total represents Ordinance-sized tree.

X = To be Removed. † = To be Possibly Saved



xx/xx = Tree Number / Tag Number

Tree Locations

Figure 19

Wildlife

The project site contains developed/ruderal habitat. Wildlife typically associated with this habitat type include birds, reptiles, and small mammals. No rare or endangered animal species are known to inhabit the site. The site does not contain any known important wildlife breeding, nesting or feeding areas.

Raptors

All raptors (i.e., eagles, hawks and owls) and their nests are protected under both Federal and State regulations. The Federal Migratory Bird Treaty Act prohibits killing, possessing or trading in migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. This Act encompasses whole birds, parts of birds and bird nests and eggs. Birds of prey are protected in California under the State Fish and Game Code. Section 3503.5 states that it is "*unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.*" Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "taking" by the California Department of Fish and Game (CDFG). Any loss of fertile eggs or nesting raptors, or any activities resulting in nest abandonment would constitute a significant impact. Construction activities such as tree removal, site grading, etc., that disturb a nesting raptor onsite or immediately adjacent to the site constitute a significant impact.

The project site contains trees that may provide suitable habitat for tree-nesting raptors; however, no raptor nests are currently known to exist on the site.

Burrowing Owls

The burrowing owl is a small, terrestrial owl that occurs in annual and perennial grasslands, deserts and scrublands with low-growing vegetation. Suitable owl habitat may also include trees and shrubs if the canopy does not cover more than 30 percent of the ground surface. Burrows, which provide protection, shelter and nests for burrowing owls, represent an essential component of this species' habitat. Burrowing owls typically use burrows made by fossorial (burrowing) animals, such as ground squirrels or badgers, but they will also use man-made structures such as culverts, or openings beneath cement, asphalt paving or debris piles. Burrowing owls use such sites for breeding, wintering, foraging and migration stopovers. Occupancy of suitable habitat may be verified by observations of one or more burrowing owls on the site or by the presence of owl feathers, cast pellets (or prey remains), eggshell fragments or excrement in or near a burrow entrance. Burrowing owls are protected under a variety of state and federal laws including the Migratory Bird Treaty Act and the State Fish and Game Code as a "Species of Special Concern".

Due to the fact that the project site could potentially support overwintering habitat for burrowing owls, a protocol-level burrowing owl survey was conducted on March 9, 2011 as described in

the report in the Technical Appendix. There was no sign of ground squirrels, their burrows, other suitable ground cavities, or burrowing owls / evidence of their presence (molted feathers, pellets or prey remains) on the site.

Habitat Conservation Plan / Natural Community Conservation Plan (HCP/NCCP)

To promote the recovery of endangered species while accommodating planned development, infrastructure and maintenance activities, the Local Partners, consisting of the City of San Jose, Santa Clara Valley Transportation Authority, Santa Clara Valley Water District, Santa Clara County and the cities of Gilroy and Morgan Hill, are preparing a joint Habitat Conservation Plan/Natural Community Conservation Plan. The Santa Clara Valley Habitat Plan is being developed in association with the U.S. Fish & Wildlife Service (USFWS), the California Department of Fish and Game (CDFG) and the National Marine Fisheries Service (NMFS) and in consultation with stakeholder groups and the general public to protect and enhance ecological diversity and function within more than 500,000 acres of southern Santa Clara County.

The Santa Clara Habitat Plan Planning Agreement outlines the Interim Project Process to ensure coordination of projects approved or initiated in the Planning Area before completion of the Habitat Plan to help achieve the preliminary conservation objectives of the Plan, and not preclude important conservation planning options or connectivity between areas of high habitat values. The Interim Project Referral Process requires the local participating agencies to notify the wildlife agencies (CDFG and USFWS) of projects that have the potential to adversely impact covered species or natural communities, or conflict with the preliminary conservation objectives of the Habitat Plan. The wildlife agencies' comments on Interim Projects should recommend mitigation measures or project alternatives that would help achieve the preliminary conservation objectives of the Habitat Plan.

IMPACT AND MITIGATION

ISSUES	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT	SOURCES
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			25,67,107

ISSUES	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT	SOURCES
4. BIOLOGICAL RESOURCES (Cont.). Would the project:					
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				X	25,41
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	25
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	25
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X		29,40,101
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?				X	25,29

The project site does not include riparian habitat, wetlands or any other sensitive habitat; nor is the site adjacent to any wetlands, waterway or other sensitive habitat. No sensitive plant or animal species are known or expected to inhabit the site. The project site does not contain sensitive wildlife habitat or any wildlife nursery sites, nor will its development affect any migratory corridor; and it does not meet the criteria for Interim Habitat Conservation Plan Referral.

Trees

There are 35 trees on the project site, ranging in diameter from 7 to 46 inches. All 35 trees, of which 2 are native, are planned to be removed with the project, as indicated by an "X" on the preceding Existing Trees table. Twenty (20) of the trees to be removed exceed 18 inches in diameter (56-inch circumference) and come under the review of the City's Tree Ordinance, which requires approval for the removal of any tree with an 18-inch diameter (56-inch circumference) or greater. Street trees will be planted along the public streets. Any tree that is removed will be replaced with the addition of a new tree(s) at the ratios shown in the Tree Replacement Ratios table that follows.

Trees to remain, if any following final site design, will be safeguarded before and during construction by a Tree Protection Plan developed by a consulting arborist, and implemented with measures such as the storage of oil, gasoline, chemicals, etc. away from trees; grading around trees or root pruning only as approved, and prevention of drying out of exposed soil where cuts are made; any additional tree pruning needed for clearance performed or supervised by an arborist; application of supplemental irrigation as determined by the consulting arborist; no dumping of liquid or solid wastes in the dripline or uphill from any tree; and construction of barricades around the dripline of the trees until all grading and construction is completed, as outlined in the City's Tree Ordinance.

Replacement trees are in addition to normal landscaping and required street trees. If sufficient area is not available onsite within the project for all of the replacement trees, a contribution would be made to Our City Forest where the funds would be used to plant trees within the City.

Wildlife

The project requires the removal of all of the trees and vegetation on the site. The birds and small mammals would diminish during the initial construction, but as the new urban landscaping matures, birds and small mammals that have adapted to the urban environment would return.

Raptors

The project site provides potentially suitable habitat for tree-nesting raptors, although the site does not currently contain any known raptor nests. If a raptor were to nest on or immediately adjacent to the site prior to construction, development-related activities could result in the abandonment of active nests or direct mortality to these birds, which would constitute a violation of state and federal laws and be considered a significant impact. Pre-construction surveys for nesting raptors should be conducted.

Burrowing Owls

As no sign of ground squirrels, their burrows, other suitable ground cavities, or burrowing owls / evidence of their presence was observed during a protocol-level survey in March, 2011, it is concluded that burrowing owls are currently absent from the project site. If a burrowing owl(s) were to nest on the site prior to construction, development-related activities could result in the abandonment of active nests or direct mortality to these birds, which would constitute a violation of state and federal laws and be considered a significant impact. An additional survey(s) would be necessary prior to any ground disturbance to evaluate any changes in site conditions and to determine if owls remain absent from the site.

Bats

The structures on the site provide potentially suitable habitat for bats. The site does not currently contain any known roosting bats; however, pre-construction bat surveys should be conducted prior to any demolition.

Trees

- Any tree that is removed will be replaced with the addition of a new tree(s) at the ratios shown in the following Tree Replacement Ratios table.

Table 4. Tree Replacement Ratios

Diameter of Tree to be Removed	Type of Tree to be Removed			Minimum Size of Each Replacement Tree
	Native	Non-Native	Orchard	
18 inches or greater	5:1	4:1	3:1	24-inch box
12 to 17 inches	3:1	2:1	None	24-inch box
Less than 12 inches	1:1	1:1	None	15-gallon container

x:x = tree replacement to tree loss ratio

Note: Trees greater that 18" diameter will not be removed unless a Tree Removal Permit, or equivalent, has been approved for the removal of such trees.

- The species and exact number of trees to be planted on the site will be determined at the development permit stage, in consultation with the City Arborist and the Department of Planning, Building and Code Enforcement.

- Replacement trees are to be above and beyond standard landscaping; required street trees do not count as replacement trees.

- In the event the project site does not have sufficient area to accommodate the required tree mitigation, one or more of the following measures will be implemented, to the satisfaction of the Director of Planning, Building and Code Enforcement, at the development permit stage:
  - The size of a 15-gallon replacement tree may be increased to 24-inch box and count as two replacement trees.
  - An alternative site(s) will be identified for additional tree planting. Alternative sites may include local parks or schools or installation of trees on adjacent properties for screening purposes to the satisfaction of the Director of the Department of Planning, Building and Code Enforcement. Contact Jaime Ruiz, Parks, Recreation and Neighborhood Services Landscape Maintenance Manager, at 975-7214 or jaime.ruiz@sanjoseca.gov for specific park locations in need of trees.
  - A donation of $300.00 per mitigation tree will be paid to Our City Forest for in-lieu offsite tree planting in the community. These funds will be used for tree planting and maintenance of planted trees for approximately three years. Contact Rhonda Berry, Our City Forest, at (408) 998-7337 x106 to make a donation. A donation receipt for offsite tree planting will be provided to the Planning Project Manager prior to issuance of a development permit.

- The following tree protection measures will also be included in the project in order to protect trees to be retained during construction, if any:

Pre-construction Treatments

- The applicant will retain a consulting arborist. The construction superintendent will meet with the consulting arborist before beginning work to discuss work procedures and tree protection.
- Fence all trees to be retained to completely enclose the tree protection zone prior to demolition, grubbing or grading. Fences will be 6-foot chain link or equivalent as approved by consulting arborist. Fences are to remain until all grading and construction are completed.
- Prune trees to be preserved to clean the crown and to provide clearance. All pruning will be completed or supervised by a Certified Arborist and adhere to the Best Management Practices for Pruning of the International Society of Arboriculture.

During Construction

- No grading, construction, demolition or other work will occur within the tree protection zone. Any modifications must be approved and monitored by the consulting arborist
- Any root pruning required for construction purposes will receive the prior approval of, and be supervised by, the consulting arborist.
- Supplemental irrigation will be applied as determined by the consulting arborist.
- If injury should occur to any tree during construction, it will be evaluated as soon as possible by the consulting arborist so that appropriate treatments can be applied.
- No excess soil, chemicals debris, equipment or other materials will be dumped or stored within the tree protection zone.
- Any additional tree pruning needed for clearance during construction must be performed or supervised by an Arborist and not by construction personnel.
- As trees withdraw water from the soil, expansive soils may shrink within the root area. Therefore, foundations, footings and pavements on expansive soils near trees will be designed to withstand differential displacement.

MITIGATION MEASURES INCLUDED IN THE PROJECT

Raptors

- If possible, construction should be scheduled between September and December (inclusive) to avoid the raptor nesting season. If this is not possible, pre-construction surveys for nesting raptors shall be conducted by a qualified biologist to identify active raptor nests that may be disturbed during project implementation. Between January and April (inclusive) pre-construction surveys shall be conducted no more than 14 days prior to the initiation of construction activities or tree relocation or removal. Between May and August (inclusive), pre-construction surveys shall be conducted no more than thirty (30) days prior to the initiation of these activities. The surveying biologist shall inspect all trees in and immediately adjacent to the construction area for raptor nests. If an active raptor nest is found in or close enough to the construction area to be disturbed by these activities, the biologist shall, in consultation with the California Department of Fish and Game, designate a construction-free buffer zone (typically 250 feet) around the nest, which shall be maintained until after the breeding season has ended and/or a qualified biologist has determined that the

young birds have fledged. The applicant shall submit a report to the City's Environmental Principal Planner indicating the results of the survey and any designated buffer zones to the satisfaction of the City's Environmental Principal Planner prior to the issuance of any grading or building permit.

Burrowing Owls

- A pre-construction survey for burrowing owls shall be conducted by a qualified biologist within 30 days prior to any ground disturbance activities.

- A buffer zone of a minimum of 250 feet shall be established around active burrowing owl nesting sites if nesting burrowing owls are discovered during pre-construction surveys conducted between February 1st and August 31st, and no disturbance shall occur within the buffer zone until a qualified biologist has determined that the young birds have fledged.

- No disturbance shall occur within 160 feet of occupied burrows if over-wintering burrowing owls are discovered using the site during the non-breeding season (September 1st through January 31st).

- If any burrowing owls are discovered using the site during the pre-construction surveys during the non-breeding season, a burrowing owl relocation plan to be approved by the California Department of Fish and Game shall be developed and implemented, including passive measures such as installation of one-way doors in active burrows for up to four days, careful excavation of all active burrows after four days to ensure no owls remain underground, and filling all burrows in the construction area to prevent owls from using them.

- A biologist report outlining the results of the pre-construction burrowing owl surveys and any recommended buffer zones or other mitigation shall be submitted to the satisfaction of the City's Environmental Principal Planner prior to the issuance of a grading permit.

Bats

- Surveys for roosting bats shall be conducted by a qualified bat biologist no more than thirty (30) days prior to any building demolition or removal, construction activities, or oak tree relocation and/or removal. If no bats are observed to be roosting in these features, then no further action would be required and construction activities could proceed. If a female or maternity colony of bats is found on the project site, and the project can be constructed without disturbance to the roosting colony, a qualified bat biologist shall designate buffer zones (both physical and temporal) as necessary to ensure the continued success of the colony; buffer zones may include a 200-foot buffer zone from the roost and/or timing of the construction activities outside the maternity roosting season (after July 31st and before March 1st).

- If an active maternity roost is known to occur on the site and the project cannot be conducted outside of the maternity roosting season, bats shall be excluded after July 31st and before March 1st to prevent the formation of new maternity colonies. Such exclusion shall occur, under the direction of a qualified bat biologist, by sealing openings and providing bats with one-way exclusion doors. Bat roosts shall be monitored as determined necessary by a qualified bat biologist, and the removal or displacement of bats shall be performed in conformance with California Department of Fish and Game requirements.

- A biologist report outlining the results of pre-construction bat surveys and any recommended buffer zones or other mitigation shall be submitted to the City's Environmental Principal Planner and shall be approved to the satisfaction of the Director of Planning prior to the issuance of any grading, building, or tree removal permit.

CONCLUSION

The implementation of the above trees standard measures and raptors, burrowing owls and bats mitigation measures would reduce the project's impact on biological resources to a **less-than-significant impact with mitigation**.

5. CULTURAL RESOURCES

Urban Programmers conducted an historical and architectural evaluation dated November 8, 2010 that is included in the Technical Appendix.

SETTING

Prehistoric Resources

The project site is not within a potential archaeological resource zone as outlined on the maps on file at the City of San Jose Planning Division. There are no known cultural sites on the project site, nor does the site have any natural features of significant scenic value or with rare or unique characteristics.

Historic Resources

An historical and architectural evaluation of the existing structures located on the 1328 N. Capitol Avenue property was conducted to determine their significance, if any.

Historical Evaluation

The project site was originally part of the El Pueblo de San Jose de Guadalupe's Lake Tract of Pueblo Lands #1. By the 1880s, a parcel of 10 acres was owned by Sarah Engalle, which was sold to Henry T. Schmidt in 1891. The next owners of the land were the Orlando brothers, Antone and Tony, immigrants from Italy who began purchasing land in the Berryessa district in 1897. Antone had emigrated from Italy, arriving in California in 1895, with his wife, Mariana, following in 1897; the Orlandos had eight children. Adding to their orchard land along Hostetter Road, they purchased 5.2 acres fom Mary Francis Faulkner in 1914, and the 10 acres from Henry Schmidt that included the project site in 1918. Two years later, the brothers separated with Antone Orlando buying out his brother, Tony. The family established fruit orchards on acreage along Berryessa-Milpitas Road (now N. Capitol Avenue), in addition to 52 acres they owned to the east on Piedmont Road. The project site was orchard land, and later it was used to sort, package and ship cherries from the family orchards and smaller farms in the area. It also included a house and other outbuildings that were demolished in the 1960s. Initially, the fruit was primarily prunes grown on the 52 acres off Piedmont Road, but with the glut of prunes in the mid-1930s, apricot and then cherry trees replaced the prunes.

In 1920, the property was transferred to Antone A. (Antonio) Orlando and his wife, Angelina. Antonio and Angelina continued to manage the fruit ranch, hiring other family members who lived in San Jose. The extant house was constructed in 1944. There were several interfamily deed transfers, with the property transferred to William and his wife, Josephine, in 1972, although it appears they had been living on the site for many years. As the fruit industry experienced both a glut of fruit and the closing of canneries in San Jose, the Orlando orchards were sold to residential developers; the project site is the last remnant of the larger orchard property. The Orlandos were one of the last to maintain cherry trees, shipping the prime fruit to the Los Angeles Farmers' Market and selling the rest from a stand on the property.

Josephine Orlando died in 2007, thirty years after William; and upon her death, the property was distributed to include grandchildren David Orlando and Julie Gambucci, who have operated seasonal retail sales on the site. The primary business on the site, however, is West Coast Searchlights operated by David Orlando. In 2010, the property transferred within the family to a trust with Josephine's granddaughter, Diane Mahan, as trustee.

Architectural Evaluation

A house and garage, a barn, and various sheds currently exist on the project site.

House and Garage

Constructed in 1944, the single-story house is a vernacular version of the mid-century ranch style, covered in stucco. The vernacular style is not artistic or unusually suited to the location. The rectangular form has a long covered porch along the front façade, with picture windows filling much of the wall; otherwise, the façades are flat with simple windows of varying sizes. Metal canopies shade some of the windows on the front (west) façade. The shake roof extends over open rafters in the eaves to cover the porch; this extension of the roof is supported by simple, square posts. The main entry is a flat-surface door in the center of the front façade, at the south end of the porch. The detached garage is a simple box with a double door and shake-style roof. The house is well cared for and appears in good condition. Landscaping is simple bushes against the house and lawn in the front yard.

Barn

Approximately 40 feet by 25 feet, the rectangular barn has shed additions to the rear and south façades. Constructed with a rough timber frame, the building is sheathed with corrugated metal sheets on most of the walls and the low pitched roof except for the gable of the roof, which is sided with horizontal unfinished boards. The interior is open space with a braced timber roof structure and few support posts. The floor is a concrete pad and gravel. Originally constructed for agricultural equipment and fruit sorting, the barn is now used for general storage for a variety of equipment and machinery that appear related to the searchlight business. The barn is in relatively good condition for the type of building materials and construction. The style and construction are utilitarian and not artistic or unique in design or construction.

Sheds

The property has several sheds and play houses that are part of the retail sales of firewood, fruit (brought from other orchards), "pumpkin patch" or Christmas trees. The condition of these sheds is fair to poor. None is significant or of artistic design; and the construction is crude, often unpainted and lacking maintenance.

IMPACT AND MITIGATION

ISSUES	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT	SOURCES
5. CULTURAL RESOURCES. Would the project:					
a. Cause a substantial adverse change in the significance of an historical resource as defined in CEQA Guidelines §15064.5?			X		25, 43,44,102
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5?			X		27,42
c. Directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature?				X	27,67
d. Disturb any human remains, including those interred outside of formal cemeteries?			X		27

Prehistoric Resources and Native American Burials

The project site is not in a potential archaeological resource zone and there is no basis to warrant subsurface investigations or monitoring during construction at this time; therefore, the project would not have a significant impact on known archaeological resources. Although they are not expected to be found at this location, Native American burials are protected by State law.

Historic Resources

The Orlando Property was evaluated using the criteria or standards of the City of San Jose Historic Preservation Ordinance and those of the California Register of Historic Resources and National Register of Historic Places.

Prior to considering the architectural quality, a property is evaluated to determine if it retains architectural integrity and is representative of a style or age of which there are few or very limited representations in San Jose. To consider the attributes of a candidate property, it is necessary to define the historical context and the period of significance. The significant era for context evaluation was the Inter-war Era, 1919-1945. During this period, fruit ranches continued to be planted on land that had previously been used for grazing. Throughout the Santa Clara Valley, orchards produced the fruit that became the resource to an expanding fruit processing industry. Agriculture remained the most important industry of the Valley through the Inter-war Era, with some ranches continuing into the Era of Industrialization and Urbanization, 1945-1991, when residential and industrial development expanded into the agricultural lands.

The Orlando famly has been one of the multi-generational families that began with Italian immigrants working as laborers until they were able to purchase land for orchards and their home. The Orlando generations were involved in local social and religious organizations but are not credited with innovation or any significant developments in the history of San Jose. During

the last few years, pumpkins were brought to the property to be sold in one of the last "pumpkin patches" not in a commercial parking lot.

Like several other families that emigrated from Italy, the Orlando family represent a typical story of a family who came to the United States at the turn of the century and realized the "American Dream" through hard work and fruit ranching. The property is associated with the Inter-war Era, 1919-1945, when the Santa Clara Valley was a major supplier of the nation's fresh fruit and the world's dried or processed fruit. Although part of this important era and achieving a successful fruit ranch that continued beyond 1945 by selling fresh cherries to the Farmers' Market in Los Angeles, research did not uncover any individual events of historical significance attributed to the members of the Orlando family. Their hard work and that of succeeding generations is combined with other immigrant families who ranched and established fruit processing to create the fruit industry, the economic power for Santa Clara Valley 1890-1936.

The house and barn on the property were constructed after the period of significance associated with the fruit industry's importance in San Jose, and do not represent exceptional examples of either residential or industrial architecture.

The City of San Jose's criteria for historical significance are described in the report in the Technical Appendix. Based on these criteria, the San Jose Historical Landmarks Commission has established a process by which historical resources are evaluated for significance and a numerical value is assigned. Scores of 32 or less are not eligible for a category of significance. Scores above 33 are to be evaluated for Landmark Status and California Register of Historic Resources eligibility. The property and structures received 27.87 points under the City of San Jose Historic Evaluation criteria and are not eligible for a category of significance. The historic evaluation tally forms are included in the report in the Technical Appendix.

The National Register of Historic Places has established standards for evaluating the significance of resources that are important in the heritage of the nation. The criteria for listing historical resources in the California Register of Historic Resources are consistent with those developed by the National Park Service for listing resources in the National Register of Historic Places, but have been modified for State use in order to include a range of historical resources that better reflect the history of California. The property does not meet the levels of significance for listing in the National Register and does not appear to qualify for the California Register.

Demolition of the buildings would not appear to create a significant effect on the environment because the property does not appear to qualify for the California Register or for listing on the San Jose Historic Resources Inventory.

STANDARD MEASURES INCLUDED IN THE PROJECT

Prehistoric Resources and Native American Burials

- In the unlikely event that evidence of unknown prehistoric cultural resources (darker than surrounding soils containing evidence of fire – ash, charcoal, fire affected rock or earth; concentrations of stone, bone or freshwater shellfish; artifacts of these materials; and burials, both animal and human) is discovered during construction, work within 50 feet of the find will be stopped to allow adequate time for evaluation and mitigation, and a qualified professional archaeologist called in to make an evaluation; the material will be evaluated; and if significant, a mitigation program including collection and analysis of the materials prior to the resumption of grading, preparation of a report and curation of the materials at a recognized storage facility will be developed and implemented to the satisfaction of the Director of Planning and submitted to the City's Environmental Principal Planner.

- Pursuant to Section 7050.5 of the Health and Safety Code, and Section 5097.94 of the Public Resources Code of the State of California: In the event of the discovery of human remains during construction, there will be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains. The Santa Clara County Coroner will be notified by the developer and will make a determination as to whether the remains are Native American. If the Coroner determines that the remains are not subject to his authority, he will notify the Native American Heritage Commission, who will attempt to identify descendants of the deceased Native American. If no satisfactory agreement can be reached as to the disposition of the remains pursuant to this State law, then the landowner will reinter the human remains and items associated with Native American burials on the property in a location not subject to further subsurface disturbance.

- Any Native American human remains that are discovered and would be subject to disturbance will be removed and analyzed, a report will be prepared, and the remains will be reburied in consultation and agreement with the Native American Most Likely Descendant designated by the Native American Heritage Commission. Prior to obtaining an occupancy permit, a copy of the report will be submitted to the City's Environmental Principal Planner to the satisfaction of the Director of Planning.

MITIGATION MEASURES INCLUDED IN THE PROJECT

None required.

CONCLUSION

The implementation of the above prehistoric resources and Native American burials standard measures would reduce the project's impact on cultural resources to a **less-than-significant impact**.

6. GEOLOGY AND SOILS

Cornerstone Earth Group conducted a preliminary geotechnical investigation dated May 26, 2010 that is included in the Technical Appendix.

SETTING

Topography

The project site has a uniform westerly slope of approximately one percent. Elevations on the site range from approximately 126 feet above sea level at the westerly corner to approximately 132 feet above sea level at the easterly corner. There are no significant topographical features on the site.

Geology

The project site is underlain by Quaternary alluvium (Qal), which consists of unconsolidated to weakly consolidated silt, sand and gravel. Quaternary alluvium includes Holocene and late Pleistocene alluvium and minor amounts of beach and dune sand and marine terrace deposits.

Geologic Hazard Zone

The project site is not located in a geologic hazard zone as mapped by the City of San Jose in accordance with the Geologic Hazards Ordinance.

Soils

The project site is underlain by the alluvial soils of the Yolo association as classified by the U.S. Department of Agriculture, Soil Conservation Service. Yolo silty clay loam, 0-2% slopes (YeA) is the specific soil type identified at the site. Yolo silty clay loam, 0-2% slopes is characterized by a grayish brown, massive, hard, mildly alkaline surface layer approximately 26 to 32 inches thick; good natural drainage; moderately slow subsoil permeability; very slow surface runoff; no erosion hazard; high inherent fertility (Class I); and a moderate shrink/swell capacity.

The site is not mapped within a hazard zone on the State's *Seismic Hazard Zones* maps. According to Cooper-Clark and Associates' *San Jose Geotechnical Investigation*, the site is mapped as having a moderately high ground failure (liquefaction) potential, weak soil layers and lenses occurring at random locations and depths, moderately expansive soils, no erosion hazard and no susceptibility to landslides. These soils conditions can be managed using standard engineering measures and do not require further geologic study at this time as part of the environmental review process, but may require further analysis prior to the issuance of a grading or building permit.

Faulting

There are no identified earthquake faults mapped on the site, and the site is not mapped within a designated Alquist-Priolo Earthquake Fault Zone (formerly Special Studies Zone) or within a City of San Jose Fault Hazard Zone. The nearest active fault zones are the Hayward and

Calaveras Faults, which are mapped approximately 1.9 and 5.0 miles respectively to the northeast, and the San Andreas Fault, which is mapped approximately 15.5 miles to the southwest.

Preliminary Geotechnical Investigation

A preliminary geotechnical investigation was conducted to evaluate the existing subsurface conditions and develop an opinion regarding potential geotechnical concerns that could impact the proposed development. The investigation included field and laboratory programs to evaluate physical and engineering properties of the subsurface soils, and engineering analysis to prepare preliminary recommendations for site work and grading, building foundations and pavements.

Field Exploration

The field exploration consisted of a surface reconnaissance and a subsurface exploration program. The northern third of the site was vacant and partially covered with granular base material. The central portion of the site was occupied by the various buildings and by vehicles, searchlight equipment, firewood and other miscellaneous items. The ground surface around the barn was primarily covered by granular base material; the remainder was covered with low grass, weeds and trees. The southern third of the site was occupied by remnants of a cherry orchard and was also used for vehicle, equipment and firewood storage; the ground surface of the former orchard area had recently been tilled.

Four exploratory borings were drilled on May 18, 2010 to depths of approximately 20 to 25 feet. The approximate locations and logs of the borings are included in the report in the Technical Appendix. The explorations generally encountered stiff to hard, sandy lean clay and lean clay with sand to the maximum depth explored. A layer of loose to medium dense clayey sand was encountered at a depth of approximately 3 to 8 feet in the boring in the southeasterly portion of the site. A layer of medium dense clayey sand was encountered in the boring in the northeasterly portion of the site at a depth of approximately 22 feet that extended to the bottom of the boring. The upper 9 to 12 inches of soil in the former orchard area were loose due to recent tilling. Although undocumented fill was not encountered in the borings, granular base fill material was observed blanketing the site around the existing barn area and across portions of the northern third of the site. According to the property owner, localized undocumented fills are likely present in the existing septic tank and leachfield areas as well as beneath the existing barn or residential structures; the lateral extent, depth and consistency of the undocumented fill material in these areas are not known. Groundwater was not encountered in any of the borings during drilling.

Laboratory Testing

The laboratory testing program was performed to evaluate the physical and mechanical properties of the soils retrieved from the site to aid in verifying soil classification. Moisture content, dry densities, washed sieve analyses and Plasticity Index tests were performed. The

results of the laboratory testing program are included in the report in the Technical Appendix. The project site is considered to have a moderate expansion potential.

IMPACT AND MITIGATION

ISSUES	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT	SOURCES
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: 1) Rupture of a known earthquake fault, as described 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	46,47, 50,51,103
2) Strong seismic ground shaking?			X		27,49,103
3) Seismic-related ground failure, including liquefaction?				X	31, 49,87,103
4) Landslides?				X	47,49
b. Result in substantial soil erosion or the loss of topsoil?			X		48,49
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?		X			49,103
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			48,49,103
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	28

Investigative Conclusions

The project site is considered suitable from a geotechnical perspective for construction of the proposed development, providing the three concerns listed below are addressed in the project design. The primary geotechnical concerns are: 1) the presence of undocumented fill, 2) the presence of loose surficial soils in former orchard areas, and 3) the presence of moderately expansive soils on the project site. Preliminary recommendations for these concerns follow. A design-level geotechnical investigation should be performed once site development plans have been prepared indicating where proposed structures are planned; the design-level investigation

findings will be used to confirm the preliminary recommendations and develop detailed recommendations for project design and construction.

Undocumented Fill

Undocumented fill was not encountered in the geotechnical explorations; however, approximately 2 to 7 feet of undocumented fill was encountered in borings drilled during the soil quality evaluation of the former UST area near the southwest corner of the detached garage building. Other localized fills are also likely present in existing septic tank and leachfield areas as well as the granular base material layer blanketing the central and northwestern portions of the site. The fill is likely highly variable and would not adequately support the proposed residential structures; therefore, on a preliminary basis, all undocumented fill material should be removed and replaced with compacted fill.

Loose Surficial Soils

The site was formerly occupied by a cherry orchard and was likely tilled seasonally. Presently, the southern portion of the site is regularly tilled and the upper 9 to 12 inches of soil are loose. Due to compressibility of this upper tilled soil zone, it may be necessary to over-excavate the upper approximately 12 inches of soil in former orchard areas prior to placing new fill in building areas. The over-excavated soil can likely be re-used as engineered fill.

Expansive Soils

Low to moderately expansive surficial soils generally blanket the site. Expansive soils can undergo significant volume change with changes in moisture content; they shrink and harden when dried and expand and soften when wetted. If structures are underlain by expansive soils, it is important that foundation systems be capable of tolerating or resisting any potentially damaging soil movements. In addition, it is important to limit moisture changes in the surficial soils by using positive drainage away from buildings as well as limiting landscape watering.

Erosion

Development of the project site may subject the soils to accelerated erosion. In order to minimize erosion, erosion control measures such as those described in the Association of Bay Area Governments (ABAG) *Manual of Standards for Erosion & Sediment Control Measures* will be incorporated into the project.

Ground Rupture

Ground rupture (surface faulting) tends to occur along lines of previous faulting. As the site is not located within a State of California Earthquake Fault Hazard Zone and there are no known active faults on the site, the potential for ground rupture due to an earthquake is low.

Seismic Shaking

The maximum seismic event occurring on the site would probably be from effects originating from the Hayward, Calaveras, or San Andreas fault systems. Ground shaking effects can be expected in the area during a major earthquake originating along any of the active faults within

the Bay Area. At present, it is not possible to predict when or where movement will occur on these faults. It must be assumed, however, that movement along one or more of these faults will result in a moderate or major earthquake during the lifetime of any construction on this site. The effects on development would depend on the distance to the earthquake epicenter, duration, magnitude of shaking, design and quality of construction, and geologic character of materials underlying foundations.

The maximum credible earthquake, which is defined as *"the maximum earthquake that appears capable of occurring under the presently known framework"*, for the San Andreas Fault ranges from magnitude 8.0 to 8.3; and from magnitude 7.0 to 7.5 for either the Hayward or Calaveras Faults. The maximum probable earthquake, which is defined as *"the maximum earthquake that is likely to occur during a 100-year interval"*, for the San Andreas Fault ranges from magnitude 7.5 to 8.5; from magnitude 6.75 to 7.5 for the Hayward Fault; and from magnitude 6.5 to 7.0 for the Calaveras Fault.

Structural damage from ground shaking is caused by the transmission of earthquake vibrations from the ground into the structure. Ground shaking is apparently the only significant threat to structures built on the site; however, it is important to note that well-designed and constructed structures that take into account the ground response of the soil or rock in their design usually exhibit minor damage during earthquake shaking.

The proposed structures on the site will be designed and constructed in conformance with the Uniform Building Code Guidelines for Seismic Zone 4 to avoid or minimize potential damage from seismic shaking on the site.

Secondary Seismic Effects

Soil liquefaction is a phenomenon in which saturated, cohesionless soil layers located close to the ground surface lose strength during cyclic loading, such as imposed by earthquakes. During the loss of strength, the soil acquires a "mobility" sufficient to permit both horizontal and vertical movements. Soils that are most susceptible to liquefaction are clean, loose, saturated, uniformly graded, fine-grained sands. The conditions at this site are such that the potential for this phenomenon to occur is considered to be low.

Based on the topographic and lithologic data, the risk of lateral spreading, seismic settlement/ unsaturated sand shaking, landslides, tsunamis or seiches is considered low at the site.

STANDARD MEASURES INCLUDED IN THE PROJECT

Erosion

- A City-approved Erosion Control Plan will be developed and implemented prior to approval of a grading permit or Public Works clearance with such measures as: 1) the timing of grading activities during the dry months, if feasible; 2) temporary and permanent planting of

exposed soil; 3) temporary check dams; 4) temporary sediment basins and traps and/or 5) temporary silt fences.

Seismic Shaking

- The proposed structures on the site will be designed and constructed in conformance with the Uniform Building Code Guidelines for Seismic Zone 4 to avoid or minimize potential damage from seismic shaking on the site.

MITIGATION MEASURES INCLUDED IN THE PROJECT

Design-Level Geotechnical Investigation

- A design-level geotechnical report shall be conducted at the PD Permit stage to evaluate potential impacts due to undocumented fill, loose surficial soils, expansive soils, etc.; and mitigation measures, including site grading requirements, utilization of special foundations and control of drainage, shall be developed and implemented as warranted.

CONCLUSION

The implementation of the above erosion and seismic shaking standard measures and design-level geotechnical investigation mitigation measure would reduce the project's impact on geology and soils to a **less-than-significant impact with mitigation**.

7. GREENHOUSE GAS EMISSIONS

Donald Ballanti conducted an air quality impact analysis, which includes greenhouse gas emissions, dated December, 2010 that is included in the Technical Appendix.

SETTING

Greenhouse Gases and Climate Change

Gases that trap heat in the atmosphere are referred to as greenhouse gases (GHGs) because they capture heat radiated from the sun as it is reflected back into the atmosphere, much like a greenhouse does. The accumulation of GHGs has been implicated as a driving force for global climate change. Definitions of climate change vary between and across regulatory authorities and the scientific community, but in general can be described as the changing of the earth's climate caused by natural fluctuations and anthropogenic activities which alter the composition of the global atmosphere.

California State law defines greenhouse gases as:

Carbon Dioxide (CO_2)	Hydrofluorocarbons
Methane (CH_4)	Perfluorocarbons
Nitrous Oxide (N_2O)	Sulfur Hexafluoride

The overall approach to the GHG discussion is based upon the technical advisory of the Governor's Office of Planning and Research (OPR) embodied in the document *CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review*. According to the Governor's OPR, the most common GHG that results from human activity is carbon dioxide, followed by methane and nitrous oxide. The last three of the six identified GHGs are primarily emitted by industrial facilities. For this discussion, only carbon dioxide, methane and nitrous oxide emissions are considered. These primary greenhouse gases are described below.

Carbon dioxide is primarily generated by fossil fuel combustion in stationary and mobile sources. Due to the emergence of industrial facilities and mobile sources in the past 250 years, the concentration of carbon dioxide in the atmosphere has increased 35 percent. Carbon dioxide is the most widely emitted GHG and is the reference gas [Global Warming Potential (GPW) of 1] for determining GWPs for other GHGs.

Methane is emitted from biogenic sources, incomplete combustion in forest fires, landfills, manure management, and leaks in natural gas pipelines. In the United States, the top three sources of methane are landfills, natural gas systems, and enteric fermentation. Methane is the primary component of natural gas, which is used for space and water heating, steam production, and power generation. The GWP of methane is 21.

Nitrous oxide is produced by both natural and human-related sources. Primary human-related sources include agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic acid production, and nitric acid production. The GWP of nitrous oxide is 310.

Greenhouse Gas Effects

There is international scientific consensus that human-caused increases in GHGs have and will continue to contribute to global warming, although there is uncertainty concerning the magnitude and rate of the warming. Potential global warming impacts in California may include, but are not limited to, loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years. Secondary effects are likely to include a global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity.

Greenhouse Gas Regulations

Federal

In September, 2009, the EPA issued a final rule for mandatory reporting of GHGs from large GHG emissions sources in the United States. In general, this national reporting requirement will provide EPA with accurate and timely GHG emissions data from facilities that emit 25,000 metric tons or more of CO_2 per year. An estimated 85 percent of the total U.S. GHG emissions, from approximately 10,000 facilities, are covered by this final rule.

In April, 2009, EPA published their Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases under the CCA (Endangerment Finding) in the Federal Register. The Administrator proposed the finding that atmospheric concentrations of GHGs endanger the public health and welfare within the meaning of Section 202(a) of the CCA. The final finding was released on December 7, 2009. The findings do not, in and of themselves, impose any emission reduction requirements but rather allow EPA to finalize the GHG standards proposed earlier this year for new light-duty vehicles as part of the joint rulemaking with the Department of Transportation.

State

State greenhouse gas regulations consist of:

- Assembly Bill (AB) 1493 (2002), that required ARB to develop and adopt regulations that achieve "*the maximum feasible reduction of greenhouse gases emitted by passenger vehicles and light-duty trucks and other vehicles determined by ARB to be vehicles whose primary use is noncommercial personal transportation in the state*";
- AB 32 (2006) California Global Warming Solutions Act, which required CARB to design and implement emission limits, regulations and other measures, such that feasible and cost-effective statewide GHG emissions are reduced to 1990 levels by 2020 (representing a 25 percent reduction in emissions);
- AB 32 Climate Change Scoping Plan (2008), which was adopted by CARB to meet the 2020 greenhouse gas reduction limits outlined in AB 32. In order to meet these goals,

California must reduce its greenhouse gases by 30 percent below projected 2020 levels, or about 10 percent from today's levels;

- Senate Bills (SBs) 1078 and 107 and Executive Order S-14-08, which required retail sellers of electricity to provide at least 20 percent of their supply from renewable sources by 2017; by 2010; and expanded the state's Renewable Energy Standard to 33 percent renewable power by 2020, respectively;
- SB 1368 (2006), which required the California Public Utilities Commission (PUC) to establish a GHG emission performance standard for baseload generation from investor-owned utilities;
- SB 97 (2007), which acknowledged climate change is a prominent environmental issue that requires analysis under CEQA and directed the Governor's Office of Planning and Research (OPR) to prepare, develop and transmit guidelines for mitigating GHG emissions or the effects of GHG emissions, as required by CEQA;
- SB 375 (2008), which aligned regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation;
- Executive Order S-3-05 (2005), which, in recognition of California's vulnerability to the effects of climate change, set forth a series of target dates by which statewide emission of GHGs would be progressively reduced, as follows: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels. The executive order also directed the Secretary of the California EPA to coordinate a multi-agency effort to reduce GHG emissions to the target levels;
- Executive Order S-13-08 (2008), which directed California to develop methods for adapting to climate change (sea level rise) through preparation of a statewide plan; and
- Executive Order S-1-07 (2007), which proclaimed the transportation sector as the main source of GHG emissions in California (over 40 percent of statewide GHG emissions) and established a goal to reduce the carbon intensity of transportation fuels sold in California by a minimum of 10 percent by 2020.

Local

The Bay Area Air Quality Management District (BAAQMD) has established a climate protection program to reduce pollutants that contribute to global climate change and affect air quality in the Bay Area. The climate protection program includes measures that promote energy efficiency, reduce vehicle miles traveled, and develop alternative sources of energy, all of which assist in reducing emissions of GHG and in reducing air pollutants that affect the health of residents. BAAQMD also seeks to support current climate protection programs in the region and to stimulate additional efforts through public education and outreach, technical assistance to local government and other interested parties, and promotion of collaborative efforts among stakeholders.

Sources of Greenhouse Gas Emissions

Anthropogenic GHG emissions worldwide as of 2005 totaled approximately 30,800 CO_2 equivalent million metric tons ($MMTCO_2E$). The United States was the top producer of greenhouse gas emissions as of 2005. The primary greenhouse gas emitted by human activities in the United States was CO_2, representing approximately 84 percent of total GHG emissions.

Carbon dioxide from fossil fuel combustion, the largest source of US greenhouse gas emissions, accounted for approximately 80 percent of US GHG emissions.

The primary contributors to GHG emissions in California are transportation, electric power production from both in-state and out-of-state sources, industry, agriculture and forestry, and other sources, which include commercial and residential activities. These primary contributors to California's GHG emissions and their relative contributions are presented in the following table.

Table 5. Greenhouse Gas Sources in California, 2004

Source	Annual GHG Emissions ($MMTCO_2E$)	Percent of Total
Agriculture	27.9	5.8
Commercial Uses	12.8	2.6
Electricity Generation	119.8	24.7
Forestry (*Excluding Sinks**)	0.2	0.0
Industrial Uses	96.2	19.9
Residential Uses	29.1	6.0
Transportation	182.4	37.7
Other	16.0	3.3
Total	484.4	100.0

* *Emissions are for the forestry industry. Forests, themselves, are a sink for carbon dioxide, as photosynthesis removes carbon dioxide from the atmosphere.*

IMPACT AND MITIGATION

ISSUES	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT	SOURCES
7. GREENHOUSE GAS EMISSIONS. Would the project:					
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X		29,90,100
b. Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?				X	25, 26,28,100

Standards

The BAAQMD adopted *CEQA Guidelines* significance thresholds for GHG emissions that include quantitative thresholds of significance for GHG emissions. The *Guidelines* provide that a development project, other than a stationary source, would have a significant cumulative impact unless:

- The project can be shown to be in compliance with a qualified Climate Action Plan; or
- Project emissions of CO_2 equivalent GHGs (CO_2e) are less than 1,100 metric tons per year; or
- Project emissions of CO_2 equivalent GHGs are less than 4.6 metric tons per year per service population (residents plus employees).

Greenhouse Gases and Climate Change

The project's incremental increases in GHG emissions associated with traffic increases and direct and indirect energy use would contribute to regional and global increases in GHG emissions and associated climate change effects. The City of San Jose does not currently have a qualified Climate Action Plan. Estimated GHG emissions for the project of 1,230.3 metric tons per year, as shown in the report in the Technical Appendix, would exceed the District's 1,100 metric tons per year performance standard; however, based on an estimated 3 persons per household, the emission per service population would be 4.27 metric tons per year, which is less than the District's 4.6 metric tons per year per service population performance standard. Therefore, the project would have a less-than-significant impact on GHG emissions.

Green Design

The Green Building Policy for Private Sector New Construction (Policy 6-32) demonstrates the City's commitment to environmental, economic and social stewardship, to yield cost savings through reduced operating costs, to provide healthy work environments, and to contribute to the City's goals of protecting, conserving and enhancing the region's environmental resources. The Policy uses third-party Green Building Certification levels of Leadership in Energy and Environmental Design (LEED) or Build It Green (BIG) as green building standards. Adherence to these standards would result in energy efficiency levels from 10 to 15 percent better than those achieved with the 2009 Title 24 California Efficiency Standards. The project will be designed to be consistent with the Green Building Policy.

In addition, the California Building Standards Commission (CBSC) recently adopted statewide green building standards. Known as CALGREEN, the regulations went into effect on January 1, 2011. The 2010 Green Building Standards Code require:

- 20 percent mandatory reduction in indoor water use, with voluntary goal standards for 30, 35 and 40 percent reductions;
- Separate water meters for non-residential buildings' indoor and outdoor water use, with a requirement for moisture-sensing irrigation systems for larger landscape projects;
- Diversion of 50 percent of construction waste from landfills, increasing voluntarily to 65 and 75 percent for new homes and 80 percent for commercial projects;
- Mandatory inspections of energy systems (i.e., heat furnace, air conditioner, mechanical equipment) for non-residential buildings over 10,000 square feet; and
- Low-pollutant-emitting interior finish materials such as paints, carpet, vinyl flooring and particle board.

STANDARD MEASURES INCLUDED IN THE PROJECT

Green Design

- The project will be reviewed for conformance to the Green Building Policy (Policy 6-32) at the PD Permit stage.

MITIGATION MEASURES INCLUDED IN THE PROJECT

None required.

CONCLUSION

The project would have a **less-than-significant impact** on greenhouse gas emissions.

8. HAZARDS AND HAZARDOUS MATERIALS

Cornerstone Earth Group conducted a Phase I environmental site assessment and preliminary soil and soil vapor quality evaluation dated June 15, 2010 that is included in the Technical Appendix.

SETTING

Phase I Environmental Site Assessment

A Phase I environmental site assessment was conducted to strive to identify Recognized Environmental Conditions at the property. The term "recognized environmental condition" (REC) means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The investigation included site history research (a review of available aerial photographs and maps, and interviews with knowledgeable persons); a site reconnaissance; regulatory agency database review for soil and groundwater contamination cases in the vicinity; collection and lab analyses of surface soil samples from 29 selected locations; and drilling of 2 exploratory borings and collection of soil samples, plus conversion of the 2 borings into soil vapor sample probes for the collection of soil vapor samples.

Historical Review

Historical aerial photographs of the site and vicinity from 1939 through 2005 were reviewed. The site appears occupied by orchards in the 1939 and 1948 aerial photographs; a residence or small barn-like structure is shown near the location of the current site structures. Orchards and what appears to be the current residence are shown on the 1956 aerial photograph; the previous structure appears to have been removed. The site appears similar in the 1965 aerial photograph, but the current barn additionally appears to be present on the 1975 aerial photograph. Many of the orchard trees on the northern portion of the site appear to have been removed on the 1982 through 1998 aerial photographs. In 2005, the site appears similar to the current conditions.

Historical topographic maps from 1953 through 1980 were reviewed. The site is shown to be occupied by orchards and a structure typical of a residence on the 1953 topographic map. By 1961, the site is shown to be occupied by orchards and three structures typical of a residence and associated outbuildings, and remains the same through 1973. An additional structure that appears to be the current barn is depicted on the 1980 topographic map.

The general site vicinity appears to have historically consisted of orchards with widely spaced residences. By the 1960s and 1970s, a significant increase in mainly residential development is apparent. Further increases in mainly residential development are apparent on the subsequent aerial photographs.

According to interviews with the current property owner and/or his son, the site has been owned by the family since 1897 and historically used mainly as a cherry orchard. The current residence and detached garage were constructed in approximately 1948. Along with the orchards, a barn and corral used for horses had been present prior to the current residence. The current barn was constructed during the 1960s and was used to support onsite agricultural activities. Currently, the site is used for the seasonal sales of Christmas trees and pumpkins, as well as firewood; and the barn is used mainly as a workshop and for storage. The residence is currently vacant, although an onsite mobile home is intermittently occupied. A searchlight rental business (West Coast Searchlights) is currently operated onsite, and portions of the property are used for storage of old collected searchlights and associated power generators, along with used vehicles and other miscellaneous items.

A 1,000-gallon gasoline underground storage tank (UST) was formerly located near the southern corner of the detached garage. Although the UST was removed during the 1970s without regulatory agency oversight, it was reportedly in good condition with the manufacturer's labels intact and no holes or significant rusting was apparent. Piping reportedly ran from the tank to the garage. Diseased or beetle-infested tree cuttings from the orchard were reportedly historically burned within the orchard on the eastern portion of the site, generally between the current firewood storage pile and the Sierra Road and Havenwood Drive intersection. Pesticides were historically applied to the onsite orchards, typically using a spray rig that was filled near the onsite well near the east property boundary.

Site Reconnaissance

A site reconnaissance was conducted on April 23, 2010 to observe current site conditions (readily observable environmental conditions indicative of a significant release of hazardous materials). The site was occupied by a single-family residence, detached garage, barn and mobile home. The interiors of the residence and mobile home were not observed during the site visit. A septic tank was observed near the northern corner of the residence.

The detached garage was observed to be used for storage of vehicles, a motorcycle and other miscellaneous items. No significant staining of the concrete floor slab or other indications of fuel spillage within the garage were readily apparent. A circular hole in the garage wall was observed at the reported location of piping from the former UST.

The barn was constructed of wood framing with corrugated metal roof and siding. A concrete slab floor, which appeared to be in good condition, was present beneath the main barn structure. An attached, partially enclosed extension with gravel flooring was located on the northeast side of the barn. The barn was observed to be used as a workshop for general maintenance and repair activities. Vehicles, searchlights, tools, various machinery, general household items and numerous other miscellaneous items were stored within the barn and covered area to the northeast. Similar items were observed to be stored within three semi-truck trailers located

immediately east of the barn. A fourth trailer, located further east, contained supplies and props used for the seasonal sale of pumpkins.

Hazardous materials observed onsite were located within the barn and within the attached enclosure to the northeast. These materials included numerous vehicle and facility maintenance products consisting mainly of lubricants, paints, paint thinners and cleaning supplies. These products were observed to be in retail containers with capacities ranging mainly from 1-quart to 1-gallon, along with numerous aerosol cans. A few 5-gallon containers of paints and thinners were also observed. The hazardous materials were stored mainly on shelving or within a wall-mounted hazardous materials storage cabinet; a few items were observed on the concrete floor slab and gravel surfaces. The hazardous materials appeared to be stored in an orderly manner and general housekeeping appeared good; no signs of significant hazardous materials spills were readily apparent.

Numerous searchlights were stored onsite, some mounted on trailers or trucks. Several generators used to power the searchlights were also stored onsite, some trailer-mounted and some resting on the ground. Most of the generators were fueled from integral gasoline tanks; the fuel had reportedly been drained from the generators that were not used as part of the rental business. No evidence of significant fuel leaks was readily apparent.

An area to the southeast of the residence was used for storage of wooden pallets and crates, used vehicles and firewood, along with additional searchlights and generators. The remaining area on the southeastern portion of the site appeared to have been recently tilled for weed control and contained several trees that were the remnants of a former orchard. An agricultural well was observed onsite adjacent to Sierra Road. A concrete pad that reportedly formerly supported a water tank was observed adjacent to the well. Three pole-mounted electrical transformers were observed on a wooden utility pole near the well; no evidence of transformer oil leakage was readily apparent.

Regulatory Agency Review

A regulatory agency database report was obtained and reviewed to help establish whether contamination incidents have been reported on the site or in the vicinity, as detailed in the report in the Technical Appendix. The project site is listed on the historic underground storage tank (UST) database; the listing indicated that one UST was present that contained gasoline. No offsite facilities were reported that appear likely to significantly impact groundwater beneath the site; this determination was based on the types of incidents, the location of the reported incidents in relation to the project site, and the assumed westerly groundwater flow direction.

Preliminary Soil Quality Evaluation

Based on the findings of the Phase I environmental site assessment, five potential near-surface soil quality concerns were identified:

- Potential for residual pesticides from the former onsite orchard and the former horse barn and corral reported in the area of the current residence and barn.
- Reported historic pesticide mixing near the onsite well.
- Possible residual pesticide residue around the foundation of the existing structures from pesticide spraying and lead from lead paint residue from exterior walls;
- Potential presence of polynuclear aromatic hydrocarbons (PAHs) in soil from reported historic orchard burning in the northeast portion of the site.
- General soil quality in areas used for equipment and vehicle storage.

A total of 29 soil samples were collected from the site on April 23, 2010. The approximate locations of the soil samples are included in the report in the Technical Appendix. The 29 soil samples were analyzed at a State-certified laboratory for organochlorine pesticides and pesticide-related metals (arsenic, lead and mercury). Fifteen soil samples collected from equipment storage areas and near structures were additionally analyzed for total petroleum hydrocarbons in the diesel (TPHd) and motor oil (TPHmo) ranges and the remaining 17 California Assessment Manual (CAM) metals. Five of these samples were additionally selected and analyzed for polychlorinated biphenyls (PCBs) and PAHs. The results of the laboratory testing program are included in the report in the Technical Appendix.

Soil and Soil Vapor Quality Evaluation

A gasoline UST reportedly was located near the southern corner of the detached garage. The UST was reportedly removed in the 1970s without regulatory agency oversight. A soil and soil vapor quality evaluation was performed to evaluate the potential presence of residual gasoline constituents in the subsurface from the former UST. Subsurface investigation activities were performed on May 21, 2010. Two exploratory borings were drilled to a depth of approximately 10 to 15 feet to evaluate soil quality. One soil boring (SB-1) was advanced in the approximate location of the pipeline from the gasoline UST to the reported former fuel pump in the garage, based on the apparent location where the pipeline formerly passed through the exterior garage wall. The other boring (SB-2) was drilled within the former UST pit area. The approximate locations and logs of the borings are included in the report in the Technical Appendix.

Soil Quality Evaluation

To evaluate soil quality, soil samples were collected from SB-1 at depths of approximately 2 to 2.5 feet and approximately 6 to 6.5 feet, and from SB-2 at depths of approximately 2 to 2.5 feet and approximately 7.5 to 8 feet. These samples were selected to evaluate quality of the tank pit and pipeline backfill and underlying native fill. No suspected odors or discoloration were observed in the soil samples collected. The soil samples were analyzed at a State-certified laboratory for total petroleum hydrocarbons in the gasoline range (TPHg); benzene, toluene,

ethylbenzene and xylenes (BTEX); methyl tert-butyl ether (MTBE); and total petroleum hydrocarbons in the diesel range (TPHd). To help evaluate the re-use or offsite disposal alternative of the backfill, samples of the backfill were additionally analyzed for organochlorine pesticides and 17 CAM metals. The results of the laboratory testing program are included in the report in the Technical Appendix.

Soil Vapor Quality Evaluation

The two exploratory borings were converted into soil vapor sample probes for the collection of soil vapor samples. The sampling of the two multi-depth vapor wells was performed on May 24, 2010, as detailed in the report in the Technical Appendix. Soil vapor samples were analyzed for BTEX, 2-Propanol, and TPHg.

IMPACT AND MITIGATION

ISSUES	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT	SOURCES
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			26, 27,28,104
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	28,104
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			27,28,104
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	85,104
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	27,69
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	27,69
g. Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?				X	27

ISSUES	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT	SOURCES
8. HAZARDS AND HAZARDOUS MATERIALS (Cont.). Would the project:					
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	25, 27,57,58

The project site is not located within the Santa Clara County Airport Land Use Commission (ALUC) jurisdiction, nor is it on one of the City's designated evacuation routes. The site also is not located within an area subject to wildfires.

General

The project site will be viewed by a qualified environmental professional during demolition and pre-grading activities to observe areas of the property that may have been obscured by existing structures or pavement for such items as stained soils, septic systems, underground storage tanks, and/or unforeseen buried utilities; and, if found, a mitigation program will be developed, submitted to the City's Environmental Principal Planner and to the appropriate regulatory agency based on the type of hazardous material, and implemented with such measures as soil testing, removal and/or offsite disposal at a permitted facility.

Wells

There is an existing water well on the project site that should be destroyed prior to the construction of the project. If not properly destroyed, the well could cause contamination of the groundwater. Well destruction is regulated by the Santa Clara Valley Water District's Ordinance No. 90-1 in order to assure that such wells will not cause pollution or contamination of groundwater or otherwise jeopardize the health, safety, or welfare of the people of the district. The Ordinance requires that a permit be obtained before a well can be destroyed.

Septic Systems

There is an existing septic system located on the site. The septic system should be removed in accordance with the requirements of the Santa Clara County Sewage Disposal Ordinance.

Soil Contamination

Organochlorine Pesticides

The site was used for agricultural purposes for several decades; and pesticides reportedly were applied to the orchards in the normal course of farming operations. Laboratory analyses of 29 soil samples collected from the site did not detect organochlorine pesticides above residential California Human Health Screening Levels (CHHSLs) except for chlordane in two samples located near the garage at concentrations of 0.67 parts per million (ppm) and 2.9 ppm. The residential CHHSL for chlordane is 0.43 ppm. The California hazardous waste limit [Total

Threshold Limits Concentration (TTLC)] for chlordane is 2.5 ppm. The chlordane detected may be a result of pesticide spraying around the perimeter of the garage. The pesticide-impacted soil should be over-excavated and removed for appropriate offsite disposal. Because chlordane exceeded California's hazardous waste criterion in one of the two samples collected in the area, this soil may require disposal as a California hazardous waste.

Metals

Metals were detected at concentrations that appeared consistent with typical background levels, except as discussed below.

Cadmium was detected in one sample from beneath the gravel floor of the shed adjacent to the barn at 18 ppm, which is above the published background maximum of 14 ppm for northern Santa Clara County. Soil in this area should be over-excavated and disposed offsite.

Arsenic concentrations detected in soil samples collected from orchard areas and near the well were below 10 ppm but appeared higher in samples collected near structures, with a maximum of 20 ppm detected in one sample near the mobile home. Background concentrations in northern Santa Clara County have been found at a maximum of 20 ppm; therefore, the arsenic detected in the soil samples generally appears consistent with typical background levels.

Lead was detected above typical background levels in four samples, ranging in concentration from 83 ppm to 150 ppm, which exceed the CHHSL of 80 ppm. Excluding two of the samples that are recommended for limited soil removal because of concentrations of petroleum hydrocarbons and/or PAHs detected, the 95 percent upper confidence limit (UCL) for lead was calculated at 52 ppm, which appears acceptable for residential development of the site.

Zinc exceeded its published background maximum concentration of 120 ppm in eight samples, but was below the residential CHHSL of 23,000 ppm. Therefore, the concentrations of zinc detected do not appear to be a significant concern for residential development of the site.

Petroleum Hydrocarbons

Laboratory analysis of one of the soil samples from beneath the gravel floor of the shed adjacent to the barn detected 1,100 ppm TPHd and 3,700 ppm TPHmo. The residential Environmental Screening Levels (ESLs) for TPHd and TPHmo are 83 ppm and 370 ppm, respectively; no CHHSLs are available for TPHd and TPHmo. The area near the sample appeared to have been used for vehicle and equipment maintenance. The petroleum-impacted soil should be over-excavated and removed for appropriate offsite disposal prior to site development. The laboratory analyses of 14 other soil samples for TPHd and TPHmo did not detect these constituents above residential ESLs.

PAHs and PCBs

Two soil samples were collected from the northeast portion of the site in the general area where historical orchard burning activities reportedly occurred. Burning of organic materials can result in the generation of polycyclic aromatic hydrocarbons (PAHs) as a result of incomplete combustion. No PAHs were detected in these two soil samples. One soil sample collected from the ground surface adjacent to the garage and also near the location of the former gasoline UST dispenser detected several PAHs at concentrations below residential CHHSLs. Two PAHs at concentrations above the residential CHHSL and/or residential Regional Screening Level (RSL) were detected in one soil sample collected from an area that appears to have been historically used for barbequing and/or one soil sample collected from a location where apparent burn material/charcoal was observed on the ground surface. The soil at these two locations should be over-excavated and removed for appropriate offsite disposal.

As a conservative measure, five soil samples collected from apparent vehicle and equipment storage areas were analyzed for polychlorinated biphenyls (PCBs); no PCBs were detected above the laboratory reporting limits.

Former Underground Storage Tank

A gasoline UST that was used to fuel vehicles reportedly was located near the southern corner of the detached garage. The UST was reportedly removed in the 1970s without regulatory agency oversight.

Soil

Two exploratory borings were drilled in the former UST and associated piping area for the collection of soil samples; laboratory analyses of two soil samples collected from the UST tank pit and pipeline trench backfill and two samples of underlying native soil did not detect gasoline range hydrocarbons (TPHg). Up to 1.2 ppm diesel range hydrocarbons (TPHd) were detected in three of the four samples; however, the residential ESL for TPHd is 83 ppm.

Soil Vapor

Laboratory analyses of four soil vapor samples (two from a depth of approximately 5 feet and two from a depth of approximately 10 feet) detected BTEX at levels substantially below their respective CHHSLs and/or ESLs. TPHg was detected in one sample at a depth of 10 feet at a maximum concentration of 1,200 micrograms per cubic meter ($\mu g/m^3$), which is substantially below its residential ESL of 10,000 $\mu g/m^3$ (there is no CHHSL for TPHg). The concentrations of TPHg detected increased with depth. Because of the low concentrations of TPHg detected and the apparent lack of a significant release from the former gasoline UST system, the increase with depth does not appear to be a significant concern.

Demolition

The project proposes the demolition of a structure(s) that may contain hazards such as asbestos-containing materials (ACM) or lead based paint (LBP). The structures to be removed should be

surveyed for the presence of ACM and/or LBP. If any suspect ACM are present, they should be sampled prior to demolition and removed in accordance with National Emissions Standards for Hazardous Air Pollutants (NESHAP) and California Occupational Safety and Health Administration (Cal-OSHA) requirements, if warranted. Notification must also be made to the Bay Area Air Quality Management District (BAAQMD). If any suspect LBP is present, it should be sampled prior to demolition and removed in accordance with Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA) and BAAQMD requirements, if warranted.

City Review

The City Environmental Services Department reviewed the Phase I environmental site assessment report and stated that they concur with the report's conclusions and have no further comments. No additional soil testing is required.

STANDARD MEASURES INCLUDED IN THE PROJECT

Wells

- A well destruction permit will be obtained from the Santa Clara Valley Water District, and the onsite well will be destroyed in accordance with District standards.

Septic Systems

- The onsite septic system will be abandoned in accordance with the requirements of the Santa Clara County Sewage Disposal Ordinance.

Asbestos-Containing Materials

- The structure(s) to be removed will be surveyed for the presence of asbestos-containing materials (ACM) at the demolition permit stage; and if any suspect ACM are present, they will be sampled prior to demolition in accordance with NESHAP guidelines, and all potentially friable ACM will be removed prior to building demolition and disposed of by offsite burial at a permitted facility in accordance with NESHAP, Cal-OSHA and BAAQMD requirements.

Lead Based Paint

- The structure(s) to be removed will be surveyed for the presence of lead based paint (LBP) at the demolition permit stage; and if any suspect LBP is present, it will be sampled prior to demolition, and all potential LBP will be removed prior to building demolition and disposed of by offsite burial at a permitted facility in accordance with EPA and OSHA requirements.

MITIGATION MEASURES INCLUDED IN THE PROJECT

General

- Prior to issuance of a Grading Permit, a Soil Management Plan shall be developed to the satisfaction of the Environmental Compliance Officer of the City's Environmental Services Department and the appropriate regulatory agency based on jurisdiction and type of

hazardous material. The Soil Management Plan shall establish practices for managing and handling buried structures, wells, burn areas, debris and/or impacted soil if these materials/structures are encountered prior to or during demolition and/or site grading. The measures identified in the Soil Management Plan, including special handling and/or disposal measures, shall be implemented as warranted.

Soil Contamination

Organochlorine Pesticides

- Soil at the location of the sample with the chlordane concentration detected above the residential CHHSL (SS-1) shall be over-excavated for appropriate offsite disposal.

- Soil at the location of the sample with the chlordane concentration detected above the residential CHHSL and the California hazardous waste limit (SS-2) shall be over-excavated for appropriate offsite disposal.

Metals in Soil

- Soil at the location of the sample with the cadmium concentration detected above the residential CHHSL (SS-5) shall be over-excavated for appropriate offsite disposal.

- Soil at the location of the samples with the lead concentrations detected above the residential CHHSL (SS-5 and SS-24) shall be over-excavated for appropriate offsite disposal.

Petroleum Hydrocarbons

- Soil at the location of the sample with the TPHd and TPHmo concentrations detected above the residential ESLs (SS-5) shall be over-excavated for appropriate offsite disposal.

Polynuclear Aromatic Hydrocarbons (PAHs)

- Soil at the location of the samples with the PAHs concentrations detected above the residential RSLs (SS-3 and SS-24) shall be over-excavated for appropriate offsite disposal.

Verification and/or Oversight

- Verification samples shall be collected and analyzed for chlordane, cadmium, lead, TPHd and TPHmo, and/or PAHs to document that the impacted soil has been sufficiently removed from the site.

- Regulatory agency oversight shall be requested if significantly elevated levels of contaminants of concern are detected in the soil samples.

CONCLUSION

The implementation of the above wells, septic systems, asbestos-containing materials and lead based paint standard measures and general and soil contamination mitigation measures would reduce the project's impact on hazards and hazardous materials to a **less-than-significant impact with mitigation**.

9. HYDROLOGY AND WATER QUALITY

SETTING

Waterways

There are no waterways on the project site or within 300 feet of the project site.

Flooding

The project site is not within an area of historic flooding, and according to the Federal Emergency Management Agency's (FEMA) *Flood Insurance Rate Maps*, the site is within Zone X, an area with 0.2 percent annual chance flood; with 1 percent annual chance flood with average depths of less than 1 foot or with a drainage area less than 1 square mile; or protected by levees from the 1 percent annual chance flood. The limits of the potential inundation are shown on the following Potential Flooding map.

Water Quality

Stormwater runoff flows from the project site via the City's storm drainage system to Lower Penitencia Creek and Coyote Creek, and then north to the San Francisco Bay.

The project site is currently covered with buildings, vehicular area, sidewalks and open space, and is approximately 34 percent impervious surfaces.

Nonpoint Sources

The discharge of stormwater from the City's municipal storm sewer system is regulated primarily under the federal Clean Water Act and California's Porter-Cologne Water Quality Control Act. The San Francisco Bay Regional Water Quality Control Board (RWQCB) implements these regulations at the regional level. New construction in San Jose is subject to the conditions of the City's National Pollutant Discharge Elimination System (NPDES) Permit, which was reissued by the RWQCB in February, 2001. Additional water quality control measures were approved in October, 2001 (revised in 2005), when the RWQCB adopted an amendment to the NPDES Permit for Santa Clara County. This amendment, which is commonly referred to as "C3", requires all new and redevelopment projects that result in the addition or replacement of impervious surfaces totaling 10,000 square feet or more to: 1) include stormwater treatment measures; 2) ensure that the treatment measures be designed to treat an optimal volume or flow of stormwater runoff from the project site; and 3) ensure that stormwater treatment measures are properly installed, operated and maintained. On October 14, 2009, the RWQCB adopted the Municipal Regional Stormwater NPDES Permit No. CAS612008 for the San Francisco Bay Region; this Permit replaces current countywide municipal stormwater permits with a Municipal Regional Permit (MRP) for all 76 Bay Area municipalities in an effort to standardize stormwater requirements in the region.

Source: FEMA, Flood Insurance Rate Maps, Santa Clara County, California, Panel No. 06085C0088H, May 18, 2009

= Special flood hazard areas subject to inundation by the 1% annual flood.

Potential Flooding

Figure 20

The City has developed a policy that implements Provision C.3 of the NPDES Permit, requiring new development projects to include specific construction and post-construction measures for improving the water quality of urban runoff to the maximum extent feasible. The City's Post-Construction Urban Runoff Management Policy (6-29) established general guidelines and minimum Best Management Practices (BMPs) for specified land uses, and includes the requirement of regular maintenance to ensure their effectiveness. Later, the City adopted the Post-Construction Hydromodification Management Policy (8-14) to manage development-related increases in peak runoff flow, volume and duration, where such hydromodification is likely to cause increased erosion, silt pollutant generation or other impacts to local rivers, streams and creeks. Implementation of these Policies will reduce potential water quality impacts to less-than-significant levels.

The project site is exempt from the NPDES hydromodification requirements because it is located within a subwatershed or catchment area that is greater than or equal to 65 percent impervious, based on the Santa Clara Permittees Hydromodification Management Applicability Map.

IMPACT AND MITIGATION

ISSUES	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT	SOURCES
9. HYDROLOGY AND WATER QUALITY. Would the project:					
a. Violate any water quality standards or waste discharge requirements?			X		28,61,80
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				X	25,27
c. Substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?			X		25,26
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?			X		25,26

ISSUES	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT	SOURCES
9. HYDROLOGY AND WATER QUALITY (Cont.). Would the project:					
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		26,28
f. Otherwise substantially degrade water quality?			X		26,28
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		26,27,59
h. Place within a 100-year flood hazard area structures that would impede or redirect flood flows?			X		26,27,59
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	27,28
j. Be subject to inundation by seiche, tsunami or mudflow?				X	27

Flooding

The project site is not within a designated FEMA 100-year floodplain. Flood Zone X is an area of moderate or minimal flood hazard; there are no City floodplain requirements for Zone X. The site is not subject to seiche or tsunami. There are an existing 24- to 27-inch City of San Jose storm drainage line in N. Capitol Avenue and an existing 24-inch City storm drainage line in Sierra Road, which are designed to serve the site in a developed condition. Residential development of the site would not cause flooding. Any excess flows beyond the design capacity would pond onsite.

Erosion

The approximately 49 percent increase in impervious surface on the site would result in an increase in runoff. Increased flow and duration can contribute to downstream streambank erosion. The project would not have a direct outfall into any stream. As described above, project flows would drain through the existing storm drainage system to Lower Penitencia Creek, which is approximately 1.5 miles northwesterly.

Water Quality

The primary impact on water quality would result from the addition of impervious surfaces, such as rooftop, driveway and street runoff. Particulates, oils, greases, toxic heavy metals, pesticides and organic materials are typically found in urban storm runoff. The project's contribution would have a potentially significant impact on water quality. Stormwater runoff could increase under project conditions as the amount of impervious surfaces (buildings and pavement) would

increase from approximately 34 percent of the site to approximately 83 percent, as shown in the following table. The proposed increase in impervious surfaces could increase the amount of stormwater discharged into the storm drainage system and Lower Penitencia Creek. In addition, temporary construction-related activities such as clearing, grading, or excavation could result in potentially significant impacts to water quality.

Table 6. Pervious and Impervious Surfaces Comparison

Total Site: 4.3 acres 187,302 sf			Total Disturbed Area: 4.3 acres 187,302 sf		
Area			Existing Condition of Site Area Disturbed - sf	Proposed Condition of Site Area Disturbed - sf	
				Replaced (or Remain)	New
Impervious Surfaces					
Roof Area(s)			11,416	0	82,764
Parking/Private Drive (paved)			8,340	0	32,670
Sidewalks, Patios, Paths, etc.			38,721	7,947	6,372
Streets (Public)			4,043	4.043	19,044
Streets (Private)			0	0	1,742
Total Impervious Surfaces			**62,520**	**11,990**	**142,592**
Pervious Surfaces					
Landscape Areas			124,782	0	32,720
Pervious Pavers			0	0	0
Other Pervious Surfaces (green roof, etc.)			0	0	0
Total Pervious Surfaces			**124,782**	**0**	**32,720**
TOTAL	**Impervious: 154,582 sf 83 %**			**Pervious: 32,720 sf 17%**	

Stormwater runoff and pollution would be reduced by the use of bioswales, a Continuous Deflective Separation (CDS) media filter unit(s), and disconnected roof drains, as shown on the Conceptual Stormwater Treatment Plan, Figure 17. Bioswales are open, shallow channels with vegetation covering the side slopes and bottom that collect and slowly convey runoff flow to downstream points. They both reduce the quantity and improve the quality of runoff. Bioswales would be used within some of the landscaping and common open space areas. CDS units, which use a non-blocking, non-mechanical screening process to remove pollutants from stormwater flows, will also be utilized. Roof drains that are not connected to the storm drainage system divert runoff to landscaped areas via splash blocks or pop-up drainage emitters. These measures would also provide some flow control benefit in conformance with HMP Policy provisions.

Water Quality

Construction

- Prior to the commencement of any clearing, grading or excavation, the project will comply with the State Water Resources Control Board's National Pollutant Discharge Elimination System (NPDES) General Construction Activities Permit, to the satisfaction of the Director of Public Works, as follows:
  - The applicant will develop, implement and maintain a Storm Water Pollution Prevention Plan (SWPPP) to control the discharge of stormwater pollutants including sediments associated with construction activities; and
  - The applicant will file a Notice of Intent (NOI) with the State Water Resources Control Board (SWRCB).
- The project will incorporate Best Management Practices (BMPs) into the project to control the discharge of stormwater pollutants including sediments associated with construction activities.
- The project applicant will comply with the City of San Jose Grading Ordinance, including erosion and dust control during site preparation and with the City of San Jose Zoning Ordinance requirements for keeping adjacent streets free of dirt and mud during construction. The following specific BMPs will be implemented to prevent stormwater pollution and minimize potential sedimentation during construction:
  - Restriction of grading to the dry season (April 15 through October 15) or meet City requirements for grading during the rainy season;
  - Utilize onsite sediment control BMPs to retain sediment on the project site;
  - Utilize stabilized construction entrances and/or wash racks;
  - Implement damp street sweeping;
  - Provide temporary cover of disturbed surfaces to help control erosion during construction; and
  - Provide permanent cover to stabilize the disturbed surfaces after construction has been completed.

Post-Construction

- Prior to the issuance of a Planned Development Permit, the applicant must provide details of specific BMPs including, but not limited to, bioswales, disconnected downspouts, landscaping to reduce impervious surface area, and inlets stenciled "No Dumping – Flows to Bay" to the satisfaction of the Director of Planning, Building and Code Enforcement.
- The project will comply with the Municipal Regional Stormwater NPDES Permit No. CAS612008, which provides enhanced performance standards for the management of stormwater of new development.

- The project will comply with applicable provisions of the following City Policies – 1) Post-Construction Urban Runoff Management Policy (6-29) which establishes guidelines and minimum BMPs and numerically-sized (or hydraulically-sized) Treatment Control Measures (TCMs) for all projects; and 2) Post-Construction Hydromodification Management Policy (8-14) which provides for hydromodification measures.

MITIGATION MEASURES INCLUDED IN THE PROJECT

None required.

CONCLUSION

The implementation of the above construction and post-construction water quality standard measures would reduce the project's impact on hydrology and water quality to a **less-than-significant impact**.

10. LAND USE AND PLANNING

SETTING

General Plan

The land use designation for the project site on the *San Jose 2020 General Plan* Land Use/ Transportation Diagram is Medium High Density Residential (12-25 DU/AC), as shown on the preceding General Plan Map, Figure 5. The project conforms to this land use designation since the net density of the proposed project is 24.7 dwelling units per acre.

Special Areas

The project site is not located within any of the following special areas:

- Midtown Planned Community and Specific Plan Area
- Jackson – Taylor Planned Residential Community
- Communications Hill Planned Residential Community
- Evergreen Planned Residential Community
- Berryessa Planned Residential Community
- Silver Creek Planned Residential Community
- Alviso Master Plan Area
- Tamien Specific Plan Area
- Downtown Strategy Plan Area
- North San Jose (Rincon de Los Esteros Redevelopment Area)
- Edenvale Redevelopment Area
- Martha Gardens Planned Community

Zoning

The project site is currently zoned R-1-8 (Single Family Residence District), as shown on the preceding Zoning Map, Figure 6. The project is an application to rezone the site to A(PD) (Planned Development District) in accordance with the proposed General Development Plan.

Existing and Surrounding Uses

The project site is currently single-family residential/commercial. Previous uses of the site include: agriculture (orchards). Land uses surrounding (within 500 feet of) the project site include: single family detached residential to the north; single family detached residential and public/quasi-public (school) to the east; single family detached residential and public/quasi-public (church) to the south; and transportation (N. Capitol Avenue and LRT transit) and single family detached residential to the west.

Habitat Conservation Plan / Natural Community Conservation Plan (HCP/NCCP)

As discussed in the preceding Biological Resources section, the City of San Jose, Santa Clara Valley Transportation Authority, Santa Clara Valley Water District, Santa Clara County and the cities of Gilroy and Morgan Hill are preparing a joint Habitat Conservation Plan/Natural Community Conservation Plan. The Habitat Plan is being developed in association with the USFWS, CDFG and NMFS and in consultation with stakeholder groups and the general public to protect and enhance ecological diversity and function within more than 500,000 acres of southern Santa Clara County. The Interim Project Referral Process requires the local participating agencies to notify the wildlife agencies (CDFG and USFWS) of projects that have the potential to adversely impact covered species or natural communities, or conflict with the preliminary conservation objectives of the Habitat Plan.

IMPACT AND MITIGATION

ISSUES	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT	SOURCES
10. LAND USE AND PLANNING. Would the project:					
a. Physically divide an established community?				X	25,26
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		29,65
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?				X	25,26,28

Projects that have the potential to physically divide an established community include new freeways and highways, major arterial streets, and railroad lines. The proposed 94-unit project would provide infill housing within an existing residential area, and would, therefore, not physically divide an established community but rather complete that community.

Compatibility

The project would change the land use on the site from a single-family residence and commercial uses to townhouse residential use in accordance with the General Plan land use designation. Residential use is compatible with the surrounding area. Development of the project site would introduce new roads and homes to the area. These uses would generate increases in traffic, noise and air pollution in the area that would not be significant.

The proposed project will be subject to architectural and site design review by the City at the Planned Development Permit stage. Such review will include conformance with the City's adopted Residential Design Guidelines. The Guidelines are intended to ensure that new development is compatible with existing neighborhood character and does not adversely impact neighboring residential uses. A less-than-significant impact would occur as a result of the project.

Habitat Conservation Plan / Natural Community Conservation Plan (HCP/NCCP)

The project site does not meet the threshold that requires an interim Habitat Conservation Plan project referral.

MITIGATION MEASURES INCLUDED IN THE PROJECT

None required.

CONCLUSION

The proposed project would have a **less-than-significant impact** on land use and planning.

11. MINERAL RESOURCES

SETTING

Extractive resources known to exist in and near the Santa Clara Valley include cement, sand, gravel, crushed rock, clay and limestone. Santa Clara County has also supplied a significant portion of the nation's mercury over the past century. Pursuant to the mandate of the Surface Mining and Reclamation Act of 1975 (SMARA), the State Mining and Geology Board has designated the Communications Hill Area, bounded generally by the Southern Pacific Railroad, Curtner Avenue, State Route 87 and Hillsdale Avenue, as the only area in San Jose containing mineral deposits that are of regional significance as a source of construction aggregate materials.

IMPACT AND MITIGATION

ISSUES	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT	SOURCES
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	27,29,67
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	27,29,67

Since the project site is outside of the Communications Hill area, there will be no impact on any known important mineral resource.

MITIGATION MEASURES INCLUDED IN THE PROJECT

None required.

CONCLUSION

The proposed project would have **no impact** on mineral resources.

12. NOISE

Charles M. Salter Associates, Inc. conducted an environmental noise assessment dated October 13, 2010 that is included in the Technical Appendix.

SETTING

Existing Noise Environment

Noise intrusion over the site originates primarily from vehicular traffic and Valley Transportation Authority (VTA) light rail traffic sources on N. Capitol Avenue along the site's southwesterly boundary; and from vehicular traffic sources on Sierra Road and Havenwood Drive adjacent to the northeasterly and southeasterly site boundaries, respectively.

ALUC Noise Zone

The project site is not located within an Airport Land Use Commission (ALUC) Noise Zone (65 dB CNEL).

Measurements

Noise

Noise levels are described in terms of the Day-Night Sound Level (DNL), which is the 24-hour noise descriptor used by the City of San Jose to define acceptable noise levels. To quantify the site's existing noise environment, continuous long-term, 24-hour sound level measurements were made between September 15 and 17, 2010 at each of three locations: 1) N. Capitol Avenue, approximately 70 feet northeast of the roadway centerline; 2) Sierra Road, approximately 45 feet northwest of the roadway centerline; and 3) Havenwood Drive, approximately 35 feet south of the roadway centerline. DNL values of 71 dB at Location 1, 68 dB at Location 2, and 62 dB at Location 3 were determined. Short-term, 15-minute "spot" measurements were also made on September 17, 2010 at different locations around the perimeter of the site. The short-term measurements were compared with the concurrent measurements at the long-term monitors to determine how sound levels vary across the site and at different elevations.

The loudest noise levels measured at the long-term monitor locations were generated by vehicles and sirens passing the site. Typical maximum noise levels from vehicles were approximately 87 dBA at Location 1, 89 dBA at Location 2, and 81 dBA at Location 3. During the measurement period, intermittent noise from children's voices and school bells (from Cherrywood Elementary School) was audible in the northwesterly portion of the site.

Ground-borne Vibration

Ground-borne vibration was measured on September 17, 2010 at the existing site grade, at distances of approximately 60 and 120 feet from the near VTA light rail track in the center of N. Capitol Avenue. Measurements consisted of two northbound and two southbound trains at the near track, and three northbound and five southbound trains at the far track. Measured vibration levels were all below 72 VdB.

IMPACT AND MITIGATION

ISSUES	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT	SOURCES
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			26, 29,68,105
b. Exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels?			X		25,27,105
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X		25,26,28
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			X		25,26,28
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	27,69
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	27,69

Standards

Transportation Noise

Noise criteria that apply to the project are the Noise Insulation Standards of the California Code of Regulations, Title 24, and the City of San Jose General Plan. Title 24 is applicable to all new multi-family dwellings.

The Title 24 standards, which utilize the DNL descriptor, establish an exterior reference level of 60 dB and specify that residential buildings to be located within an annual DNL zone of 60 dB or greater require an acoustical analysis. The analysis report must show that the planned buildings provide adequate attenuation to limit intruding noise from exterior sources to an annual DNL of 45 dB in any habitable space.

The City of San Jose General Plan establishes a policy of requiring noise mitigation from transportation noise for residential land use where the exterior level exceeds 60 dB DNL and/or the interior level exceeds 45 dB DNL. It is recognized, however, that attainment of the exterior noise quality levels in the vicinity of San Jose International Airport, the Downtown Core Area

and along major roadways may not be achieved within the time frame of the General Plan. In these areas, an exterior noise goal of 65 dB DNL is acceptable where it is not feasible to reduce the exterior noise level to 60 dB DNL. Exterior and interior noise levels and mitigation measures that comply with these San Jose standards would also achieve compliance with the Title 24 standards.

Equipment-Generated Noise

The San Jose Zoning Ordinance contains performance standards for the generation of noise at adjacent properties. In summary, noise generation is limited to 55 dB at residential property lines and 60 dB at commercial property lines.

Ground-borne Vibration

There are no specific vibration criteria in the City's General Plan. A document entitled "*Transit Noise and Vibration Impact Assessment*" published by the Federal Transit Administration (FTA) of the U.S. Department of Transportation in May, 2006, provides guidelines for levels of ground-borne vibration due to rail lines adjacent to various land uses. They are frequently used to help assess the compatibility of new projects adjacent to existing rail lines. Ground-borne vibration guidelines are as follows:

1. Frequent Events (more than 70 per day) 72 VdB
2. Occasional Events (between 30 and 70 per day) 75 VdB
2. Infrequent Events (fewer than 30 per day) 80 VdB

The document also states: "*One of the problems in developing suitable criteria for ground-borne vibration is that there has been relatively little research into human response to vibration, in particular, to human annoyance with building vibration.*" For reference, the document identifies the threshold of perception for humans to be around 65 VdB.

Exterior Noise Exposures

Residential

Onsite measurements determined that the maximum DNL under existing traffic conditions is 71 dB at Location 1, 68 dB at Location 2, and 62 dB at Location 3.

To fully assess the impact of traffic noise on the project, future traffic levels must also be considered. Peak hour traffic volumes on N. Capitol Avenue are forecast to increase by 50 percent by the year 2020. This corresponds with approximnately a 2 decibel increase in environmental noise. No change in traffic volumes is forecast along Sierra Road. Thus, the future year 2020 noise exposures are calculated to increase to 72 to 73 dB DNL along N. Capitol Avenue; 68 dB DNL along Sierra Road; and 62 to 63 dB DNL along Havenwood Drive. These future noise exposures would exceed the City of San Jose policy level and the Title 24 criterion by up to 13 dB. Incorporating 42-inch-high noise barriers at elevated decks along N. Capitol Avenue and Sierra Road would reduce traffic noise to 70 dB DNL or lower for seated persons on

the decks. Taller barriers would further reduce noise, but may detract from other benefits of the outdoor space.

Outdoor noise levels will vary, depending on location and orientation onsite. Due to the proximity of local roadways, VTA light rail tracks and infiltration of ambient noise from I-680, estimated future noise levels exceed 60 dB DNL across the site.

Private Park

The private park proposed in the center of the project site is partially shielded from N. Capitol Avenue by the proposed onsite residences. The estimated future noise level in the park is approximately 65 dB DNL. Incorporating a 6-foot-high or taller noise barrier along the park's southwesterly edge would reduce transportation noise by a few decibels; however, it is unlikely to achieve the 60 dB DNL goal.

Interior Noise Exposures

To determine the interior DNL values, a 15 dB attenuation factor was applied to the measured exterior exposure. This factor represents an annual average condition; i.e., assuming that windows with single-strength glass are kept open up to 50 percent of the time for natural ventilation. Interior noise exposures under projected future (2020) traffic conditions would be 57 to 58 dB DNL along N. Capitol Avenue; 53 dB DNL along Sierra Road; and 47 to 48 dB DNL along Havenwood Drive. Thus, the interior exposure would be up to 13 dB in excess of the 45 dB interior limit of the General Plan and Title 24.

Equipment-Generated Noise

The project should incorporate measures to reduce noise from air conditioning units and other stationary equipment to acceptable levels. These measures, which may include equipment selection and location and, if necessary, equipment enclosures, will be determined during the design phase.

Temporary Construction Noise

During construction, the site preparation and construction phase would generate temporary sound levels ranging from approximately 70 to 90 dBA at 50 foot distances from heavy equipment and vehicles. These construction vehicles and equipment are generally diesel powered, and produce a characteristic noise that is primarily concentrated in the lower frequencies.

The powered equipment and vehicles act as point sources of sound, which would diminish with distance over open terrain at the rate of 6 dBA for each doubling of the distance from the noise source. For example, the 70 to 90 dBA equipment peak noise range at 50 feet would reduce to 64 to 84 dBA at 100 feet, and to 58 to 78 dBA at 200 feet. Therefore, during the construction operations, sound level increases of 20 to 40 dBA due to these sources could occur near the project boundary.

Since construction is carried out in several reasonably discrete phases, each has its own mix of equipment and consequently its own noise characteristics. Generally, the short-term site preparation phase, which requires the use of heavy equipment such as concrete crushers, bulldozers, scrapers, trenchers, trucks, etc., would be the noisiest. The ensuing building construction and equipment installation phases would be quieter and on completion of the project, the area's sound levels would revert essentially to the traffic levels.

Ground-borne Vibration

Measured vibration levels from distances of approximately 60 and 120 feet from the near VTA light rail track in the center of N. Capitol Avenue were all below the 72 VdB guideline for frequent train events at residences; therefore, no mitigation is needed to comply with the FTA Guidelines. However, vibration may still be perceptible in some homes. A disclosure statement should make future residents aware of noise and vibration from VTA light rail trains.

STANDARD MEASURES INCLUDED IN THE PROJECT

Interior Noise

- Mechanical ventilation will be provided in accordance with Uniform Building Code requirements when windows are to be closed for noise control, to the satisfaction of the Chief Building Inspector.

Equipment-Generated Noise

- Post-construction mechanical equipment will conform to the City's General Plan limitation of 55 dB DNL at residential property lines and 60 dB DNL at commercial property lines by utilizing measures such as equipment selection and location and, if necessary, equipment enclosures.

Temporary Construction Noise

- Construction activities will be limited to the hours of 7:00 a.m. to 7:00 p.m. Monday through Friday for any onsite or offsite work within 500 feet of any residential unit. Construction outside of these hours may be approved through a development permit based on a site-specific construction noise mitigation plan and a finding by the Director of Planning, Building and Code Enforcement that the construction noise mitigation plan is adequate to prevent noise disturbance of affected residential uses.

- The contractor will use "new technology" power construction equipment with state-of-the-art noise shielding and muffling devices. All internal combustion engines used on the project site will be equipped with adequate mufflers and will be in good mechanical condition to minimize noise created by faulty or poorly maintained engines or other components.

- Stationary noise-generating equipment will be located as far as possible from sensitive receptors. Staging areas will be located a minimum of 200 feet from noise-sensitive receptors, such as residential uses.

MITIGATION MEASURES INCLUDED IN THE PROJECT

Mitigation measure details and specifications are included in the noise assessment.

Exterior Noise

- 42-inch-high solid railings shall be constructed at all elevated decks along N. Capitol Avenue and Sierra Road.

Interior Noise

- Windows and sliding glass doors shall be maintained closed and STC 30 to 33 or higher rated windows and doors shall be installed at homes along N. Capitol Avenue.

- Windows and sliding glass doors shall be maintained closed and STC 26 to 28 or higher rated windows and doors shall be installed at homes along Sierra Road and in other portions of the site.

- All units shall be equipped with forced air ventilation systems to allow the occupants the option of maintaining the windows closed to control noise, and maintain an interior noise level of 45 dB DNL.

- Prior to issuance of building permits, the developer shall retain a qualified acoustical consultant to check the building plans for all units to ensure that interior noise levels will be attenuated to 45 dB DNL to the satisfaction of the Director of Planning, Building and Code Enforcement.

CONCLUSION

The implementation of the above interior noise, equipment-generated noise and temporary construction noise standard measures and the exterior noise and interior noise mitigation measures would reduce the project's impact on noise to a **less-than-significant impact with mitigation**.

13. POPULATION AND HOUSING

SETTING

The population of the City of San Jose is approximately 945,942 (March, 2010). The project site is located in Census Tract 5043.21, which has a population of approximately 5,334 (2000 Census). There is one vacant housing unit currently on the project site.

IMPACT AND MITIGATION

ISSUES	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT	SOURCES
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		25,26,28
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?			X		25,26
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?			X		25,26

The project would displace 1 existing vacant housing unit with a potential population of up to 4 persons. The project would add 94 housing units that would add approximately 288 people to the City of San Jose for a net increase of 93 housing units and approximately 284 people, which would not be a substantial increase to the City's population.

In addition, the proposed project would not result in substantial population growth because its net density of 24.7 du/ac is consistent with the *San Jose 2020 General Plan* Land Use/ Transportation Diagram designation of Medium High Density Residential (12-25 DU/AC) and planned growth for the project site.

Growth Inducement

Direct growth inducing impacts include the construction of streets and utilities that would provide access to or capacity for additional undeveloped land. The site is bordered by developed residential and church uses. The project would not have a direct growth inducing impact. Indirect growth inducing impacts include increases in population and economic impacts. There would be short-term increases in employment in the construction industry. The project would not have a significant indirect growth inducing impact.

MITIGATION MEASURES INCLUDED IN THE PROJECT

None required.

CONCLUSION

The proposed project would have **a less-than-significant impact** on population and housing.

14. PUBLIC SERVICES

SETTING

Schools

The project site is in the Berryessa Union School District (K-8) and the East Side Union High School District (9-12). Students from the project are expected to attend:

School	Address	Approx. Distance *(miles)*	Enrollment
Cherrywood Elementary	2550 Greengate Drive	0.25	551
Sierramont Middle	3155 Kimlee Drive	1.5	977
Independence High	1776 Educational Park Drive	4.2	3,500

Independence High School is below capacity. Both elementary schools have limited room for additional students; however, the special education classes at Cherrywood Elementary School are currently at capacity.

Parks

There are two developed City of San Jose parks within walking distance (3/4 mile) of the project site. Cataldi Park is a 39.3-acre neighborhood park located at Cataldi Drive and Morrill Avenue. It contains playgrounds, a half basketball court, a sand volleyball court, unlighted tennis courts, exercise courses, a handball court, soccer use with permit, a children's water play feature, barbecue pits, restrooms and a parking lot. Flickinger Park is a 14.4-acre neighborhood park located at Flickinger Avenue and Tourney Drive. It contains playgrounds, basketball courts, a horseshoe pit, soccer use with permit, barbecue pits, restrooms and a parking lot. In addition, Cherryview Elementary School with its playing fields is located at 2550 Greengate Drive, approximately 0.25 mile from the project site.

Fire Protection

The project site is in the service area of the San Jose Fire Department. The closest fire station is Station No. 23, located at 1771 Via Cinco De Mayo, approximately 1.0 mile northwesterly of the site.

Police Protection

The project site is in the Foothill Division service area of the San Jose Police Department.

Libraries

The project site is served by the San Jose Public Library System. The closest branch library is the Berryessa Branch, located at 3355 Noble Avenue, approximately 2.2 miles southeasterly of the site.

ISSUES	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT	SOURCES
14. PUBLIC SERVICES. Would the project:					
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the 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: Fire protection?			X		28
Police protection?			X		28,73
Schools?			X		5,6,28
Parks?			X		28
Other Public Facilities?			X		28

Schools

The project would add additional students to the Berryessa Union School District and the East Side Union High School District, as follows:

School	Enrollment	Generation Factor	Number of Students
Cherryview Elementary	551	0.14/du	14
Sierramont Middle	977	0.07/du	7
Independence High	3,500	0.20/du	20

Based on the district generation factors listed above, the project would generate a total of up to 41 students. This is not considered to have a significant physical effect on the environment.

The State School Facilities Act provides for school district impaction fees for elementary and high schools and related facilities as a condition of approval to offset the increased demands on school facilities caused by residential projects. Both districts have implemented such a fee. The one-time fee, which is based on the square footage of new habitable residential construction, would be paid prior to the issuance of a building permit and would be allocated to the two districts.

Parks

The City of San Jose provides parks and recreation facilities within the city. Project residents would increase the demand for public park facilities; however, there are currently two developed City parks within the 3/4-mile reasonable walking distance standard. The City parks in the area are adequate to serve the project residents.

Parkland Dedications

The City has established a Park Impact Fee Ordinance that requires dedication of land and/or payment of fees for any net increase in residential units to help provide park and recreational facilities in accordance with the Services and Facilities and the Parks and Recreation Goals and Policies of the General Plan. There are currently no plans to dedicate land for park purposes with the project. Fees would be paid to improve park features in the area.

Fire Protection

The San Jose Fire Department provides fire protection for the city. No additional fire personnel or equipment are expected to be necessary to serve the project.

Police Protection

The San Jose Police Department provides police protection for the city. No additional police personnel or equipment are expected to be necessary to serve the project.

Libraries

The San Jose Public Library System provides library services for the city. No additional library personnel or volumes (items) are expected to be necessary to serve the project.

STANDARD MEASURES INCLUDED IN THE PROJECT

Schools

- A school impact fee will be paid to the school districts to offset the increased demands on school facilities caused by the proposed project, in accordance with California Government Code Section 65996.

Parks

- The project will conform to the City's Park Impact Ordinance (PIO) and/or Parkland Dedication Ordinance (PDO) (Municipal Code Chapters 14.25 and 19.38, respectively).

MITIGATION MEASURES INCLUDED IN THE PROJECT

None required.

CONCLUSION

The implementation of the above schools and parks standard measures would reduce the project's impact on public services to a **less-than-significant impact**.

15. RECREATION

SETTING

There are two developed City of San Jose parks within walking distance (3/4 mile) of the project site. Cataldi Park is a 39.3-acre neighborhood park located at Cataldi Drive and Morrill Avenue. It contains playgrounds, a half basketball court, a sand volleyball court, unlighted tennis courts, exercise courses, a handball court, soccer use with permit, a children's water play feature, barbecue pits, restrooms and a parking lot. Flickinger Park is a 14.4-acre neighborhood park located at Flickinger Avenue and Tourney Drive. It contains playgrounds, basketball courts, a horseshoe pit, soccer use with permit, barbecue pits, restrooms and a parking lot. In addition, Cherryview Elementary School with its playing fields is located at 2550 Greengate Drive, approximately 0.25 mile from the project site.

IMPACT AND MITIGATION

ISSUES	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT	SOURCES
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		70,71
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	26,28

The City of San Jose provides parks and recreation facilities within the city. Project residents would increase the demand for public park facilities; however, there are currently two developed City parks within the 3/4-mile reasonable walking distance standard. The City parks in the area are adequate to serve the project residents.

STANDARD MEASURES INCLUDED IN THE PROJECT

Recreation

- The project will conform to the City's Park Impact Ordinance (PIO) and/or Parkland Dedication Ordinance (PDO) (Municipal Code Chapters 14.25 and 19.38, respectively).

MITIGATION MEASURES INCLUDED IN THE PROJECT

None required.

CONCLUSION

The implementation of the above recreation standard measure would reduce the project's impact on recreation to a **less-than-significant impact**.

16. TRANSPORTATION / TRAFFIC

Hexagon Transportation Consultants, Inc. conducted a transportation impact analysis dated April 7, 2011 that is included in the Technical Appendix.

SETTING

Street System

Regional Roadways

Regional access to the site is provided by Interstate 680 (I-680).

I-680

I-680 is a north-south freeway that extends from Contra Costa County south to Santa Clara County where it connects to I-280 at its interchange with U.S. 101. I-680 has six lanes north of SR 237 and eight lanes south of SR 237; no HOV lanes are provided in the project vicinity. I-680 provides access to the site via interchanges at Berryessa Road, Hostetter Road and N. Capitol Avenue.

Local Roadways

Local access to the site is provided by N. Capitol Avenue, Berryessa Road, Sierra Road and Hostetter Road.

N. Capitol Avenue

N. Capitol Avenue is a north-south, four-lane divided arterial with a light rail transit (LRT) line within the center median in the project area. To the north, N. Capitol Avenue transitions into Great Mall Parkway north of Montague Expressway in the City of Milpitas. To the south, N. Capitol Avenue becomes S. Capitol Avenue south of Alum Rock Avenue, and then terminates at Capitol Expressway. N. Capitol Avenue provides direct access to the project site.

Berryessa Road

Berryessa Road is an east-west arterial that begins where it transitions from Suncrest Avenue at its intersection with Piedmont Road. Berryessa Road is a six-lane roadway in the vicinity of the project site, and narrows to four lanes west of King Road, where it becomes Hedding Street after crossing over U.S. 101. Berryessa Road provides access to the project site via N. Capitol Avenue.

Sierra Road

Sierra Road is an east-west, four-lane divided roadway that provides direct access to the project site. Sierra Road begins at N. Capitol Avenue and extends eastward into the east foothills north of Alum Rock Park.

Hostetter Road

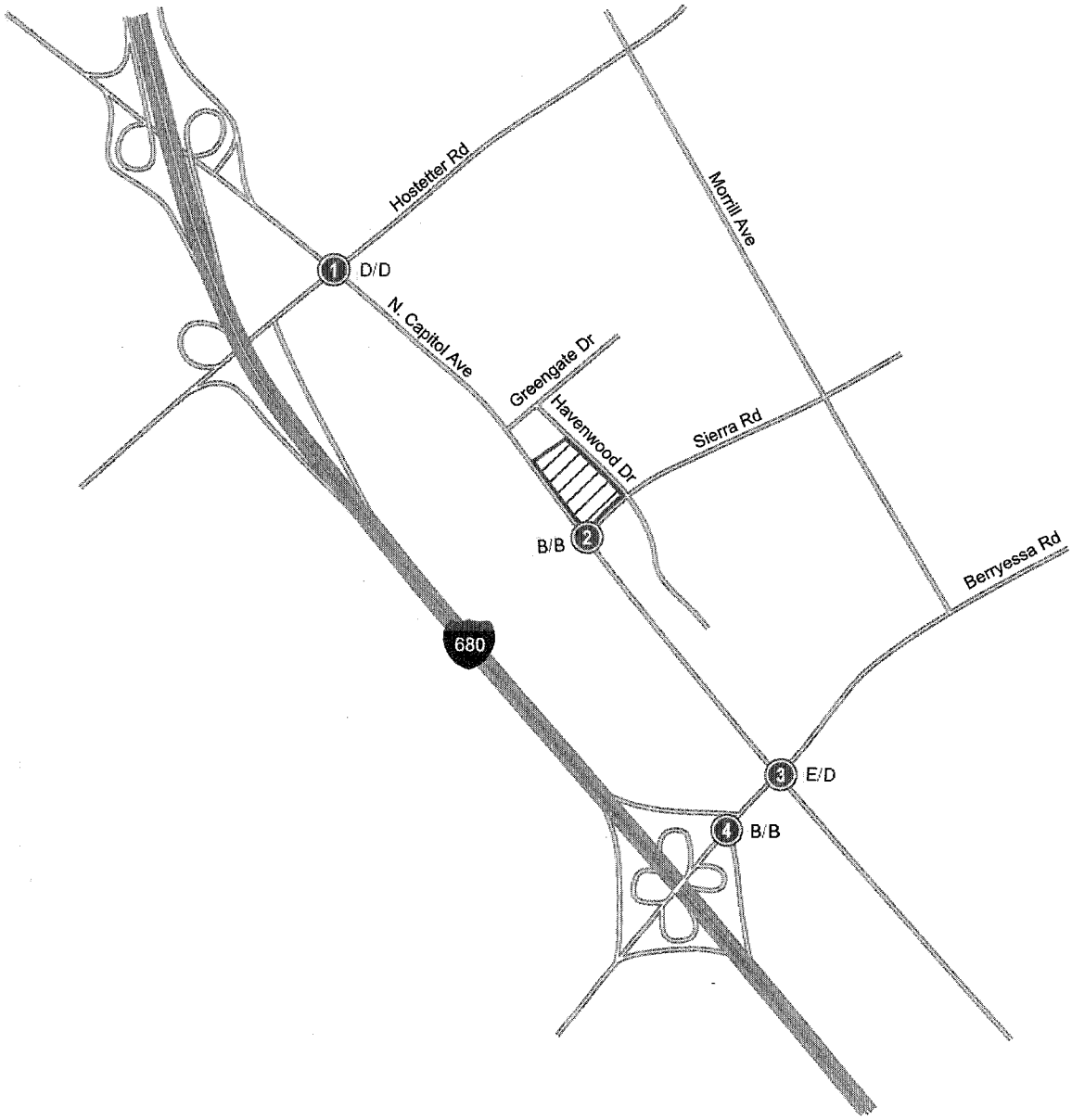
Hostetter Road is an east-west, four-lane divided arterial on the east side of N. Capitol Avenue; and a six-lane divided arterial west of N. Capitol Avenue. Hostetter Road provides access to the project site via N. Capitol Avenue.

Level of Service

In an urban street network, the critical determinants for overall traffic conditions are the operational characteristics of the major intersections. To establish a standard frame of reference when describing traffic flow, the concept of level of service is used. As described by the *Highway Capacity Manual*, the level of service of a facility is a theoretical traffic volume determined by its physical and operational characteristics and by stipulated conditions of traffic flow. Delay is a measure of driver discomfort, frustration, fuel consumption, and lost travel time, which is measured as the average stopped delay per vehicle. Flow conditions vary from unrestricted at Level A to forced flow at Level F, as described below. The major street system in the project site vicinity and the levels of service are shown on the following Major Street System map.

Level of Service	Type of Flow	Traffic Conditions	V/C Ratio	Delay (sec.)
A	Free	No approach phase fully utilized. No vehicle waits longer than one red indication.	<0.60	≤10.0
B	Stable	An occasional approach phase is fully utilized.	0.60-0.69	10.1-20.0
C	Stable	Occasional drivers may have to wait through more than one red signal. Backups may develop behind turning vehicles.	0.70-0.79	20.1-35.0
D	Approaching Unstable	Delays to vehicles may be substantial during short peaks, but periodic clearance of queues prevents excessive backups from developing.	0.80-0.89	35.1-55.0
E	Unstable	Capacity, with sustained delays and backups.	0.90-0.99*	55.1-80.0
F	Forced	Excessive delay.	Varies	>80.0

* In general, V/C ratios could not be greater than 1.00. However, if future demand projections are considered for analytical purposes, a ratio greater than 1.00 might be obtained, indicating that the projected demand would exceed the capacity.



(x) - Major Intersection
x/x - Existing + Approved LOS (am/pm)

Major Street System

Figure 21

Existing Conditions

Local conditions and project impacts are evaluated by TRAFFIX, which is a computer program based on the *Highway Capacity Manual* method for signalized intersections. TRAFFIX evaluates signalized intersection operations on the basis of average delay time for all vehicles at the intersection. Four major intersections that would be affected by the project are reviewed. The General Plan/Transportation Level of Service Policy requires that the minimum overall performance of City streets during peak travel periods should be level of service "D".

The major intersections were evaluated under existing and future traffic conditions to determine their level of service. Future conditions were determined by adding traffic projections from approved projects that have not been occupied, as provided by the City Department of Public Works Development Services Division, to the existing condition.

The following table lists the weighted average delays and equivalent levels of service for the existing and existing plus approved morning and evening peak hours.

Table 7. Existing Levels of Service

		Existing		Existing + Approved	
Intersection	Peak Hour	Delay* *(sec.)*	LOS	Delay* *(sec.)*	LOS
N. Capitol Avenue	a.m.	51.3	D	52.3	D
and Hostetter Road	p.m.	47.0	D	47.5	D
N. Capitol Avenue	a.m.	15.8	B	15.7	B
and Sierra Road	p.m.	13.4	B	13.4	B
N. Capitol Avenue	**a.m.**	**64.4**	**E**	**74.3**	**E**
and Berryessa Road	p.m.	43.2	D	45.1	D
I-680 NB Off-ramp	a.m.	12.7	B	12.3	B
and Berryessa Road	p.m.	17.7	B	18.0	B

*Delay – Average delay for the whole intersection in seconds. LOS = Level of Service

Under the existing plus approved condition, one of the intersections, as shown in the above table in **bold**, is operating below Level D.

Public Transit

Public transit in the project area is provided by the Santa Clara Valley Transportation Authority (VTA). Bus route 61 (Good Samaritan Hospital to Sierra & Piedmont via Camden) operates along Sierra Road and south on N. Capitol Avenue with stops at the Sierra Road and N. Capitol Avenue intersection.

The Alum Rock – Santa Teresa light rail line is located along N. Capitol Avenue. The project site is located within 2,000 feet of both the Hostetter and Berryessa light rail stations.

Congestion Management Program Analysis

A Congestion Management Program (CMP) analysis was not performed because the Santa Clara County Congestion Management Agency, which monitors regional traffic issues, does not require an analysis for small projects of less than 100 peak hour trips.

Freeway Segment Analysis

A freeway level of service analysis was not performed since project trips on freeway segments would not be greater than one percent of the capacity of the segments.

IMPACT AND MITIGATION

ISSUES	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT	SOURCES
16. TRANSPORTATION/TRAFFIC. Would the project:					
a. Exceed the capacity of the existing circulation system, based on an applicable measure of effectiveness (as designated in a general plan policy, ordinance, etc.), taking into account all relevant components of the circulation system including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?			X		76,106
b. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X	27,28
c. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible land uses (e.g., farm equipment)?				X	26,28
d. Result in inadequate emergency access?				X	26,28
e. Conflict with adopted policies, plans or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				X	26,29

Trip Generation

The project traffic generation is estimated in the following table.

Table 8. Project Trip Generation

Land Use	Units	Trip Rate	Daily Trips	A.M. Peak Hour Trips In (35%)	Out (65%)	Total	P.M. Peak Hour Trips In (65%)	Out (35%)	Total
Townhomes	96	7.5	720	25	47	72	47	25	72
9% Transit Reduction			-65	-2	-4	-6	-4	-2	-6
Net Project Trips:			655	23	43	66	43	23	66

Note: The traffic report analyzes the impacts for 96 single family attached residential units as identified on a preliminary plan; however, the proposed Conceptual Site Plan is for 94 units. The impacts for the current plan are, therefore, decreased by approximately 2 percent.

Trip Distribution and Assignment

The project-generated trips were distributed and assigned to the local street system based on existing travel patterns on the surrounding roadway system and the relative locations of complementary land uses. Further trip distributions are detailed in the traffic analysis in the Technical Appendix.

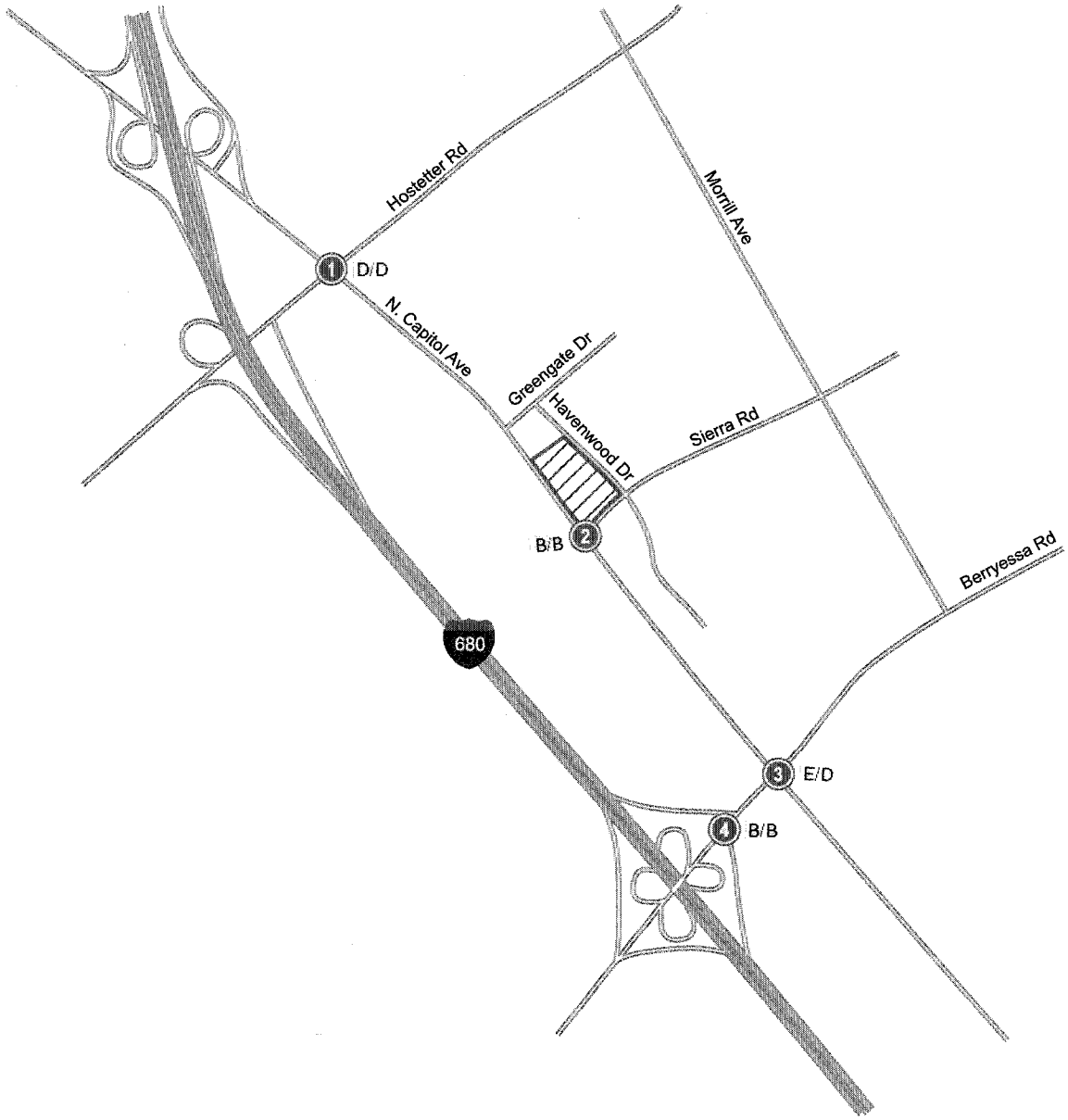
Project Impacts

The major intersections were analyzed for changes in average delay and level of service with the addition of project traffic. The average delays and corresponding levels of service are listed in the following table, and the levels of service are shown on the following Traffic Impacts map.

Table 9. Project Levels of Service

Intersection	Peak Hour	Exist. + Project Delay (*sec.*)	LOS	Exist. + Approved Delay* (*sec.*)	LOS	Ex. + App. + Project Delay* (*sec.*)	LOS	Δ Crit. Delay* (*sec.*)	Δ Crit. V/C Ratio
N. Capitol Avenue	a.m.	51.6	D	52.3	D	52.6	D	0.2	0.003
and Hostetter Road	p.m.	47.3	D	47.5	D	47.7	D	0.2	0.006
N. Capitol Avenue	a.m.	16.2	B	15.7	B	16.1	B	0.6	0.017
and Sierra Road	p.m.	16.8	B	13.4	B	16.7	B	7.1	0.029
N. Capitol Avenue	a.m.	65.6	E	74.3	E	75.8	E	2.5	0.008
and Berryessa Road	p.m.	43.3	D	45.1	D	45.2	D	0.0	0.001
I-680 NB Off-ramp	a.m.	12.8	B	12.3	B	12.4	B	0.1	0.002
and Berryessa Road	p.m.	17.8	B	18.0	B	18.0	B	0.1	0.004

* Delay = Average delay for the whole intersection in seconds.
LOS = Level of Service V/C = Volume to Capacity



(x) - Major Intersection
x/x - Existing + Approved + Project LOS (am/pm)

Traffic Impacts

Figure 22

The project would not change the level of service at any of the four intersections compared to existing conditions. The existing plus approved levels of service at the four intersections would also remain unchanged with the addition of project traffic; and the project would not add four seconds or more to the critical delay and 0.010 or more to the critical V/C ratio at the intersection that is projected to operate at Level E or F. Therefore, the project's traffic impacts would be less-than-significant and no mitigation measures are required to meet the City's Transportation Level of Service Policy.

Operational Issues

The following discussions are on operational issues related to the street system in the project vicinity and access to the project site. While the discussions do indicate that certain improvements are recommended, they are not a result of the project causing substantial safety risks but would improve traffic flow and operations. These issues are not significant impacts within the preceding impacts checklist; therefore, their improvement would not be considered mitigation measures.

Vehicle Queuing and Storage

A vehicle queuing analysis of the three major intersections along N. Capitol Avenue in the project site vicinity indicates that the high demand left-turn pockets that were analyzed would provide sufficient storage for the estimated vehicle queues that would develop under project traffic conditions. The addition of project traffic would, in fact, have very little effect on the vehicle queues.

Transit, Bicycle and Pedestrian Facilities

The small number of potential new transit riders would have very little effect on LRT or bus service in the project area; the potential new riders could be accommodated by the currently available ridership capacity of the transit services.

Class II bicycle lanes exist on N. Capitol Avenue adjacent to the project site, and connect to other bike lanes on Hostetter Road and Berryessa Road. The project would be expected to add an insignificant amount of bicycle traffic to the roadways in the project area.

Pedestrian traffic primarily would be generated by residents of the proposed development walking to and from the nearby transit stops, as well as Cherrywood Elementary School. Some residents also may walk to the nearby retail centers located north of Hostetter Road and south of Berryessa Road, both approximately 0.5 mile from the project site. Havenwood Drive currently has no sidewalk on the west side of the street along the project frontage; however, the project would add sidewalk along this frontage. All of the other roadways in close proximity to the project site have sidewalks on both sides of the street. The existing pedestrian facilities would be adequate to serve the anticipated pedestrian demand.

Site Access and Onsite Circulation

The Conceptual Site Plan shows two right-turn only access driveways: one located on N. Capitol Avenue and one located on Sierra Road. According to City guidelines, both driveways would be of adequate width to serve project-generated traffic.

The proposed 20- to 24-foot-wide drive aisles are less than the City's standard width of 26 feet for two-way drive aisles with 90-degree parking; however, the City may allow a reduction to not less than 20 feet, provided such a reduction in width would not impair the safe and convenient accessibility of the parking spaces.

Each unit is provided with a 2-car garage. Guest parking spaces are provided in onsite surface spaces, as well as on-street along the project frontage on Sierra Road and Havenwood Drive.

The onsite surface parking spaces are shown to be 15 feet long; with a 2-foot overhang into the landscaping, this would meet the City's off-street parking design standard for uniform car spaces (17 feet) or compact spaces (16 feet). A Development Permit may allow up to 40 percent of the off-street parking spaces to be small car spaces, while the remainder must be standard spaces; therefore, the parking spaces should be lengthened accordingly.

MITIGATION MEASURES INCLUDED IN THE PROJECT

None required.

CONCLUSION

The project's impact on transportation / traffic would be a **less-than-significant impact**.

17. UTILITIES AND SERVICE SYSTEMS

SETTING

Sanitary Sewers

There is an existing 8-inch City of San Jose sanitary sewer in N. Capitol Avenue and existing 6-inch City sanitary sewers in Sierra Road and Havenwood Drive. Extensions within the project would be required.

The 8-inch line in N. Capitol Avenue is at or near capacity. Existing flow monitoring data and the City's Sewer Model indicate that the line needs to be upgraded from northerly Battaglia Circle to Hostetter Road. This 3,000-linear-foot project is included in the City's Capital Improvement Program (CIP). The 8-inch line is currently experiencing surcharging at the downstream end near Hostetter Road.

Wastewater Treatment

Wastewater treatment for the City of San Jose is provided by the San Jose-Santa Clara Water Pollution Control Plant (WPCP). Capacity is expected to be available to serve the project based on the current capacity of 167 million gallons per day (MGD). The Water Pollution Control Plant is currently operating under a 120 MGD dry weather flow trigger. This requirement is based upon the State Water Resources Board and the Regional Water Quality Control Board (RWQCB) concerns over the effects of additional freshwater discharges on the saltwater marsh habitat, and pollutants loading to the South Bay from the WPCP. A Growth Management System regulates new development to assure that the capacity is not exceeded. There are programs and services in place to help minimize flows to the Plant and, while plans are in place to ensure Plant compliance with the 120 mgd trigger, those plans call for conservation and water recycling as strategies for ongoing compliance.

Water Supply

There is an existing 12-inch San Jose Water Company (SJWC) water line in N. Capitol Avenue and an existing 6-inch SJWC water line in Havenwood Drive. Extensions within the project would be required.

Storm Drainage Facilities

There is an existing 24- to 27-inch City of San Jose storm drainage line in N. Capitol Avenue and an existing 24-inch City storm drainage line in Sierra Road. Extensions within the project would be required.

Solid Waste / Recycling

Residential solid waste disposal service for the project site is provided by the City of San Jose's Recycle Plus Program, using Garden City Sanitation, Inc. and/or California Waste Solutions. They are currently using the Newby Island sanitary landfill disposal site operated by International Disposal Company. The landfill area has an estimated service life based on

remaining capacity and contractual commitments to 2025. An unlimited residential recycling program in the City currently results in an approximately 50 percent reduction in residential solid waste that typically required disposal in a landfill. The City's Recycle Plus Program is based on a pay-as-you-throw rate structure for garbage and allows for unlimited recycling.

Gas and Electric Service

Natural gas and electric services for San Jose are provided by Pacific Gas and Electric Company. There are existing services in the area.

Telephone Service

Residential telephone service for the project site is provided by AT&T. There is existing service in the area.

IMPACT AND MITIGATION

ISSUES	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT	SOURCES
17. UTILITIES AND SERVICE SYSTEMS. Would the project:					
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			X		28,80
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			28
c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X		28
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			X		28
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		28
f: Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			X		28
g. Comply with federal, state and local statutes and regulations related to solid waste?			X		28

Sanitary Sewers

Sanitary sewer service for the project site is provided by the City of San Jose. The existing sanitary sewer line in N. Capitol Avenue is at or near capacity and is experiencing surcharging near Hostetter Road. The project is estimated to generate additional sewage flow that may result in an increase in sewer surcharge above the City's acceptable level of service standards. The project will be required to upgrade a portion of the downstream line in N. Capitol Avenue near Hostetter Road. The upgrade must be completed prior to occupancy of any of the units in the project. The City of San Jose will share the cost of the improvements with the developer. The remainder of the improvements in N. Capitol Avenue will be done by the City's Capitol Improvement Program (CIP). Extensions within the project would be provided.

Wastewater Treatment

Wastewater treatment for the City of San Jose is provided by the San Jose-Santa Clara Water Pollution Control Plant. The project is estimated to generate an average of approximately 16,900 gallons per day (0.02 MGD) of effluent, based on the Growth Management System's land use/effluent coefficient of 180 gallons per day per single family attached residential unit. High energy efficiency appliances (e.g., Energy Star Certified clothes washers, dishwashers, etc.) would be provided with the project.

Water Supply

Water for the project site is provided by the San Jose Water Company. The existing water lines in N. Capitol Avenue and Havenwood Drive are available and adequate to serve the project. Extensions within the project would be provided. The project is estimated to require approximately 34,600 gallons of water per day, based on 120 gallons per person per day. The project incorporates built-in water savings devices such as shower heads with flow control devices and low flush toilets to reduce water usage.

Storm Drainage Facilities

An increase in impervious surfaces associated with project development would cause an increase in stormwater runoff. Storm drainage service for the project site is provided by the City of San Jose. The existing storm drainage lines in N. Capitol Avenue and Sierra Road are available and adequate to serve the project. Extensions within the project would be provided. An onsite collection system including curbs, gutters and an underground system would be included in the project.

Solid Waste / Recycling

Residential solid waste disposal service for the project site is provided by the City of San Jose. The project is estimated to generate up to approximately 172 tons of solid waste per year, based on 10.0 pounds per unit per day; however, with recycling, the amount disposed of in a landfill could be reduced to approximately 86 tons per year.

Construction / Demolition Debris

The project is also subject to mandatory construction and demolition debris recycling. At least 50 percent of the debris generated from the project must be recycled.

Gas and Electric Service

There are existing Pacific Gas and Electric Company gas and electric services in the area that would be extended as required to serve the project. There is sufficient capacity in this utility system to provide adequate project service.

Telephone Service

There are existing AT&T telephone facilities in the area that would be extended as required to serve the project. There is sufficient capacity in this utility system to provide adequate project service.

MITIGATION MEASURES INCLUDED IN THE PROJECT

Sanitary Sewers

- A portion of the sanitary sewer line in N. Capitol Avenue near Hostetter Road shall be upgraded to its ultimate design size prior to project occupancy on a cost sharing basis with the City of San Jose.

CONCLUSION

The implementation of the above sanitary sewers mitigation measure would reduce the project's impact on utilities and service systems to a **less-than-significant impact with mitigation**.

18. MANDATORY FINDINGS OF SIGNIFICANCE

ISSUES	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
18. MANDATORY FINDINGS OF SIGNIFICANCE.				
a. Does the project have the potential to (1) degrade the quality of the environment, (2) substantially reduce the habitat of a fish or wildlife species, (3) cause a fish or wildlife population to drop below self-sustaining levels, (4) threaten to eliminate a plant or animal community, (5) reduce the number or restrict the range of a rare or endangered plant or animal or (6) eliminate important examples of the major periods of California history or prehistory?		X		
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 and the effects of other current projects.			X	
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		X		

Impact Summary

As discussed in previous sections, the proposed project would have environmental effects that could cause substantial adverse effects on human beings, either directly or indirectly, with respect to air quality, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, and noise. With the implementation of the previously listed Standard Measures and Mitigation Measures Included in the Project, these impacts would be reduced to less-than-significant impacts with mitigation.

APPENDIX

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Although Mindigo & Associates have used their best efforts to prepare a complete and competent report, Mindigo & Associates shall not be liable for cost or damage to any project due to judicial or administrative action, whether or not such action is based on the form or content of this report or portion prepared by Mindigo & Associates. Any services of staff or subconsultants of Mindigo & Associates required by any party in any litigation on or related to this report shall be paid for by the party requesting such services at the current, standard consulting rates of Mindigo & Associates.

INITIAL STUDY / EIR

DISCLOSURE STATEMENT

APPLICANT Trumark Companies

PROJECT TITLE **NORTH CAPITOL VILLAS**
PDC10-025

PROJECT LOCATION Northeasterly quadrant of N. Capitol Avenue and Sierra Road
(1328 N. Capitol Avenue)

Mindigo & Associates has prepared the above Initial Study or Draft Environmental Impact Report, doing business as:

An Individual

The above-named, now has or will have the following direct or indirect economic interest or interests in the development of, or, after its completion, the operation of the project for which the attached Initial Study or Draft EIR has been submitted:

None, Except Fees For The Preparation Of Environmental Studies

I/We declare, under penalty of perjury, that the statements furnished above pertaining to the environmental effects of a proposed project and to my/our economic interest or interests in that project are complete, true and correct to the best of my/our knowledge and belief.

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In order to achieve maximum objectivity in the Environmental Review process, the City requires persons, including individuals, firms, associations, partnerships, trusts, corporations, or companies, who submit to the City applications for Environmental Clearance, or who submit to the City a proposed Draft EIR, to disclose any economic interest in the project which they have derived or will or might derive from the development of, or, after its completion, the operation of the project. This application shall apply to consultants and subcontracted consultants who prepare all, or portions of, the Environmental Clearance document or the proposed Draft EIR. Each proponent, consultant, and subcontracted consultant shall prepare a disclosure statement as presented in this application.

You have an indirect economic interest in the project if your spouse or dependent child or agent acting on your behalf owns or otherwise has an economic interest in the site upon which the project is to be developed or if your spouse or dependent child or agent acting on your behalf has a present or future economic interest in the development of, or, after its completion, operation of the project. Briefly but specifically describe each of your direct and indirect economic interests in the project. You need but disclose the nature of your economic interest in the project, not the amount of said interest. If you have no interest, simply write "none" in the space provided.

Persons and Organizations Consulted

1. **Chris Davenport**, Trumark Companies
2. **Pete Smith**, Civil Engineer, Charles W. Davidson Company
3. **Michelle Fisk**, Planner and Civil Engineer, Charles W. Davidson Company
4. **Michael Mena**, Planner, Department of Planning, Building and Code Enforcement, City of San Jose
5. **Pamela Becker**, Assistant Superintendnt, Business Services, Berryessa Union School District
6. **June Rono**, Director of Facilities and Planning, East Side Union High School District
7. **Grettel Castro-Stanley**, Principal, Independence High School
8. **Karen Mack**, Principal Engineering Technician, Transportation Department, City of San Jose
9. **Tommy Rodriguez**, Engineering Department, San Jose Water Company
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103. **Preliminary Geotechnical Investigation, North Capitol Villas, 1328 North Capitol Avenue, San Jose, California**, Cornerstone Earth Group, May 26, 2010

104. **Phase I Environmental Site Assessment and Preliminary Soil and Soil Vapor Quality Evaluation, 1328 North Capitol Avenue, San Jose, California**, Cornerstone Earth Group, June 15, 2010

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106. **Transportation Impact Analysis, North Capitol Villas**, Hexagon Transportation Consultants, Inc., April 7, 2011

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TECHNICAL APPENDIX

TECHNICAL APPENDIX

Copies of the following consultants' reports, which were prepared for **NORTH CAPITOL VILLAS** and are summarized in this Initial Study, are included in this Technical Appendix or in the CD attached to the back cover of this document. Copies are on file at the City of San Jose Planning Division. In accordance with the State CEQA Guidelines, these reports are incorporated by reference and not reproduced in the body of the Initial Study in order to reduce the size and number of pages.

Air Quality Impact Analysis for the Proposed North Capitol Villas Project, City of San Jose, Donald Ballanti, December, 2010

Arborist Report, N. Capitol Villas, San Jose CA, HortScience, Inc., October, 2010

Photographs of Ordinance Sized Trees

Results of the survey for burrowing owls on the approximately 4.3-acre site located at 1328 North Capitol Avenue, San Jose, California, Live Oak Associates, Inc., March 9, 2011

Historical and Architectural Evaluation of the Property at 1328 N. Capitol Avenue, San Jose, Santa Clara County, California, Urban Programmers, November 8, 2010

Preliminary Geotechnical Investigation, North Capitol Villas, 1328 North Capitol Avenue, San Jose, California, Cornerstone Earth Group, May 26, 2010

Phase I Environmental Site Assessment and Preliminary Soil and Soil Vapor Quality Evaluation, 1328 North Capitol Avenue, San Jose, California, Cornerstone Earth Group, June 15, 2010

Environmental Noise Assessment, Charles M. Salter Associates, Inc., October 13, 2010

Transportation Impact Analysis, North Capitol Villas, Hexagon Transportation Consultants, Inc., April 7, 2011

AIR QUALITY IMPACT ANALYSIS FOR THE PROPOSED NORTH CAPITOL VILLAS PROJECT, CITY OF SAN JOSE

Prepared for:

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December 2010

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INTRODUCTION

The North Capitol Villas project site is the northeast corner of North Capitol Avenue and Sierra Road. The project as proposed would replace a former searchlight rental and sales company and one existing single-family home with 96 townhomes.

This report describes the effects of the proposed project on local and regional air quality. It discusses existing air quality, construction-related impacts, direct and indirect emissions associated with the project, the impacts of these emissions on both the local and regional scale, and mitigation measures to reduce or eliminate any identified significant impacts. The analysis was conducted using guidance provided by the Bay Area Air Quality Management District (BAAQMD).[1]

EXISTING SETTING

Air Pollution Climatology

The amount of a given pollutant in the atmosphere is determined by the amount of pollutant released and the atmosphere's ability to transport and dilute the pollutant. The major determinants of transport and dilution are wind, atmospheric stability, terrain and, for photochemical pollutants, sunshine.

Northwest winds and northerly winds are most common in the project area, reflecting the orientation of the Bay and the San Francisco Peninsula. Winds from these directions carry pollutants released by autos and factories from upwind areas of the Peninsula toward San Jose, particularly during the summer months. Winds are lightest on the average in fall and winter. Every year in fall and winter there are periods of several days when winds are very light and local pollutants can build up.

Pollutants can be diluted by mixing in the atmosphere both vertically and horizontally. Vertical mixing and dilution of pollutants are often suppressed by inversion conditions, when a warm layer of air traps cooler air close to the surface. During the summer, inversions are generally elevated above ground level, but are present over 90 percent of the time in both the morning and afternoon. In winter, surface-based inversions dominate in the morning hours, but frequently dissipate by afternoon.

Topography can restrict horizontal dilution and mixing of pollutants by creating a barrier to air movement. The South Bay has significant terrain features that affect air quality. The Santa Cruz Mountains and Mt. Hamilton Range on either side of the South Bay restrict horizontal dilution, and this alignment of the terrain also channels winds from the north to south, carrying pollution from the northern Peninsula toward San Jose.

The combined effects of moderate ventilation, frequent inversions that restrict vertical dilution and terrain that restricts horizontal dilution give San Jose a relatively high

[1] Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, June 2010.

atmospheric potential for pollution compared to other parts of the San Francisco Bay Area Air Basin and provide a high potential for transport of pollutants to the east and south.

Ambient Air Quality Standards

Criteria Pollutants

Both the U. S. Environmental Protection Agency and the California Air Resources Board have established ambient air quality standards for common pollutants. These ambient air quality standards are levels of contaminants which represent safe levels that avoid specific adverse health effects associated with each pollutant. The ambient air quality standards cover what are called "criteria" pollutants because the health and other effects of each pollutant are described in criteria documents. Table 1 identifies the major criteria pollutants, characteristics, health effects and typical sources. The federal and California state ambient air quality standards are summarized in Table 2.

The federal and state ambient standards were developed independently with differing purposes and methods, although both processes attempted to avoid health-related effects. As a result, the federal and state standards differ in some cases. In general, the California state standards are more stringent. This is particularly true for ozone and particulate matter (PM_{10} and $PM_{2.5}$)

Toxic Air Contaminants

In addition to the criteria pollutants discussed above, Toxic Air Contaminants (TACs) are another group of pollutants of concern. There are many different types of TACs, with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Cars and trucks release at least forty different toxic air contaminants. The most important, in terms of health risk, are diesel particulate, benzene, formaldehyde, 1,3-butadiene and acetaldehyde.

Public exposure to TACs can result from emissions from normal operations, as well as accidental releases. Health effects of TACs include cancer, birth defects, neurological damage and death.

Ambient Air Quality

The BAAQMD maintains a network of monitoring sites in the Bay Area. The closest to the project site is located in downtown San Jose. Table 3 summarizes violations of air quality standards at this monitoring site for the period 2007-2009. Table 3 shows that the federal ambient air quality standards are met in the project area with the exception of ozone and $PM_{2.5}$. State ambient standards are met with the exception of ozone and PM_{10} / $PM_{2.5}$.

Table 1: Major Criteria Pollutants

Pollutant	Characteristics	Health Effects	Major Sources
Ozone	A highly reactive photochemical pollutant created by the action of sunshine on ozone precursors (primarily reactive hydrocarbons and oxides of nitrogen. Often called photochemical smog.	Eye Irritation Respiratory function impairment.	The major sources ozone precursors are combustion sources such as factories and automobiles, and evaporation of solvents and fuels.
Carbon Monoxide	Carbon monoxide is an odorless, colorless gas that is highly toxic. It is formed by the incomplete combustion of fuels.	Impairment of oxygen transport in the bloodstream. Aggravation of cardiovascular disease. Fatigue, headache, confusion, dizziness. Can be fatal in the case of very high concentrations.	Automobile exhaust, combustion of fuels, combustion of wood in woodstoves and fireplaces.
Nitrogen Dioxide	Reddish-brown gas that discolors the air, formed during combustion.	Increased risk of acute and chronic respiratory disease.	Automobile and diesel truck exhaust, industrial processes, fossil-fueled power plants.
Sulfur Dioxide	Sulfur dioxide is a colorless gas with a pungent, irritating odor.	Aggravation of chronic obstruction lung disease. Increased risk of acute and chronic respiratory disease.	Diesel vehicle exhaust, oil-powered power plants, industrial processes.
Particulate Matter	Solid and liquid particles of dust, soot, aerosols and other matter which are small enough to remain suspended in the air for a long period of time.	Aggravation of chronic disease and heart/lung disease symptoms.	Combustion, automobiles, field burning, factories and unpaved roads. Also a result of photochemical processes.

Table 2: Federal and State Ambient Air Quality Standards

Air Pollutant	Averaging Time	California Standard	Attainment Status	Federal Standard	Attainment Status
Ozone (O_3)	1 hour	0.09 ppm	N	—	
	8 hour	0.070 ppm	N	0.075 ppm	N
Respirable particulate matter (PM_{10})	24 hour	50 $\mu g/m^3$	N	150 $\mu g/m^3$	U
	Mean	20 $\mu g/m^3$	N	—	
Fine particulate matter ($PM_{2.5}$)	24 hour	—		35 $\mu g/m^3$	N
	Mean	12 $\mu g/m^3$	N	15.0 $\mu g/m^3$	A
Carbon monoxide (CO)	1 hour	20 ppm	A	35 ppm	A
	8 hour	9.0 ppm	A	9 ppm	A
Nitrogen dioxide (NO_2)	1 hour	0.18 ppm	A	—	
	Mean	0.030 ppm		0.053 ppm	A
Sulfur dioxide (SO_2)	1 hour	0.25 ppm		—	
	24 hour	0.04 ppm		0.075 ppm	A
Lead	30-day	1.5 $\mu g/m^3$	A	—	
	Quarter	—		1.5 $\mu g/m^3$	A
Sulfates	24 hour	25 $\mu g/m^3$	A	No Federal Standard	
Hydrogen sulfide	1 hour	0.03 ppm	U		
Vinyl chloride	24 hour	0.01 ppm	No Information Available		

Abbreviations:

A = Attainment
N = Nonattainment
U = Unclassified
ppm = parts per million
$\mu g/m^3$ = micrograms per cubic meter
30-day = 30-day average
Quarter = Calendar quarter
Mean = Annual Arithmetic Mean

Source: Bay Area Air Quality Management District, *Air Quality Standards and Attainment Status*, http://www.arb.ca.gov/research/aaqs/aaqs2.pdf dated 9/808/10.

Table 3: Summary of Air Quality Data for Downtown San Jose

Pollutant	Standard	Days Exceeding Standard in:		
		2007	2008	2009
Ozone	State 1-Hour	0	1	0
Ozone	Federal 8-Hour	0	2	0
Ozone	State 8-Hour	0	3	0
Carbon Monoxide	State/Federal 8-Hour	0	0	0
Nitrogen Dioxide	State 1-Hour	0	0	0
PM_{10}	Federal 24-Hour	0	0	0
PM_{10}	State 24-Hour	3	1	0
$PM_{2.5}$	Federal 24-Hour	9	5	0

Source: Air Resources Board, Aerometric Data Analysis and Management (ADAM), 2010. (http://www.arb.ca.gov./adam/cgi-bin/adamtop/d2wstart)

Attainment Status and Regional Air Quality Plans

The federal Clean Air Act and the California Clean Air Act of 1988 require that the State Air Resources Board, based on air quality monitoring data, designate portions of the state where the federal or state ambient air quality standards are not met as "nonattainment areas". Because of the differences between the national and state standards, the designation of nonattainment areas is different under the federal and state legislation. The U. S. Environmental Protection Agency has classified the San Francisco Bay Area as a non-attainment area for the federal 8-hour ozone standard and $PM_{2.5}$ standards. The Bay Area was designated as unclassifiable/attainment for the federal PM_{10} standard.

Under the California Clean Air Act Santa Clara County is a non-attainment area for ozone and particulate matter (PM_{10} and $PM_{2.5}$). The county is either attainment or unclassified for other pollutants.

Greenhouse Gases and Climate Change

Definition of Greenhouse Gases

Gases that trap heat in the atmosphere are referred to as greenhouse gases (GHGs) because they capture heat radiated from the sun as it is reflected back into the atmosphere, much like a greenhouse does. The accumulation of GHG's has been implicated as a driving force for global climate change. Definitions of climate change vary between and across regulatory authorities and the scientific community, but in general can be described as the changing of the earth's climate caused by natural fluctuations and anthropogenic activities which alter the composition of the global atmosphere.

California State law defines greenhouse gases as:

Carbon Dioxide (CO_2)
Methane (CH_4)
Nitrous Oxide (N_2O)
Hydrofluorocarbons
Perfluorocarbons
Sulfur Hexafluoride

According to the BAAQMD guidance, the most common GHG that results from human activity is carbon dioxide, followed by methane and nitrous oxide. The last 3 of the six identified GHGs are primarily emitted by industrial facilities. For this analysis, only carbon dioxide, methane and nitrous oxide emissions will be considered. These primary greenhouse gases are described below.

Carbon dioxide is primarily generated by fossil fuel combustion in stationary and mobile sources. Due to the emergence of industrial facilities and mobile sources in the past 250 years, the concentration of carbon dioxide in the atmosphere has increased 35 percent.

Carbon dioxide is the most widely emitted GHG and is the reference gas (Global Warming Potential of 1) for determining GWPs for other GHGs.

Methane is emitted from biogenic sources, incomplete combustion in forest fires, landfills, manure management, and leaks in natural gas pipelines. In the United States, the top three sources of methane are landfills, natural gas systems, and enteric fermentation. Methane is the primary component of natural gas, which is used for space and water heating, steam production, and power generation. The GWP of methane is 21.

Nitrous oxide is produced by both natural and human-related sources. Primary human-related sources include agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic acid production, and nitric acid production. The GWP of nitrous oxide is 310.

Greenhouse Gas Effects

There is international scientific consensus that human-caused increases in GHGs have and will continue to contribute to global warming, although there is uncertainty concerning the magnitude and rate of the warming. Potential global warming impacts in California may include, but are not limited to, loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years. Secondary effects are likely to include a global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity.

Federal Greenhouse Gas Regulations

In September 2009, EPA issued a final rule for mandatory reporting of GHGs from large GHG emissions sources in the United States. In general, this national reporting requirement will provide EPA with accurate and timely GHG emissions data from facilities that emit 25,000 metric tons or more of CO_2 per year. An estimated 85% of the total U.S. GHG emissions, from approximately 10,000 facilities, is covered by this final rule.

In April 2009 EPA published their Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases under the CCA (Endangerment Finding) in the Federal Register. The Administrator proposed the finding that atmospheric concentrations of GHGs endanger the public health and welfare within the meaning of Section 202(a) of the CCA. The final finding was released on December 7, 2009. The findings do not in and of themselves impose any emission reduction requirements but rather allow EPA to finalize the GHG standards proposed earlier this year for new light-duty vehicles as part of the joint rulemaking with the Department of Transportation.

State Greenhouse Gas Regulations

Assembly Bill 1493 (2002)

AB 1493 required that ARB develop and adopt, by January 1, 2005, regulations that achieve "the maximum feasible reduction of greenhouse gases emitted by passenger

vehicles and light-duty trucks and other vehicles determined by ARB to be vehicles whose primary use is noncommercial personal transportation in the state."

To meet the requirements of AB 1493, in 2004 ARB approved amendments to the California Code of Regulations (CCR) adding GHG emissions standards to California's existing standards for motor vehicle emissions. These amendments require automobile manufacturers to meet fleet-average GHG emissions limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty passenger vehicle weight classes. In December 2004, a group of car dealerships, automobile manufacturers, and trade groups representing automobile manufacturers filed suit against ARB to prevent enforcement of AB 1493. On December 12, 2007, the Court found that if California receives appropriate authorization from EPA (the last remaining factor in enforcing the standard), these regulations would be consistent with and have the force of federal law, thus, rejecting the automakers' claim. This authorization to implement more stringent standards in California was requested in 2005. Since that time, EPA failed to act on granting California authorization to implement the standards. California filed suit against EPA for the delay. In December 2007, EPA Administrator Stephen Johnson denied California's request for the waiver to implement AB 1493. The state of California filed suit against EPA for its decision to deny the CAA waiver. The recent change in presidential administration directed EPA to reexamine its position for denial of California's CAA waiver and for its past opposition to GHG emissions regulation. California received the waiver, notwithstanding the previous denial by EPA, on June 30, 2009.

Assembly Bill 32 (2006), California Global Warming Solutions Act

In September 2006, the governor of California signed AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires the reduction of statewide GHG emissions to 1990 levels by 2020. This equates to an approximate 15 percent reduction compared to existing statewide GHG emission levels or a 30 percent reduction from projected 2020 "business as usual" emission levels. The required reduction will be accomplished through an enforceable statewide cap on GHG emissions beginning in 2012.

AB 32 directs ARB to develop and implement regulations that reduce statewide GHG emissions generated by stationary sources. Specific actions required of ARB under AB 32 include adoption of a quantified cap on GHG emissions that represent 1990 emissions levels, institution of a schedule to meet the emissions cap, and development of tracking, reporting, and enforcement mechanisms to ensure that the state achieves the reductions in GHG emissions needed to meet the cap.

AB 32 Climate Change Scoping Plan

In December 2008, ARB adopted its *Climate Change Scoping Plan*, which contains the main strategies California will implement to achieve reduction of approximately 169 million metric tons (MMT) of CO_2e, or approximately 30% from the state's projected 2020 emission level of 596 MMT of CO_2e under a business-as-usual scenario (this is a reduction of 42 MMT CO2e, or almost 10%, from 2002-2004 average emissions). The *Scoping Plan* also includes ARB-recommended GHG reductions for each emissions sector of the state's

GHG inventory. The Scoping Plan calls for the largest reductions in GHG emissions to be achieved by implementing the following measures and standards:

- improved emissions standards for light-duty vehicles
- the Low-Carbon Fuel Standard
- energy efficiency measures in buildings and appliances and the widespread development of combined heat and power systems , and
- a renewable portfolio standard for electricity production.

Senate Bills 1078 and 107 and Executive Order S-14-08

SB 1078 requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 changed the target date to 2010. In November 2008 Governor Schwarzenegger signed Executive Order S-14-08, which expands the state's Renewable Energy Standard to 33 percent renewable power by 2020.

Senate Bill 1368 (2006)

SB 1368 is the companion bill of AB 32 and was signed by Governor Schwarzenegger in September 2006. SB 1368 required the California Public Utilities Commission (PUC) to establish a greenhouse gas emission performance standard for baseload generation from investor owned utilities by February 1, 2007. The California Energy Commission (CEC) must establish a similar standard for local publicly owned utilities by June 30, 2007. These standards cannot exceed the greenhouse gas emission rate from a baseload combined-cycle natural gas fired plant. The legislation further requires that all electricity provided to California, including imported electricity, must be generated from plants that meet the standards set by the PUC and CEC.

Senate Bill 97 (2007)

SB 97 acknowledges climate change is a prominent environmental issue that requires analysis under CEQA. This bill directed the Governor's Office of Planning and Research (OPR) to prepare, develop, and transmit to the California Resources Agency by July 1, 2009 guidelines for mitigating GHG emissions or the effects of GHG emissions, as required by CEQA. The California Resources Agency is required to certify and adopt these guidelines by January 1, 2010.

Senate Bill 375 (2008)

SB 375, signed in September 2008, aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. As part of the alignment, SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a Sustainable Communities Strategy (SCS) or Alternative Planning Strategy (APS) which prescribes land use allocation in that MPO's Regional Transportation Plan (RTP). The ARB, in consultation

with MPOs, is required to provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035.

Executive Order S-3-05 (2005)

Governor Schwarzenegger signed Executive Order S-3-05 on June 1, 2005 which proclaimed California is vulnerable to the impacts of climate change. The executive order declared increased temperatures could reduce snowpack in the Sierra Nevada Mountains, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the executive order established targets for total GHG emissions which include reducing GHG emissions to the 2000 level by 2010, to the 1990 level by 2020, and to 80 percent below the 1990 level by 2050.

The executive order also directed the secretary of the California Environmental Protection Agency to coordinate a multiagency effort to reduce GHG emissions to the target levels. To comply with the executive order, the Secretary of the California Environmental Protection Agency created the California Climate Action Team which is made up of members from various state agencies and commissions. The California Climate Action Team released its first report in March 2006 of which proposed achieving the GHG emissions targets by building on voluntary actions of California businesses and actions by local governments and communities along with continued implementation of state incentive and regulatory programs.

Executive Order S-13-08

Governor Schwarzenegger signed Executive Order S-13-08 on November 14, 2008 which directs California to develop methods for adapting to climate change through preparation of a statewide plan. The assessment report is required to be completed by December 1, 2010 and required to include the following four items:

- Project the relative sea level rise specific to California by taking into account issues such as coastal erosion rates, tidal impacts, El Niño and La Niña events, storm surge, and land subsidence rates;
- Identify the range of uncertainty in selected sea level rise projections;
- Synthesize existing information on projected sea level rise impacts to state infrastructure (e.g., roads, public facilities, beaches), natural areas, and coastal and marine ecosystems; and
- Discuss future research needs relating to sea level rise in California.

Executive Order S-1-07

Governor Schwarzenegger signed Executive Order S-1-07 in 2007 which proclaimed the transportation sector as the main source of GHG emissions in California. The executive order proclaims the transportation sector accounts for over 40 percent of statewide GHG

emissions. The executive order also establishes a goal to reduce the carbon intensity of transportation fuels sold in California by a minimum of 10 percent by 2020.

Local Greenhouse Gas Regulations

The Bay Area Air Quality Management District has established a climate protection program to reduce pollutants that contribute to global climate change and affect air quality in the Bay Area. The climate protection program includes measures that promote energy efficiency, reduce vehicle miles traveled, and develop alternative sources of energy all of which assist in reducing emissions of GHG and in reducing air pollutants that affect the health of residents. BAAQMD also seeks to support current climate protection programs in the region and to stimulate additional efforts through public education and outreach, technical assistance to local governments and other interested parties, and promotion of collaborative efforts among stakeholders.

Sources of Greenhouse Gas Emissions

Anthropogenic GHG emissions worldwide as of 2005 totaled approximately 30,800 CO_2 equivalent million metric tons ($MMTCO_2E$).[2] The United States was the top producer of greenhouse gas emissions as of 2005. The primary greenhouse gas emitted by human activities in the United States was CO_2, representing approximately 84 percent of total greenhouse gas emissions. Carbon dioxide from fossil fuel combustion, the largest source of US greenhouse gas emissions, accounted for approximately 80 percent of US GHG emissions.[3]

The primary contributors to GHG emissions in California are transportation, electric power production from both in state and out-of-state sources, industry, agriculture and forestry, and other sources, which include commercial and residential activities. These primary contributors to California's GHG emissions and their relative contributions are presented in Table 4.

Sensitive Receptors

The Bay Area Air Quality Management District defines sensitive receptors as facilities where sensitive receptor population groups (children, the elderly, the acutely ill and the chronically ill) are likely to be located. These land uses include residences, schools, playgrounds, child care centers, retirement homes, convalescent homes, hospitals and medical clinics. There are numerous residences near or adjacent to the project site. Cherrywood Elementary School is located northeast of the site beyond residences across Havenwood Drive from the site.

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[2] The CO_2 equivalent emissions are commonly expressed as "million metric tons of carbon dioxide equivalent ($MMTCO_2E$)".

[3] US Environmental Protection Agency, *Inventory of US Greenhouse Gas Emissions and Sinks 1990-2006,* 2008.

Table 4: GHG Sources In California, 2004

Source Category	Annual GHG Emissions ($MMTCO_2E$)	Percent of Total
Agriculture	27.9	5.8
Commercial Uses	12.8	2.6
Electricity Generation	119.8	24.7
Forestry (Excluding sinks)[1]	0.2	0.0
Industrial Uses	96.2	19.9
Residential Uses	29.1	6.0
Transportation	182.4	37.7
Other	16.0	3.3
Totals	484.4	100.0

[1] Emissions are for the forestry industry. Forests themselves are a sink for carbon dioxide, as photosynthesis removes carbon dioxide from the atmosphere.

Source: California Air Resources Board, *California 1990 Greenhouse Gas Emissions Level and 2020 Emissions Limit,* 2007.

Significance Criteria

Air Quality

California Environmental Quality Act (CEQA) guidelines provide that a project would have a significant air quality impact if it would:

- Conflict with or obstruct implementation of the applicable air quality plan,
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation,
- 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 which exceed quantitative threshold for ozone precursors),
- Expose sensitive receptors to substantial pollutant concentrations, or
- Create objectionable odors affecting a substantial number of people.

The document *CEQA Air Quality Guidelines*[4] provide refinements to the definition of a significant air quality impact. BAAQMD significance thresholds are summarized in Table 5. It is the Air District's policy that the adopted thresholds apply to projects for which a Notice of Preparation is published, or environmental analysis begins, on or after the applicable effective date. The adopted CEQA thresholds – *except for the risk and hazards thresholds for new receptors* – were effective June 2, 2010. The risk and hazards thresholds for new receptors are effective January 1, 2011. The risk and hazards thresholds would not apply to the proposed project, and are not discussed further in this analysis.

According to BAAQMD guidance, construction dust impacts are determined by whether Best Management Practices are to be utilized.

Greenhouse Gases

California Environmental Quality Act (CEQA) guidelines provide that a project would have a significant GHG impact if it would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; and/or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs.

The BAAQMD significance threshold for GHG emissions is that a development project, other than a stationary source, would have significant cumulative impact unless:

- The project can be shown to be in compliance with a qualified Climate Action Plan; or

[4] Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, June 2010.

- Project emissions of CO_2 equivalent GHGs (CO_2e) are less than 1,100 metric tons per year; or
- Project emissions of CO_2 equivalent GHGs are less than 4.6 metric tons per year per service population (residents plus employees).

IMPACTS AND MITIGATION

1. Air Quality

Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

The San Francisco Bay Area Air Basin is currently non-attainment for ozone (state and federal ambient standards) and particulate matter ($PM_{2.5}$ and PM_{10}) (state ambient standard). While an air quality plan exists for ozone, none currently exists for particulate matter. The *Bay Area 2010 Clean Air Plan*[5] is the current ozone air quality plan.

A project would be judged to conflict with or obstruct implementation of the regional air quality plan if it would be inconsistent with the growth assumptions, in terms of population, employment or regional growth in Vehicle Miles Traveled. This could occur if a project required a general plan amendment and the proposed new zoning would result in greater vehicle traffic than would occur with the current zoning. The project does not change land use designation. Therefore, it could not conflict with or obstruct implementation of plan.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Development projects in the Bay Area are most likely to violate an air quality standard or contribute substantially to an existing or projected air quality violation through generation of vehicle trips. New vehicle trips add to carbon monoxide concentrations near streets providing access to the site. Carbon monoxide is an odorless, colorless poisonous gas whose primary source in the Bay Area is automobiles. Concentrations of this gas are highest near intersections of major roads.

The BAAQMD has developed a preliminary screening methodology that provides a conservative indication of whether the implementation of a proposed project would result in CO emissions that exceed the CO thresholds of significance. For a development proposal, a proposed project would result in a less-than-significant impact to localized CO concentrations if the following screening criteria are met:

- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.
- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

The project would not increase traffic volumes at affected intersections to more than

[5] Bay Area Air Quality Management District et al., *Bay Area 2010 Clean Air Plan*, September 15, 2010.

44,000 vehicles per hour, and would not affect any intersections where vertical and/or horizontal mixing is substantially limited. Based on the BAAQMD criteria, the proposed project would have a less-than-significant impact on carbon monoxide concentrations

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 which exceed quantitative thresholds for ozone precursors)?

Construction

In addition to demolition, construction activities would include site excavation and grading as well as general construction. Heavy duty construction equipment, construction-related on-road trucks, and worker vehicles would also result in exhaust emissions of ROG, NOx, PM_{10}, and $PM_{2.5}$ during construction of the proposed project. Exhaust emissions would vary depending on the number and type of construction equipment used, number of truck trips to the site, and number of workers present. Model output is included in the Appendix.

The URBEMIS2007 model was used to quantify construction emissions. Construction related emissions for the proposed project are presented in Table 6. The estimated emissions consider the following basic construction phases: demolition, excavation/grading, paving, building construction, and application of architectural coatings. To be consistent with the BAAQMD thresholds of significance, a weighted-average emission, in pounds per day, was calculated using the URBEMIS2007 output.

The average emissions shown in Table 6 are well below the BAAQMD thresholds of significance. This would be a less-than-significant impact.

Operation

Additional trips to and from the project and area sources associated with project land uses would result in new air pollutant emissions within the air basin. Regional emissions associated with the project have been calculated using the URBEMIS-2007 emission model. Model output is included in the Appendix.

The incremental daily emission increase and annual emissions associated with project build out are identified in Table 7 for ROG, NO_x (two precursors of ozone), PM_{10} and $PM_{2.5}$. Also shown are the BAAQMD daily and annual thresholds of significance. Project emissions shown in Table 7 would not exceed the BAAQMD thresholds of significance, so the proposed project would have a less-than-significant effect on regional air quality.

d) Expose sensitive receptors to substantial pollutant concentrations?

Construction

Table 6: Average Daily Construction Emissions in Pounds Per Day

	ROG	NO_x	PM_{10} (Exhaust)	$PM_{2.5}$ (Exhaust)
Construction Emissions	6.73	17.76	0.99	0.91
BAAQMD Threshold of Significance	**54.00**	**54.00**	**82.00**	**54.00**
Significant?	**No**	**No**	**No**	**No**

ROG = Reactive Organic Gases
NO_x = Nitrogen Oxides
PM_{10} = Particulate Matter, 10 micron
$PM_{2.5}$ = Particulate Matter, 2.5 micron

Table 7: Average Daily and Annual Operational Emissions

	ROG	NO_x	PM_{10}	$PM_{2.5}$
Average Daily Emission (Pounds/Day)				
Project Emissions	23.79	9.26	17.47	9.40
BAAQMD Threshold of Significance	**54.00**	**54.00**	**82.00**	**54.00**
Significant?	**No**	**No**	**No**	**No**
Annual Emissions (Tons/Year)				
Project Emissions	2.44	1.64	0.25	0.36
BAAQMD Threshold of Significance	**10.0**	**10.0**	**15.0**	**10.0**
Significant?	**No**	**No**	**No**	**No**

ROG = Reactive Organic Gases
NO_x = Nitrogen Oxides
PM_{10} = Particulate Matter, 10 micron
$PM_{2.5}$ = Particulate Matter, 2.5 micron

Activities associated with demolition, site preparation, and construction would generate short-term emissions of fugitive dust. The effects of construction activities would be increased dustfall and locally elevated levels of PM_{10} and $PM_{2.5}$ downwind of construction activity. Construction dust has the potential for creating a nuisance at nearby properties. This is considered a potentially significant impact.

Mitigation Measure: The BAAQMD threshold of significance for construction dust impacts is whether Best Management Practices (BMPs) are to be utilized. Consistent with guidance from the BAAQMD, the following Best Management Practices shall be required of construction contracts and specifications for all construction:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

The above measures include all basic BMPs identified by the Bay Area Air Quality Management District. According to the District threshold of significance for construction impacts, implementation of the measures would reduce construction dust impacts of the project to a less-than-significant level.

Operation

The project would be a new sensitive receptor. The California Air Resources Board recently published an air quality/land use handbook developed in response to recent studies that have demonstrated a link between exposure to poor air quality and respiratory illnesses, both cancer and non-cancer related.[6] The CARB handbook recommends that planning agencies strongly consider proximity to sources of Toxic Air Contaminants when siting "sensitive" land uses such as homes, medical facilities, daycare centers, schools and playgrounds. Air pollution sources of concern include freeways, rail yards, ports, refineries, distribution centers, chrome plating facilities, dry cleaners and large gasoline service stations.

There are no stationary or major mobile sources of TACs within the CARB's recommended setback distance from the project site. This impact would be less-than-significant.

e) Create objectionable odors affecting a substantial number or people?

The proposed project would not include uses that have been identified by BAAQMD as potential sources of objectionable odors. Sources of odors include restaurants, manufacturing plants, and agricultural operations and industrial operations such as wastewater treatment plants and solid waste transfer stations or landfills.

As a new sensitive receptor for odors, the project is quite distant from the types of land uses that identified by the BAAQMD as having potential to create objectionable odors. Therefore the proposed project would have a less than significant odor impact because it would not frequently create substantial objectionable odors affecting a substantial number of people.

2. Global Warming Gases

Would the project:

e) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, or

f) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The project's incremental increase in GHG emissions associated with traffic increases, and direct and indirect energy use would contribute to regional and global increases in GHG emissions and associated climate change effects. Table 8 shows estimated GHG emissions for the project calculated using the BAAQMD's BGM Model. The methodology and assumptions used in calculating GHG emissions are described in the Appendix.

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[6] California Air Resources Board, *Air Quality and Land Use Handbook: A Community Health Perspective*, April 2005.

The City of San Jose does not currently have a qualified Climate Action Plan, so the significance of the project's GHG emission is based on the following two performance standards:

1. Project emissions of CO_2 equivalent GHGs (CO_2e) are less than 1,100 metric tons per year; or
2. Project emissions of CO_2 equivalent GHGs are less than 4.6 metric tons per year per service population (residents plus employees).

Project net annual emissions shown in Table 8 would exceed the 1100 metric ton per year performance standard but, based on an estimated 3 persons per household, the emission per service population would be 4.27 metric tons per year, which is less than the District's 4.6 metric tons per year per service population performance standard. The project would therefore have a less-than-significant impact on greenhouse gas emissions.

GHG emissions estimates in Table 8 do not reflect recent changes to building codes. The California Building Standards Commission (CBSC) recently adopted statewide green building standards-the first statewide green building standards in the nation. Known as CALGREEN, the regulations will go into effect on January 1, 2011. The 2010 Green Building Standards Code will require:

- 20 percent mandatory reduction in indoor water use, with voluntary goal standards for 30, 35 and 40 percent reductions;
- Separate water meters for nonresidential buildings' indoor and outdoor water use, with a requirement for moisture-sensing irrigation systems for larger landscape projects;
- Diversion of 50 percent of construction waste from landfills, increasing voluntarily to 65 and 75 percent for new homes and 80 percent for commercial projects;
- Mandatory inspections of energy systems (i.e. heat furnace, air conditioner, mechanical equipment) for nonresidential buildings over 10,000 square feet;
- Low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring and particle board.

APPENDIX

URBEMIS 2007 PROGRAM

Estimates of construction phase emissions and operational emissions generated by project traffic and area sources were made using a program called URBEMIS-2007 (Version 9.2.4). URBEMIS-2007 is a program that estimates the emissions that result from development projects. Land use projects can include residential uses such as single-family dwelling units, apartments and condominiums, and nonresidential uses such as shopping centers, office buildings, and industrial facilities. URBEMIS-2007 contains default values for much of the information needed to calculate emissions. However, project-specific, user-supplied information can also be used when it is available.

Construction Emissions

The URBEMIS-2007 program (Version 9.2.4) was used to calculate construction emissions. The project would result in the construction of 96 townhomes over an assumed 30-month period. Since no specific construction details were is available, the analysis used URBEMIS-2007 default estimates for the phasing of construction activities, equipment usage and construction travel.

On-Road Vehicular Emissions

Inputs to the URBEMIS-2007 program include trip generation rates, vehicle mix, average trip length by trip type and average speed. Default trip lengths and average trip speeds for Santa Clara County were used. The analysis was carried out assuming a 2012 vehicle mix.

Area Source Emissions

Area source emissions were also quantified using the URBEMIS-2007 program. The URBEMIS-2007 estimated emissions from the following sources:

Natural Gas Combustion
Hearth Emissions
Landscaping Emissions
Consumer Products
Architectural Coatings

Natural gas emissions result from the combustion of natural gas for space heating and water heating. Estimates are based on the size of project.

Hearth emissions are estimated by using county-specific estimates of types of wood-burning devices and amounts of fuels burned. Default values for Santa Clara County were used.

URBEMIS-2007 calculates emissions from fuel combustion and evaporation of unburned fuel by landscape maintenance equipment. Equipment in this category includes lawn mowers, roto-tillers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers used in maintenance of the site.

Consumer product emissions are ROG emissions from aerosol cans and other consumer products associated with residential uses.

Architectural coating emissions result from the evaporation of solvents contained in paints, varnished, primers and other surface coatings associated with maintenance of structures. This category of emission is associated with operation of project land uses rather than with initial construction of the project. The default assumption is that 10% of structures will be painted each year. The URBEMIS 2007 program utilizes VOC (volatile organic compounds) content limits as they have been specified by each air district.

The URBEMIS-2007 program was used to quantify emissions separately for summer, winter and on an annual basis. As wintertime emissions were greater, these were used. The program output is attached.

GREEN HOUSE GAS EMISSIONS METHODOLOGY

Greenhouse gas emissions were estimated using the BGM Model developed by the Bay Area Air Quality Management District.[7] The Bay Area Air Quality Management District's (BAAQMD's) Greenhouse Gas Model (BGM) is an Excel spreadsheet program that allows users to estimate operational greenhouse gas (GHG) emissions from land development projects. BGM reads URBEMIS2007 project files to generate a portion of a project's GHG emission estimates.

The summary output of the BGM model is attached.

Transportation

BGM imports transportation emissions in tons of CO_2 per year as estimated by URBEMIS. BGM first converts the URBEMIS value to metric tons CO_2 per year by multiplying by 2000 lbs/ton / 2204 lbs/metric ton, and then BGM adjusts transportation emissions to account for the Pavley regulations.

After the Pavley calculations have been made, BGM converts CO_2 emissions into CO2e emissions to account for the U.S. EPA finding that GHG emissions from other pollutants – CH_4, N_2O, and refrigerants from leaking air conditions – account for 5% of total GHGs from vehicles, after each pollutant's global warming potential has been taken into account.[8]

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[7] Bay Area Air Quality Management District, *Draft Bay Area Air Quality Management District Greenhouse Gas Model User's Manual*, April 29, 2010.

[8] U.S. EPA, *Emission Facts: Greenhouse Gas Emissions from a Typical Passenger Vehicle*, 2005.

Finally, BGM adjusts transportation emissions to account for the Low Carbon Fuels Rule (LCFR).

Area Sources

Area source emissions use as a starting point the area source emissions for hearths and landscape maintenance equipment as calculated by URBEMIS2007, version 9.2.4. The hearth and landscape maintenance CO_2 emissions (English tons per year) are imported from URBEMIS into BGM and converted to metric tons. The consumer product and architectural coatings categories in URBEMIS do not include any GHG emissions and, consequently, are not imported into BGM. Although the area source component of URBEMIS estimates natural gas-related CO_2 emissions, those emissions are not imported into BGM. Instead, natural gas related- CO_2 emissions are calculated as part of Electricity and Natural Gas emissions as explained in the following section.

Once BGM has imported hearth and landscape maintenance equipment, two additional calculations are made, both for hearth emissions. First, BGM estimates N_2O emissions associated with wood burning fireplaces and natural gas fireplaces.[9,10] Then, CH_4 emissions are estimated for wood burning stoves and natural gas fireplaces.[11]

Electricity and Natural Gas

BGM imports project specific information directly from URBEMIS, specifically the size of each land use: number of single family and multi-family units and the square footage of non-residential land uses. Residential rates are taken from the California Residential Appliance Saturation Study, published by the California Energy Commission. The survey contains natural gas (and electricity) consumption data by major utility and climate zone, and by type of residence.

The BGM model uses emissions factors that are applicable to projects in the Bay Area. Usage rates for natural gas and electricity were used for the appropriate climate zone.

Once electricity and natural gas use has been estimated, BGM estimates GHG emissions using CO_2, CH_4, and N_2O emission factors. BGM uses California electricity and natural gas GHG emission factors as reported in the California Climate Action Registry's General Reporting Protocol, version 3.1.[12] The resulting emissions are then converted to CO_2e.

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[9] U.S. EPA, *AP-42 Fifth Edition*, Chapter 1.4 Natural Gas Combustion, 1998.

[10] U.S. EPA, *AP-42 Fifth Edition,* Chapter 1.9. Residential Fireplaces, 1996.

[11] U.S. EPA, *AP-42 Fifth Edition*, Chapter 1.10 Residential Wood Stoves, 1996.

[12] California Climate Action Registry, *General Reporting Protocol, Version 3.1*, January 2009.

Water Usage

Total water usage was estimated by BGM for the appropriate Climate Zone. BGM estimates the electricity demand associated with that use. The emission rates applied to water use are based on a report prepared for the California Energy Commission.[13] Sources considered include water conveyance, water treatment, water distribution and wastewater treatment. Once electricity use associated with these sources are estimated, BGM estimates the GHGs associated with that electricity use using the same GHG emission factors as described in the Electricity and Natural Gas discussion.

Solid Waste

BGM estimates the amount of solid waste that the using the land use types and sizes or a project as imported from URBEMIS. BGM includes information on the tons of solid waste generated per single family and multi-family residence and per square foot of non-residential land use. For multi-family units, the solid waste generation was based on an estimate of 0.46 tons per residential unit per year.

The solid waste GHG emissions include two components: truck hauling emissions and emissions resulting from the decomposition of solid waste.

BGM uses a project's solid waste generation to estimate the amount of truck hauling needed to dispose of this waste in a landfill. BGM estimates the amount of truck hauling (VMT) required based on the amount of waste generated per year, an average round trip haul distance, and an average truck hauling capacity. VMT estimates are multiplied by EMFAC2007 emission rates for heavy heavy-duty trucks for trucks traveling at an average speed of 35 mph.

BGM uses the U.S. EPA WARM Model emission rates for mixed solid waste decomposition. Those rates equal 3.1 metric tons of CO_2e per short ton of solid waste that is landfilled, assuming no recovery, 0.64 tons CO_2e per short ton, assuming landfilled waste with flaring, and 0.3 tons CO_2e per short ton, assuming landfilled waste with energy recovery.[14] Since methane is captured at Bay Area landfills and used to generate electricity, the 0.3 tons CO_2e per short ton was utilized.

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[13] Navigant Consulting, *Refining Estimates of Water-Related Energy Use in California,* prepared for the California Energy Commission, CEC-500-2006-116, 2006.

[14] U.S. Environmental Protection Agency, Waste Reduction Model (WARM), 2009. Available at: tttp://www.epa.gov/climatechange/wycd/waste/calculators/Warm_Form.html

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Users\Weatherman\AppData\Roaming\Urbemis\Version9a\Projects\projects\1328 N. Capitol.urb924

Project Name: 1328 N. Capitiol

Project Location: Santa Clara County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2012 TOTALS (tons/year unmitigated)	0.32	1.64	1.68	0.00	0.25	0.11	0.36	0.05	0.10	0.15	244.44
2012 TOTALS (tons/year mitigated)	0.32	1.56	1.68	0.00	0.05	0.10	0.16	0.01	0.09	0.10	244.44
Percent Reduction	0.00	4.54	0.00	0.00	78.26	4.73	56.41	77.45	4.74	30.35	0.00
2013 TOTALS (tons/year unmitigated)	0.93	2.02	2.37	0.00	0.01	0.13	0.14	0.00	0.12	0.12	350.53
2013 TOTALS (tons/year mitigated)	0.93	1.93	2.37	0.00	0.01	0.12	0.13	0.00	0.11	0.12	350.53
Percent Reduction	0.00	4.48	0.00	0.00	0.00	4.68	4.46	0.00	4.69	4.60	0.00
2014 TOTALS (tons/year unmitigated)	0.95	1.40	1.68	0.00	0.00	0.09	0.09	0.00	0.08	0.08	262.27
2014 TOTALS (tons/year mitigated)	0.95	1.34	1.68	0.00	0.00	0.08	0.09	0.00	0.08	0.08	262.27
Percent Reduction	0.00	4.51	0.00	0.00	0.00	4.66	4.42	0.00	4.68	4.58	0.00

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AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	1.56	0.17	2.24	0.01	0.32	0.31	219.66

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	0.88	1.04	10.33	0.01	1.75	0.33	934.73

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	2.44	1.21	12.57	0.02	2.07	0.64	1,154.39

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2012	0.32	1.64	1.68	0.00	0.25	0.11	0.36	0.05	0.10	0.15	244.44
Demolition 04/01/2012-04/14/2012	0.01	0.04	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00	5.35
Fugitive Dust	0.00	0.00	0.00	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00
Demo Off Road Diesel	0.00	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.50
Demo On Road Diesel	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.34
Demo Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.51

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Fine Grading 04/15/2012-05/15/2012	0.03	0.24	0.14	0.00	0.24	0.01	0.25	0.05	0.01	0.06	25.84
Fine Grading Dust	0.00	0.00	0.00	0.00	0.24	0.00	0.24	0.05	0.00	0.05	0.00
Fine Grading Off Road Diesel	0.03	0.24	0.13	0.00	0.00	0.01	0.01	0.00	0.01	0.01	24.72
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.12
Asphalt 05/16/2012-05/31/2012	0.02	0.09	0.07	0.00	0.00	0.01	0.01	0.00	0.01	0.01	9.50
Paving Off-Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.01	0.09	0.05	0.00	0.00	0.01	0.01	0.00	0.01	0.01	7.63
Paving On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.64
Paving Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.22
Building 06/01/2012-09/30/2014	0.26	1.26	1.45	0.00	0.00	0.08	0.09	0.00	0.08	0.08	203.75
Building Off Road Diesel	0.24	1.13	0.80	0.00	0.00	0.08	0.08	0.00	0.07	0.07	123.21
Building Vendor Trips	0.01	0.11	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27.02
Building Worker Trips	0.02	0.03	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	53.52
2013	0.93	2.02	2.37	0.00	0.01	0.13	0.14	0.00	0.12	0.12	350.53
Building 06/01/2012-09/30/2014	0.42	2.02	2.36	0.00	0.01	0.13	0.14	0.00	0.12	0.12	349.92
Building Off Road Diesel	0.38	1.81	1.33	0.00	0.00	0.12	0.12	0.00	0.11	0.11	211.57
Building Vendor Trips	0.01	0.16	0.15	0.00	0.00	0.01	0.01	0.00	0.01	0.01	46.40
Building Worker Trips	0.03	0.05	0.89	0.00	0.00	0.00	0.01	0.00	0.00	0.00	91.95
Coating 06/01/2013-09/30/2014	0.52	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.61
Architectural Coating	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.61

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2014	0.95	1.40	1.68	0.00	0.00	0.09	0.09	0.00	0.08	0.08	262.27
Building 06/01/2012-09/30/2014	0.28	1.40	1.68	0.00	0.00	0.09	0.09	0.00	0.08	0.08	261.48
Building Off Road Diesel	0.26	1.26	0.96	0.00	0.00	0.08	0.08	0.00	0.07	0.07	158.07
Building Vendor Trips	0.01	0.11	0.10	0.00	0.00	0.00	0.01	0.00	0.00	0.00	34.67
Building Worker Trips	0.02	0.03	0.61	0.00	0.00	0.00	0.01	0.00	0.00	0.00	68.74
Coating 06/01/2013-09/30/2014	0.66	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.79
Architectural Coating	0.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.79

Phase Assumptions

Phase: Demolition 4/1/2012 - 4/14/2012 - Demolition of Existing buildings

Building Volume Total (cubic feet): 48000

Building Volume Daily (cubic feet): 4800

On Road Truck Travel (VMT): 66.67

Off-Road Equipment:

1 Concrete/Industrial Saws (10 hp) operating at a 0.73 load factor for 8 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 1 hours per day

2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 6 hours per day

Phase: Fine Grading 4/15/2012 - 5/15/2012 - Site Grading and Preparation

Total Acres Disturbed: 4.31

Maximum Daily Acreage Disturbed: 1.08

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

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1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 5/16/2012 - 5/31/2012 - Paving

Acres to be Paved: 1.08

Off-Road Equipment:

4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day

1 Paving Equipment (104 hp) operating at a 0.53 load factor for 8 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Building Construction 6/1/2012 - 9/30/2014 - Improvements/ Building Erection

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day

2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 6/1/2013 - 9/30/2014 - Painting

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Mitigated

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	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2012	0.32	1.56	1.68	0.00	0.05	0.10	0.16	0.01	0.09	0.10	244.44
Demolition 04/01/2012-04/14/2012	0.01	0.04	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00	5.35
Fugitive Dust	0.00	0.00	0.00	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00
Demo Off Road Diesel	0.00	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.50
Demo On Road Diesel	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.34
Demo Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.51
Fine Grading 04/15/2012-05/15/2012	0.03	0.23	0.14	0.00	0.04	0.01	0.05	0.01	0.01	0.02	25.84
Fine Grading Dust	0.00	0.00	0.00	0.00	0.04	0.00	0.04	0.01	0.00	0.01	0.00
Fine Grading Off Road Diesel	0.03	0.23	0.13	0.00	0.00	0.01	0.01	0.00	0.01	0.01	24.72
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.12
Asphalt 05/16/2012-05/31/2012	0.02	0.09	0.07	0.00	0.00	0.01	0.01	0.00	0.01	0.01	9.50
Paving Off-Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.01	0.08	0.05	0.00	0.00	0.01	0.01	0.00	0.01	0.01	7.63
Paving On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.64
Paving Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.22
Building 06/01/2012-09/30/2014	0.26	1.21	1.45	0.00	0.00	0.08	0.08	0.00	0.07	0.07	203.75
Building Off Road Diesel	0.24	1.07	0.80	0.00	0.00	0.07	0.07	0.00	0.07	0.07	123.21
Building Vendor Trips	0.01	0.11	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27.02
Building Worker Trips	0.02	0.03	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	53.52

2013	0.93	1.93	2.37	0.00	0.01	0.12	0.13	0.00	0.11	0.12	350.53
Building 06/01/2012-09/30/2014	0.42	1.93	2.36	0.00	0.01	0.12	0.13	0.00	0.11	0.12	349.92
Building Off Road Diesel	0.38	1.72	1.33	0.00	0.00	0.12	0.12	0.00	0.11	0.11	211.57
Building Vendor Trips	0.01	0.16	0.15	0.00	0.00	0.01	0.01	0.00	0.01	0.01	46.40
Building Worker Trips	0.03	0.05	0.89	0.00	0.00	0.00	0.01	0.00	0.00	0.00	91.95
Coating 06/01/2013-09/30/2014	0.52	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.61
Architectural Coating	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.61
2014	0.95	1.34	1.68	0.00	0.00	0.08	0.09	0.00	0.08	0.08	262.27
Building 06/01/2012-09/30/2014	0.28	1.34	1.68	0.00	0.00	0.08	0.09	0.00	0.08	0.08	261.48
Building Off Road Diesel	0.26	1.20	0.96	0.00	0.00	0.08	0.08	0.00	0.07	0.07	158.07
Building Vendor Trips	0.01	0.11	0.10	0.00	0.00	0.00	0.01	0.00	0.00	0.00	34.67
Building Worker Trips	0.02	0.03	0.61	0.00	0.00	0.00	0.01	0.00	0.00	0.00	68.74
Coating 06/01/2013-09/30/2014	0.66	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.79
Architectural Coating	0.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.79

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Demolition 4/1/2012 - 4/14/2012 - Demolition of Existing buildings

For Concrete/Industrial Saws, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

For Rubber Tired Dozers, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

For Tractors/Loaders/Backhoes, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

The following mitigation measures apply to Phase: Fine Grading 4/15/2012 - 5/15/2012 - Site Grading and Preparation

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For Soil Stablizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Graders, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

For Rubber Tired Dozers, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

For Tractors/Loaders/Backhoes, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

For Water Trucks, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

The following mitigation measures apply to Phase: Paving 5/16/2012 - 5/31/2012 - Paving

For Cement and Mortar Mixers, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

For Pavers, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

For Paving Equipment, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

For Rollers, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

For Tractors/Loaders/Backhoes, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

The following mitigation measures apply to Phase: Building Construction 6/1/2012 - 9/30/2014 - Improvements/ Building Erection

For Cranes, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

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For Forklifts, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

For Generator Sets, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

For Tractors/Loaders/Backhoes, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

For Welders, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.01	0.13	0.06	0.00	0.00	0.00	168.68
Hearth	0.56	0.04	2.04	0.01	0.32	0.31	50.73
Landscape	0.01	0.00	0.14	0.00	0.00	0.00	0.25
Consumer Products	0.86						
Architectural Coatings	0.12						
TOTALS (tons/year, unmitigated)	1.56	0.17	2.24	0.01	0.32	0.31	219.66

Area Source Changes to Defaults

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Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Condo/townhouse general	0.88	1.04	10.33	0.01	1.75	0.33	934.73
TOTALS (tons/year, unmitigated)	0.88	1.04	10.33	0.01	1.75	0.33	934.73

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2012 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Condo/townhouse general	4.31	6.82	dwelling units	96.00	654.72	5,597.66
					654.72	5,597.66

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.2	0.5	99.3	0.2
Light Truck < 3750 lbs	11.8	1.7	95.8	2.5
Light Truck 3751-5750 lbs	20.6	0.5	99.5	0.0
Med Truck 5751-8500 lbs	6.2	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	0.7	0.0	71.4	28.6
Lite-Heavy Truck 10,001-14,000 lbs	0.6	0.0	66.7	33.3

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Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Med-Heavy Truck 14,001-33,000 lbs	0.8	0.0	25.0	75.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.3	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	2.9	62.1	37.9	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.7	0.0	85.7	14.3

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			

% of Trips - Commercial (by land use)

Operational Changes to Defaults

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Users\Weatherman\AppData\Roaming\Urbemis\Version9a\Projects\projects\1328 N. Capitol.urb924

Project Name: 1328 N. Capitiol

Project Location: Santa Clara County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

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Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2012 TOTALS (lbs/day unmitigated)	3.48	22.00	19.04	0.01	21.60	1.27	22.68	4.51	1.16	5.50	2,680.90
2012 TOTALS (lbs/day mitigated)	3.48	20.91	19.04	0.01	3.71	1.20	4.73	0.78	1.11	1.72	2,680.90
2013 TOTALS (lbs/day unmitigated)	9.97	15.51	18.18	0.01	0.05	1.00	1.04	0.02	0.91	0.93	2,689.43
2013 TOTALS (lbs/day mitigated)	9.97	14.81	18.18	0.01	0.05	0.95	1.00	0.02	0.87	0.89	2,689.43
2014 TOTALS (lbs/day unmitigated)	9.70	14.39	17.26	0.01	0.05	0.88	0.93	0.02	0.81	0.83	2,689.91
2014 TOTALS (lbs/day mitigated)	9.70	13.74	17.26	0.01	0.05	0.84	0.89	0.02	0.77	0.79	2,689.91

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	5.52	0.74	1.86	0.00	0.01	0.01	927.06

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	4.81	4.84	55.68	0.05	9.61	1.83	5,368.03

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	10.33	5.58	57.54	0.05	9.62	1.84	6,295.09

Construction Unmitigated Detail Report:

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CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 4/2/2012-4/13/2012 Active Days: 10	1.11	8.24	6.02	0.00	2.03	0.55	2.58	0.42	0.50	0.93	1,070.58
Demolition 04/01/2012-04/14/2012	1.11	8.24	6.02	0.00	2.03	0.55	2.58	0.42	0.50	0.93	1,070.58
Fugitive Dust	0.00	0.00	0.00	0.00	2.02	0.00	2.02	0.42	0.00	0.42	0.00
Demo Off Road Diesel	0.98	6.77	4.49	0.00	0.00	0.49	0.49	0.00	0.45	0.45	700.30
Demo On Road Diesel	0.09	1.42	0.47	0.00	0.01	0.05	0.06	0.00	0.05	0.05	268.40
Demo Worker Trips	0.03	0.06	1.06	0.00	0.00	0.00	0.01	0.00	0.00	0.00	101.87
Time Slice 4/16/2012-5/15/2012 Active Days: 22	2.72	**22.00**	12.57	0.00	**21.60**	1.07	**22.68**	**4.51**	0.99	**5.50**	2,349.19
Fine Grading 04/15/2012-05/15/2012	2.72	22.00	12.57	0.00	21.60	1.07	22.68	4.51	0.99	5.50	2,349.19
Fine Grading Dust	0.00	0.00	0.00	0.00	21.60	0.00	21.60	4.51	0.00	4.51	0.00
Fine Grading Off Road Diesel	2.69	21.95	11.51	0.00	0.00	1.07	1.07	0.00	0.99	0.99	2,247.32
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.03	0.06	1.06	0.00	0.00	0.00	0.01	0.00	0.00	0.00	101.87
Time Slice 5/16/2012-5/31/2012 Active Days: 12	2.68	15.03	11.30	0.00	0.01	**1.27**	1.28	0.00	**1.16**	1.17	1,583.20
Asphalt 05/16/2012-05/31/2012	2.68	15.03	11.30	0.00	0.01	1.27	1.28	0.00	1.16	1.17	1,583.20
Paving Off-Gas	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.34	14.35	8.99	0.00	0.00	1.24	1.24	0.00	1.14	1.14	1,272.04
Paving On Road Diesel	0.04	0.57	0.19	0.00	0.00	0.02	0.02	0.00	0.02	0.02	107.42
Paving Worker Trips	0.07	0.12	2.12	0.00	0.01	0.01	0.02	0.00	0.00	0.01	203.75

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Time Slice 6/1/2012-12/31/2012 Active Days: 152	3.48	16.61	**19.04**	0.01	0.05	1.11	1.15	0.02	1.02	1.03	2,680.90
Building 06/01/2012-09/30/2014	3.48	16.61	19.04	0.01	0.05	1.11	1.15	0.02	1.02	1.03	2,680.90
Building Off Road Diesel	3.14	14.81	10.52	0.00	0.00	1.04	1.04	0.00	0.95	0.95	1,621.20
Building Vendor Trips	0.11	1.40	1.19	0.00	0.01	0.05	0.06	0.00	0.05	0.05	355.54
Building Worker Trips	0.23	0.40	7.33	0.01	0.03	0.02	0.05	0.01	0.02	0.03	704.16
Time Slice 1/1/2013-5/31/2013 Active Days: 109	3.19	15.50	18.10	0.01	0.05	1.00	1.04	0.02	0.91	0.93	2,681.36
Building 06/01/2012-09/30/2014	3.19	15.50	18.10	0.01	0.05	1.00	1.04	0.02	0.91	0.93	2,681.36
Building Off Road Diesel	2.88	13.91	10.20	0.00	0.00	0.93	0.93	0.00	0.86	0.86	1,621.20
Building Vendor Trips	0.10	1.23	1.11	0.00	0.01	0.05	0.06	0.00	0.04	0.05	355.57
Building Worker Trips	0.21	0.37	6.79	0.01	0.03	0.02	0.05	0.01	0.02	0.03	704.59
Time Slice 6/3/2013-12/31/2013 Active Days: 152	**9.97**	15.51	18.18	**0.01**	0.05	1.00	1.04	0.02	0.91	0.93	2,689.43
Building 06/01/2012-09/30/2014	3.19	15.50	18.10	0.01	0.05	1.00	1.04	0.02	0.91	0.93	2,681.36
Building Off Road Diesel	2.88	13.91	10.20	0.00	0.00	0.93	0.93	0.00	0.86	0.86	1,621.20
Building Vendor Trips	0.10	1.23	1.11	0.00	0.01	0.05	0.06	0.00	0.04	0.05	355.57
Building Worker Trips	0.21	0.37	6.79	0.01	0.03	0.02	0.05	0.01	0.02	0.03	704.59
Coating 06/01/2013-09/30/2014	6.78	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.07
Architectural Coating	6.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.07

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Time Slice 1/1/2014-9/30/2014 Active Days: 195	9.70	14.39	17.26	**0.01**	0.05	0.88	0.93	0.02	0.81	0.83	**2,689.91**
Building 06/01/2012-09/30/2014	2.92	14.39	17.19	0.01	0.05	0.88	0.93	0.02	0.81	0.83	2,681.83
Building Off Road Diesel	2.63	12.97	9.89	0.00	0.00	0.82	0.82	0.00	0.76	0.76	1,621.20
Building Vendor Trips	0.09	1.08	1.03	0.00	0.01	0.04	0.05	0.00	0.04	0.04	355.61
Building Worker Trips	0.19	0.34	6.27	0.01	0.03	0.02	0.05	0.01	0.02	0.03	705.03
Coating 06/01/2013-09/30/2014	6.78	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.07
Architectural Coating	6.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.07

Phase Assumptions

Phase: Demolition 4/1/2012 - 4/14/2012 - Demolition of Existing buildings

Building Volume Total (cubic feet): 48000

Building Volume Daily (cubic feet): 4800

On Road Truck Travel (VMT): 66.67

Off-Road Equipment:

1 Concrete/Industrial Saws (10 hp) operating at a 0.73 load factor for 8 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 1 hours per day

2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 6 hours per day

Phase: Fine Grading 4/15/2012 - 5/15/2012 - Site Grading and Preparation

Total Acres Disturbed: 4.31

Maximum Daily Acreage Disturbed: 1.08

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

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1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 5/16/2012 - 5/31/2012 - Paving

Acres to be Paved: 1.08

Off-Road Equipment:

4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day

1 Paving Equipment (104 hp) operating at a 0.53 load factor for 8 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Building Construction 6/1/2012 - 9/30/2014 - Improvements/ Building Erection

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day

2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 6/1/2013 - 9/30/2014 - Painting

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

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CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 4/2/2012-4/13/2012 Active Days: 10	1.11	7.91	6.02	0.00	2.03	0.52	2.55	0.42	0.48	0.91	1,070.58
Demolition 04/01/2012-04/14/2012	1.11	7.91	6.02	0.00	2.03	0.52	2.55	0.42	0.48	0.91	1,070.58
Fugitive Dust	0.00	0.00	0.00	0.00	2.02	0.00	2.02	0.42	0.00	0.42	0.00
Demo Off Road Diesel	0.98	6.43	4.49	0.00	0.00	0.47	0.47	0.00	0.43	0.43	700.30
Demo On Road Diesel	0.09	1.42	0.47	0.00	0.01	0.05	0.06	0.00	0.05	0.05	268.40
Demo Worker Trips	0.03	0.06	1.06	0.00	0.00	0.00	0.01	0.00	0.00	0.00	101.87
Time Slice 4/16/2012-5/15/2012 Active Days: 22	2.72	20.91	12.57	0.00	3.71	1.02	4.73	0.78	0.94	1.72	2,349.19
Fine Grading 04/15/2012-05/15/2012	2.72	20.91	12.57	0.00	3.71	1.02	4.73	0.78	0.94	1.72	2,349.19
Fine Grading Dust	0.00	0.00	0.00	0.00	3.71	0.00	3.71	0.77	0.00	0.77	0.00
Fine Grading Off Road Diesel	2.69	20.85	11.51	0.00	0.00	1.02	1.02	0.00	0.94	0.94	2,247.32
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.03	0.06	1.06	0.00	0.00	0.00	0.01	0.00	0.00	0.00	101.87
Time Slice 5/16/2012-5/31/2012 Active Days: 12	2.68	14.32	11.30	0.00	0.01	1.20	1.22	0.00	1.11	1.11	1,583.20
Asphalt 05/16/2012-05/31/2012	2.68	14.32	11.30	0.00	0.01	1.20	1.22	0.00	1.11	1.11	1,583.20
Paving Off-Gas	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.34	13.63	8.99	0.00	0.00	1.18	1.18	0.00	1.08	1.08	1,272.04
Paving On Road Diesel	0.04	0.57	0.19	0.00	0.00	0.02	0.02	0.00	0.02	0.02	107.42
Paving Worker Trips	0.07	0.12	2.12	0.00	0.01	0.01	0.02	0.00	0.00	0.01	203.75

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Time Slice 6/1/2012-12/31/2012 Active Days: 152	3.48	15.87	**19.04**	0.01	0.05	1.06	1.10	0.02	0.97	0.99	2,680.90
Building 06/01/2012-09/30/2014	3.48	15.87	19.04	0.01	0.05	1.06	1.10	0.02	0.97	0.99	2,680.90
Building Off Road Diesel	3.14	14.07	10.52	0.00	0.00	0.98	0.98	0.00	0.91	0.91	1,621.20
Building Vendor Trips	0.11	1.40	1.19	0.00	0.01	0.05	0.06	0.00	0.05	0.05	355.54
Building Worker Trips	0.23	0.40	7.33	0.01	0.03	0.02	0.05	0.01	0.02	0.03	704.16
Time Slice 1/1/2013-5/31/2013 Active Days: 109	3.19	14.81	18.10	0.01	0.05	0.95	1.00	0.02	0.87	0.89	2,681.36
Building 06/01/2012-09/30/2014	3.19	14.81	18.10	0.01	0.05	0.95	1.00	0.02	0.87	0.89	2,681.36
Building Off Road Diesel	2.88	13.21	10.20	0.00	0.00	0.88	0.88	0.00	0.81	0.81	1,621.20
Building Vendor Trips	0.10	1.23	1.11	0.00	0.01	0.05	0.06	0.00	0.04	0.05	355.57
Building Worker Trips	0.21	0.37	6.79	0.01	0.03	0.02	0.05	0.01	0.02	0.03	704.59
Time Slice 6/3/2013-12/31/2013 Active Days: 152	**9.97**	14.81	18.18	**0.01**	0.05	0.95	1.00	0.02	0.87	0.89	2,689.43
Building 06/01/2012-09/30/2014	3.19	14.81	18.10	0.01	0.05	0.95	1.00	0.02	0.87	0.89	2,681.36
Building Off Road Diesel	2.88	13.21	10.20	0.00	0.00	0.88	0.88	0.00	0.81	0.81	1,621.20
Building Vendor Trips	0.10	1.23	1.11	0.00	0.01	0.05	0.06	0.00	0.04	0.05	355.57
Building Worker Trips	0.21	0.37	6.79	0.01	0.03	0.02	0.05	0.01	0.02	0.03	704.59
Coating 06/01/2013-09/30/2014	6.78	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.07
Architectural Coating	6.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.07

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Time Slice 1/1/2014-9/30/2014 Active Days: 195	9.70	13.74	17.26	0.01	0.05	0.84	0.89	0.02	0.77	0.79	2,689.91
Building 06/01/2012-09/30/2014	2.92	13.74	17.19	0.01	0.05	0.84	0.89	0.02	0.77	0.79	2,681.83
Building Off Road Diesel	2.63	12.33	9.89	0.00	0.00	0.78	0.78	0.00	0.72	0.72	1,621.20
Building Vendor Trips	0.09	1.08	1.03	0.00	0.01	0.04	0.05	0.00	0.04	0.04	355.61
Building Worker Trips	0.19	0.34	6.27	0.01	0.03	0.02	0.05	0.01	0.02	0.03	705.03
Coating 06/01/2013-09/30/2014	6.78	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.07
Architectural Coating	6.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.07

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Demolition 4/1/2012 - 4/14/2012 - Demolition of Existing buildings

For Concrete/Industrial Saws, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

For Rubber Tired Dozers, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

For Tractors/Loaders/Backhoes, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

The following mitigation measures apply to Phase: Fine Grading 4/15/2012 - 5/15/2012 - Site Grading and Preparation

For Soil Stablizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Graders, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

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NOX: 5% PM10: 5% PM25: 5%

For Rubber Tired Dozers, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

For Tractors/Loaders/Backhoes, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

For Water Trucks, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

The following mitigation measures apply to Phase: Paving 5/16/2012 - 5/31/2012 - Paving

For Cement and Mortar Mixers, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

For Pavers, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

For Paving Equipment, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

For Rollers, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

For Tractors/Loaders/Backhoes, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

The following mitigation measures apply to Phase: Building Construction 6/1/2012 - 9/30/2014 - Improvements/ Building Erection

For Cranes, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

For Forklifts, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

For Generator Sets, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

For Tractors/Loaders/Backhoes, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

For Welders, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.06	0.72	0.31	0.00	0.00	0.00	924.25
Hearth - No Summer Emissions							
Landscape	0.12	0.02	1.55	0.00	0.01	0.01	2.81
Consumer Products	4.70						
Architectural Coatings	0.64						
TOTALS (lbs/day, unmitigated)	5.52	0.74	1.86	0.00	0.01	0.01	927.06

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Condo/townhouse general	4.81	4.84	55.68	0.05	9.61	1.83	5,368.03
TOTALS (lbs/day, unmitigated)	4.81	4.84	55.68	0.05	9.61	1.83	5,368.03

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2012 Temperature (F): 85 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

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Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Condo/townhouse general	4.31	6.82	dwelling units	96.00	654.72	5,597.66
					654.72	5,597.66

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.2	0.5	99.3	0.2
Light Truck < 3750 lbs	11.8	1.7	95.8	2.5
Light Truck 3751-5750 lbs	20.6	0.5	99.5	0.0
Med Truck 5751-8500 lbs	6.2	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	0.7	0.0	71.4	28.6
Lite-Heavy Truck 10,001-14,000 lbs	0.6	0.0	66.7	33.3
Med-Heavy Truck 14,001-33,000 lbs	0.8	0.0	25.0	75.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.3	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	2.9	62.1	37.9	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.7	0.0	85.7	14.3

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4

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Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			

% of Trips - Commercial (by land use)

Operational Changes to Defaults

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Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: C:\Users\Weatherman\AppData\Roaming\Urbemis\Version9a\Projects\projects\1328 N. Capitol.urb924

Project Name: 1328 N. Capitiol

Project Location: Santa Clara County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

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Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2012 TOTALS (lbs/day unmitigated)	3.48	22.00	19.04	0.01	21.60	1.27	22.68	4.51	1.16	5.50	2,680.90
2012 TOTALS (lbs/day mitigated)	3.48	20.91	19.04	0.01	3.71	1.20	4.73	0.78	1.11	1.72	2,680.90
2013 TOTALS (lbs/day unmitigated)	9.97	15.51	18.18	0.01	0.05	1.00	1.04	0.02	0.91	0.93	2,689.43
2013 TOTALS (lbs/day mitigated)	9.97	14.81	18.18	0.01	0.05	0.95	1.00	0.02	0.87	0.89	2,689.43
2014 TOTALS (lbs/day unmitigated)	9.70	14.39	17.26	0.01	0.05	0.88	0.93	0.02	0.81	0.83	2,689.91
2014 TOTALS (lbs/day mitigated)	9.70	13.74	17.26	0.01	0.05	0.84	0.89	0.02	0.77	0.79	2,689.91

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	18.99	1.89	50.12	0.15	7.86	7.57	2,529.74

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	4.80	7.37	58.42	0.05	9.61	1.83	4,629.31

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	23.79	9.26	108.54	0.20	17.47	9.40	7,159.05

Construction Unmitigated Detail Report:

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CONSTRUCTION EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 4/2/2012-4/13/2012 Active Days: 10	1.11	8.24	6.02	0.00	2.03	0.55	2.58	0.42	0.50	0.93	1,070.58
Demolition 04/01/2012-04/14/2012	1.11	8.24	6.02	0.00	2.03	0.55	2.58	0.42	0.50	0.93	1,070.58
Fugitive Dust	0.00	0.00	0.00	0.00	2.02	0.00	2.02	0.42	0.00	0.42	0.00
Demo Off Road Diesel	0.98	6.77	4.49	0.00	0.00	0.49	0.49	0.00	0.45	0.45	700.30
Demo On Road Diesel	0.09	1.42	0.47	0.00	0.01	0.05	0.06	0.00	0.05	0.05	268.40
Demo Worker Trips	0.03	0.06	1.06	0.00	0.00	0.00	0.01	0.00	0.00	0.00	101.87
Time Slice 4/16/2012-5/15/2012 Active Days: 22	2.72	**22.00**	12.57	0.00	**21.60**	1.07	**22.68**	**4.51**	0.99	**5.50**	2,349.19
Fine Grading 04/15/2012-05/15/2012	2.72	22.00	12.57	0.00	21.60	1.07	22.68	4.51	0.99	5.50	2,349.19
Fine Grading Dust	0.00	0.00	0.00	0.00	21.60	0.00	21.60	4.51	0.00	4.51	0.00
Fine Grading Off Road Diesel	2.69	21.95	11.51	0.00	0.00	1.07	1.07	0.00	0.99	0.99	2,247.32
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.03	0.06	1.06	0.00	0.00	0.00	0.01	0.00	0.00	0.00	101.87
Time Slice 5/16/2012-5/31/2012 Active Days: 12	2.68	15.03	11.30	0.00	0.01	**1.27**	1.28	0.00	**1.16**	1.17	1,583.20
Asphalt 05/16/2012-05/31/2012	2.68	15.03	11.30	0.00	0.01	1.27	1.28	0.00	1.16	1.17	1,583.20
Paving Off-Gas	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.34	14.35	8.99	0.00	0.00	1.24	1.24	0.00	1.14	1.14	1,272.04
Paving On Road Diesel	0.04	0.57	0.19	0.00	0.00	0.02	0.02	0.00	0.02	0.02	107.42
Paving Worker Trips	0.07	0.12	2.12	0.00	0.01	0.01	0.02	0.00	0.00	0.01	203.75

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Time Slice 6/1/2012-12/31/2012 Active Days: 152	3.48	16.61	**19.04**	0.01	0.05	1.11	1.15	0.02	1.02	1.03	2,680.90
Building 06/01/2012-09/30/2014	3.48	16.61	19.04	0.01	0.05	1.11	1.15	0.02	1.02	1.03	2,680.90
Building Off Road Diesel	3.14	14.81	10.52	0.00	0.00	1.04	1.04	0.00	0.95	0.95	1,621.20
Building Vendor Trips	0.11	1.40	1.19	0.00	0.01	0.05	0.06	0.00	0.05	0.05	355.54
Building Worker Trips	0.23	0.40	7.33	0.01	0.03	0.02	0.05	0.01	0.02	0.03	704.16
Time Slice 1/1/2013-5/31/2013 Active Days: 109	3.19	15.50	18.10	0.01	0.05	1.00	1.04	0.02	0.91	0.93	2,681.36
Building 06/01/2012-09/30/2014	3.19	15.50	18.10	0.01	0.05	1.00	1.04	0.02	0.91	0.93	2,681.36
Building Off Road Diesel	2.88	13.91	10.20	0.00	0.00	0.93	0.93	0.00	0.86	0.86	1,621.20
Building Vendor Trips	0.10	1.23	1.11	0.00	0.01	0.05	0.06	0.00	0.04	0.05	355.57
Building Worker Trips	0.21	0.37	6.79	0.01	0.03	0.02	0.05	0.01	0.02	0.03	704.59
Time Slice 6/3/2013-12/31/2013 Active Days: 152	**9.97**	15.51	18.18	**0.01**	0.05	1.00	1.04	0.02	0.91	0.93	2,689.43
Building 06/01/2012-09/30/2014	3.19	15.50	18.10	0.01	0.05	1.00	1.04	0.02	0.91	0.93	2,681.36
Building Off Road Diesel	2.88	13.91	10.20	0.00	0.00	0.93	0.93	0.00	0.86	0.86	1,621.20
Building Vendor Trips	0.10	1.23	1.11	0.00	0.01	0.05	0.06	0.00	0.04	0.05	355.57
Building Worker Trips	0.21	0.37	6.79	0.01	0.03	0.02	0.05	0.01	0.02	0.03	704.59
Coating 06/01/2013-09/30/2014	6.78	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.07
Architectural Coating	6.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.07

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Time Slice 1/1/2014-9/30/2014 Active Days: 195	9.70	14.39	17.26	**0.01**	0.05	0.88	0.93	0.02	0.81	0.83	**2,689.91**
Building 06/01/2012-09/30/2014	2.92	14.39	17.19	0.01	0.05	0.88	0.93	0.02	0.81	0.83	2,681.83
Building Off Road Diesel	2.63	12.97	9.89	0.00	0.00	0.82	0.82	0.00	0.76	0.76	1,621.20
Building Vendor Trips	0.09	1.08	1.03	0.00	0.01	0.04	0.05	0.00	0.04	0.04	355.61
Building Worker Trips	0.19	0.34	6.27	0.01	0.03	0.02	0.05	0.01	0.02	0.03	705.03
Coating 06/01/2013-09/30/2014	6.78	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.07
Architectural Coating	6.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.07

Phase Assumptions

Phase: Demolition 4/1/2012 - 4/14/2012 - Demolition of Existing buildings

Building Volume Total (cubic feet): 48000

Building Volume Daily (cubic feet): 4800

On Road Truck Travel (VMT): 66.67

Off-Road Equipment:

1 Concrete/Industrial Saws (10 hp) operating at a 0.73 load factor for 8 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 1 hours per day

2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 6 hours per day

Phase: Fine Grading 4/15/2012 - 5/15/2012 - Site Grading and Preparation

Total Acres Disturbed: 4.31

Maximum Daily Acreage Disturbed: 1.08

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

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1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 5/16/2012 - 5/31/2012 - Paving

Acres to be Paved: 1.08

Off-Road Equipment:

4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day

1 Paving Equipment (104 hp) operating at a 0.53 load factor for 8 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Building Construction 6/1/2012 - 9/30/2014 - Improvements/ Building Erection

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day

2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 6/1/2013 - 9/30/2014 - Painting

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

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CONSTRUCTION EMISSION ESTIMATES Winter Pounds Per Day, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 4/2/2012-4/13/2012 Active Days: 10	1.11	7.91	6.02	0.00	2.03	0.52	2.55	0.42	0.48	0.91	1,070.58
Demolition 04/01/2012-04/14/2012	1.11	7.91	6.02	0.00	2.03	0.52	2.55	0.42	0.48	0.91	1,070.58
Fugitive Dust	0.00	0.00	0.00	0.00	2.02	0.00	2.02	0.42	0.00	0.42	0.00
Demo Off Road Diesel	0.98	6.43	4.49	0.00	0.00	0.47	0.47	0.00	0.43	0.43	700.30
Demo On Road Diesel	0.09	1.42	0.47	0.00	0.01	0.05	0.06	0.00	0.05	0.05	268.40
Demo Worker Trips	0.03	0.06	1.06	0.00	0.00	0.00	0.01	0.00	0.00	0.00	101.87
Time Slice 4/16/2012-5/15/2012 Active Days: 22	2.72	20.91	12.57	0.00	3.71	1.02	4.73	0.78	0.94	1.72	2,349.19
Fine Grading 04/15/2012-05/15/2012	2.72	20.91	12.57	0.00	3.71	1.02	4.73	0.78	0.94	1.72	2,349.19
Fine Grading Dust	0.00	0.00	0.00	0.00	3.71	0.00	3.71	0.77	0.00	0.77	0.00
Fine Grading Off Road Diesel	2.69	20.85	11.51	0.00	0.00	1.02	1.02	0.00	0.94	0.94	2,247.32
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.03	0.06	1.06	0.00	0.00	0.00	0.01	0.00	0.00	0.00	101.87
Time Slice 5/16/2012-5/31/2012 Active Days: 12	2.68	14.32	11.30	0.00	0.01	1.20	1.22	0.00	1.11	1.11	1,583.20
Asphalt 05/16/2012-05/31/2012	2.68	14.32	11.30	0.00	0.01	1.20	1.22	0.00	1.11	1.11	1,583.20
Paving Off-Gas	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.34	13.63	8.99	0.00	0.00	1.18	1.18	0.00	1.08	1.08	1,272.04
Paving On Road Diesel	0.04	0.57	0.19	0.00	0.00	0.02	0.02	0.00	0.02	0.02	107.42
Paving Worker Trips	0.07	0.12	2.12	0.00	0.01	0.01	0.02	0.00	0.00	0.01	203.75

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Time Slice 6/1/2012-12/31/2012 Active Days: 152	3.48	15.87	**19.04**	0.01	0.05	1.06	1.10	0.02	0.97	0.99	2,680.90
Building 06/01/2012-09/30/2014	3.48	15.87	19.04	0.01	0.05	1.06	1.10	0.02	0.97	0.99	2,680.90
Building Off Road Diesel	3.14	14.07	10.52	0.00	0.00	0.98	0.98	0.00	0.91	0.91	1,621.20
Building Vendor Trips	0.11	1.40	1.19	0.00	0.01	0.05	0.06	0.00	0.05	0.05	355.54
Building Worker Trips	0.23	0.40	7.33	0.01	0.03	0.02	0.05	0.01	0.02	0.03	704.16
Time Slice 1/1/2013-5/31/2013 Active Days: 109	3.19	14.81	18.10	0.01	0.05	0.95	1.00	0.02	0.87	0.89	2,681.36
Building 06/01/2012-09/30/2014	3.19	14.81	18.10	0.01	0.05	0.95	1.00	0.02	0.87	0.89	2,681.36
Building Off Road Diesel	2.88	13.21	10.20	0.00	0.00	0.88	0.88	0.00	0.81	0.81	1,621.20
Building Vendor Trips	0.10	1.23	1.11	0.00	0.01	0.05	0.06	0.00	0.04	0.05	355.57
Building Worker Trips	0.21	0.37	6.79	0.01	0.03	0.02	0.05	0.01	0.02	0.03	704.59
Time Slice 6/3/2013-12/31/2013 Active Days: 152	**9.97**	14.81	18.18	**0.01**	0.05	0.95	1.00	0.02	0.87	0.89	2,689.43
Building 06/01/2012-09/30/2014	3.19	14.81	18.10	0.01	0.05	0.95	1.00	0.02	0.87	0.89	2,681.36
Building Off Road Diesel	2.88	13.21	10.20	0.00	0.00	0.88	0.88	0.00	0.81	0.81	1,621.20
Building Vendor Trips	0.10	1.23	1.11	0.00	0.01	0.05	0.06	0.00	0.04	0.05	355.57
Building Worker Trips	0.21	0.37	6.79	0.01	0.03	0.02	0.05	0.01	0.02	0.03	704.59
Coating 06/01/2013-09/30/2014	6.78	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.07
Architectural Coating	6.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.07

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Time Slice 1/1/2014-9/30/2014 Active Days: 195	9.70	13.74	17.26	**0.01**	0.05	0.84	0.89	0.02	0.77	0.79	**2,689.91**
Building 06/01/2012-09/30/2014	2.92	13.74	17.19	0.01	0.05	0.84	0.89	0.02	0.77	0.79	2,681.83
Building Off Road Diesel	2.63	12.33	9.89	0.00	0.00	0.78	0.78	0.00	0.72	0.72	1,621.20
Building Vendor Trips	0.09	1.08	1.03	0.00	0.01	0.04	0.05	0.00	0.04	0.04	355.61
Building Worker Trips	0.19	0.34	6.27	0.01	0.03	0.02	0.05	0.01	0.02	0.03	705.03
Coating 06/01/2013-09/30/2014	6.78	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.07
Architectural Coating	6.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.07

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Demolition 4/1/2012 - 4/14/2012 - Demolition of Existing buildings

For Concrete/Industrial Saws, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

For Rubber Tired Dozers, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

For Tractors/Loaders/Backhoes, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

The following mitigation measures apply to Phase: Fine Grading 4/15/2012 - 5/15/2012 - Site Grading and Preparation

For Soil Stablizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Graders, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

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NOX: 5% PM10: 5% PM25: 5%

For Rubber Tired Dozers, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

For Tractors/Loaders/Backhoes, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

For Water Trucks, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

The following mitigation measures apply to Phase: Paving 5/16/2012 - 5/31/2012 - Paving

For Cement and Mortar Mixers, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

For Pavers, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

For Paving Equipment, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

For Rollers, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

For Tractors/Loaders/Backhoes, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

The following mitigation measures apply to Phase: Building Construction 6/1/2012 - 9/30/2014 - Improvements/ Building Erection

For Cranes, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

For Forklifts, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

For Generator Sets, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

For Tractors/Loaders/Backhoes, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

For Welders, the Use Aqueous Diesel Fuel mitigation reduces emissions by:

NOX: 5% PM10: 5% PM25: 5%

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.06	0.72	0.31	0.00	0.00	0.00	924.25
Hearth	13.59	1.17	49.81	0.15	7.86	7.57	1,605.49
Landscaping - No Winter Emissions							
Consumer Products	4.70						
Architectural Coatings	0.64						
TOTALS (lbs/day, unmitigated)	18.99	1.89	50.12	0.15	7.86	7.57	2,529.74

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Condo/townhouse general	4.80	7.37	58.42	0.05	9.61	1.83	4,629.31
TOTALS (lbs/day, unmitigated)	4.80	7.37	58.42	0.05	9.61	1.83	4,629.31

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2012 Temperature (F): 40 Season: Winter

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

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Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Condo/townhouse general	4.31	6.82	dwelling units	96.00	654.72	5,597.66
					654.72	5,597.66

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.2	0.5	99.3	0.2
Light Truck < 3750 lbs	11.8	1.7	95.8	2.5
Light Truck 3751-5750 lbs	20.6	0.5	99.5	0.0
Med Truck 5751-8500 lbs	6.2	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	0.7	0.0	71.4	28.6
Lite-Heavy Truck 10,001-14,000 lbs	0.6	0.0	66.7	33.3
Med-Heavy Truck 14,001-33,000 lbs	0.8	0.0	25.0	75.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.3	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	2.9	62.1	37.9	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.7	0.0	85.7	14.3

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4

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Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			

% of Trips - Commercial (by land use)

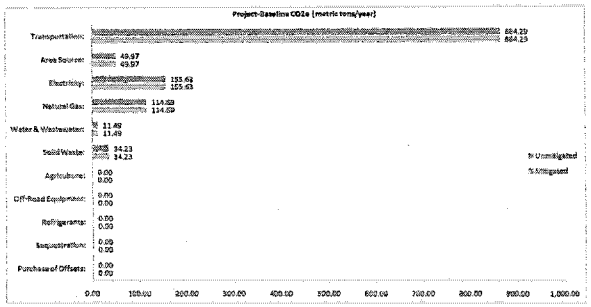
Operational Changes to Defaults

Summary Results

Project Name: 1328 N. Capitol
Project and Baseline Years: 2012 N/A

Results	Unmitigated Project-Baseline CO2e (metric tons/year)	Mitigated Project-Baseline CO2e (metric tons/year)
Transportation:	864.29	864.29
Area Source:	49.97	49.97
Electricity:	155.63	155.63
Natural Gas:	114.69	114.69
Water & Wastewater:	11.49	11.49
Solid Waste:	34.23	34.23
Agriculture:	0.00	0.00
Off-Road Equipment:	0.00	0.00
Refrigerants:	0.00	0.00
Sequestration:	N/A	0.00
Purchase of Offsets:	N/A	0.00
Total:	1,230.30	1,230.30

Baseline is currently: OFF
Baseline Project Name:
Go to Settings Tab to Turn On Baseline



Detailed Results

Unmitigated	CO2 (metric tpy)	CH4 (metric tpy)	N2O (metric tpy)	CO2e (metric tpy)	% of Total
Transportation*:				864.29	70.25%
Area Source:	45.26	0.17	0.00	49.97	4.06%
Electricity:	155.38	0.00	0.00	155.63	12.65%
Natural Gas:	114.40	0.01	0.00	114.69	9.32%
Water & Wastewater:	11.47	0.00	0.00	11.49	0.93%
Solid Waste:	0.53	1.60	N/A	34.23	2.78%
Agriculture:	0.00	0.00	0.00	0.00	0.00%
Off-Road Equipment:	0.00	0.00	0.00	0.00	0.00%
Refrigerants:	N/A	N/A	N/A	0.00	0.00%
Sequestration:	N/A	N/A	N/A	N/A	N/A
Purchase of Offsets:	N/A	N/A	N/A	N/A	N/A
Total:				1,230.30	100.00%

Baseline	CO2 (metric tpy)	CH4 (metric tpy)	N2O (metric tpy)	CO2e (metric tpy)	% of Total
Transportation*:				0.00	N/A
Area Source:	0.00	0.00	0.00	0.00	N/A
Electricity:	0.00	0.00	0.00	0.00	N/A
Natural Gas:	0.00	0.00	0.00	0.00	N/A
Water & Wastewater:	0.00	0.00	0.00	0.00	N/A
Solid Waste:	0.00	0.00	N/A	0.00	N/A
Agriculture:	0.00	0.00	0.00	0.00	N/A
Off-Road Equipment:	0.00	0.00	0.00	0.00	N/A
Refrigerants:	N/A	N/A	N/A	0.00	N/A
Sequestration:	N/A	N/A	N/A	N/A	N/A
Purchase of Offsets:	N/A	N/A	N/A	N/A	N/A
Total:				0.00	0.00%

* Several adjustments were made to transportation emissions after they have been imported from URBEMIS.
After importing from URBEMIS, CO2 emissions are converted to metric tons and then adjusted to account for the "Pavley" regulation. Then, CO2 is converted to CO2e by multiplying by 100/95 to account for the contribution of other GHGs (CH4, N2O, and HFCs (from leaking air conditioners)). Finally, CO2e is adjusted to account for th low carbon fuels rule.

Mitigated	CO2 (metric tpy)	CH4 (metric tpy)	N2O (metric tpy)	CO2e (metric tpy)	% of Total
Transportation*:				864.29	70.25%
Area Source:	45.26	0.17	0.00	49.97	4.06%
Electricity:	155.38	0.00	0.00	155.63	12.65%
Natural Gas:	114.40	0.01	0.00	114.69	9.32%
Water & Wastewater:	11.47	0.00	0.00	11.49	0.93%
Solid Waste:	0.53	1.60	N/A	34.23	2.78%
Agriculture:	0.00	0.00	0.00	0.00	0.00%
Off-Road Equipment:	0.00	0.00	0.00	0.00	0.00%
Refrigerants:	N/A	N/A	N/A	0.00	0.00%
Sequestration:	N/A	N/A	N/A	0.00	0.00%
Purchase of Offsets:	N/A	N/A	N/A	0.00	0.00%
Total:				1,230.30	100.00%

Mitigation Measures Selected:

Transportation: Go to the following tab: Transp. Detail Mit for a list of the transportation mitigation measures selected (in URBEMIS)

Electricity: The following mitigation measure(s) have been selected to reduce electricity emissions.

Natural Gas: The following mitigation measure(s) have been selected to reduce natural gas emissions.

Water and Wastewater: The following mitigation measure(s) have been selected to reduce water and wastewater emissions.

Solid Waste: The following mitigation measure has been selected to reduce solid waste related GHG emissions.

Ag: No existing mitigation measures available.

Off-Road Equipment: No existing mitigation measures available.

Refrigerants: The following mitigation measure has ben selected to reduce refrigerant emissions:

Carbon Sequestration: Project does not include carbon sequestration through tree planting.

Emission Offsets/Credits: Project does not include purchase of emission offsets/credits.

Arborist Report

N. Capitol Villas
San Jose CA

Prepared for:
Trumark Companies & Current Property Owners
4185 Blackhawk Plaza Circle, Suite 200
Danville, CA 94506

Prepared by:
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October 2010

HORT SCIENCE

Arborist Report
North Capitol Villas
San Jose CA

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Attachments

Tree Survey Forms

Tree Survey Map

Introduction and Overview

Trumark Companies are proposing to redevelop the property at 1328 N. Capitol Avenue, in San Jose. The site is bordered by N.Capital Ave. to the southwest, Sierra Rd. to the south, and Havenwood Dr. to the northeast. Currently, the central portion of the site has a residence and is used for storage. The northwest and southeast portions of the site are undeveloped. Trumark Companies requested that HortScience, Inc. prepare an **Arborist Report** for the site. This report provides the following information:

1. A survey of trees growing on, and immediately adjacent to the site.
2. A preliminary assessment of the impacts of constructing the proposed project on the trees.
3. A preliminary mitigation calculation.
4. Guidelines for tree preservation during the design, construction and maintenance phases of development.

Survey Methods

Trees were surveyed in September of 2010. Trees were tagged in the field with numbers 56-90. For the benefit of the environmental documentation, I have also given each tree a number, from 1-35. The survey included all trees 4" in diameter and greater. The survey procedure consisted of the following steps:

1. Identifying the tree as to species;
2. Verify the presence of a metal tag and recording its location on a map;
3. Measuring the trunk diameter at a point 24" above grade;
4. Evaluating the health and structural condition using a scale of 1 – 5:
   - ***5*** - A healthy, vigorous tree, reasonably free of signs and symptoms of disease, with good structure and form typical of the species.
   - ***4*** - Tree with slight decline in vigor, small amount of twig dieback, minor structural defects that could be corrected.
   - ***3*** - Tree with moderate vigor, moderate twig and small branch dieback, thinning of crown, poor leaf color, moderate structural defects that might be mitigated with regular care.
   - ***2*** - Tree in decline, epicormic growth, extensive dieback of medium to large branches, significant structural defects that cannot be abated.
   - ***1*** - Tree in severe decline, dieback of scaffold branches and/or trunk; most of foliage from epicormics; extensive structural defects that cannot be abated.
5. Rating the suitability for preservation as "good", "moderate" or "poor". Suitability for preservation considers the health, age and structural condition of the tree, and its potential to remain an asset to the site for years to come.

   Good: Trees with good health and structural stability that have the potential for longevity at the site.

   Moderate: Trees with somewhat declining health and/or structural defects than can be abated with treatment. The tree will require more intense management and monitoring, and may have shorter life span than those in 'good' category.

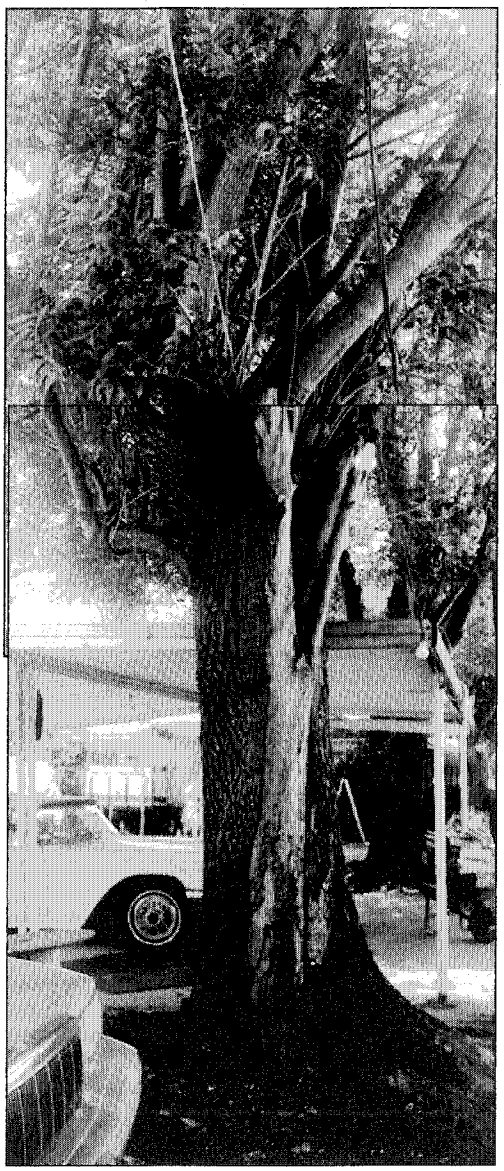
   Poor: Trees in poor health or with significant structural defects that cannot be mitigated. Tree is expected to continue to decline, regardless of treatment. The species or individual may have characteristics that are undesirable for landscapes, and generally are unsuited for use areas.

Description of Trees

A total of 35 trees were evaluated, representing 15 species (Table 1, following page). Descriptions of each tree are found in the ***Tree Survey Forms*** and locations are plotted on the ***Tree Survey Map*** (see Attachments). A summary is provided in Table 1, following page.

Trees were concentrated around the central, developed portion of the site. The species were highly diverse, and all were planted exotics.

The most frequently occurring species was Mexican fan palm, with five (5) trees, or 14% of the population. Trees of this species had been planted along the west side of the developed area. Four (4) of these were in good condition and one was fair. The tree in fair condition had several stems from the base and was impenetrable, preventing a good assessment of the trunks. All five (5) of the Mexican fan palms met the City's criteria as "Ordinance-size" (see page 6).



Holly oak, with four (4) trees (11% of the population) was the second most common species. Holly oaks were spread across the developed portion of the site. All were in fair condition. Holly oaks #64 and 72 had full crowns, and #77 leaned away from the adjacent building. One (1) of the holly oaks met the City's criteria as "Ordinance-size".

Evergreen ash, also with four (4) trees, dominated the N. Capitol Ave. frontage. Evergreen ash were in good condition (3 trees), with one (1) in poor. Three of the trees, #68, 83, and 84, had been topped at some point in the past. Two of the topped trees had recovered their form and structure, but tree #68 never recovered and extensive decay had become established in the trunk (Photo 1).

Photo 1: Evergreen ash #68 was in poor condition. The tree had poor form and structure as a result of severe topping at some point in the past. Extensive trunk decay had become established, compromising the tree's structure. The tree now poses a risk for limb failure.

Table 1: Condition ratings and frequency of occurrence of trees.
N. Capitol Villas, San Jose CA.

Common Name	Scientific Name	Condition Rating			No. of
		Poor (2)	Fair (3)	Good (4)	Trees
Fir species	*Abies sp.*	1	-	-	1
Tree of heaven	*Ailanthus altissima*	-	1	-	1
Bottle brush	*Callistemon citrinus*	-	1	-	1
Persimmon	*Diospyros kaki*	-	2	-	2
Loquat	*Eriobotrya japonica*	1	1	1	3
Silver dollar gum	*Eucalyptus polyanthemos*	-	3	-	3
Evergreen ash	*Fraxinus uhdei*	1	-	3	4
English walnut	*Juglans regia*	-	1	-	1
Glossy privet	*Ligustrum lucidum*	1	1	-	2
Avocado	*Persea americana*	-	3	-	3
Cherry	*Prunus serrulata*	2	-	-	2
Holly oak	*Quercus ilex*	-	4	-	4
California pepper	*Schinus molle*	-	1	-	1
California bay	*Umbellularia californica*	1	1	-	2
Mexican fan palm	*Washingtonia robusta*	-	1	4	5
Total		**7**	**20**	**8**	**35**
		20%	57%	23%	100%

The following species were also worth noting:

- Three (3) Loquats had been planted across the site. Condition for the species ranged from good to poor.
- Three (3) silver dollar gums had been planted along the Havenwood Dr. frontage. The trees were semi-mature in development, with stems ranging in size from 8" to 19" in diameter. All three (3) trees were in fair condition.
- Similarly, the three (3) avocados were in fair condition. Avocado #71 appeared to be a stump sprout, with multiple attachments arising at 2'.

Average tree condition was fair (20 trees, or 57%). Eight (8) trees, or 23%, were in good condition, and seven (7) (20%) were in poor. The fair condition of the trees is a reflection of the quality of maintenance practices employed, specifically, the practice of topping the trees.

The City of San Jose defines all trees with a diameter of 18" or greater, measured 24" above grade, as "Ordinance-size" (Ordinance 13.32, Tree Removal controls). Any multi-stemmed tree where the sum of the trunk diameters is 18" or greater, is also considered "Ordinance-size". Twenty (20) "Ordinance-size" trees were surveyed, including nine (9) that had multiple stems. The City requires a permit for the proposed removal of any "Ordinance-size" tree. "Ordinance-size" trees are identified in the attached ***Tree survey Form***.

Suitability for Preservation

Before evaluating the impacts that will occur during development, it is important to consider the quality of the tree resource itself, and the potential for individual trees to function well over an extended length of time. Trees that are preserved on development sites must be carefully selected to make sure that they may survive development impacts, adapt to a new environment, and perform well in the landscape.

Our goal is to identify trees that have the potential for long-term health, structural stability and longevity. For trees growing in open fields, away from people and property, the presence of structural defects and/or poor health presents a low risk of damage or injury if they fail. However, when we invite people to use areas within and adjacent to such trees, we must be concerned about their safety. Therefore, where development encroaches into existing plantings, we must consider the potential for trees to grow and thrive in a new environment as well as their ability to remain structurally stable.

Evaluation of suitability for preservation considers several factors:

- **Tree health**
  Healthy, vigorous trees are better able to tolerate impacts such as root injury, demolition of existing structures, changes in soil grade and moisture, and soil compaction than are non-vigorous trees.

- **Structural integrity**
  Trees with significant amounts of wood decay and other structural defects that cannot be corrected are likely to fail. Such trees should not be preserved in areas where damage to people or property is likely. Evergreen ash #68 is an example of such a tree.

- **Species response**
  There is a wide variation in the response of individual species to construction impacts and changes in the environment. In our experience, for example, English walnuts are sensitive to construction impacts, while evergreen ash, and Mexican fan palms are tolerant of site disturbance.

- **Tree age and longevity**
  Old trees, while having significant emotional and aesthetic appeal, have limited physiological capacity to adjust to an altered environment. Young trees are better able to generate new tissue and respond to change.

- **Invasiveness**
  Trees with the potential to invade native habitats, reproduce rapidly, and grow in sub-optimal environments are considered invasive. Species with these qualities may alter the functional and aesthetic qualities of the habitats they invade. Tree of heaven (tree #67) was the only species surveyed at the N. Capitol Villas site that is considered invasive.

Each tree was rated for suitability for preservation based upon its age, health, structural condition and ability to safely coexist within a development environment (see ***Tree Survey Form***). A summary of suitability ratings is provided in **Table 2** (following page).

We cannot recommend retention of trees with poor suitability for preservation in areas where people or property will be present. Retention of trees with moderate suitability for preservation depends upon the intensity of proposed site changes.

Table 2: Suitability for preservation.
N. Capitol Villas, San Jose CA.

Good	Trees with good health and structural stability that have the potential for longevity at the site. Five (5) trees were rated as having good suitability for preservation, including three (3) Mexican fan palms, and two (2) evergreen ash.
Moderate	Trees with fair health and/or structural defects that may be abated with treatment. Trees in this category require more intense management and monitoring, and may have shorter life-spans than those in the "good" category. Fourteen (14) trees were of moderate suitability, including four (4) holly oaks, two (2) each of silver dollar gum, persimmon and avocado, and one (1) each of Mexican fan palm, loquat, evergreen ash and English walnut.
Poor	Trees in poor health or with significant defects in structure that cannot be abated with treatment. Trees can be expected to decline regardless of management. The species or individual tree may possess either characteristics that are undesirable in landscape settings, or be unsuited for use areas. Sixteen (16) trees were of poor suitability for preservation, including two (2) each of glossy privet, cherry, Calif. bay and loquat, and one (1) each of tree of heaven, silver dollar gum, bottle brush, Calif. pepper, avocado, Mexican fan palm, evergreen ash and an unknown fir species.

Preliminary Evaluation of Impacts

Appropriate tree retention develops a practical match between the location, intensity of construction activity and the quality and health of trees. The ***Tree Survey Form*** was the reference point for tree condition and quality. Potential impacts from construction were evaluated using the Conceptual Site Plan, prepared by the Charles W. Davidson Co. (dated September 27, 2010).

The plan proposed 96 condominiums or townhouses, with access points onto N. Capitol Ave. and Sierra Rd. A private park would be located in the middle of the site, along the Havenwood Dr. side of the project. No grading, drainage, utility, or accurate tree location information were shown on the plan.

Potential impacts from construction were estimated for each tree. Precise impacts will have to be determined once trees have been located and plotted, and the plans are finalized. The most significant impacts to trees would be associated with demolition and grading of the central portion of the site for the construction of the residential units.

Based on my evaluation of the Conceptual Site Plan, there is limited room for tree preservation. All 30 of the centrally located trees fall within the proposed building areas, requiring their removal. This includes 27 trees of moderate or poor suitability for preservation (15 poor and 12 moderate), and 14 "Ordinance-size" trees (Table 3, following page).

Five (5) trees, including two of the silver dollar gums along Havenwood Dr. and three evergreen ash along N. Capitol Ave. are appropriate to consider for retention, if sufficient space can be provided (Table 3). A final determination of impacts and recommendations for preservation, removal or design changes to minimize impacts, can only be made once accurate trunk locations have been established and plotted on the Site Plan.

The City of San Jose requires a removal permit for the proposed removal of any "Ordinance-size" tree (Ordinance 13.32, Tree Removal controls). Based on my assessment of the Conceptual Site Plan, 15 of the trees preliminarily recommended for removal would require a removal permit. If all 35 trees were removed, a total of 20 trees would require a removal permit. Table 4 (following page) provides a preliminary list of trees requiring a removal permit, presuming all of the Ordinance sized trees are removed.

Preliminary Mitigation Calculation

Based on the City of San Jose's standard mitigation measure (San Jose Municipal Code, Section 13.32.020), the approved removal of any tree requires mitigation. The approved removal of the two (2) native trees (Tag #73 and 74) would require a total of 8 mitigation plantings. Removal of the three (3) orchard trees (#61, 88 and 90) would not require mitigation, and removal of the 30 non-native trees would require a total of 89 mitigation plantings. Trees with diameters less than 12" are to be replaced with 15 gallon, and those with diameters above 12" are to be replaced with 24" boxes. Seven (7) of the mitigation trees would have to be 15 gallon and 90 would have to be 24" box. Assuming the removal of all 35 trees, a total of 97 mitigation plantings would be required, including nine (9) 15 gallon and 90 24" box.

As an alternative, one (1) 24" box can be counted as two (2) 15 gallon trees. Additionally, if the site cannot accommodate the number of mitigation plantings, alternative sites may be identified by the City for plantings, or an in-lieu fee of $300 per tree may be donated for off-site tree planting.

Table 3. Preliminary recommendations for action.
N. Capitol Villas, San Jose CA.

Tree #	Tag #	Species	Diameter	Ordinance size?	Mitigation status	Action
1	56	Mexican fan palm	22	Yes	Non-Native	Remove
2	57	Loquat	4,3,2	No	Non-Native	Remove
3	58	Silver dollar gum	19	Yes	Non-Native	**Poss. preservation**
4	59	Silver dollar gum	14,14	Yes	Non-Native	**Poss. preservation**
5	60	California pepper	14,12,8,7	Yes	Non-Native	Remove
6	61	English walnut	7	No	Orchard	Remove
7	62	Silver dollar gum	15,10,8	Yes	Non-Native	Remove
8	63	Mexican fan palm	22	Yes	Non-Native	Remove
9	64	Holly oak	10,10	Yes	Non-Native	Remove
10	65	Mexican fan palm	25,18	Yes	Non-Native	Remove
11	66	Mexican fan palm	23	Yes	Non-Native	Remove
12	67	Tree of heaven	31	Yes	Non-Native	Remove
13	68	Evergreen ash	24	Yes	Non-Native	Remove
14	69	Evergreen ash	28	Yes	Non-Native	**Poss. preservation**
15	70	Avocado	23	Yes	Non-Native	Remove

(Continued, following page)

Table 3. Preliminary recommendations for action, continued.
N. Capitol Villas, San Jose CA.

Tree #	Tag #	Species	Diameter	Ordinance size?	Mitigation status	Action
16	71	Avocado	6,5,5	No	Non-Native	Remove
17	72	Holly oak	9	No	Non-Native	Remove
18	73	California bay	46	Yes	Native	Remove
19	74	California bay	15	No	Native	Remove
20	75	Glossy privet	4,4,4,2	No	Non-Native	Remove
21	76	Persimmon	14,9	Yes	Non-Native	Remove
22	77	Holly oak	9	No	Non-Native	Remove
23	78	Avocado	7	No	Non-Native	Remove
24	79	Loquat	12	No	Non-Native	Remove
25	80	Bottle brush	6,5,5	No	Non-Native	Remove
26	81	Fir species	11	No	Non-Native	Remove
27	82	Persimmon	6,5	No	Non-Native	Remove
28	83	Evergreen ash	27	Yes	Non-Native	**Poss. preservation**
29	84	Evergreen ash	28	Yes	Non-Native	**Poss. preservation**
30	85	Mexican fan palm	multi	Yes	Non-Native	Remove
31	86	Glossy privet	10,8,7	Yes	Non-Native	Remove
32	87	Holly oak	7,3	No	Non-Native	Remove
33	88	Cherry	6,3	No	Orchard	Remove
34	89	Loquat	8,8,5	Yes	Non-Native	Remove
35	90	Cherry	16	No	Orchard	Remove

Table 4. Trees requiring a removal permit
N. Capitol Villas, San Jose

Tree #	Tag #	Species	Diameter	Suitability for Preservation
1	56	Mexican fan palm	22	Moderate
3	58	Silver dollar gum	19	Moderate
4	59	Silver dollar gum	14,14	Moderate
5	60	California pepper	14,12,8,7	Poor
7	62	Silver dollar gum	15,10,8	Poor
8	63	Mexican fan palm	22	Good
9	64	Holly oak	10,10	Moderate
10	65	Mexican fan palm	25,18	Good
11	66	Mexican fan palm	23	Good
12	67	Tree of heaven	31	Poor
13	68	Evergreen ash	24	Poor
14	69	Evergreen ash	28	Moderate
15	70	Avocado	23	Moderate
18	73	California bay	46	Poor
21	76	Persimmon	14,9	Moderate
28	83	Evergreen ash	27	Good
29	84	Evergreen ash	28	Good
30	85	Mexican fan palm	multi	Moderate
31	86	Glossy privet	10,8,7	Poor
34	89	Loquat	8,8,5	Poor

Tree Preservation Guidelines

The goal of tree preservation is not merely tree survival during development but maintenance of tree health and beauty for many years. Trees retained on sites that are subject to extensive injury during construction and are not adequately maintained become a liability rather than an asset.

Impacts can be minimized by coordinating demolition and construction activities within the **TREE PROTECTION ZONE**. The following recommendations will help maintain and improve the health and vitality of trees preserved at the N. Capitol Villas site.

Design recommendations

1. Any plan affecting trees should be reviewed by the Consulting Arborist with regard to tree impacts. These include, but are not limited to, improvement plans, utility and drainage plans, grading plans, landscape and irrigation plans and demolition plans.

2. Establish and plot on all plans, accurate horizontal and vertical locations of any tree to be preserved.

3. A **TREE PROTECTION ZONE** must be established for trees to be preserved, in which no soil disturbance is permitted. The extent of the **TREE PROTECTION ZONE** will be finalized as more detailed plans become available. For design purposes, the **TREE PROTECTION ZONE** shall be defined at dripline in all directions.

4. No underground services including utilities, sub-drains, water or sewer shall be placed in the **TREE PROTECTION ZONE**.

5. Irrigation systems must be designed so that no trenching will occur within the **TREE PROTECTION ZONE**.

6. ***Tree Preservation Guidelines*** should be included on all plans.

7. Any herbicides placed under paving materials must be safe for use around trees and labeled for that use.

8. As trees withdraw water from the soil, expansive soils may shrink within the root area. Therefore, foundations, footings and pavements on expansive soils near trees should be designed to withstand differential displacement.

Pre-construction treatments and recommendations

1. The demolition contractor shall meet with the Consulting Arborist before beginning work to discuss work procedures and tree protection.

2. Tree(s) to be removed that have branches extending into the canopy of tree(s) to remain must be removed by a qualified arborist and not by demolition or construction contractors. The qualified arborist shall remove the tree in a manner that causes no damage to the tree(s) and understory to remain. Stumps shall be ground below grade.

3. Trees to be retained shall be fenced to completely enclose the **TREE PROTECTION ZONE**. Fences must be established prior to demolition and are to remain until all grading and construction is completed.

4. Structures and underground features to be removed within the **TREE PROTECTION ZONE** shall use the smallest equipment, and operate from outside the **TREE PROTECTION ZONE**. The consultant shall be on-site during all operations within the **TREE PROTECTION ZONE** to monitor demolition activity.

5. Prior to the start of grading, trees may require pruning to correct defects in structure, clean the crown and/or provide construction clearance. Pruning shall be completed by a Certified Arborist or Tree Worker, and adhere to the latest edition of the ANSI Z133 and A300 standards as well as the *Best Management Practices -- Tree Pruning* published by the International Society of Arboriculture.

6. Brush shall be chipped and spread beneath the trees within the **TREE PROTECTION ZONE.**

Recommendations for tree protection during construction

1. Prior to beginning work, the contractors working in the vicinity of trees to be preserved are required to meet with the Consulting Arborist at the site to review all work procedures, access routes, storage areas and tree protection measures.

2. If injury should occur to any tree during construction, it should be evaluated as soon as possible by the Consulting Arborist so that appropriate treatments can be applied.

3. Fences have been erected to protect trees to be preserved. Fences define a specific **TREE PROTECTION ZONE** for each tree or group of trees. Fences are to remain until all site work has been completed. Fences may not be relocated or removed without permission of the Consulting Arborist.

4. Construction trailers, traffic and storage areas must remain outside fenced areas at all times.

5. Any grading, construction, demolition or other work within the **TREE PROTECTION ZONE** should be monitored by the Consulting Arborist.

6. Any root pruning required for construction purposes shall receive the prior approval of, and be supervised by, the Consulting Arborist.

7. Root-injured trees have a limited capacity to absorb water. Therefore, it is important to ensure adequate soil moisture in the area of active roots. One to several irrigations may be needed for trees that are at risk. Irrigations should be specified by the Consulting Arborist.

8. No excess soil, chemicals, debris, equipment or other materials shall be dumped or stored within the **TREE PROTECTION ZONE**.

9. Any additional tree pruning needed for clearance during construction must be performed by a Certified Arborist and not by construction personnel.

Maintenance of impacted trees
Trees preserved at the N. Capitol Villas site will experience a physical environment different from that pre-development. Following construction, new owners should develop a management plan that includes pruning, fertilization, mulch, pest management, replanting and irrigation. In addition, provisions for monitoring both tree health and structural stability following construction must be made a priority. As trees age, the likelihood of failure of branches or entire trees increases.

HortScience, Inc.

John Leffingwell
Board Certified Master Arborist WE-3966B
Registered Consulting Arborist #442

Tree Survey

1328 N. Capitol Avenue
San Jose, California
September 2010

HORT SCIENCE

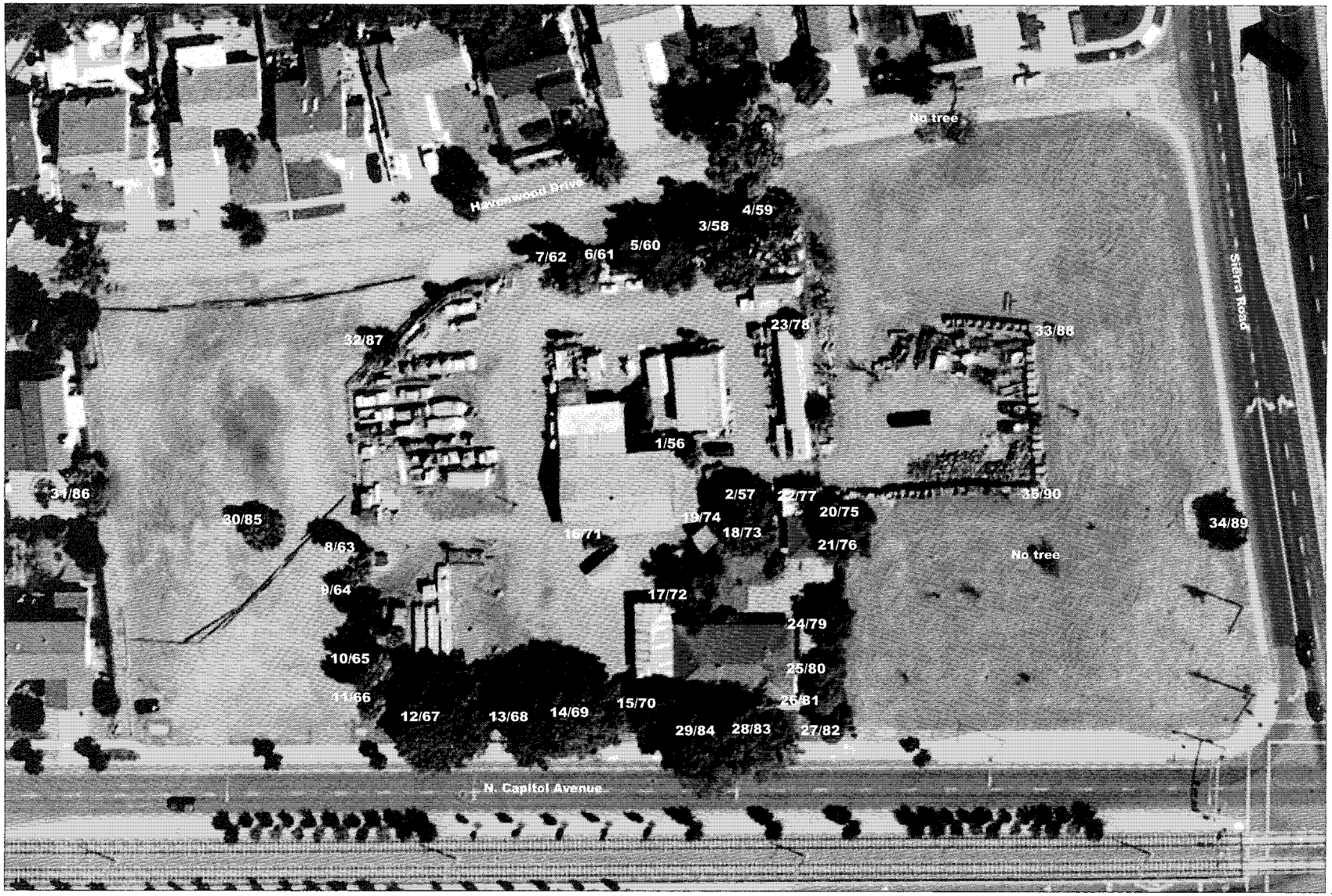
Tree No.	Tag No.	Species	Trunk Diameter (inches)	Ordinance Size?	Condition 5=excellent 1= poor	Suitability for Preservation	Comments
1	56	Mexican fan palm	22	Yes	4	Moderate	Good condition; 10' clear trunk; very close to building.
2	57	Loquat	4,3,2	No	2	Poor	Half of tree is dead.
3	58	Silver dollar gum	19	Yes	3	Moderate	Codominant at 8'; narrow form.
4	59	Silver dollar gum	14,14	Yes	3	Moderate	Codominant at base; barbed wire girdles stem to east.
5	60	California pepper	14,12,8,7	Yes	3	Poor	Growng in center of old metal trailer bed; stems from
6	61	English walnut	7	No	3	Moderate	Multiple attachments at 3'.
7	62	Silver dollar gum	15,10,8	Yes	3	Poor	Stems from base; central stem has trunk wound from branch failure; low branching.
8	63	Mexican fan palm	22	Yes	5	Good	15' clear trunk.
9	64	Holly oak	10,10	Yes	3	Moderate	Stems from base; bark peeling off trunks; sap sucker damage; full healthy crown.
10	65	Mexican fan palm	25,18	Yes	4	Good	Stems from base; 6' clear trunk.
11	66	Mexican fan palm	23	Yes	4	Good	Base at fence; 8' clear trunk.
12	67	Tree of heaven	31	Yes	3	Poor	Codominant at 5' with included bark with rope inbedded in attachment; full healthy crown.
13	68	Evergreen ash	24	Yes	2	Poor	Extensive trunk decay; previously topped.
14	69	Evergreen ash	28	Yes	4	Moderate	Multiple attachments at 7'; nice full crown.
15	70	Avocado	23	Yes	3	Moderate	Codominant at 5'; full wide spreading crown.
16	71	Avocado	6,5,5	No	3	Poor	Multiple attachments at 2'; stump sprouts; grows right next to building.
17	72	Holly oak	9	No	3	Moderate	Codominant at 6'; full crown.
18	73	California bay	46	Yes	3	Poor	Multiple attachments at 5'; topped at 10' with resprouts.
19	74	California bay	15	No	2	Poor	Poor form; over topped by #73.
20	75	Glossy privet	4,4,4,2	No	2	Poor	Poor form; topped.
21	76	Persimmon	14,9	Yes	3	Moderate	Codominant at 2'; close to building.
22	77	Holly oak	9	No	3	Moderate	Single trunk bows away from building.
23	78	Avocado	7	No	3	Moderate	No tag; good upright form; close to trailer.

Tree Survey

1328 N. Capitol Avenue
San Jose, California
September 2010

HORT SCIENCE

Tree No.	Tag No.	Species	Trunk Diameter (inches)	Ordinance Size?	Condition 5=excellent 1= poor	Suitability for Preservation	Comments
24	79	Loquat	12	No	4	Moderate	Multiple attachments at 4'; minor decay in old pruning wounds.
25	80	Bottle brush	6,5,5	No	3	Poor	Multiple attachments at base; poor form.
26	81	Fir species	11	No	2	Poor	Thin crown; declining.
27	82	Persimmon	6,5	No	3	Moderate	Codominant at 4'; low, full crown.
28	83	Evergreen ash	27	Yes	4	Good	Multiple attachments at 7'; previously topped; full crown.
29	84	Evergreen ash	28	Yes	4	Good	Multiple attachments at 7'; previously topped; some narrow attachments; full crown.
30	85	Mexican fan palm	multi	Yes	3	Moderate	Mass of several palms; no clear trunk; can't see base.
31	86	Glossy privet	10,8,7	Yes	3	Poor	Stems from base all growing together; low crown.
32	87	Holly oak	7,3	No	3	Moderate	Low crown to ground; growing at fence.
33	88	Cherry	6,3	No	1	Poor	All but dead; a couple of live stems.
34	89	Loquat	8,8,5	Yes	3	Poor	Stems from base; grows at base of power pole; low crown.
35	90	Cherry	16	No	1	Poor	All but dead; a couple of live stems.



Tree Survey Map

1328 N. Capitol Avenue
San Jose, CA

Prepared for:
Trumark Companies
& Current Property Owners
Danville, CA

September 2010

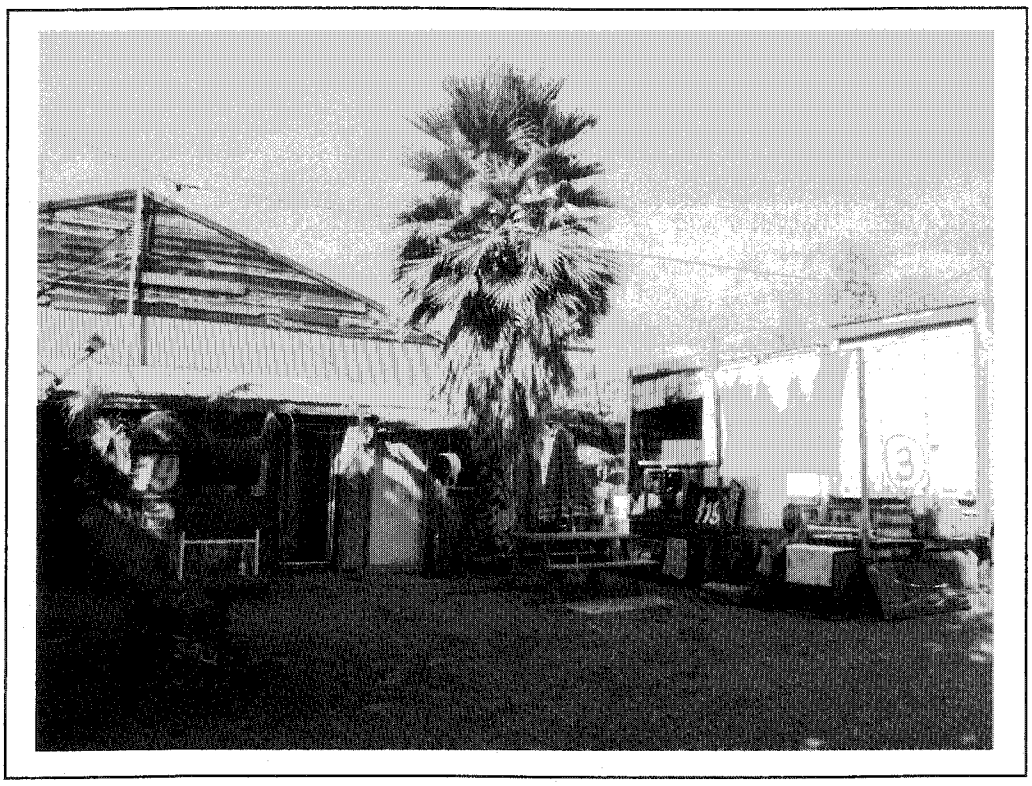
No Scale

Notes

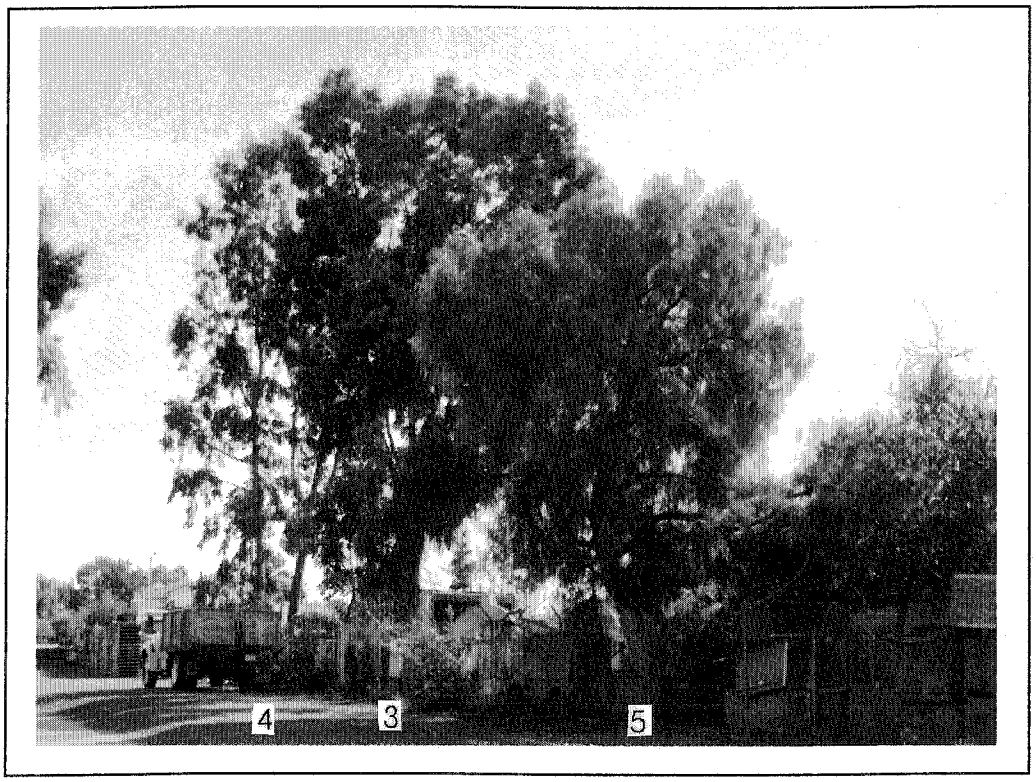
- Each tree was given a tree number and a tag number, respectively denoted on the map as 1/56.
- Base map provided by: Google Earth
- Numbered tree locations are approximate.

HORT SCIENCE

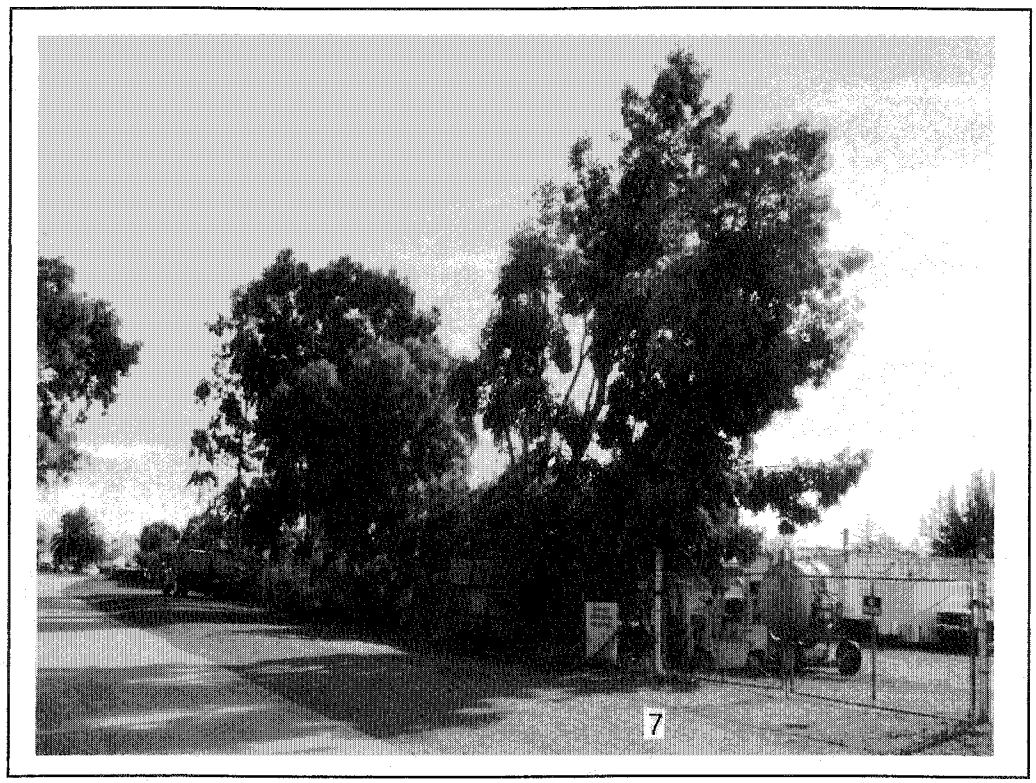
2150 Rheem Drive, Suite A
Pleasanton, California
Phone 925.484.0211
Fax 925.484.0596



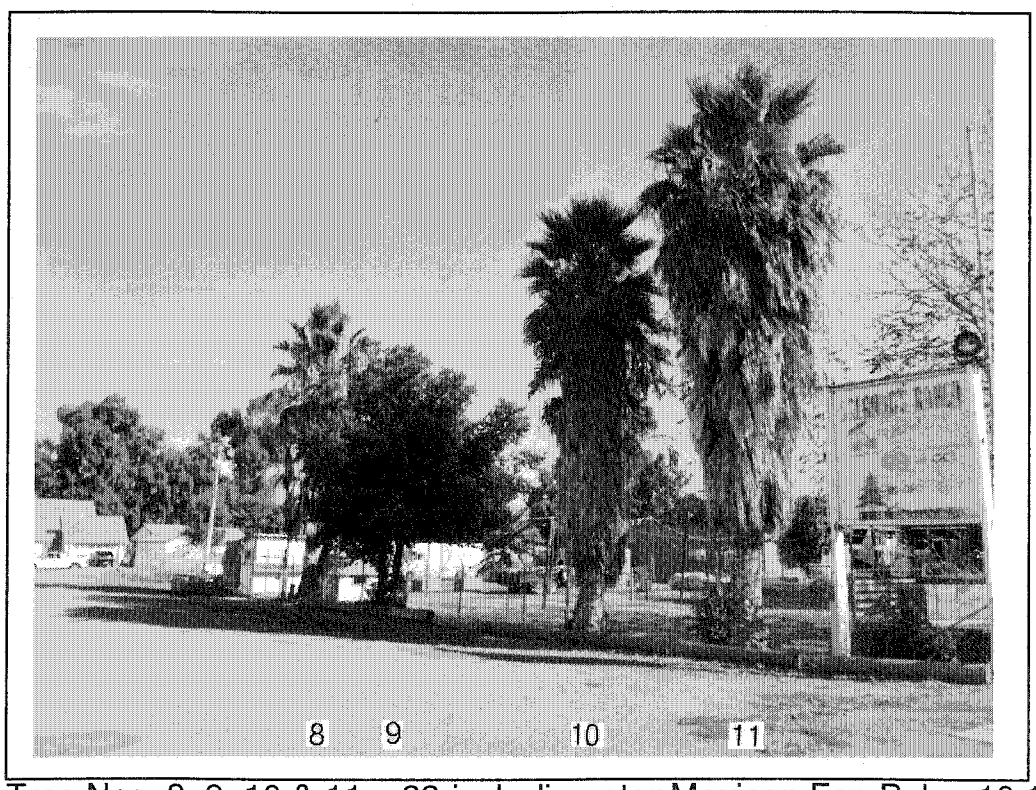
Tree No. 1 – 22-inch diameter Mexican Fan Palm



Tree Nos. 3, 4 & 5 – 9 & 14,14-inch diameter Silver Dollar Gums and 14,12,8,7-inch diameter California Pepper



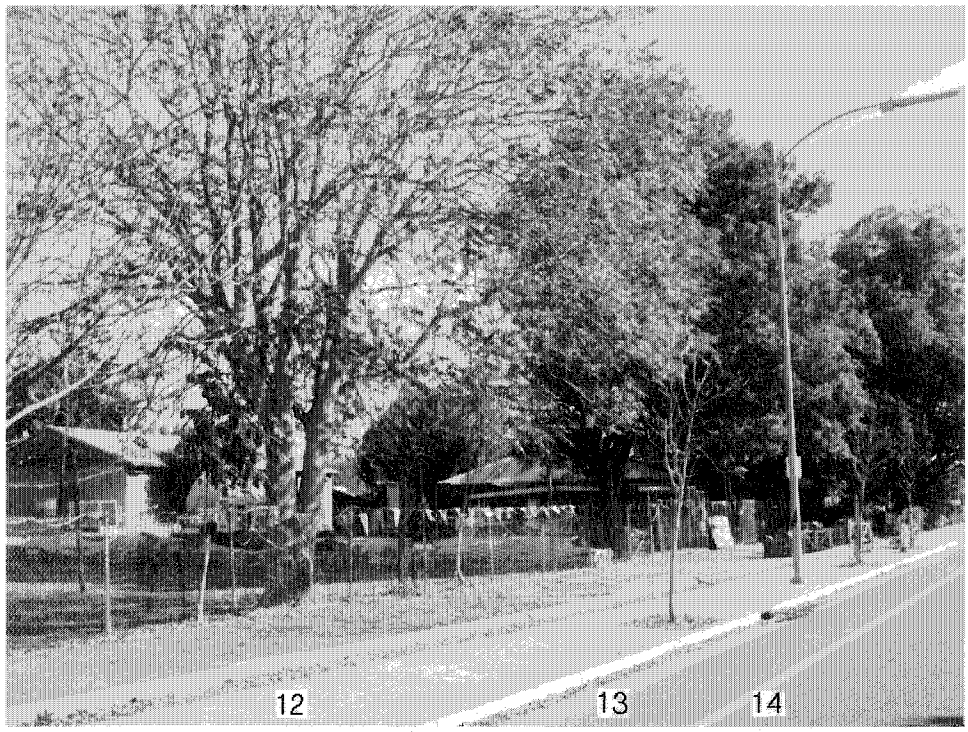
Tree No. 7 – 15,10,8-inch diameter Silver Dollar Gum



Tree Nos. 8, 9, 10 & 11 – 22-inch diameter Mexican Fan Palm; 10,10-inch diameter Holly Oak; and 25,18 & 23-inch diameter Mexican Fan Palms

Tree No. 30 – multi-stem Mexican Fan Palm

Tree No. 31 – 10,8,7-inch diameter Glossy Privet

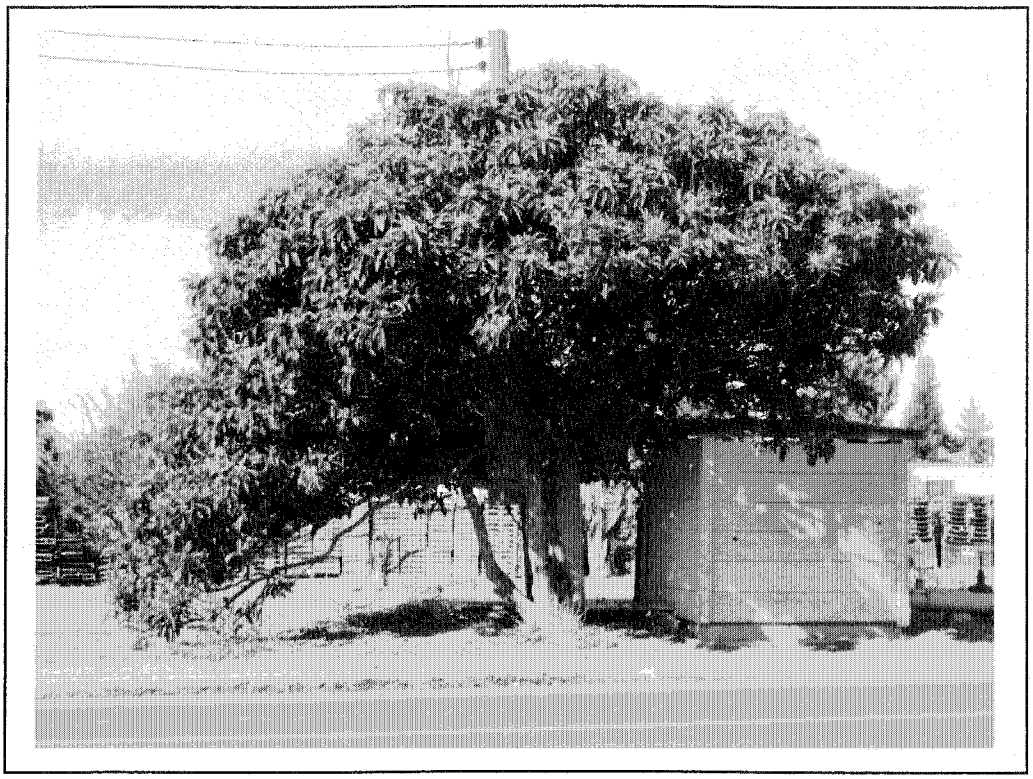


Tree Nos. 12, 13 & 14 – 31-inch diameter Tree of Heaven and 24 & 28-inch diameter Evergreen Ash

Tree Nos. 15, 28 & 29 – 23-inch diameter Avocado and 27 & 28-inch diameter Evergreen Ash

Tree No. 18 – 46-inch diameter California Bay

Tree No. 21 – 14,19-inch diameter Persimmon



Tree No. 34 – 8,8,5-inch diameter Loquat

LIVE OAK ASSOCIATES, INC.
an Ecological Consulting Firm

March 9, 2011

Richard Mindigo
Mindigo & Associates
1948 The Alameda
San Jose, CA 95126

Subject: Results of the survey for burrowing owls on an approximately 4.3-acre site located at 1328 North Capitol Avenue in the City of San Jose, California

Dear Mr. Mindigo:

Per your request, Live Oak Associates, Inc. (LOA), completed a protocol-level burrowing owl (*Athene cunicularia*) survey for the site located at 1328 North Capitol Avenue in the City of San Jose, Santa Clara County, California. This survey was conducted as required by the City.

Due to the fact that the site could potentially support overwintering habitat for burrowing owls, a protocol-level burrowing owl survey was conducted.

Existing Conditions

The project site is bounded by North Capitol Avenue to the west, a developed residential area to the north, Havenwood Drive to the east, and Sierra Road to the south. Surrounding land uses include residential and commercial development, major and minor roadways, and Cherrywood Elementary School to the east.

The site consists of a ruderal field, a woodlot, and development. The south side of the site is a previously tilled ruderal field that was up to chest-high with vegetation at the time of the site visit. Dominant plant species include wild oats (*Avena fatua*), mustard species (*Brassica spp.*), and oxalis (*Oxalis pes-capre*). Immediately north of the field is a small woodlot. The north half of the site includes an occupided residence, a fenced area with a barn and storage area, and a gravel parking lot. Trees on the site include loquat (*Eriobotrya japonica*), eucalyptus (*Eucalyptus spp.*), pepper tree (*Schinus molle*), fan palms (*Washingtonia filifera*) (full and half skirt), and various old orchard trees.

Avifauna observed onsite include a pair of red-shouldered hawks (*Buteo lineatus*) that were soaring over the site, mourning dove (*Zenaida macroura*), Anna's hummingbird (*Calypte anna*), white-crowned sparrow (*Zonotrichia leucophrys*), house finch (*Carpodacus mexicanus*), and

San Jose: 6840 Via del Oro, Suite 220 • San Jose, CA 95119 • Phone: (408) 224-8300 • Fax: (408) 224-1411
Oakhurst: P.O. Box 2697 • 39930 Sierra Way, Suite B • Oakhurst, CA 93644 • Phone: (559) 642-4880 • Fax: (559) 642-4883
Bakersfield: 8200 Stockdale Highway, M10-293 • Bakersfield, CA 93311

California towhee (*Pipilo crissalis*). Botta's pocket gopher (*Thomomys bottae*) sign was on the northern half of the site. No ground squirrel burrows were observed.

Burrowing Owl Survey

One burrowing owl survey of the site was conducted in a manner consistent with the recommendations as outlined by the California Department of Fish & Game's *Staff Report on Burrowing Owl Mitigation* (1995) and the Burrowing Owl Consortium's *Burrowing Owl Survey Protocol and Mitigation Guidelines* (1997). In summary, these protocols recommend conducting pedestrian surveys of the subject parcel in such a way as to allow 100% visual coverage of the site. An initial (Phase I) survey is used to determine if the site supports potentially suitable nesting habitat (i.e., ground squirrel burrows) for the owl. Typically, sites in Santa Clara County that support open habitats (e.g., ruderal field, grassland, oak savanna, etc.) and ground squirrel activity are considered potentially suitable habitat for the owl. If the initial survey concludes that the site supports potentially suitable habitat, then three additional, or Phase II, surveys may be necessary to ascertain if owls are present on the site.

LOA ecologist Katrina Huck conducted a Phase I survey on March 9, 2011. Due to fencing and domestic dogs (*Canid familiaris*) on the site, she was unable to survey with 100% visual coverage of the fenced storage area, but did so with binoculars from outside the fence. There was no sign of ground squirrels, their burrows, or burrowing owls on the site. Other suitable ground cavities were absent from the site. In addition, no direct sightings or secondary evidence of burrowing owls (i.e., molted feathers, pellets, or prey remains) were observed on the site. Due to the absence of suitable burrowing owl habitat, no additional (Phase II) surveys are currently required, and burrowing owls are considered absent from the site.

Conclusion

We conclude that burrowing owls are currently absent from the site. Any ground disturbance activities commencing within the next 30 days are not expected to result in take of owls. Additional surveys will be necessary should any ground disturbance commence more than 30 days out to evaluate any changes in site conditions and determine if owls remain absent from the site.

If you have any questions regarding our findings, please contact Rick Hopkins at (408) 281-5885 or me at (408) 281-5889.

Sincerely,

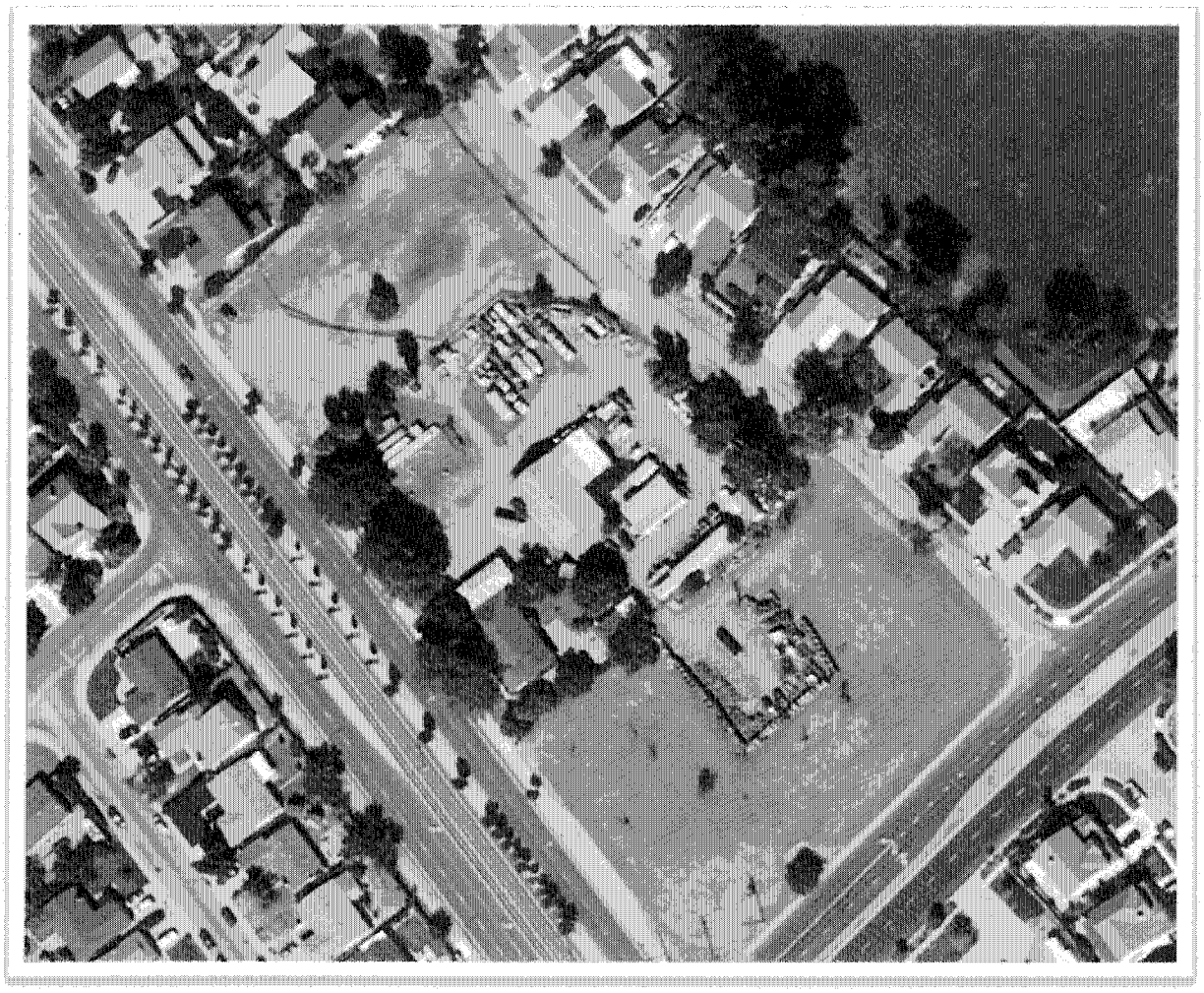
Katrina Huck, M.S.
Assistant Project Manager/Staff Ecologist

HISTORICAL AND ARCHITECTURAL EVALUATION

OF THE PROPERTY AT

1328 N. CAPITOL AVENUE

SAN JOSE, SANTA CLARA COUNTY, CALIFORNIA



Prepared for: Mindigo & Associates
1984 The Alameda
San Jose, CA 95126

Prepared by: Urban Programmers
10710 Ridgeview Ave
San Jose, CA 95127
408-254-7171

Date: November 8, 2010

State of California The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code NA

Other Listings _____
Review Code _____ Reviewer _____ Date

Page 1 **of** 31 ***Resource Name or #:** (Assigned by recorder) 1328 N. Capitol Ave SJ

P1. Other Identifier:

***P2. Location: Not for Publication** X **Unrestricted**

***a. County** Santa Clara **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** San Jose East **Date** 1980 **T** __; **R** __; __ **3 of** __ **3 of Sec** __; _____ **B.M.**

c. Address 1328 N. Capitol Avenue City San Jose Zip 95132

d. UTM: (Give more than one for large and/or linear resources) Zone 10, 600413 mE/ 41,39011 mN

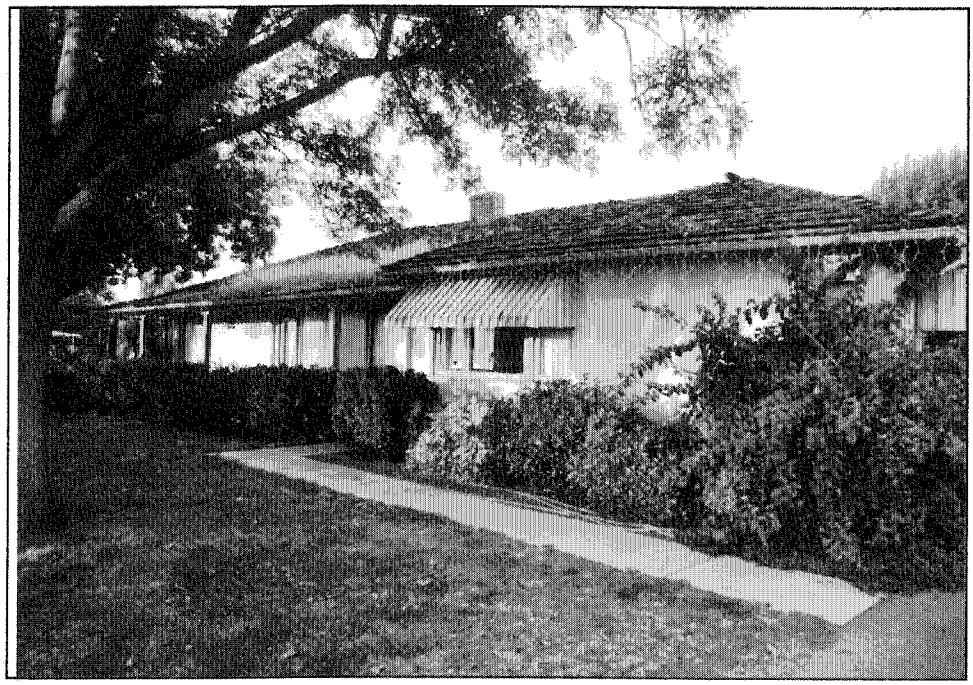
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)
APN 589-19-063

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
The property is located on the east side of N. Capitol Avenue, and the VTA light rail corridor, in the Berryessa District of San Jose. The parcel is relatively flat, surrounded on three sides by residential developments. The 4.3 acres include, one house and garage, a barn, a mobile home and an extensive collection of vehicles many associated with West Coast Searchlights. The property is divided with the buildings on one half and vacant land on the north side. Seasonal retail sales of pumpkins, Christmas trees and fruit occur on the vacant side.

The main house facing N.Capitol Ave. is a single-story, wood frame building covered in stucco that was constructed c.1944 in a vernacular Mid-century ranch style. The barn is a single-story, wood frame building that is covered primarily with corrugated metal sheets was constructed in 1960. These are the primary buildings on the property. Others are a variety of sheds and playhouses that are part of the retail sales.(Continued on page 3)

***P3b. Resource Attributes:** (List attributes and codes) HP 2 Single family detached house

P4. Resources Present: X Building Structure Object Site District Element of District Other (Isolates, etc.)



P5b. Description of Photo: (view, date, accession #) View E Front Façade,10/15/10

***P6. Date Constructed/Age and Source:**
X Historic Prehistoric Both
Constructed: 1944 City directories

***P7. Owner and Address:**
Diane Mahan Family 2004 Trust
1328 n. Capitol Ave, San Jose CA 95132

***P8. Recorded by:** (Name, affiliation, and address)
Bonnie Bamburg
Urban Programmers
10710 Ridgeview Avenue
San Jose CA 95127

***P9. Date Recorded:** 10/29/2010

***P10. Survey Type:** (Describe)
Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") VTA Capitol Avenue Light Rail EIR

***Attachments:** NONE Location Map Continuation Sheet X Building, Structure, and Object Record
Archaeological Record District Record Linear Feature Record Milling Station Record Rock Art Record
Artifact Record X Photograph Record Other (List):

State of California The Resources Agency Primary #
DEPARTMENT OF PARKS AND RECREATION HRI#

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code 6Z

 *Resource Name or # (Assigned by recorder) 1328 N. Capitol Ave.SJ 95132

B1. Historic Name: Orlando Orchards
B2. Common Name: Orlando Orchards
B3. Original Use: Rural house and barn B4. Present Use: house and storage barn
*B5. Architectural Style: Mid-century Ranch style
*B6. Construction History: (Construction date, alterations, and date of alterations)

House Constructed 1944, Barn c. 1960

*B7. Moved? X No Yes Unknown Date: _____ Original Location:
*B8. Related Features:

none

B9a. Architect: Unknown b. Builder: Unknown
*B10. Significance: Theme architecture/commerce Area San Jose
Period of Significance 1920-1950 Property Type House Applicable Criteria NA (Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The property is not significant to the history or architectural heritage of San Jose because it is not associated with individuals or events of historical significance in the City and does not exhibit artistic or high quality architectural design. The property is the remnant of the Orlando family orchards, originally 35 acres that existed along N. Capitol Avenue. No orchard trees exist. The only evidence of their fruit business is a utilitarian corrugated metal barn that was used to pack and store cherries awaiting shipment to Los Angeles, and is today used for general storage. The Fruit industry, particularly the canneries are a significant era in San José, however the Orlando family was typical of many immigrant families from Italy, they worked hard and did not individually influence the history of San Jose.

Background/Context:

Prehistoric Period

The first known inhabitants of the Santa Clara Valley were the Tamien tribe, a group of four distinct triblets that occupied different parts of the valley and were part of the Coastal Ohlone language group. Their settlements were established in areas where game, fish, acorns and vegetation (food) and fresh water were available, often along the Guadalupe River and Coyote Creek (Laffey 1992:1). Continued on page XXX

B11. Additional Resource Attributes: (List attributes and codes) HP 2 single-family residential
*B12. References: City & County public documents, U.S. Census, Orlando family interviews, See Continuation sheet
B13. Remarks:
*B14. Evaluator: Bonnie Bamburg
*Date of Evaluation: 10/29/2010

(Sketch Map with north arrow required.)

See attached map

(This space reserved for official comments.)

P3.Description cont

Main House and Garage: Constructed in 1944 for William and Josephine Orlando the single-story house is a vernacular version of the Mid-century ranch style, covered in stucco. The rectangular form has a long covered porch in the front façade with picture windows filling much of the wall, otherwise the facades are flat with simple windows of varying sizes. Metal canopies shade some of the windows on the front (west) façade. The shake roof extends over open rafters in the eaves to cover the porch. This extension of the roof is supported by simple, square posts. The main entry is a flat surface door in the center of the front façade, at the south end of the porch. The detached garage is a simple box with double door and shake style roof. The house is well cared for and appears in good condition. Landscaping is simple bushes against the house and lawn in the front yard. The vernacular style is not artistic or unusually suited to the location.

Barn: Approximately 40 feet by 25 feet the rectangular building has shed additions to the rear and south facades. Constructed with a rough timber frame the building is sheathed with corrugated metal sheets on most of the walls and the roof. In the gable of the low pitched roof, horizontal unfinished boards are the siding, all the rest is corrugated sheet metal. The interior is open space with a braced timber roof structure and few support posts. The floor is a concrete pad and gravel. Originally constructed for sorting and packing cherries, it is now general storage for a variety of equipment and machinery that appear related to the searchlight company. The barn is in relatively good condition for the type of building materials and construction. The style is utilitarian and not artistic or unique in design or construction.

Various sheds: the property has several sheds and play houses that are part of the retail sales of firewood, fruit (brought from other orchards), "pumpkin patch" or Christmas trees. The condition of these sheds is fair to poor. None are significant or artistic design and the construction is crude, often unpainted and lacking maintenance.

General Storage: The south side of the property is filled with equipment related to West Coast Searchlights. The rest of the site is packed earth and/or gravel.

In total the site is representative of the property left after the orchard or farm land has been sold leaving only the parcel with the family ranch house, barn and operations lot. The site is not associated with individual events or people significant to the history of San Jose.

Significance, Continued:

The Ohlone were decimated in the late 1700's when Spain, attempting to thwart the expansion of Russia and England in California, colonized the area enforcing subjugation of the native population into which it introduced European diseases.

The Spanish Period (1777-1822)

Exploration of Alta California brought the Spanish to the San Francisco Bay Area. The initial discovery of the Santa Clara Valley was by Sergeant Jose Ortega of the Portola Expedition in 1769,

who chronicled the abundance of timber, rich soil and a native population that could become a work force. It took less than eight years for Mission Santa Clara to be established and a few months longer for the first civil settlement in California, El Pueblo de San Jose de Guadalupe, to be established along the east bank of the Guadalupe River. The river became the boundary between the Roman Catholic Mission and the civil settlement. Although both were expected to provide food and goods to the Presidios of Monterey and San Francisco, their methods were very different. The Mission required the native population as a work force, while the Pueblo was settled by volunteers who were provided limited provisions and operated under a form of civil/military regulations.

In November 1777, Lt. Jose Joaquin Moraga, representing the King of Spain, and 14 families, a total of 66 people, left the Presidio San Francisco to create the first civil settlement in California in the fertile valley of the Guadalupe River. Moraga had the map drawn providing each family with a lot for a house and allocating "suertes" farming plots which could be used but not sold, and surrounding the Pueblo, common lands for grazing.

The settlement was originally located on the Guadalupe River in north San Jose (Taylor Street), but the annual flooding caused the settlers to petition for relocation to the south where they would be on higher ground. The request was granted, allowing the town to relocate about 1791. The new location was at the cross roads from Monterey and Mission Santa Clara with the port of Alviso about one mile north. The town was laid out with the center a plaza and market place where the road from Monterey entered (Market Street). Creating the town required a system of ditches (acequia) be constructed that would circulate fresh water throughout the town and farm lands. Eventually these were fed throughout the years by constructing a dam on the river. Residential lots and settlement patterns followed the alignment of the acequia.

The route of travel between San Francisco (Yerba Buena) and Monterey essentially follows the El Camino Real (Monterey Road through the south of the county) to Santa Clara Street; The Alameda to Santa Clara. Along this section, willow trees were planted by the Padres to shade travelers. Other modern roads also follow the early trails; Trimble Road connected the Mission Santa Clara with its corn fields (milpas) and to Mission San Jose (established in 1789); Highway 880 (#17) connected the Missions of Santa Clara and Santa Cruz, an old trail that was improved with the labor of Mission Indians.

During the Spanish period, farming produced beans, corn, wheat, hemp, flax, seasonal vegetables and fruit. The basic industry of the area revolved around the crops, milling and hemp/flax thread, candles and soap- the necessities. A poor quality wine and brandy were made from small vineyards and orchard fruit. As the cattle herds grew, hides (leather) and tallow (fat and rendering) became important in the local economy. Surplus food and goods made by the Pueblo were sent to the Presidios or traded with the sailing ships through the ports of Alviso, Monterey, Yerba Buena, and Santa Cruz.

Mexican Period (1822-1846)

Change was brought about by the 1810, civil war in Mexico which relaxed the regulations and destroyed the economy within the Pueblo. With reduced oversight from the Spanish military and reduced Spanish trade, the opportunity for trade with foreign ships through previously guarded ports provided different provisions - tea and coffee as well as manufactured goods. Exposure to different trade and governance systems came from the sailors who decided to jump ship and stay in California.

In 1822 Mexican governmental control replaced Spain's. The two most important and long term changes were the secularizing of Mission lands and, in 1824, the granting of large land holdings (ranchos) to any person who settled an unoccupied tract of land. Within Santa Clara Valley there were 38 land grants issued between 1833 and 1845, 15 of which were within the lands formerly held by the Pueblo (Laffey 1992:2). The ranchos were operated much as small towns, self sufficient in growing food and providing labor for the rancho's fields and industries, which were increasingly related to cattle (hides and tallow). While religion was part of the Rancho life, education was lacking.

Another change was allowing foreigners to settle in California. The first such settler was Antonio Sunol, born in Spain, who arrived on a French ship. An educated man, he opened the first general store and saloon in the Pueblo. He also planted a vineyard and it appears he was the first European to make wine in Santa Clara Valley selling it as early as 1823 (Arbuckle 1984:175). Soon his education qualified him for postmaster, banker and attorney, and in 1841, he became the Alcade (Mayor). Others followed and in 1841, the first Americans arrived by overland routes. In 1835, approximately 700 residents lived in the Pueblo; 40 were foreign, mostly English or Americans. By 1845, the population had grown to 900; almost 200 were Americans. The Americans were interested in business and transforming the Pueblo with American style commerce. By 1846, when the Americans occupied the territory, their numbers were sufficient to take control.

The Early American Period (1846-1869)

This turbulent period was marked by change; the influx of American settlers to the Mexican community; the dramatic change from the established governing systems of Spain, then Mexico to the English/American legal system; and an agrarian economy to the beginning of industry in the local economy. Land ownership was particularly difficult since the Mexican Government had granted large holdings with little documentation of boundaries; the two cultures often disagreed on how to adjudicate differences.

To settle at least some of the issues relating to land ownership, a survey was conducted in 1847 of the Pueblo from Market Street to Eighth Street and Julian south to Reed Street. Those who claimed ownership were given legal title; unclaimed land sold for $50 a city block (Laffey 1992:5).

Other surveys followed, some more accurate than others. In 1850, Surveyor Thomas White extended the city limits to Coyote Creek in the east and beyond the Guadalupe River on the west. Surveys were only part of the problem. Americans believed the open lands gained by the Treaty of Hidalgo were public and available. To determine legal title under the American system required the US government to establish the California Lands Commission in 1851; but that process proved lengthy and expensive, with the consequence that land was often forfeited. Within the Pueblo, the area between Market Plaza and the Guadalupe was contested for many years delaying development in this area while ownership was determined.

The gold rush of 1848-49 brought a sudden influx of primarily Americans to California. People needed food and services that were not immediately available. The businessmen of San Jose quickly developed hotels, saloons, theaters, and stores ready to sell whatever the miners needed. So prominent was the City that it was selected the first State Capitol in 1850 and although it lasted only two years, this provided incentive for even more urban development.

Outside the city proper, farms, orchards and vineyards started to fill the Valley. However, the stock of vines and trees did not significantly improve until 1851-53 when Antoine Delmas and then Louis Pellier imported European vines and scions that could be grafted to the hardy mission grape stock. They were followed by Etienne Thee and Charles Le Franc, who by 1857, had formed the Almaden Vineyards.

The College of Notre Dame was founded in 1851 growing from a small wood building to occupy a large campus of classic brick buildings on W. Santa Clara St. between San Pedro and Santa Teresa. The school educated young girls, elementary school through college. A few years later Minns Evening Normal School was established in San Francisco in 1857, after which it moved to San Jose, becoming San Jose Normal School now San Jose State University.

Infrastructure continued to develop to support the population growth. Natural gas was piped to buildings and street lights in San Jose and Santa Clara in 1861. Five years later, San Jose Water Company incorporated to provide piped water to residents followed closely by the City installing the first sewers. Transportation, using horse drawn carriages, was established between Santa Clara, San Jose and Saratoga-Los Gatos, to be replaced by Samuel Bishop's Street Car line in 1868. This line extended from Santa Clara eventually ending at the Alum Rock Reserve (park) in the east hills.

The educated population attracted printers and newspapers to the area. Politically motivated, the *State Journal* in December 1850, and the *Daily Argus* in 1851, were short lived; however, San Jose would never again be without locally printed newspapers (Arbuckle 1984:397).

A subtle change was occurring in agriculture with a switch from grazing lands to planted grain fields, primarily wheat, filling the valley floor. The economy was changing from cattle-based to wheat and seasonal fresh fruit. Fruit orchards planted by the Mission supplied apples and pears to

the miners showing the profit potential that could be made by raising fruit. By the end of 1850, San Jose was home to several professional orchardists and nurserymen including Louis Pellier, who opened City Nursery on the northeast corner of San Pedro and Chaboya Alley in 1850. Just 10 years later, 106,000 fruit trees thrived in the county and 156,000 grape vines; orchards were planted in all directions extending from the City (Arbuckle 1984:155).

This early period ends with the coming of the railroad. The first line was between San Francisco and San Jose opening in 1864, and in 1869, the Central Pacific line started from San Jose to Niles. The transcontinental railroad that connected Santa Clara Valley to the eastern states allowed access for the local agriculture and goods to be sold into the world's markets.

Horticultural Expansion 1870-1918

Grape growing found an instant market in the late 1870s, and into the 1880s because wine was in high demand and fruit that could not be dried, remained a seasonal commodity. "By the end of the 1880's Santa Clara County had 15,000 acres of vine and 478 viticulturists. producing 2,500,000 gallons of wine a year" (Arbuckle 1984:176). Orchards of many varieties of fruit spread in all directions spawning small towns with services and conveniences for the rural families. Berryessa in the east, The Willows in the west, Saratoga and Los Gatos, were all connected by fruit orchards. The most popular fruit was the small French prune imported by Louis and Pierre Pellier, known as the "la Petite Prune d'Agen" a fruit that would lead the agricultural industry in Santa Clara Valley. A fruit in high demand all over the world the prune grew to be a $43,000,000 a-year-industry in California (Arbuckle, 1984:163). Throughout the Horticultural Era and into 1970, when the industry was ending, the prune was grown in ratios of approximately three to one of the next species, apricots (Arbuckle,1984:163). Drying fruit was a relatively natural and low cost process, but it was subject to weather conditions and not suitable for all types of fruit. The abundance of the orchards demanded a new process to preserve the fruit for sale.

Food processing started in France in the 1850's. However, locally it was Dr. James Dawson who invented the process in his home laboratory in 1871. Companies formed to manufacture all types of equipment to support the joint industries; orchard sprayers, food processing machinery, and tractors all were made in San Jose. With superb growing conditions and land for vast orchards, the canning industry grew quickly in San Jose, as did support industries of box, basket, and can factories. Mergers of the smaller or specialized companies led to some of the largest corporations, such as FMC, that started as Bean Pump and Spray Company merging with Anderson – Barngrover, Hull and Cunningham. During the same period, vineyards were also bountiful and Paul Masson, Pierre Mirassou and William Wehner were all producing wines from grapes grown on the hillsides around the Valley. Food processors, canners and dryers separated to form their own support organizations.

As the economy grew so did urban development, expanding from First Street to Second and, two years after the Chinatown fire of 1887, a new City Hall was constructed in the Plaza, and in 1893,

a new Post Office on Market Street. During the 1880's three and four-story bank buildings were constructed on all four corners of Santa Clara and First streets. During this time, business moved south from Santa Clara Street, spurred on by T.S. Montgomery who developed several large city blocks.

As the City expanded so did the infrastructure. By 1881, electricity, was provided by several private companies operating from different locations around the City. In the same year J.J. Owen, owner of the San Jose Mercury was instrumental in having a light tower constructed at the corner of Market and Santa Clara streets. Electric arc lamps that had replaced the gas lamps were replaced in 1912, with incandescent lights on the downtown streets.

Automobiles were first seen in the Valley in the 1890's, with the State's first auto manufacturing, garage and gas station established in San Jose by the turn of the century. The first "garage" was opened by Clarence Letcher in 1900 followed by his first gas station in 1902. The first motor bus line in the state began service from San Jose to Mt. Hamilton in 1910. It was then possible to take the bus to the San Jose Country Club established in 1899, on Alum Rock Avenue.

The first regularly scheduled radio station was started in San Jose in 1909, when Dr. Charles Harold broadcast from his offices at the corner of First and San Fernando streets. In addition to the first commercial broadcast, Harold is credited with opening a college to train radio engineers where he qualified over 1200 students by 1922. He is also credited with more than 50 inventions during his career.

Development continued throughout the City. Most of the vacant lots were filled with houses or small commercial buildings during the 1880's. The Hensley property was divided in 1886, as was College Park off The Alameda followed by the subdivision of General Naglee's estate in 1902 and Hanchett Park in 1907. During this period, the City annexed the Gardiner District and the City of East San Jose in 1911, and a year later an unusual annexation was the 100 foot wide strip of land along N. First Street leading to Alviso. Streets that began in the center of the city, extended to connect the rural corners of the Valley. Although they changed names outside the core, the convenience of a connected valley was perfect for the automobile and truck traffic that took hold during this era.

Inter-War Period 1918-1945

Three projects that started in the 1920's and completed by 1939, were particularly important in the development of San Jose. The first was the connection of Bayshore Highway from N. First Street to San Francisco; the second was the formation of the Santa Clara Valley Water Conservation District to alleviate the falling level of ground water; and the third was the selection and development of Moffett Field as a military base, for which San Jose campaigned heavily.

After several years of attempting to block the effects of the Volstead Act in Santa Clara Valley, the

winemakers were faced on February 20, 1920 with following the provision of the Eighteenth Amendment to the U.S. Constitution "prohibiting the sale and manufacture of intoxicating liquors until the conclusion of the present war and thereafter until the termination of demobilization, the date of which shall be determined and proclaimed by the President of the United States. The words - "beer, wine, or other intoxicating malt or vinous liquors" - in the War Prohibition Act shall be hereafter construed to mean any such beverages which contain one-half of 1 per centum or more of alcohol by volume" (Volstead Act; Title one, 1919). Winemaking was an important part of the local economy in the Santa Clara Valley where 8,000 acres were cultivated with wine grapes. Northern California more known as the wine area was more heavily invested (Sullivan1982:128). Not until 1933 were the effects of the Volstead Act - 1920-1933 - and local laws repealed. Several local wineries had stocked wine and were quick to tool up their old equipment and begin shipping wine made and stored during the dry years. Cribari, Almaden, Paul Masson and others shipped less than 145,000 gallons. The first new winery operation after repeal was constructed in 1937, by Peter Mirassou who held 100 acres in Evergreen. The winery with 130,000 gallon capacity shipped bulk dry wine and champagne, that was considered of better quality than most (Sullivan 1982:144). Peter and his sons Edmund and Norbert continued to improve the quality of local wine and promote the industry. At the conclusion of WWII, California and the Santa Clara Valley were experiencing a wine shortage and more acreage was planted to meet the need. Along with this came a campaign to teach the wine buying public about the quality of Santa Clara Valley and other premium wines. The industry was moving away from sweet wine, and cheap white wine, to the better wines produced locally.

At the same time the vintners were facing a loss of business, the orchards were expanding to supply the growing need for fruit to satisfy the demand for processed, canned and dried fruit. Associations of growers, canners and dryers finally gained stability developing into huge organizations that would distribute the produce of the Santa Clara Valley world wide. World War I was ending when the California Fruit Packers Association (Calpak) was formed, uniting several successful independent companies under one name. In San Jose construction began in 1918 to construct plants along the railroads, often taking over buildings left empty by prohibition. F.W. Wool, Baron-Gray, Richmond-Chase, Calpak – Del Monte, Tri-Valley Growers and Packers, Sunsweet, and Hunt Bros. constructed plants throughout the Valley, in San Jose there were concentrations in the Taylor-Jackson area, The Alameda, along S. 3rd-9th Sts, and in Willow Glen. The food processors were followed by American Can, Continental Can and other secondary manufacturers of containers and machinery. In 1925, there were 6,959 farms, between 1927 and 1930 prune acreage increased to 65,077 acres; apricots to 17,891; pear to 7,308 cherry to 1,906 and plum to 1,560 acres (Arbuckle 1985:163). La petite prune d'Agen, propagated by Louis Pelllier was the fruit that lead the county in percentage of the world consumption and was reported to have been a $43,000,000 a year industry. The food processing industry became the economic engine that encouraged growth in population, housing, social organizations, wealth, and all aspects of the City. However international events leading to WWII had a dramatic effect in the Valley when the Third Reich, at Hitler's direction ceased purchasing dried fruit from California. The resulting glut of fruit in 1933-34 forced several ranches into bankruptcy and others to replant prunes with

alternative species. The subject property was one of those that were forced into bankruptcy and foreclosure by Bank of America.

Population continued to increase and the residential development to expand into the orchard areas or infill such as the Vendome Hotel site on N. First Street. Annexation continued to extend the City boundaries; Palm Haven in 1922, and the Stockton and White districts in 1924. Willow Glen incorporated in 1927 and annexed to San Jose in 1936. Further outside the City, the east hills were subdivided for homes and the first airport was constructed at 1919 Alum Rock Road. The first municipal airport was established as the Garden City Airport in 1934 and moved to Tully Road in1939 by Cecil and Robert Reid who renamed it Reid Hillview Airport (Laffey 1992:9).

Part of the population and job growth was from those who had served in the military and came to attend college in the Valley using the G.I. Bill to help pay expenses. At Stanford University, Dr. Frederick Terman, a gifted professor had an exceptional class and was already seeing some of his students venture into what would become the next economic wave; electronics, and high technology. Students David Packard and Bill Hewlett invented test equipment in 1939, and obtained government contracts to continue their work during the war years. In 1945, they were well positioned to lead those who formed or worked for companies that were the foundation of Silicon Valley - Varian Sylvania, Philco-Ford, GE and Lockheed.

Industrialization and Urbanization 1945-1991

During WWII social changes occurred. Women who became part of the war-effort work force were then less content to stay at home. Able to work outside the home or to volunteer these women made it very desirable to have two cars in each family. This was not lost on the home builders who included a two car garage with most homes after 1945. With more automobiles available, commercial centers were no longer tied to the bus or street car line; thus they spread out along all the major roads. At the same time, changes in building safety codes required additional exiting and other modifications to second floor spaces primarily in the downtown. Without the guarantee of higher rents, many owners did not correct the deficiencies so the upper story spaces became vacant.

After WWII, the population of San Jose rose dramatically. City leaders launched campaigns to attract non-agricultural industries and house building led construction in the Valley. The post-war community of 95,000 in 1950 became the urban hub of 500,000 by 1975, while the area of the City grew from 17 square miles to 120 square miles as land annexed for housing tracts, commercial centers and industrial complexes replaced orchards.

All roads seemed to lead out of the historic downtown. Valley Fair at Stevens Creek and Winchester boulevards, offered a new shopping experience - a mall with free parking and a variety of stores, (I Magnin, Joseph Magnin, Macys, and the Emporium, stores previously only in San Francisco). In 1957, the new City Hall constructed with modern manufactured materials,

signaling the progressive City, was located at N. First and Mission Streets, far north of the downtown. Hotels in the downtown, once the heart of the social set, became subsidized housing for older, often destitute people. Even the San Jose Mercury and San Jose Evening News, San Jose's only daily newspapers moved from W. Santa Clara Street to a new facility on Ridder Park Drive out of the downtown. Soon the downtown became isolated as shops either went out of business or moved to outlying centers and there was little to attract people to come into the City's core. During the 1950's and early 1960's federal funds were available for urban renewal to demolish obsolete or blighted buildings and San Jose's leaders, believing that a cleared parcel of land was more attractive to new development, received many awards for this work. Asphalt soon covered the vacant lots where three and four story buildings had once stood, almost 30% of the downtown was paved.

The train ran between San Jose and San Francisco exactly has it had since 1909, and the Southern Pacific sponsored bus line dropped the SP and became the Greyhound Line, moving to a larger bus terminal on Notre Dame Avenue. Light industrial development appeared just outside the core where the opportunity for less expensive land allowed service, repair, warehouse and distribution of services related to the remaining businesses.

Outside of the City, General Electric Company opened a new facility at Curtner and Monterey Road in 1948, IBM on Cottle Road in 1953, and Ac'cent on Monterey Road in 1946. Lockheed was also renting space and looking for a place to construct a facility (eventually in Mt. View). Major reconstruction of the schools in San Jose began in the late 1950's when, with the intent to protect children, the State made bond funds available to local school districts if their schools were evaluated by structural engineers and found to be seismically inadequate. Many schools were determined to be structurally unsafe and were demolished, replaced with new buildings or new facilities which were deemed to be more economical to maintain and located in areas where the population was growing. A few years later, hospitals found the same state mandates and were either rebuilt or extensively remodeled.

By the end of the 1970's Park Center Plaza, a new library and the Center for the Performing Arts were constructed on the west side of the downtown. In the center, next to St. James Park the Scottish Rite Temple on N. 3rd became the San Jose Athletic Club and the old Post Office (formerly library) became the San Jose Museum of Art. Other than reusing some historic buildings, there was little new development in the core area.

Surrounding the growing city, agricultural use remained predominate, with most of the land outside the City borders in Santa Clara County. Villages developed on transit corridors, generally about five miles from the downtown providing the sense of a district or community - a town center, with a school and often a post office. Replacing the orchards with residential tracts accelerated in the decades of the 1950's and 1960's as large acreages were annexed to San Jose. The new housing was constructed in suburban style tracts, all with a forward facing double or triple garage to showcase the family cars.

beginning to be understood. Still, the general tenure through the 1980's was one of optimism and progress.

Historical Context within the Inter-War Period, relative to the subject property:
During the **Inter-War Period 1918-1945**, fruit ranches, continued to be planted on land that had previously been used for grazing. Throughout the Santa Clara Valley, orchards produced the fruit that became the resource to an expanding fruit processing industry, an industry that would see the Santa Clara Valley producing 25% of the world's prunes by the 1930's (Laffy, G.A.: 1992). Through the Inter-War Period 1918-1945, agriculture remained the most important industry of the Valley with some ranches continuing into the era that would show great disparity between agriculture and the rising value of technology after WWII, when residential and industrial development expanded into the agricultural lands leading to the Era of Industrialization and Urbanization 1945-1991. Thus the origins are within the context of the **Inter-War Period 1918-1945,** and extend into the **Industrialization and Urbanization Period 1945-1991**, a time when many immigrant families in the Santa Clara Valley found that agriculture was the key to their new life. Of the many families who followed this pattern, some encountered disaster during the Great Depression and the loss of European prune markets at the beginning of WWII. The Orlando family appears to have successfully maintained their fruit ranch during this difficult economic period by planting apricots and then cherries. The economic pressure to sell land for residential, commercial or industrial use began to outweigh agriculture in the early 1950's and had taken most of the former orchard land by the 1990's.

Orlando property 1326-1454 N. Capitol Avenue

Originally part of the El Pueblo de San Jose de Guadalupe's Lake Tract of Pueblo Lands #1, by the 1880's a parcel of 10 acres was owned by Sarah Engalle, which was sold to Henry T. Schmidt on April 6, 1891.[1] The next owners of the land (the subject parcel) were the Orlando brothers, Antone and Tony, immigrants from Italy who began purchasing land in the Berryessa district in 1897. Adding to their orchard land along Hostetter Road, they purchased 5.2 acres from Mary Francis Faulkner in March 1914 and the 10 acres from Henry Schmidt that included the subject parcel on June 15. 1918.[2] Two years later the brothers separated with Antone Orlando buying out his brother Tony Orlando who left the area for Stockton, where he died in 1969. Born c. 1860, Antone emigrated from Italy arriving in California in 1895, unable to read or write. It appears he married Mariana (Mary, Mare Anne)[3], also from Italy, before he emigrated, with Mariana entering the United States in 1897.[4] In the 1910 U.S. Census, the family is listed living on Capitol Avenue, however in the 1920 U.S. Census the address is on Hostetter Road. The family established fruit orchards along Berryessa-Milpitas Road, now N. Capitol Avenue, in addition to the 52

[1] Book 134 of Deeds, page 570
[2] Book 475 of Deeds, page 100
[3] U.S. Census 1930 Berryessa District, San Jose Township, Santa Clara County, California
[4] U.S. Census 1920 Berryessa District, San Jose Township, Santa Clara County, California

acres they owned to the east on Piedmont Road. The Orlandos had eight children, Antone, Joseph, Angelanto, Winnie, Wayne, William, Grace and Minnie (Mayme).[5]

The subject parcel was orchard land, and later it was used to sort, package and ship cherries from their family orchards and smaller orchard farms in the area. It also included a house and other out buildings that were demolished in the 1960's. Initially the fruit was primarily prunes, grown on the 52 acres off Piedmont Road, but with the glut of prunes in the mid 1930's, apricot and then cherry trees replaced the prunes. In 1920, the remainder of the subject property was transferred to, Antonio and his wife Angelina. It appears the elder Antone died as Mariana (Mary) is listed living with Antone and Angelina in 1930[6]. Antone A.(Antonio) Orlando and his wife Angelina continued to manage the fruit ranch, hiring other family members who lived in San Jose.[7] In 1944 the extant house was constructed. There were several interfamily deed transfers with the property transferred to William and his wife Josephine in 1972, although it appears they had lived there for many years. As the fruit industry experienced both a glut of fruit and the closing of canneries in San Jose, the Orlando orchards were sold to residential developers. The subject site is the last remnant of the larger orchard property. The Orlando family followed the pattern of other orchard families in the Berryessa area; the Mattos, Nola and Zoria families who sold most of their property while retaining only the parcel with the last family home. The Orlandos were one of the last to maintain cherry trees, shipping the prime fruit to the Los Angeles Farmers' Market, and selling the rest from a stand on the property.[8] Josephine Orlando died on April 30, 2007 30 years after her husband William. Upon the death of Josephine the property was distributed to include grandchildren, David Orlando and Julie Gambucci who have operated seasonal retail sales on the property. However, the primary business on the property is West Coast Searchlights operated by David Orlando. In 2010 the property again transferred within the family to a trust with Josephine's granddaughter, Diane Mahan, trustee.

The Orlando family has been one of the multi-generational families that began with Italian immigrants working as laborers until they were able to purchase land for orchards and their home. Antone Orlando arrived in San Jose unable to read or write; when he died he left a successful orchard business.[9] The Orlando generations were involved in local social and religious organizations but are not credited with innovation or any significant developments in the history of San Jose. During the last few years, pumpkins were brought to the property to be sold in one of the last "pumpkin patches" not in a commercial parking lot.

Like several other families that emigrated from Italy, the Orlando family represent a typical story of a family that came to the United States at the turn of the century and realized the "American Dream" through hard work and fruit ranching. The property is associated with the **Inter-war, Era, 1919-1945** when the Santa Clara Valley was a major supplier of the Nation's fresh fruit and the worlds dried or processed fruit. Although part of this important era, and achieving a successful fruit ranch that continued beyond

[5] U.S. Census 1910, Orchard District San Jose Township, Santa Clara County, California
[6] U.S. Census, 1930. District, San Jose Township, Santa Clara County, California

[7] ibid
[8] Interview, Jackie Orlando, 11/5/2010
[9] Deed, June 15, 1918, Book 475, page 100

1945 by selling fresh cherries to the Farmers Market in Los Angeles, research did not uncover any individual events of historical significance attributed to the members of the Orlando family. Their hard work and that of succeeding generations is combined with other immigrant families that ranched and established fruit processing to create the fruit industry, the economic power for Santa Clara Valley 1890-1936.

The house and barn on the property were constructed after the period of significance associated with the fruit industry's importance in San Jose and do not represent exceptional examples of either residential or industrial architecture.

Evaluation of Significance, City of San Jose Municipal Code Section # 14.48.020 (Criteria to evaluate historical and architectural significance)

A. Historical, Architectural, Cultural, Aesthetic or Engineering Interest or Value of an Historical Nature. The term "historical, architectural, cultural, aesthetic, or engineering interest or value of an historical nature" shall mean a quality that derives from, is based upon, or related to any of the following factors:

1. Identification or association with persons, eras or events that have contributed to local, regional, state or national history, heritage or culture in a distinctive, significant or important way;

The important years of the fruit orchards and fruit processing era in San Jose were 1890-1936. Although the Orlando family was part of that era, the buildings on the property were constructed after the period of significance, the house in 1944, the barn in 1960. The buildings do not represent historical, architectural, cultural aesthetic or engineering interest of value of a "Historical Nature" in San Jose.

2. Identification as, or association with, a distinctive, significant or important work or vestige:
   a. Of an architectural style, design or method of construction;
   b. Of a master architect, builder, artist or craftsman;
   c. Of high artistic merit;
   d. The totality of which comprises a distinctive, significant or important work or vestige whose component parts may lack the same attributes;
   e. That has yielded or is substantially likely to yield information of value about history, architecture, engineering, culture or aesthetics, or that provides for existing and future generations an example of the physical surroundings in which past generations lived or worked; or
   f. That the construction materials or engineering methods used in the proposed landmark are unusual or significant or uniquely effective.

The buildings on the property at 1328 N. Capitol Avenue, are not identified or associated with an important architectural work or architect. Nor is the construction or materials unique to a particular challenge in the design or use.

The main house, constructed in 1944 is a common Mid-century Ranch style that is found in many locations in San Jose. The style has broad vernacular interpretations, and this is on in a single stucco exterior material is not a fine or artistic version of the style. Executed with mixed materials and proportions that epitomize the style, houses in the Willow Ranch subdivision or areas of Willow Glen offer much better examples of the style.

The barn constructed by the family in 1960, is a utilitarian buildings with a rough timber frame that is the most basic pitched roof, box form. With walls of corrugated metal, below sections of horizontal board in the gable to provide a limited structural value, the building is not an artistic or valuable industrial design.

3. The factor of age alone does not necessarily confer a special historical, architectural, cultural, aesthetic or engineering significance, value or interest upon a structure or site, but it may have such effect if a more distinctive, significant or important example thereof no longer exists.

The buildings on the referenced parcel are not significant to the architectural heritage of San Jose. Each type, Mid-century Ranch (residential) and industrial building is better represented in other areas of the City. [10]

Other factors the Historic Landmark Commission may consider:

1. Its character, interest or value as part of the local, regional, state or national history, heritage or culture;
2. Its location as a site of a significant historic event;
3. Its identification with a person or persons who significantly contributed to the local, regional, state or national culture and history;
4. Its exemplification of the cultural, economic, social or historic heritage of the city of San José;
5. Its portrayal of the environment of a group of people in an era of history characterized by a distinctive architectural style;
6. Its embodiment of distinguishing characteristics of an architectural type or specimen;
7. Its identification as the work of an architect or master builder whose individual work has influenced the development of the city of San José;
8. Its embodiment of elements of architectural or engineering design, detail, materials or craftsmanship which represents a significant architectural innovation or which is unique.

As described above, the property at 1328 N. Capitol Avenue does not represent any of the categories for consideration listed above.

San Jose Historic Landmarks Commission's Evaluation for Significance establishes the following levels of significance:

33 and above- Evaluate for Candidate City Landmark
32-0 Non-significant

[10] Urban Programmers, Warehouse Study Prepared for the San Jose Planning Department, 2008

The San Jose Historic Evaluation Tally rated the property non-significant with 27.87 points.

California Register of Historic Resources:

Criteria for Designation (listing)

Criterion 1, Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States.

Criterion 2. Associated with the lives of persons important to local, California or national history.

Criterion 3. Embodies the distinctive characteristics of a type, period, region or method of construction or represents the work of a master or possesses high artistic values.

Criterion 4. Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation.

As described above, the property at 1328 N. Capitol Avenue does not meet the standard of significance under any of the above criteria.

Property evaluated under the San Jose Historic Evaluation Tally that does not rate above 33 points is not considered eligible for listing in the California Register of Historic Resources.

CEQA Considerations:

The California Environmental Quality Act (CEQA) defines a historic resource as one that is listed in, or determined eligible for listing in, the California Register. Resources already listed, or determined eligible for the National Register and California Historic Landmarks 770 or higher, are also defined as eligible for the California Register. Locally significant resources d identified through a survey process may also be eligible for listing in the CRHR.

The proposed project is the redevelopment of the property to higher density residential use. The proposed project will result in the demolition of the existing buildings. The existing buildings have been considered and determined not eligible for listing as San Jose Candidate Landmarks or for listing in the CRHR, thus they are not considered historic resources under CEQA.

The demolition or alteration of buildings that are not considered historic resources under CEQA, does not cause a significant adverse impact. No mitigation of historic resources is required.

B 12: References: (Continued)

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CITY DIRECTORIES FOR SAN JOSE, CALIFORNIA;
1870, 1878, 1888-89, 1890, 1892 , 1893, 1894 ,1895-1969,1896-9,1900, 1902-03,1906-07,1909-10, 1915,1916, 1918, 1919, I920,1925,1930,1935 ,1940, 1941, 1942, 1943, 1945, 1949, 1950, 1951, 1952, 1955, 1956, 1958, 1959, 1960, 1963, 1965, 1968, 1970, 1972, 1974, 1978,

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Martin Luther King Jr. Memorial Library, San Jose Main Library, California Room.

Santa Clara County Recorder's Office, Official Records and Deeds

History San Jose, Archives

Interview:

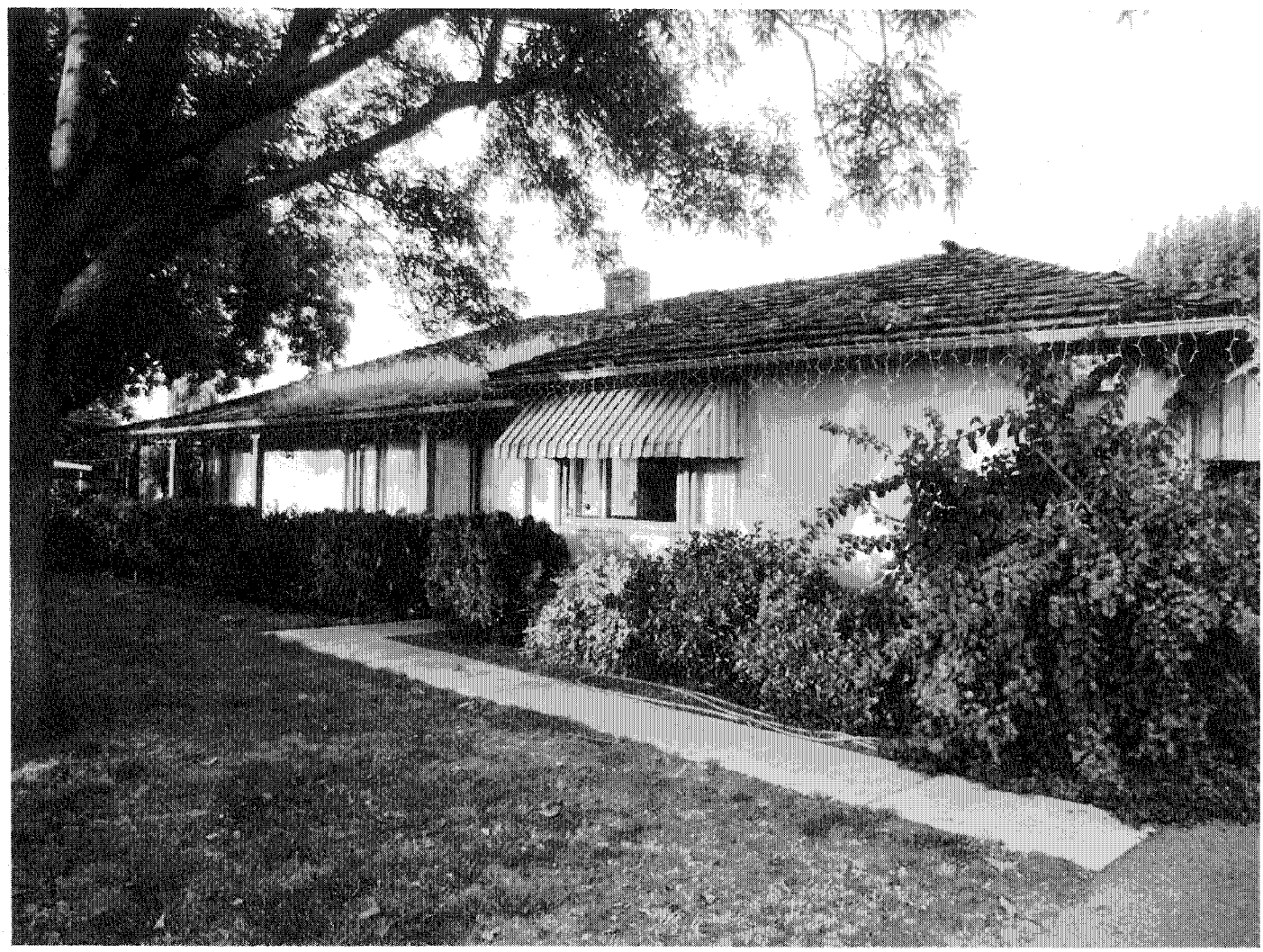
11/03/2010	David Orlando, Owner West Coast Searchlight Company, regarding family history and the buildings on the property.
11/05/2010	Jackie Silvera Orlando, regarding family history, fruit ranching in the Alum Rock and Berryessa Districts, date when the barn and house were constructed.

Page 19 of 31 ***Resource Name or #** (Assigned by recorder) 1328 N. Capitol Ave
***Recorded by:** Urban Programmers ***Date** 11/06/2010 x Continuation Update

:

Photographs:

Page 20 of 31 ***Resource Name or #** (Assigned by recorder) 1328 N. Capitol Ave
***Recorded by:** Urban Programmers ***Date** 11/06/2010 x Continuation Update



Photograph # 1 1328 N. Capitol Avenue
View House: :Front façade showing the covered porch and main entry door
Date: October 14,2010
Direction of Camera: NE

Page 21 of 31 ***Resource Name or #** (Assigned by recorder) 1328 N. Capitol Ave
***Recorded by:** Urban Programmers ***Date** 11/06/2010 x Continuation Update

Photograph # 2 1328 N. Capitol Avenue
View: South Facade of the house
Date: October 14, 2010
Direction of Camera:

Photograph #3 1328 N. Capitol Avenue
View: House; East-rear façade
Date: October 14, 2010
Direction of Camera:

Page 23 of 31 ***Resource Name or #** (Assigned by recorder) 1328 N. Capitol Ave
***Recorded by:** Urban Programmers ***Date** 11/06/2010 x Continuation Update

Photograph #4 1328 N. Capitol Avenue
View: Barn; North façade with shed addition
Date: October 14, 2010
Direction of Camera: SE

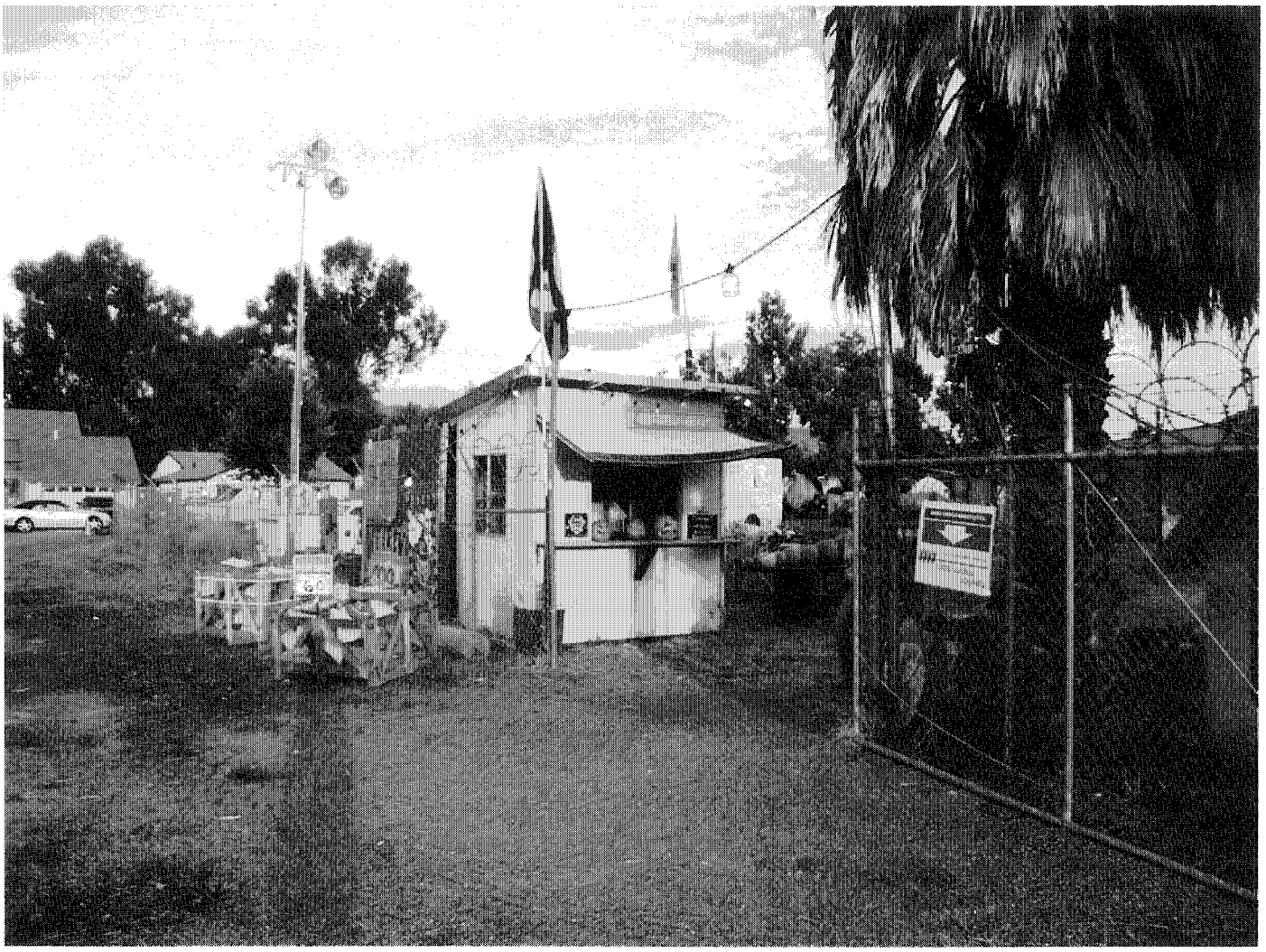
Page 24 of 31 ***Resource Name or #** (Assigned by recorder) 1328 N. Capitol Ave
***Recorded by:** Urban Programmers ***Date** 11/06/2010 x Continuation Update

Photograph #5 1328 N. Capitol Avenue
View: Barn; West- front façade with rolling doors
Date: October 14, 2010
Direction of Camera: East

Photograph #6 1328 N. Capitol Avenue
View: Barn; Interior with knee brace structure and clear span space. Corrugated metal sheets on top of the rafters that are wide apart. With a center beam.
Date: October 14, 2010
Direction of Camera: East

Photograph #7 1328 N. Capitol Avenue
View: Barn: South façade with shed attached.
Date: October 14, 2010
Direction of Camera: North

Photograph #8 1328 N. Capitol Avenue
View: Shed; Wood frame and mixed materials shed used for general storage
Date: October 14, 2010
Direction of Camera: NE



Photograph #9 1328 N. Capitol Avenue
View: Shed; Wood frame used for retail sales
Date: October 14, 2010
Direction of Camera: NE

Photograph #10 1328 N. Capitol Avenue
View: Mature Palm trees and pumpkin patch
Date: October 14, 2010
Direction of Camera: SW

Photograph #11 1328 N. Capitol Avenue
View: Parking lot with firewood stored for sale
Date: October 14, 2010
Direction of Camera: SE

Photograph #12 1328 N. Capitol Avenue
View: Mobile Home, wood hauling boxes
Date: October 14, 2010
Direction of Camera: South

HISTORIC EVALUATION SHEET

HISTORIC RESOURCE NAME: Orlando's Cherries
HISTORIC RESOURCE ADDRESS: 1328 N. Capitol Avenue

A. VISUAL QUALIFICATIONS

1	EXTERIOR The site is divided between a vacant lot and a house with a barn, garage and storage. Mature palms identify the site.	E	VG	G	**FP**
2	STYLE Vernacular Mid-century Ranch (stucco)	E	VG	G	**FP**
3	DESIGNER unknown	E	VG	G	**FP**
4	CONSTRUCTION - wood frame, stucco	E	VG	G	**FP**
5	SUPPORTIVE ELEMENTS Palm and other trees, Barn	E	VG	**G**	FP

B. HISTORY/ASSOCIATION

6	PERSON/ORGANIZATION Orlando family	E	VG	**G**	FP
7	EVENT none of individual significance	E	VG	G	**FP**
8	PATTERNS: Primary importance, fruit orchards (not on the subject parcel)	E	**VG**	G	FP
9	AGE 1944,House; 1960 barn	E	VG	**G**	FP

C. ENVIRONMENTAL/CONTEXT

10	CONTINUITY Not associated with an area of prime or secondary importance	E	VG	G	**FP**
11	SETTING Incompatible with the suburban density of the area	E	VG	G	**FP**
12	FAMILIARITY recognized in the context of the Berryessa Area	E	VG	**G**	FP

D. INTEGRITY

13	CONDITION minor surface wear, differed maintenance	E	**VG**	G	FP
14	EXTERIOR ALTERATIONS none observed	**E**	VG	G	FP
15	STRUCTURAL REMOVALS none known	**E**	VG	G	FP
16	SITE original location	**E**	VG	G	FP

E. REVERSIBILITY

17	EXTERIOR	**E**	VG	G	FP

F. ADDITIONAL CONSIDERATIONS/BONUS POINTS

18	INTERIOR VISUAL	E	VG	G	**FP**
19	INTERIOR HISTORY	E	VG	G	**FP**
20	INTERIOR ALTERATIONS	E	VG	G	**FP**
21	INTERIOR REVERSIBILITY	E	VG	G	**FP**
22	NATIONAL OR CALIFORNIA REGISTER	E	VG	G	**FP**

REVIEWED BY: Bonnie Bamburg
DATE: November 5, 2010

EVALUATION TALLY SHEET
(PART 1)

HISTORIC RESOURCE ADDRESS: 1328 N. Capitol Avenue

			E	VG	G	FP	
A		VISUAL QUALITY/DESIGN					
	1	EXTERIOR	16	12	6	0	0
	2	STYLE	10	8	4	0	0
	3	DESIGNER	6	4	2	0	0
	4	CONSTRUCTION	10	8	4	0	0
	5	SUPPORTIVE ELEMENTS	8	6	3	0	3
					Subtotal:		3
B.		HISTORY/ASSOCIATION					
	6	PERSON/ORGANIZATION	20	15	7	0	7
	7	EVENT	20	15	7	0	0
	8	PATTERNS	12	9	5	0	9
	9	AGE	8	6	3	0	3
					Subtotal:		19
C.		ENVIRONMENTAL/ CONTEXT					
	10	CONTINUITY	8	6	3	0	0
	11	SETTING	6	4	2	0	0
	12	FAMILIARITY	10	8	4	0	4
					SUBTOTAL:		4

A & C SUBTOTAL:	7
B SUBTOTAL:	19
PRELIMINARY TOTAL: (sum of A. B. & C.)	26

EVALUATION TALLY SHEET
(PART II)

HISTORIC RESOURCE ADDRESS: 1328 N. Capitol Avenue

D.	**INTEGRITY**	E	VG	G	FP				
	13 CONDITION		0.03	0.05	0.1	26 X	0.03 =		0.78
		SUBTOTAL A,B&C							
	14 EXTERIOR ALTERATIONS		0.05	0.1	0.2	7 X	0.05 =		0.35
		SUBTOTAL A&C							
			0.03	0.05	0.1	19 X	0 =		0
		FROM B							
	15 STRUCTURAL REMOVALS		0.2	0.3	0.4	7 X	0 =		0
		SUBTOTAL: A & C							
			0.1	0.2	0.4	19 X	0 =		0
		FROM B							
	16 SITE		0.1	0.2	0.4	19 X	0 =		0
		FROM B							
		INTEGRITY DEDUCTIONS SUBTOTAL							1.13
		ADJUSTED SUBTOTAL:				26 -	1.13		24.87
		(Preliminary Total minus Integrity Deductions)							

E	**REVERSIBILITY**	**VALUE** E	VG	G	FP		
	17 EXTERIOR	3	3	2	2		3
				Total:		3	

F.	**ADDITIONAL CONSIDERATIONS BONUS POINTS**	**VALUE** E	VG	G	FP	
	18 INTERIOR HISTORY ASSOCIATION	3	3	1	0	0
	19 INTERIOR VISUAL QUALITY	3	3	1	0	0
	20 INTERIOR ALTERATIONS	4	4	3	1	0
	21 INTERIOR REVERSIBILITY	4	4	2	0	0
	22 NATIONAL OR CALIFORNIA REGISTER	20	15	10	0	0
	BONUS POINTS SUBTOTAL:					0
	ADJUSTED TOTAL:					27.87

CORNERSTONE
EARTH GROUP

Type of Services	**Preliminary Geotechnical Investigation**
Project Name	**North Capitol Villas**
Location	**1328 North Capitol Avenue** **San Jose, California**
Client	**Trumark Companies, LLC & Current Property Owner**
Client Address	**4185 Blackhawk Plaza Circle, Suite 200** **Danville, California**
Project Number	**206-3-2**
Date	**May 26, 2010**

Prepared by **John R. Dye, P.E., G.E.**
Principal Engineer
Geotechnical Project Manager

REGISTERED PROFESSIONAL ENGINEER
JOHN R. DYE
No. GE2582
EXPIRES 12/31/10
GEOTECHNICAL
STATE OF CALIFORNIA

Laura C. Knutson, P.E., G.E.
Principal Engineer
Quality Assurance Reviewer

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APPENDIX B: LABORATORY TEST PROGRAM
APPENDIX C: SOIL QUALITY EVALUATION BORING LOGS

Type of Services	**Preliminary Geotechnical Investigation**
Project Name	**North Capitol Villas**
Location	**1328 North Capitol Avenue** **San Jose, California**

SECTION 1: INTRODUCTION

This preliminary geotechnical investigation was prepared for the sole use of Trumark Companies, LLC for the proposed residential development at 1328 North Capitol Avenue in San Jose, California. The purpose of this study was to evaluate the existing subsurface conditions and develop an opinion regarding potential geotechnical concerns that could impact the proposed development. The preliminary geotechnical recommendations contained in this report are for your forward planning, cost estimating, and preliminary project design. For our use, we were provided with the following documents:

- A plan titled, "Conceptual Site Plan, North Capitol Villas, 1328 North Capitol Avenue, San Jose, CA," dated April 28, 2010.

1.1 PROJECT DESCRIPTION

Trumark Companies is considering purchasing the property located at 1328 North Capitol Avenue in San Jose, California. The approximately 4.31-acre site (currently designated as APN 589-19-063) is currently occupied by a residence and associated outbuildings, remnants of an orchard, stored vehicles, trailers and miscellaneous equipment. Trumark Companies is planning on redeveloping the site for multi-family residential use.

The conceptual site plan indicates that 12 three-story townhome buildings with tuck-under garages are planned for the site. While a conceptual grading plan has not been prepared yet, we assume that minor cuts and fills will be required to construct building pads and streets. We assume that building loads will be representative for this type of multi-family residential construction. A 4,500 square foot park, private streets and parking, underground utilities and landscaping are also planned for the site.

1.2 SCOPE OF SERVICES

Our scope of services was presented in our proposal dated April 15, 2010, and referenced in our Professional Services Agreement dated April 22, 2010, and consisted of field and laboratory

programs to evaluate physical and engineering properties of the subsurface soils, engineering analysis to prepare preliminary recommendations for site work and grading, building foundations and pavements, and preparation of this preliminary report. Brief descriptions of our exploration and laboratory programs are presented below.

1.3 EXPLORATION PROGRAM

Field exploration consisted of four borings drilled on May 18, 2010, with truck-mounted, hollow-stem auger drilling equipment. The borings were drilled to depths ranging from approximately 20 to 25 feet. The borings were backfilled with cement grout in accordance with local requirements. To supplement our drilling program, we also reviewed the subsurface data collected from our two soil quality evaluation borings performed to depths of approximately 10 to 15 feet.

The approximate locations of our exploratory borings are shown on the Site Plan, Figure 2. Details regarding our field program are included in Appendix A.

1.4 LABORATORY TESTING PROGRAM

In addition to visual classification of samples, the laboratory program focused on obtaining data for preliminary foundation design and seismic ground deformation estimates. Testing included moisture contents, dry densities, and a Plasticity Index test. Details regarding our laboratory program are included in Appendix B.

1.5 ENVIRONMENTAL SERVICES

Cornerstone Earth Group also provided environmental services for this project, including Phase 1 and 2 site assessments; environmental findings and conclusions are provided under separate covers. The boring logs prepared as part of our soil quality evaluation are included in Appendix C for reference.

SECTION 2: REGIONAL SETTING

2.1 GEOLOGICAL SETTING

The site is located within the Santa Clara Valley, which is a broad alluvial plane between the Santa Cruz Mountains to the southwest and west, and the Diablo Range to the northeast. The San Andreas Fault system, including the Monte Vista-Shannon Fault, exists within the Santa Cruz Mountains and the Hayward and Calaveras Fault systems exist within the Diablo Range. Alluvial soil thicknesses in the area of northeast San Jose range from about 100 to greater than 300 feet (Rogers & Williams, 1974).

2.2 REGIONAL SEISMICITY

The San Francisco Bay area is one of the most seismically active areas in the Country. While seismologists cannot predict earthquake events, the U.S. Geological Survey's Working Group

on California Earthquake Probabilities 2007 estimates there is a 63 percent chance of at least one magnitude 6.7 or greater earthquake occurring in the Bay Area region between 2007 and 2036. As seen with damage in San Francisco and Oakland due to the 1989 Loma Prieta earthquake that was centered about 50 miles south of San Francisco, significant damage can occur at considerable distances. Higher levels of shaking and damage would be expected for earthquakes occurring at closer distances.

The faults considered capable of generating significant earthquakes are generally associated with the well-defined areas of crustal movement, which trend northwesterly. The table below presents the State-considered active faults within 25 kilometers of the site.

Table 1: Approximate Fault Distances

Fault Name	Distance	
	(miles)	(kilometers)
Hayward (Southeast Extension)	1.9	3.2
Hayward (Total Length)	4.8	7.8
Calaveras – South	5.0	8.0
Calaveras – North	6.6	10.6
Monte Vista-Shannon	11.3	18.2
San Andreas (Peninsula)	15.5	25.0

A regional fault map is presented as Figure 3, illustrating the relative distances of the site to significant fault zones.

SECTION 3: SITE CONDITIONS

3.1 SITE BACKGROUND

Our review of available historic documents and aerial photographs indicates the site has been occupied primarily by a cherry orchard and a few residential and barn structures since the 1930's. A 1,000-gallon underground storage tank (UST) was reportedly located near the southwest corner of the detached garage, but was reportedly removed from the site in the 1970's. The residence is reportedly connected to an on-site septic tank; the presence of a leach field is unknown. An agricultural well was observed adjacent to Sierra Road. The well is reportedly 750 feet deep and is inactive. A more detailed description of the site history is presented in the Phase I Environmental Site Assessment prepared by Cornerstone Earth Group.

3.2 SURFACE DESCRIPTION

The 4.31-acre rectangular parcel located at 1328 North Capitol Avenue is bounded by North Capitol Avenue to the southwest, Sierra Road to the southeast, Havenwood Drive to the northeast and existing residential development to the northwest. VTA lightrail tracks are located

in the median of North Capitol Avenue. The central portion of the site is currently occupied by a single-family residence (vacant), several barns, a mobile home, and miscellaneous vehicles, searchlight equipment, generators, firewood, and other miscellaneous items. The ground surface around the barns in this area is primarily covered by granular base material; the remainder of this central area is covered with low grass and weeds and several mature trees. The central portion of the site is also bounded by a fence.

The northern one-third of the site is vacant and partially covered with granular base material. Sparse vegetation and a single tree were observed in this area. The southern one-third of the site is occupied by remnants of the cherry orchard and is also used for vehicle, equipment and firewood storage. The ground surface in the former orchard area had recently been tilled. As discussed, the existing agricultural well and pump house are located adjacent to Sierra Road at the southeast end of the site.

Detailed topographic information was not available at this time. Based on our review of available topographic maps of the vicinity, the site is generally at about Elevation 130 feet above mean sea level (USGS, Calaveras Reservoir 7.5-Minute Quadrangle)

3.3 SUBSURFACE CONDITIONS

Our explorations generally encountered stiff to hard, sandy lean clay and lean clay with sand to the maximum depth explored in our borings of 25 feet. A layer of loose to medium dense clayey sand was encountered in Boring EB-2 at a depth of approximately 3 to 8 feet. A layer of medium dense clayey sand was encountered in Boring EB-3 at a depth of approximately 22 feet that extended to the bottom of the boring.

In the former cherry orchard area, the upper 9 to 12 inches of soil was loose due to recent tilling. Although undocumented fill was not encountered in our borings, we observed granular base fill material blanketing the site around the existing barn areas and across portions of the northern one-third of the site.

We reviewed the soil quality evaluation borings (SB-1 and SB-2) drilled on May 21, 2010, adjacent to the detached garage in the former UST tank removal area. Approximately 2 to 7 feet of soft to medium stiff clay fill was encountered in SB-1 and SB-2, respectively. The approximate location of the former UST is shown on Figure 2.

Based on our discussion with the property owner, as summarized in our Phase I Environmental Site Assessment report, localized undocumented fills are likely present in the existing septic tank and leach field areas, as wells as beneath the existing barn or residential structures. The lateral extent, depth and consistency of the undocumented fill material in these areas are not known at this time.

3.3.1 Plasticity/Expansion Potential

We performed one Plasticity Index (PI) tests on a representative sample of the near-surface native soil. Test results were used to evaluate expansion potential of surficial soils. The results

of the surficial PI test indicated a PI of 15, indicating low to moderate expansion potential to wetting and drying cycles.

3.3.2 In-Situ Moisture Contents

Laboratory testing indicated that the in-situ moisture contents within the upper 10 feet range from 0 to 10 percent over the estimated laboratory optimum moisture.

3.4 GROUND WATER

Ground water was not encountered in any of our borings during drilling; however, the borings were not left open but were immediately backfilled when the boring was completed. Based on our previous experience in the area and review of historic depth to ground water maps (CGS 2001, CDC 2001), we anticipate that the high ground water level will be greater than 50 feet below current site grades.

Fluctuations in ground water levels occur due to many factors including seasonal fluctuation, underground drainage patterns, regional fluctuations, and other factors.

SECTION 4: GEOLOGIC HAZARDS

4.1 FAULT RUPTURE

As discussed above several significant faults are located within 25 kilometers of the site. The site is not located within a State-designated Alquist-Priolo Earthquake Fault Zone, or a Santa Clara County Fault Hazard Zone, or a City of San Jose Potential Hazard Zone. As shown in Figure 3, no known surface expression of fault traces is thought to cross the site; therefore, fault rupture hazard is not a significant geologic hazard at the site.

4.2 ESTIMATED GROUND SHAKING

Moderate to severe (design-level) earthquakes can cause strong ground shaking, which is the case for most sites within the Bay Area.

4.3 LIQUEFACTION POTENTIAL

The site is not located within a State-designated Liquefaction Hazard Zone (CGS, Calaveras Reservoir Quadrangle, 2001) or a Santa Clara County Liquefaction Hazard Zone (Santa Clara County, 2003).

During strong seismic shaking, cyclically induced stresses can cause increased pore pressures within the soil matrix that can result in liquefaction triggering, soil softening due to shear stress loss, potentially significant ground deformation due to settlement within sandy liquefiable layers as pore pressures dissipate, and/or flow failures in sloping ground or where open faces are present (lateral spreading) (NCEER 1998). Limited field and laboratory data is available regarding ground deformation due to settlement; however, in clean sand layers settlement on

the order of 2 to 3 percent of the liquefied layer thickness can occur. Soils most susceptible to liquefaction are loose, non-cohesive soils that are saturated and are bedded with poor drainage, such as sand and silt layers bedded with a cohesive cap.

As discussed in the "Subsurface" section above, we primarily encountered stiff cohesive and discontinuous, medium dense clayey sand layers. In addition, the design ground water level is anticipated to be below a depth of 50 feet. Based on the above, our screening of the site for liquefaction indicates a low potential for liquefaction, and is in general agreement with local mapping for the site by CGS.

4.4 LATERAL SPREADING

Lateral spreading is horizontal/lateral ground movement of relatively flat-lying soil deposits towards a free face such as an excavation, channel, or open body of water; typically lateral spreading is associated with liquefaction of one or more subsurface layers near the bottom of the exposed slope. As failure tends to propagate as block failures, it is difficult to analyze and estimate where the first tension crack will form.

There are no open faces within 200 feet of the site where lateral spreading could occur; therefore, in our opinion, the potential for lateral spreading to affect the site is low.

4.5 SEISMIC SETTLEMENT/UNSATURATED SAND SHAKING

Loose unsaturated sandy soils can settle during strong seismic shaking. The soils encountered at the site were predominantly stiff to very stiff clays, with occasional discontinuous strata of loose to medium dense clayey sand. The approximately 5-foot-thick clayey sand layer encountered in Boring EB-2 at a depth of 3 feet contained appreciable silty and clayey fines. In our opinion, the potential for significant differential seismic settlement affecting the proposed improvements is low.

4.6 FLOODING

Based on our internet search of the Federal Emergency Management Agency (FEMA) flood map public database, the site is located within Zone X, determined as an "area of 0.2 percent annual chance flood; areas of 1 percent annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; areas protected by levees from 1 percent annual chance flood." We recommend the project civil engineer be retained to confirm this information and verify the base flood elevation, if appropriate.

The Association of Bay Area Governments has compiled a database of Dam Failure Inundation Hazard Maps (ABAG, 1995). The generalized hazard maps were prepared by dam owners as required by the State Office of Emergency Services; they are intended for planning purposes only. Based on our review of these maps, the site is not located within a dam failure inundation area.

SECTION 5: CONCLUSIONS

5.1 SUMMARY

From a geotechnical viewpoint, the project is feasible provided the concerns listed below are addressed in the project design. The preliminary recommendations that follow are intended for conceptual planning and preliminary design. A design-level geotechnical investigation should be performed once site development plans are prepared indicating where proposed structures are planned. The design-level investigation findings will be used to confirm the preliminary recommendations and develop detailed recommendations for design and construction. Descriptions of each geotechnical concern with brief outlines of our preliminary recommendations follow the listed concerns.

- Presence of undocumented fill
- Presence of loose surficial soils in former orchard areas
- Presence of moderately expansive soils

5.1.1 Undocumented Fill

Undocumented fill was not encountered in our geotechnical explorations; however, our soil quality evaluation borings encountered approximately 2 to 7 feet of undocumented fill in the former UST area near the southwest corner of the detached garage building. As discussed in the "Subsurface Conditions" section of this report, other localized fills are likely present in existing septic tank and leach field areas, as well as the granular base material layer blanketing the central and northwestern portions of the site. The fill is likely highly variable and would not adequately support the proposed residential structures. Therefore, on a preliminary basis, we recommend that all undocumented fill material be removed and replaced with compacted fill.

5.1.2 Loose Surficial Soil

As discussed, the site was formerly occupied by a cherry orchard and was likely tilled seasonally. Presently, the southern half of the site is regularly tilled and the upper 9 to 12 inches of soil are loose. Due to compressibility of this upper tilled soil zone, it may be necessary to over-excavate the upper approximately 12 inches of soil in former orchard areas prior to placing new fill in building areas. The over-excavated soil can likely be re-used as engineered fill.

5.1.3 Expansive Soils

Low to moderately expansive surficial soils generally blanket the site. Expansive soils can undergo significant volume change with changes in moisture content. They shrink and harden when dried and expand and soften when wetted. If structures are underlain by expansive soils it is important that foundation systems be capable of tolerating or resisting any potentially damaging soil movements. In addition, it is important to limit moisture changes in the surficial soils by using positive drainage away from buildings as well as limiting landscaping watering.

5.2 DESIGN-LEVEL GEOTECHNICAL INVESTIGATION

The preliminary recommendations contained in this feasibility study were based on limited site development information and limited exploration. As site conditions may vary significantly between the small-diameter borings performed during this investigation, we recommend that we be retained to 1) perform a design-level geotechnical investigation, once detailed site development plans are available; 2) to review the geotechnical aspects of the project structural, civil, and landscape plans and specifications, allowing sufficient time to provide the design team with any comments prior to issuing the plans for construction; and 3) be present to provide geotechnical observation and testing during earthwork and foundation construction.

SECTION 6: EARTHWORK

6.1 ANTICIPATED EARTHWORK MEASURES

On a preliminary basis, we recommend that any existing debris, slabs, septic tanks, leach fields, and/or abandoned underground utilities be removed entirely and the resulting excavations backfilled with engineered fill. Agricultural wells should be adequately abandoned in accordance with Santa Clara Valley Water District requirements. Additionally, any native soils that are disturbed during demolition of the existing improvements should also be removed and replaced as engineered fill. Any existing undocumented fill encountered during grading, including the former UST location, will likely need to be over-excavated down to native soils within the proposed building footprints and 5 feet laterally beyond. Former orchard areas will likely need to be over-excavated on the order of 1 foot to remove loose surficial soils resulting from past tilling prior to placing engineered fill in building areas.

All on-site soils below the stripped layer are suitable for use as fill at the site. Imported fill material for use as general fill should be predominantly granular with a Plasticity Index of 15 or less. All fill as well as scarified surface soils in those areas to receive fill or slabs-on-grade should be compacted to at least 90 percent relative compaction as determined by ASTM Test Designation D-1557, latest edition; and be at least 2 percent above optimum. The upper 6 inches of subgrade in pavement areas and all aggregate base materials should be compacted to at least 95 percent relative compaction (ASTM D-1557, latest edition). Utility trench backfill should be compacted to at least 90 percent relative compaction (ASTM D-1557, latest edition) by mechanical means only.

Surface water runoff should not be allowed to pond adjacent to building foundations, slabs-on-grade, or pavements. Hardscape surfaces should slope at least 2 percent towards suitable discharge facilities; landscape areas should slope at least 3 to 5 percent away from buildings.

SECTION 7: FOUNDATIONS

7.1 SUMMARY OF RECOMMENDATIONS

In our opinion, the proposed residential townhome structures may be supported on shallow foundations.

7.2 SEISMIC DESIGN CRITERIA

We understand that the project structural design will be based on the 2007 California Building Code (CBC), which provides criteria for the seismic design of buildings in Chapter 16. The "Seismic Coefficients" used to design buildings are established based on a series of tables and figures addressing different site factors, including the soil profile in the upper 100 feet below grade and mapped spectral acceleration parameters based on distance to the controlling seismic source/fault system. Based on our borings and review of local geology, the site is underlain by deep alluvial soils with typical SPT "N" values between 15 and 50 blows per foot. Therefore, we have classified the site as Soil Classification D. The mapped spectral acceleration parameters S_S and S_1 were calculated using the USGS computer program *Earthquake Ground Motion Parameters*, Version 5.0.9a, revision date October 21, 2009, based on the site coordinates presented below and the site classification. The table below lists the various factors used to determine the seismic coefficients and other parameters.

Table 2: CBC Site Categorization and Site Coefficients

Classification/Coefficient	Design Value
Site Class	D
Site Latitude	37.392397°
Site Longitude	-121.865701°
0.2-second Period Mapped Spectral Acceleration[1], S_S	1.500g
1-second Period Mapped Spectral Acceleration[1], S_1	0.600g
Short-Period Site Coefficient – Fa	1.0
Long-Period Site Coefficient – Fv	1.5
0.2-second Period, Maximum Considered Earthquake Spectral Response Acceleration Adjusted for Site Effects - S_{MS}	1.500g
1-second Period, Maximum Considered Earthquake Spectral Response Acceleration Adjusted for Site Effects – S_{M1}	0.900g
0.2-second Period, Design Earthquake Spectral Response Acceleration – S_{DS}	1.000g
1-second Period, Design Earthquake Spectral Response Acceleration – S_{D1}	0.600g

[1]For Site Class B, 5 percent damped.

7.3 POST-TENSIONED MAT FOUNDATIONS

The planned structures may be supported on post-tensioned (PT) concrete mat foundations, which should be designed in accordance with the procedures developed by the Post-Tensioning Institute (2004) and the 2007 California Building Code.

To reduce potential differential movement, on a preliminary basis, mats should be designed for a maximum average areal bearing pressure of 1,000 psf for dead plus live loads; at column or wall loading, the maximum localized allowable bearing pressure should be limited to about 3,000 psf. When evaluating wind and seismic conditions, allowable bearing pressures may be increased by one-third. Additional reinforcing steel may be required to help span irregularities and differential settlement.

7.3.4 Mat Foundation Settlement

On preliminary basis, we estimate that differential static settlements will be on the order of ½ to ¾ inch across the mat area. Final settlement and foundation deflection criteria should be determined during the design-level geotechnical investigation.

SECTION 8: CONCRETE SLABS AND PEDESTRIAN PAVEMENTS

8.1 EXTERIOR FLATWORK

Exterior concrete flatwork subject to pedestrian and/or occasional light pick up loading should be at least 4 inches thick and supported on at least 4 inches of non-expansive fill or granular base material overlying prepared subgrade.

SECTION 9: VEHICULAR PAVEMENTS

9.1 ASPHALT CONCRETE

The following asphalt concrete pavement recommendations tabulated below are based on the Procedure 608 of the Caltrans Highway Design Manual, estimated traffic indices for various pavement-loading conditions, and on an assumed design R-value of 5. The design R-value was chosen based on experience with similar clay soil conditions and engineering judgment considering the variable surface conditions.

Table 3: Preliminary Asphalt Concrete Pavement Recommendations

Design Traffic Index (TI)	Asphalt Concrete (inches)	Class 2 Aggregate Base (inches)	Total Pavement Section Thickness (inches)
4.0	2.5	8.0	10.5
4.5	2.5	10.0	12.5
5.0	3.0	10.0	13.0
5.5	3.0	12.0	14.0
6.0	3.5	13.0	16.5
6.5	4.0	14.0	18.0

Note: Caltrans Class 2 aggregate base; minimum R-value of 78
Preliminary subgrade R-value assumed to be 5

SECTION 10: LIMITATIONS

This report, an instrument of professional service, has been prepared for the sole use of Trumark Companies, LLC specifically to support the design of the proposed residential development located at 1328 North Capitol Avenue in San Jose, California. The opinions, conclusions, and preliminary recommendations presented in this report have been formulated in accordance with accepted geotechnical engineering practices that exist in Northern California at the time this report was prepared. No warranty, expressed or implied, is made or should be inferred.

Preliminary recommendations in this report are based upon the soil and ground water conditions encountered during our limited subsurface exploration. Preparation of a design-level investigation is anticipated to provide additional information and refine the preliminary recommendations presented herein. If variations or unsuitable conditions are encountered during the construction phase, Cornerstone must be contacted to provide supplemental recommendations, as needed.

Trumark Companies, LLC may have provided Cornerstone with plans, reports and other documents prepared by others. Trumark Companies, LLC understands that Cornerstone reviewed and relied on the information presented in these documents and cannot be responsible for their accuracy.

Cornerstone prepared this report with the understanding that it is the responsibility of the owner or his representatives to see that the recommendations contained in this report are presented to other members of the design team and incorporated into the project plans and specifications, and that appropriate actions are taken to implement the geotechnical recommendations during construction.

Conclusions and recommendations presented in this report are valid as of the present time for the development as currently planned. Changes in the condition of the property or adjacent

properties may occur with the passage of time, whether by natural processes or the acts of other persons. In addition, changes in applicable or appropriate standards may occur through legislation or the broadening of knowledge. Therefore, the conclusions and recommendations presented in this report may be invalidated, wholly or in part, by changes beyond Cornerstone's control. This report should be reviewed by Cornerstone after a period of three (3) years has elapsed from the date of this report. In addition, if the current project design is changed, then Cornerstone must review the proposed changes and provide supplemental recommendations, as needed.

An electronic transmission of this report may also have been issued. While Cornerstone has taken precautions to produce a complete and secure electronic transmission, please check the electronic transmission against the hard copy version for conformity.

Recommendations provided in this report are based on the assumption that Cornerstone will be retained to provide observation and testing services during construction to confirm that conditions are similar to that assumed for design, and to form an opinion as to whether the work has been performed in accordance with the project plans and specifications. If we are not retained for these services, Cornerstone cannot assume any responsibility for any potential claims that may arise during or after construction as a result of misuse or misinterpretation of Cornerstone's report by others. Furthermore, Cornerstone will cease to be the Geotechnical-Engineer-of-Record if we are not retained for these services.

SECTION 11: REFERENCES

California Building Code, 2007, Structural Engineering Design Provisions, Vol. 2.

California Department of Conservation Division of Mines and Geology, 1998, Maps of Known Active Fault Near-Source Zones in California and Adjacent Portions of Nevada, International Conference of Building Officials, February, 1998.

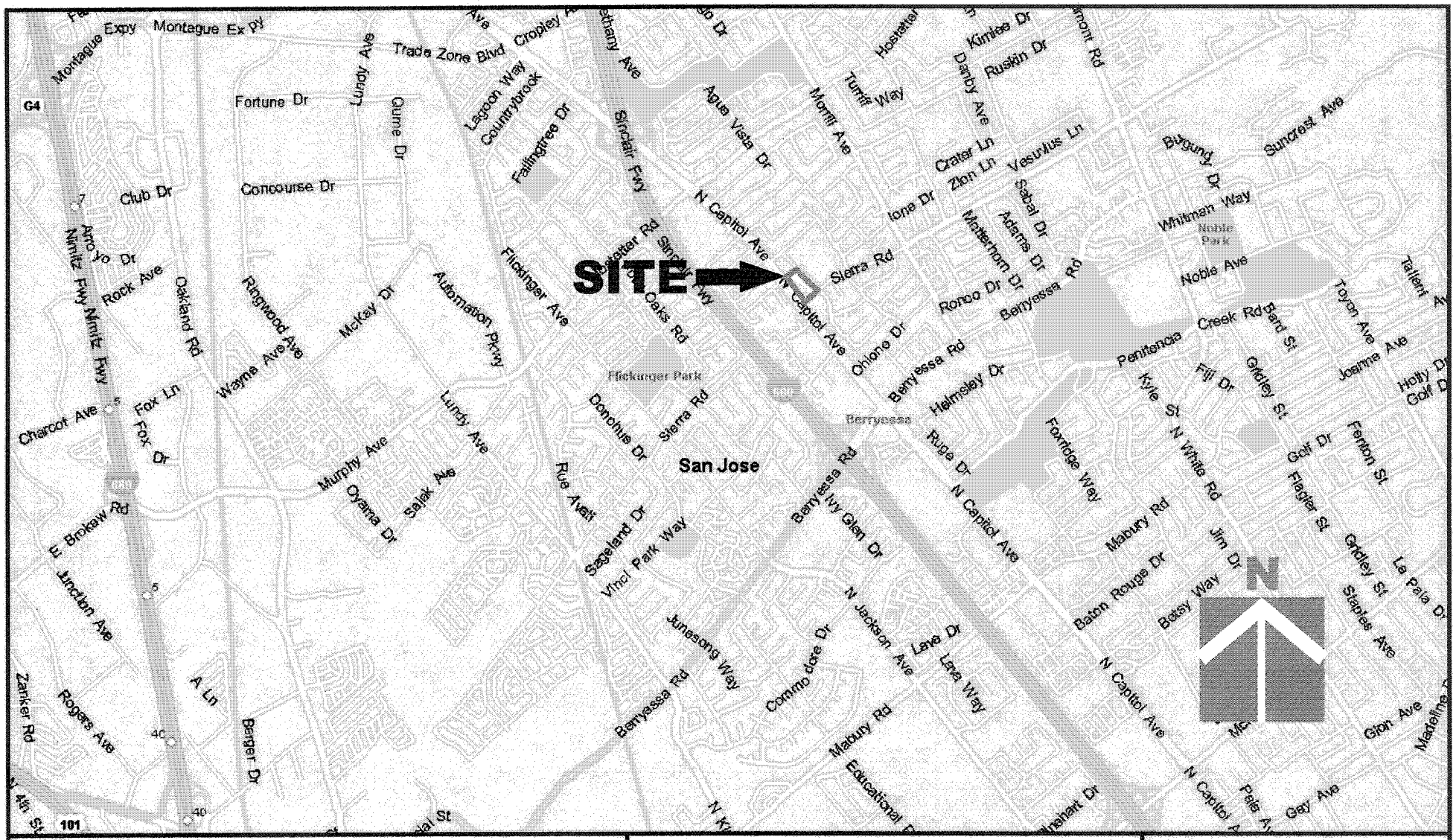
California Division of Mines and Geology (2008), "Guidelines for Evaluating and Mitigating Seismic Hazards in California, Special Publication 117A, September.

California Geological Survey, 2001, State of California Seismic Hazard Zones, Calaveras Reservoir 7.5-Minute Quadrangle, California: Scale 1:24,000, October 17, 2001.

California Geological Survey, 2003, Seismic Hazard Zone Report for the Calaveras Reservoir 7.5-Minute Quadrangle, Santa Clara County, California: Seismic Hazard Zone Report 048.

California Geological Survey, 1982, State of California Earthquake Hazard Zone (formerly known as Special Studies Zones), Calaveras Reservoir 7.5-Minute Quadrangle, California: Scale: 1:24,000.

Federal Emergency Management Administration (FEMA), 2009, FIRM City of San Jose, California, Community Panel # FM06085C0088H, May 18, 2009.



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Vicinity Map

1328 North Capitol Avenue
San Jose, CA

Project Number	206-3-2
Figure Number	Figure 1
Date May 2010	Drawn By FLL

Approximate exploratory boring location

Approximate soil quality evaluation boring

0 50 100

APPROXIMATE SCALE (FEET)

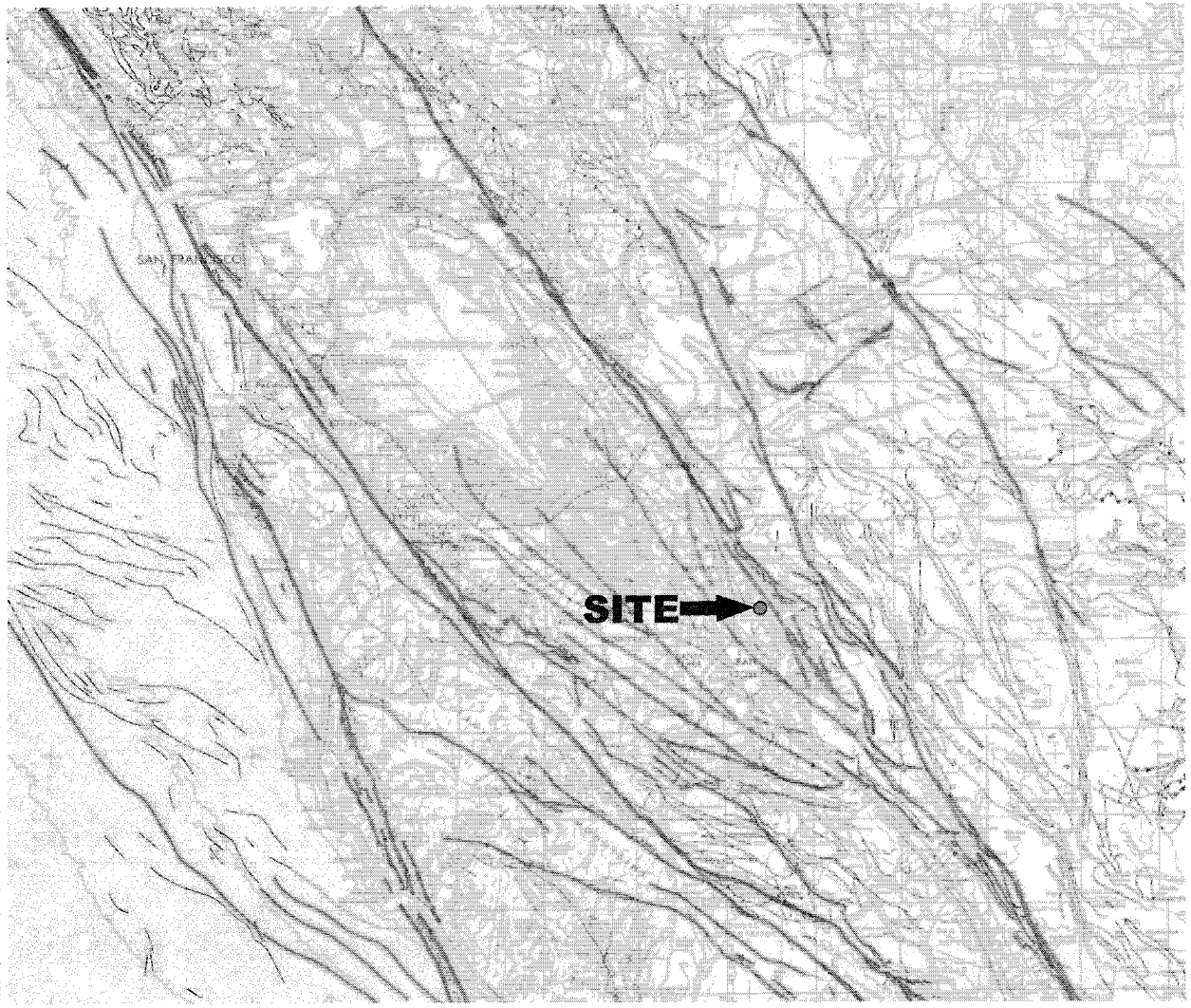
Base by Google Earth (2010)

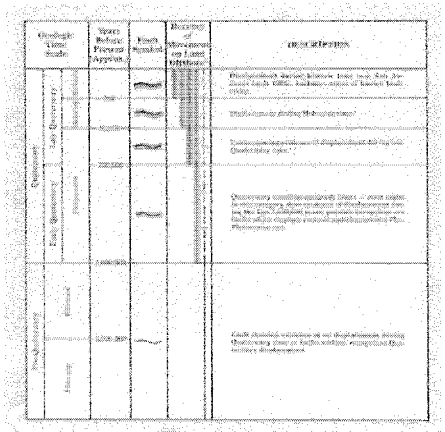
Site Plan

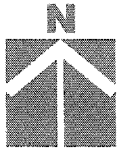
1328 North Capitol Avenue
San Jose, CA

CORNERSTONE EARTH GROUP

Project Number	206-3-2
Figure Number	Figure 2
Date	May 2010
Drawn By	FLL







0 10 20

APPROXIMATE SCALE (MILES)

Base Map: "Map showing recency of faulting, San Francisco - San Jose Quadrangle California," by Bortugno, et.al. (California Division of Mines and Geology) dated 1991.

Regional Fault Map

1328 North Capitol Avenue
San Jose, CA

Project Number	206-3-2
Figure Number	Figure 3
Date	May 2010
Drawn By	FLL

CORNERSTONE EARTH GROUP

APPENDIX A: FIELD INVESTIGATION

The field investigation consisted of a surface reconnaissance and a subsurface exploration program using truck-mounted, hollow-stem auger drilling equipment. Four 8-inch-diameter exploratory borings were drilled on May 18, 2010, to depths of approximately 20 to 25 feet. The approximate locations of exploratory borings are shown on the Site Plan, Figure 2. The soils encountered were continuously logged in the field by our representative and described in accordance with the Unified Soil Classification System (ASTM D2488). Boring logs, as well as a key to the classification of the soil, are included as part of this appendix.

Boring locations were approximated using existing site boundaries and other site features as references. Boring elevations were not determined. The locations of the borings should be considered accurate only to the degree implied by the method used.

Representative soil samples were obtained from the borings at selected depths. All samples were returned to our laboratory for evaluation and appropriate testing. The standard penetration resistance blow counts were obtained by dropping a 140-pound hammer through a 30-inch free fall. The 2-inch O.D. split-spoon sampler was driven 18 inches and the number of blows was recorded for each 6 inches of penetration (ASTM D1586). 2.5-inch I.D. samples were obtained using a Modified California Sampler driven into the soil with the 140-pound hammer previously described. Unless otherwise indicated, the blows per foot recorded on the boring log represent the accumulated number of blows required to drive the last 12 inches. The various samplers are denoted at the appropriate depth on the boring logs.

Field tests included an evaluation of the unconfined compressive strength of the soil samples using a pocket penetrometer device. The results of these tests are presented on the individual boring logs at the appropriate sample depths.

Attached boring logs and related information depict subsurface conditions at the locations indicated and on the date designated on the logs. Subsurface conditions at other locations may differ from conditions occurring at these boring locations. The passage of time may result in altered subsurface conditions due to environmental changes. In addition, any stratification lines on the logs represent the approximate boundary between soil types and the transition may be gradual.

UNIFIED SOIL CLASSIFICATION (ASTM D-2487-98)

MATERIAL TYPES	CRITERIA FOR ASSIGNING SOIL GROUP NAMES			GROUP SYMBOL	SOIL GROUP NAMES & LEGEND
COARSE-GRAINED SOILS >50% RETAINED ON NO. 200 SIEVE	GRAVELS >50% OF COARSE FRACTION RETAINED ON NO 4. SIEVE	CLEAN GRAVELS <5% FINES	Cu>4 AND 1<Cc<3	GW	WELL-GRADED GRAVEL
			Cu>4 AND 1>Cc>3	GP	POORLY-GRADED GRAVEL
		GRAVELS WITH FINES >12% FINES	FINES CLASSIFY AS ML OR CL	GM	SILTY GRAVEL
			FINES CLASSIFY AS CL OR CH	GC	CLAYEY GRAVEL
	SANDS >50% OF COARSE FRACTION PASSES ON NO 4. SIEVE	CLEAN SANDS <5% FINES	Cu>6 AND 1<Cc<3	SW	WELL-GRADED SAND
			Cu>6 AND 1>Cc>3	SP	POORLY-GRADED SAND
		SANDS AND FINES >12% FINES	FINES CLASSIFY AS ML OR CL	SM	SILTY SAND
			FINES CLASSIFY AS CL OR CH	SC	CLAYEY SAND
FINE-GRAINED SOILS >50% PASSES NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT<50	INORGANIC	PI>7 AND PLOTS>"A" LINE	CL	LEAN CLAY
			PI>4 AND PLOTS<"A" LINE	ML	SILT
		ORGANIC	LL (oven dried)/LL (not dried)<0.75	OL	ORGANIC CLAY OR SILT
	SILTS AND CLAYS LIQUID LIMIT>50	INORGANIC	PI PLOTS >"A" LINE	CH	FAT CLAY
			PI PLOTS <"A" LINE	MH	ELASTIC SILT
		ORGANIC	LL (oven dried)/LL (not dried)<0.75	OH	ORGANIC CLAY OR SILT
HIGHLY ORGANIC SOILS		PRIMARILY ORGANIC MATTER, DARK IN COLOR, AND ORGANIC ODOR		PT	PEAT

OTHER MATERIAL SYMBOLS

- Poorly-Graded Sand with Clay
- Clayey Sand
- Sandy Silt
- Artificial/Undocumented Fill
- Poorly-Graded Gravelly Sand
- Topsoil
- Well-Graded Gravel with Clay
- Well-Graded Gravel with Silt
- Sand
- Silt
- Well Graded Gravelly Sand
- Gravelly Silt
- Asphalt
- Boulders and Cobble

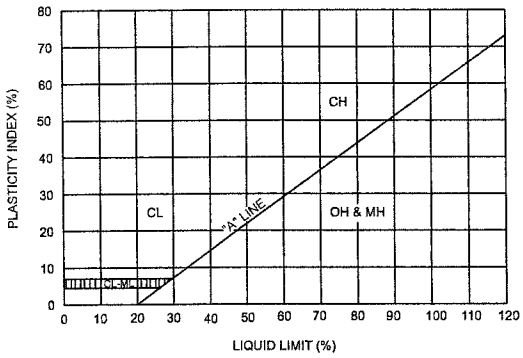
SAMPLER TYPES

- SPT
- Modified California (2.5" I.D.)
- Rock Core
- Shelby Tube
- No Recovery
- Grab Sample

ADDITIONAL TESTS

CA	-	CHEMICAL ANALYSIS (CORROSIVITY)	PI	-	PLASTICITY INDEX
CD	-	CONSOLIDATED DRAINED TRIAXIAL	SW		SWELL TEST
CN	-	CONSOLIDATION	TC	-	CYCLIC TRIAXIAL
CU	-	CONSOLIDATED UNDRAINED TRIAXIAL	TV	-	TORVANE SHEAR
DS	-	DIRECT SHEAR	UC	-	UNCONFINED COMPRESSION
PP	-	POCKET PENETROMETER (TSF)	(1.5)	-	(WITH SHEAR STRENGTH IN KSF)
(3.0)	-	(WITH SHEAR STRENGTH IN KSF)			
RV	-	R-VALUE	UU	-	UNCONSOLIDATED UNDRAINED TRIAXIAL
SA	-	SIEVE ANALYSIS: % PASSING #200 SIEVE			
▼	-	WATER LEVEL			

PLASTICITY CHART



PENETRATION RESISTANCE
(RECORDED AS BLOWS / FOOT)

SAND & GRAVEL		SILT & CLAY		
RELATIVE DENSITY	BLOWS/FOOT*	CONSISTENCY	BLOWS/FOOT*	STRENGTH** (KSF)
VERY LOOSE	0 - 4	VERY SOFT	0 - 2	0 - 0.25
LOOSE	4 - 10	SOFT	2 - 4	0.25 - 0.5
MEDIUM DENSE	10 - 30	MEDIUM STIFF	4 - 8	0.5-1.0
DENSE	30 - 50	STIFF	8 - 15	1.0 - 2.0
VERY DENSE	OVER 50	VERY STIFF	15 - 30	2.0 - 4.0
		HARD	OVER 30	OVER 4.0

* NUMBER OF BLOWS OF 140 LB HAMMER FALLING 30 INCHES TO DRIVE A 2 INCH O.D. (1-3/8 INCH I.D.) SPLIT-BARREL SAMPLER THE LAST 12 INCHES OF AN 18-INCH DRIVE (ASTM-1586 STANDARD PENETRATION TEST).

** UNDRAINED SHEAR STRENGTH IN KIPS/SQ. FT. AS DETERMINED BY LABORATORY TESTING OR APPROXIMATED BY THE STANDARD PENETRATION TEST, POCKET PENETROMETER, TORVANE, OR VISUAL OBSERVATION.

CORNERSTONE EARTH GROUP

LEGEND TO SOIL DESCRIPTIONS

Figure Number A-1

BORING NUMBER EB-1

CORNERSTONE EARTH GROUP

PROJECT NAME 1328 North Capitol Avenue
PROJECT NUMBER 206-3-2
PROJECT LOCATION San Jose, CA

DATE STARTED 5/18/10 **DATE COMPLETED** 5/18/10
GROUND ELEVATION _____ **BORING DEPTH** 25 ft.
DRILLING CONTRACTOR Exploration Geoservices, Inc.
LATITUDE _____ **LONGITUDE** _____
DRILLING METHOD Mobile B-53, 8 inch Hollow-Stem Auger
GROUND WATER LEVELS:
LOGGED BY JLF
AT TIME OF DRILLING Not Encountered
NOTES _____
AT END OF DRILLING Not Encountered

This log is a part of a report by Cornerstone Earth Group, and should not be used as a stand-alone document. This description applies only to the location of the exploration at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with time. The description presented is a simplification of actual conditions encountered. Transitions between soil types may be gradual.

ELEVATION (ft)	DEPTH (ft)	SYMBOL	DESCRIPTION	N-Value (uncorrected) blows per foot	SAMPLES TYPE AND NUMBER	DRY UNIT WEIGHT PCF	NATURAL MOISTURE CONTENT, %	PLASTICITY INDEX, %	PERCENT PASSING NO. 200 SIEVE	UNDRAINED SHEAR STRENGTH, ksf (○ HAND PENETROMETER, △ TORVANE, ● UNCONFINED COMPRESSION, ▲ UNCONSOLIDATED-UNDRAINED TRIAXIAL; 1.0 2.0 3.0 4.0 5.0)
	0		**Lean Clay with Sand (CL)** stiff, moist, dark brown to brown, fine sand, trace fine subangular to subrounded gravel, low plasticity	8	MC-1	103	19			
				8	MC-2A	96	17			
	5			17	NR					
				16	MC-3	100	20			
	10									
				16	MC-4A		18			
	15									
			Sandy Lean Clay (CL) very stiff, moist, brown, fine sand, some fine subangular to subrounded gravel, low plasticity	16	MC-5A		15			
	20									
				20	MC-6A		15			
	25		Bottom of Boring at 25.0 feet.							
	30									
	35									

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BORING NUMBER EB-2

CORNERSTONE EARTH GROUP

PROJECT NAME 1328 North Capitol Avenue
PROJECT NUMBER 206-3-2
PROJECT LOCATION San Jose, CA
GROUND ELEVATION _____ **BORING DEPTH** 20 ft.
LATITUDE _____ **LONGITUDE** _____
GROUND WATER LEVELS:
AT TIME OF DRILLING Not Encountered
AT END OF DRILLING Not Encountered

DATE STARTED 5/18/10 **DATE COMPLETED** 5/18/10
DRILLING CONTRACTOR Exploration Geoservices, Inc.
DRILLING METHOD Mobile B-53, 8 inch Hollow-Stem Auger
LOGGED BY JLF
NOTES _____

This log is a part of a report by Cornerstone Earth Group, and should not be used as a stand-alone document. This description applies only to the location of the exploration at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with time. The description presented is a simplification of actual conditions encountered. Transitions between soil types may be gradual.

ELEVATION (ft)	DEPTH (ft)	SYMBOL	DESCRIPTION	N-Value (uncorrected) blows per foot	SAMPLES TYPE AND NUMBER	DRY UNIT WEIGHT PCF	NATURAL MOISTURE CONTENT, %	PLASTICITY INDEX, %	PERCENT PASSING NO. 200 SIEVE	UNDRAINED SHEAR STRENGTH, ksf (○ HAND PENETROMETER, △ TORVANE, ● UNCONFINED COMPRESSION, ▲ UNCONSOLIDATED-UNDRAINED TRIAXIAL; 1.0 2.0 3.0 4.0 5.0)
	0		**Lean Clay with Sand (CL)** stiff, moist, dark brown to brown, fine sand, trace fine subangular to subrounded gravel, low plasticity. Liquid Limit = 33, Plastic Limit = 18	7	1A MC 1B	100 101	16 17	15		○ ○
	5		**Clayey Sand (SC)** loose to medium dense, moist, brown, fine sand, some fine subangular to subrounded gravel	11	MC-2	96	9			
				14	MC-3	110	12		45	
	10		**Lean Clay with Sand (CL)** stiff, moist, brown, fine sand, trace fine subangular to subrounded gravel, low to moderate plasticity	8	MC-4	107	17			○
	15			13	MC-5		18			○
	20		Bottom of Boring at 20.0 feet.	16	MC-6A		17			○
	25									

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BORING NUMBER EB-3

CORNERSTONE EARTH GROUP

PROJECT NAME 1328 North Capitol Avenue
PROJECT NUMBER 206-3-2
PROJECT LOCATION San Jose, CA
GROUND ELEVATION _____ **BORING DEPTH** 25 ft.
LATITUDE _____ **LONGITUDE** _____
GROUND WATER LEVELS:
AT TIME OF DRILLING Not Encountered
AT END OF DRILLING Not Encountered

DATE STARTED 5/18/10 **DATE COMPLETED** 5/18/10
DRILLING CONTRACTOR Exploration Geoservices, Inc.
DRILLING METHOD Mobile B-53, 8 inch Hollow-Stem Auger
LOGGED BY JLF
NOTES _____

This log is a part of a report by Cornerstone Earth Group, and should not be used as a stand-alone document. This description applies only to the location of the exploration at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with time. The description presented is a simplification of actual conditions encountered. Transitions between soil types may be gradual.

ELEVATION (ft)	DEPTH (ft)	SYMBOL	DESCRIPTION	N-Value (uncorrected) blows per foot	SAMPLES TYPE AND NUMBER	DRY UNIT WEIGHT PCF	NATURAL MOISTURE CONTENT, %	PLASTICITY INDEX, %	PERCENT PASSING NO. 200 SIEVE	UNDRAINED SHEAR STRENGTH, ksf (○ HAND PENETROMETER, △ TORVANE, ● UNCONFINED COMPRESSION, ▲ UNCONSOLIDATED-UNDRAINED TRIAXIAL; 1.0 2.0 3.0 4.0 5.0)
	0		**Lean Clay with Sand (CL)** hard to very stiff, moist, dark brown to brown, fine sand, trace fine subangular to subrounded gravel, low plasticity	16	MC-1	110	11			
				17	MC-2	110	15			
	5		**Sandy Lean Clay (CL)** hard, moist, brown, fine sand, some fine subangular to subrounded gravel, low plasticity	17	MC-3B	104	11			
				19	MC-4	103	10			
	10									
			Lean Clay with Sand (CL) hard, moist, brown, fine sand, low to moderate plasticity	21	MC-5		16			
	15									
			Sandy Lean Clay (CL) hard, moist, brown, fine sand, low plasticity	28	MC-6B		14			
	20		trace fine subangular to subrounded gravel	19	MC-7B		15		59	
	25		Bottom of Boring at 25.0 feet.							

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BORING NUMBER EB-4

CORNERSTONE EARTH GROUP

PROJECT NAME 1328 North Capitol Avenue
PROJECT NUMBER 206-3-2
PROJECT LOCATION San Jose, CA

DATE STARTED 5/18/10 **DATE COMPLETED** 5/18/10
GROUND ELEVATION _____ **BORING DEPTH** 20 ft.
DRILLING CONTRACTOR Exploration Geoservices, Inc.
LATITUDE _____ **LONGITUDE** _____
DRILLING METHOD Mobile B-53, 8 inch Hollow-Stem Auger
GROUND WATER LEVELS:
LOGGED BY JLF
AT TIME OF DRILLING Not Encountered
NOTES _____
AT END OF DRILLING Not Encountered

This log is a part of a report by Cornerstone Earth Group, and should not be used as a stand-alone document. This description applies only to the location of the exploration at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with time. The description presented is a simplification of actual conditions encountered. Transitions between soil types may be gradual.

ELEVATION (ft)	DEPTH (ft)	SYMBOL	DESCRIPTION	N-Value (uncorrected) blows per foot	SAMPLES TYPE AND NUMBER	DRY UNIT WEIGHT PCF	NATURAL MOISTURE CONTENT, %	PLASTICITY INDEX, %	PERCENT PASSING NO. 200 SIEVE	UNDRAINED SHEAR STRENGTH, ksf (○ HAND PENETROMETER, △ TORVANE, ● UNCONFINED COMPRESSION, ▲ UNCONSOLIDATED-UNDRAINED TRIAXIAL; 1.0 2.0 3.0 4.0 5.0)
	0		**Lean Clay with Sand (CL)** very stiff moist, dark brown to brown, fine sand, trace fine subangular to subrounded gravel, low plasticity	16	1A MC 1B	108 103	17 18			
				11	MC-2A	101	17			
	5			11	MC-3A	94	15			
			Sandy Lean Clay (CL) very stiff, moist, brown, fine sand, trace fine subangular to subrounded gravel, low to moderate plasticity	9	MC-4A	101	14			
	10									
				14	MC-5A		17			
	15									
				11	MC-6A		20			
	20		Bottom of Boring at 20.0 feet.							
	25									
	30									
	35									

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APPENDIX B: LABORATORY TEST PROGRAM

The laboratory testing program was performed to evaluate the physical and mechanical properties of the soils retrieved from the site to aid in verifying soil classification.

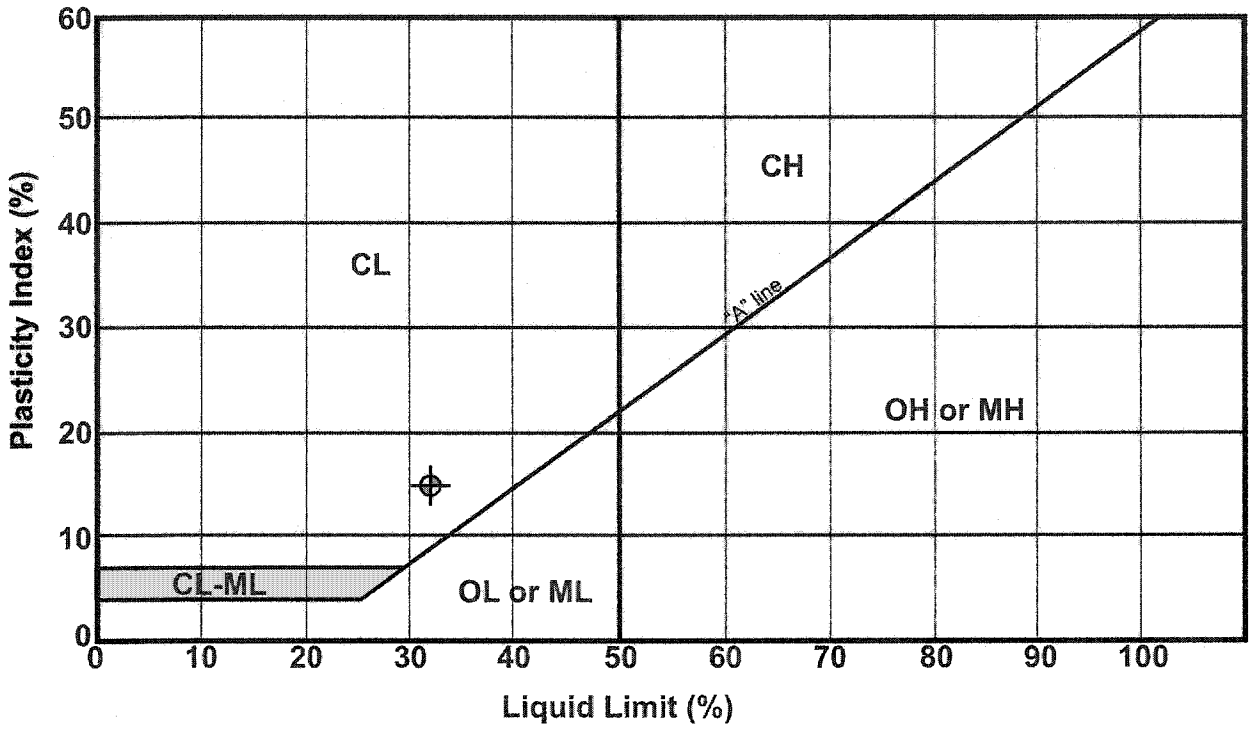
Moisture Content: The natural water content was determined (ASTM D2216) on 27 samples of the materials recovered from the borings. These water contents are recorded on the boring logs at the appropriate sample depths.

Dry Densities: In place dry density determinations (ASTM D2937) were performed on 17 samples to measure the unit weight of the subsurface soils. Results of these tests are shown on the boring logs at the appropriate sample depths.

Washed Sieve Analyses: The percent soil fraction passing the No. 200 sieve (ASTM D1140) was determined on two samples of the subsurface soils to aid in the classifying these soils. Results of these tests are shown on the boring logs at the appropriate sample depths.

Plasticity Index: One Plasticity Index determination (ASTM D4318) was performed on a sample of the subsurface soil to measure the range of water contents over which this material exhibits plasticity. The Plasticity Index was used to classify the soil in accordance with the Unified Soil Classification System and to evaluate the soil expansion potential. Results of this test are shown on the boring log at the appropriate sample depth and on Figure B-1 of this appendix.

Plasticity Index (ASTM D4318) Testing Summary



Symbol	Boring No.	Depth (ft)	Natural Water Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index	Passing No. 200 (%)	Group Name (USCS - ASTM D2487)
⊕	EB-2	1.0	17	33	18	15		Lean Clay with Sand (CL)

CORNERSTONE EARTH GROUP

Plasticity Index Testing Summary

1328 North Capitol Avenue
San Jose, CA

Project Number: 206-3-2

Figure Number: Figure B1

Date: April 2010

Drawn By: FLL

APPENDIX C: SOIL QUALITY EVALUATION BORING LOGS

BORING NUMBER SB-1

CORNERSTONE EARTH GROUP

PROJECT NAME 1328 North Capitol Avenue
PROJECT NUMBER 206-3-1
PROJECT LOCATION San Jose, CA
DATE STARTED 5/21/10 **DATE COMPLETED** 5/21/10
GROUND ELEVATION **BORING DEPTH** 10 ft.
DRILLING CONTRACTOR
LATITUDE **LONGITUDE**
DRILLING METHOD
GROUND WATER LEVELS:
LOGGED BY JLF
AT TIME OF DRILLING Not Encountered
NOTES
AT END OF DRILLING Not Encountered

This log is a part of a report by Cornerstone Earth Group, and should not be used as a stand-alone document. This description applies only to the location of the exploration at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with time. The description presented is a simplification of actual conditions encountered. Transitions between soil types may be gradual.

ELEVATION (ft)	DEPTH (ft)	SYMBOL	DESCRIPTION	N-Value (uncorrected) blows per foot	Sample Submitted for Laboatory Analysis	Percent Recovery (%)	OVM Reading (ppm)	Odors or Discoloration	Notes
	0.0		**Clay (CL) [Fill]** soft to medium stiff, moist, dark brown, some gravel						
	2.5		**Clay (CL)** medium stiff to stiff, moist, dark brown, some gravel			80	0		
	5.0								
			Clay with Sand (CL) moist, light brown						
	7.5					90	0		
	10.0		Bottom of Boring at 10.0 feet.						
	12.5								
	15.0								

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BORING NUMBER SB-2

CORNERSTONE EARTH GROUP

PROJECT NAME 1328 North Capitol Avenue
PROJECT NUMBER 206-3-1
PROJECT LOCATION San Jose, CA

DATE STARTED 5/21/10 **DATE COMPLETED** 5/21/10
GROUND ELEVATION _____ **BORING DEPTH** 15 ft.
DRILLING CONTRACTOR _____
LATITUDE _____ **LONGITUDE** _____
DRILLING METHOD _____
GROUND WATER LEVELS:
LOGGED BY JLF
AT TIME OF DRILLING Not Encountered
NOTES _____
AT END OF DRILLING Not Encountered

This log is a part of a report by Cornerstone Earth Group, and should not be used as a stand-alone document. This description applies only to the location of the exploration at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with time. The description presented is a simplification of actual conditions encountered. Transitions between soil types may be gradual.

ELEVATION (ft)	DEPTH (ft)	SYMBOL	DESCRIPTION	N-Value (uncorrected) blows per foot	Sample Submitted for Laboatory Analysis	Percent Recovery (%)	OVM Reading (ppm)	Odors or Discoloration	Notes
	0.0		**Clay (CL) [Fill]** moist, dark brown, some gravel						
	2.5					80	0		
	5.0								
	7.5		**Clay with Sand (CL)** moist, light brown, some gravel			90	0		
	10.0								
	12.5					100	0		
	15.0		Bottom of Boring at 15.0 feet.						

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CORNERSTONE EARTH GROUP

Type of Services	**Phase I Environmental Site Assessment and Preliminary Soil and Soil Vapor Quality Evaluation**
Location	**1328 N. Capitol Avenue San Jose, California**
Client Client Address	**Trumark Companies 4185 Blackhawk Plaza Circle, Suite 200 Danville, California 94506-4696**
Client	**Current Property Owner**
Project Number	**206-3-1**
Date	**June 15, 2010**

Prepared by **Stason I. Foster, P.E.**
Senior Project Engineer

REGISTERED GEOLOGIST
PETER M. LANGTRY
EG-5920
EXP. 1-31-12
STATE OF CALIFORNIA

Peter M. Langtry, P.G., C.E.G.
Principal Geologist

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Type of Services	**Phase I Environmental Site Assessment and Preliminary Soil Quality Evaluation**
Location	**1328 N. Capitol Avenue San Jose, California**

SECTION 1: INTRODUCTION

This report presents the results of the Phase I Environmental Site Assessment (ESA) and Preliminary Soil Quality Evaluation performed at 1328 N. Capitol Avenue in San Jose, California (Site) as shown on Figures 1 and 2. This work was performed for Trumark Companies in accordance with our April 15, 2010 Agreement (Agreement). Cornerstone Earth Group, Inc. (Cornerstone) understands that Trumark Companies intends to purchase the Site for residential development. Current plans consist of 98 three-story townhomes with tuck-under garages.

1.1 PURPOSE

The scope of work presented in the Agreement was prepared in general accordance with ASTM E 1527-05 titled, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process" (ASTM Standard). The ASTM Standard is in general compliance with the Environmental Protection Agency (EPA) rule titled, "Standards and Practices for All Appropriate Inquiries; Final Rule" (AAI Rule). The purpose of this Phase I ESA is to strive to identify, to the extent feasible pursuant to the scope of work presented in the Agreement, Recognized Environmental Conditions at the property.

As defined by ASTM E 1527-05, the term Recognized Environmental Condition means the presence or likely presence of hazardous substances or petroleum products on a property under conditions that indicate an existing release, past release, or a material threat of a release of hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water on the property.

1.2 SCOPE OF WORK

As presented in our Agreement, the scope of work performed for this Phase I ESA and Soil Quality Evaluation included the following:

- A reconnaissance of the Site to note readily observable indications of significant hazardous materials releases to structures, soil or ground water.
- Drive-by observation of adjoining properties to note readily apparent hazardous materials activities that have or could significantly impact the Site.
- Acquisition and review of a regulatory agency database report of public records for the general area of the Site to evaluate potential impacts to the Site from reported

contamination incidents at nearby facilities.

- Review of readily available information on file at selected governmental agencies to help evaluate past and current Site use and hazardous materials management practices.
- Review of readily available maps and aerial photographs to help evaluate past and current Site uses.
- Interviews with persons reportedly knowledgeable of existing and prior Site uses, including the current and past Site owners, and the current and past Site operator(s) (if these persons were made available by Trumark Companies).
- Collection and laboratory analyses of surface soil samples from 29 selected locations to evaluate soil quality.
- Drilling of two exploratory borings in the former gasoline underground storage tank area and collection of soil samples for laboratory analyses, plus conversion of the two borings into soil vapor sample probes for the collection of soil vapor samples.
- Preparation of a written report summarizing our findings and recommendations.

The limitations for the Phase I ESA and Preliminary Soil Quality Evaluation are presented in Section 11; the terms and conditions of our Agreement are presented in Appendix A.

1.3 ASSUMPTIONS

In preparing this Phase I ESA, Cornerstone assumed that all information received from interviewed parties is true and accurate. In addition, we assumed that all records obtained by other parties, such as regulatory agency databases, maps, related documents and environmental reports prepared by others are accurate and complete. We also assumed that the boundaries of the Site, based on information provided by Trumark Companies, are as shown on Figure 2. We have not independently verified the accuracy or completeness of any data received.

1.4 ENVIRONMENTAL PROFESSIONAL

This Phase I ESA was performed by Stason I. Foster, P.E. and Peter M. Langtry, P.G., C.E.G., environmental professionals who meet the ASTM E 1527-05 qualifications.

SECTION 2: SITE DESCRIPTION

This section describes the Site as of the date of this Phase I ESA. The location of the Site is shown on Figures 1 and 2. Tables 1 through 3 summarize general characteristics of the Site and adjoining properties. The Site is described in more detail in Section 7, based on our on-Site observations.

2.1 LOCATION AND OWNERSHIP

Table 1 describes the physical location, and ownership of the property, based on information provided by Trumark Companies.

Table 1. Location and Ownership

Assessor's Parcel No. (APN)	589-19-063
Reported Address/Location	1328 N. Capitol Avenue, San Jose, California
Owner	William Orlando
Approximate Lot Size	4.31-acres
Approximate Bldg. Size and Construction Date*	House: 2,400 sq.ft. (built in 1948) Detached Garage: 2½ car (built in 1948) Barn: 2,400 sq.ft. (built in 1960s)

* Reported by the Site owner

2.2 CURRENT/PROPOSED USE OF THE PROPERTY

The current and proposed uses of the property are summarized in Table 2.

Table 2. Current and Proposed Uses

Current Use	Residential, Storage, Searchlight Rental, Seasonal Sales of Christmas Trees, Pumpkins and Firewood.
Proposed Use	Residential: Two to three story townhomes with tuck-under garages

2.3 SITE SETTING AND ADJOINING SITE USE

Land use in the general Site vicinity appears to be primarily residential. Based on our Site vicinity reconnaissance, adjoining Site uses are summarized below in Table 3.

Table 3. Adjoining Site Uses

Northwest	Residential
Northeast	Residential
Southwest	Residential
Southeast	Residential and Church

SECTION 3: USER PROVIDED INFORMATION

The ASTM standard defines the User as the party seeking to use a Phase I ESA to evaluate the presence of Recognized Environmental Conditions associated with a property. For the purpose of this Phase I ESA, the User is Trumark Companies.

3.1 CHAIN OF TITLE

A chain-of-title was not provided for our review.

3.2 ENVIRONMENTAL LIENS OR ACTIVITY AND USE LIMITATIONS

No information regarding environmental liens or activity and use limitations (AULs) was provided for our review.

3.3 SPECIALIZED KNOWLEDGE AND/OR COMMONLY KNOWN OR REASONABLY ASCERTAINABLE INFORMATION

The ASTM Standard requires that if the User is aware of any specialized knowledge and/or commonly known or reasonably ascertainable information within the local community about the Site that is material to Recognized Environmental Conditions, such as environmental liens, a significantly lower purchase price due to the property being affected by hazardous materials, or other conditions that are material to Recognized Environmental Conditions in connection with the Site, it is the User's responsibility to communicate such information to the environmental professional. Based on information provided by or discussions with Trumark Companies, we understand that Trumark Companies does not have such specialized knowledge and/or commonly known or reasonably ascertainable information regarding the Site.

3.4 REASON FOR PERFORMING PHASE I ENVIRONMENTAL SITE ASSESSMENT

We understand that Trumark Companies intends to purchase the Site for residential development. We performed this Phase I ESA and Preliminary Soil Quality Evaluation to support Trumark Companies in evaluation of Recognized Environmental Conditions at the Site. This Phase I ESA and Preliminary Soil Quality Evaluation is intended to reduce, but not eliminate, uncertainty regarding the potential for Recognized Environmental Conditions at the Site.

SECTION 4: RECORDS REVIEW

4.1 STANDARD ENVIRONMENTAL RECORD SOURCES

Cornerstone contracted with a firm specializing in the computerized search of environmental regulatory databases to evaluate the likelihood of contamination incidents at and near the Site. The databases and search distances were in general accordance with the requirements of ASTM E 1527-05. A list of the database sources reviewed, a description of the sources, and a radius map showing the location of reported facilities relative to the project Site are presented in Appendix B.

The Site is listed on the historic underground storage tank (UST) database under the name of William Orlando at 1454 N. Capitol Avenue (a former Site address [see Section4.2]). The listing indicates that one UST was present that contained regular gasoline.

Based on the information presented in the agency database report, no off-Site facilities were reported that appear likely to significantly impact ground water beneath the Site. The potential for impact was based on our interpretation of the types of incidents, the location of the reported incidents in relation to the Site and the assumed ground water flow direction.

4.2 ADDITIONAL ENVIRONMENTAL RECORD SOURCES

The following additional sources of readily ascertainable public information for the Site also were reviewed during this Phase I ESA.

4.2.1 City and County Agency File Review

Cornerstone requested available files pertaining to 1328 N. Capitol Avenue and a reported former address (see Table 4) of 1454 N. Capitol Avenue at the following public agencies: the San Jose Building Department (SJBD), San Jose Fire Department (SJFD), and the Santa Clara County Department of Environmental Health (SCCDEH). The information reviewed is summarized in Table 4. No files were available at the SJFD or SCCDEH.

Table 4. File Review Information

Agency Name	Date	Occupant	Remarks
SJBD	1978	Orlando	Electrical and mechanical permits noting residential use.
SJBD	1992	NA	Letter from City of San Jose to USPS stating that the address of 1454 N. Capitol Avenue was changed to 1328 due to out of sequence numbering.
SJBD	2001	Orlando	Permit application for electrical service change from overhead to underground.

SECTION 5: PHYSICAL SETTING

We reviewed readily available geologic and hydrogeologic information to evaluate the likelihood that chemicals of concern released on a nearby property could pose a significant threat to the Site and/or its intended use.

5.1 RECENT USGS TOPOGRAPHIC MAP

A recent USGS 7.5 minute topographic map was reviewed to evaluate the physical setting of the Site. The Site's elevation is approximately 130 feet above mean sea level; topography in the vicinity of the Site slopes gently to the west.

5.2 HYDROGEOLOGY

Historic high ground water levels in the Site vicinity are reported to be at a depth of approximately 55 feet (CDC, 2001) with a westerly flow direction.

SECTION 6: HISTORICAL USE INFORMATION

The objective of the review of historical use information is to develop a history of the previous uses of the Site and surrounding area in order to help identify the likelihood of past uses having led to Recognized Environmental Conditions at the property. The ASTM standard requires the identification of all obvious uses of the property from the present back to the property's first developed use, or back to 1940, whichever is earlier, using reasonably ascertainable standard historical sources.

6.1 HISTORICAL SUMMARY OF SITE

The historical sources reviewed are summarized below. The results of our review of these sources are summarized in Table 5.

- **Historical Aerial Photographs:** We reviewed aerial photographs dated 1939, 1948, 1956, 1965, 1975, 1982, 1993, 1998 and 2005 obtained from Environmental Data Resources, Inc. (EDR) of Milford, Connecticut; copies of aerial photographs reviewed are presented in Appendix C.

- **Historical Topographic Maps:** We reviewed USGS 15-minute and 7.5-minute historic topographic maps dated 1953, 1961, 1968, 1973 and 1980; copies of historic topographic maps reviewed are presented in Appendix C.

- **Historical Fire Insurance Maps:** EDR reported that the Site was not within the coverage area of fire insurance maps.

- **Local Street Directories:** We reviewed city directories obtained from EDR that were dated from 1922 to 2006 to obtain information pertaining to past Site occupants; the city directory summary is presented in Appendix D.

Table 5. Summary of Historical Source Information for Site

Date	Source	Comment
1939 and 1948	Aerial photograph	The Site appears occupied mainly by orchards. A residence or small barn-like structure is shown near the location of the current on-Site structures.
1953	Topographic map	The Site is shown to be occupied by orchards and a structure typical of a residence.
1956	Aerial photograph	The Site appears occupied mainly by orchards. What appears to be the current on-Site residence is shown. The structure shown on the prior aerial photographs appears to have been removed.
1961	Topographic map	The Site is shown to be occupied by orchards and three structures typical of a residence and associated outbuildings.
1965	Aerial photograph	The Site appears similar to that shown on the 1956 aerial photograph
1968 and 1973	Topographic maps	The Site is shown to be occupied by orchards and three structures typical of a residence and associated outbuildings.
1975	Aerial photograph	The Site appears similar to that shown on the 1956 aerial photograph. The current on-Site barn additionally appears to be present.
1980	Topographic map	The Site is shown to be occupied by orchards and three structures typical of a residence and associated outbuildings. An additional larger structure is depicted that appears to be the current on-Site barn.
1982, 1993 and 1998	Aerial photographs	The Site appears similar to that shown on the 1975 aerial photograph, except that many of the orchard trees on the northern portion of the Site appear to have been removed.
1996	City Directory	Occupant listed as Orlando WM
2005	Aerial photograph	The Site appears similar to the current on-Site conditions.

6.2 HISTORICAL SUMMARY OF SITE VICINITY

Based on our review of the information described in Section 6.1, the general Site vicinity appears to have historically consisted of orchards with widely spaced residences. By the 1960s and 1970s, a significant increase in mainly residential development is apparent. Further increases in mainly residential development in the general vicinity are apparent on the subsequent aerial photographs.

SECTION 7: SITE RECONNAISSANCE

We performed a Site reconnaissance to evaluate current Site conditions and to attempt to identify Site Recognized Environmental Conditions. The results of the reconnaissance are discussed below. Additional Site observations are summarized in Table 6 in Section 7.2. Photographs of the Site are presented in Section 7.2.1.

7.1 METHODOLOGY AND LIMITING CONDITIONS

To observe current Site conditions (readily observable environmental conditions indicative of a significant release of hazardous materials), Cornerstone staff Stason I. Foster, P.E. visited the Site on April 23, 2010, and was accompanied by Mr. Dave Orlando (the son of the Site owner), Mr. Corbett Wright (real estate broker representing the owner), and Mr. Chris Davenport of Trumark Companies. Mr. Paul Battaglia, Dave Orlando's cousin, also briefly visited during the Site reconnaissance. Cornerstone staff only observed those areas that were reasonably accessible, safe, and did not require movement of equipment, materials or other objects.

7.2 OBSERVATIONS

At the time of our visit, the Site was occupied by a single family residence, detached garage, barn and mobile home. Mr. Orlando indicated that the Site has been owned by his family since 1897 and used as a cherry orchard. Currently, the Site reportedly is used for the seasonal sales of Christmas trees and pumpkins, as well as firewood.

Mr. Orlando indicated that he resides in the mobile home when visiting and the main residence was formerly occupied by his grandmother but is now vacant. The interiors of the mobile home and residence were not observed during our visit. The interior of the detached garage was observed to be used for storage of vehicles, a motorcycle and other miscellaneous items. A septic tank was observed near the northern corner of the residence. Additionally, Mr. Orlando indicated that a 1,000-gallon gasoline UST was formerly located near the southern corner of the detached garage. The UST reportedly was removed by the Orlando's during the 1970s without regulatory agency oversight. Mr. Orlando stated that the UST was in good condition upon removal; reportedly, the manufacturer's labels were intact and no holes or significant rusting were apparent. The UST piping reportedly ran from the tank and into the garage; a circular hole was observed in the garage wall at the reported former piping location. No significant staining of the concrete floor slab or other indications of fuel spillage within the garage were readily apparent.

The barn was observed to be constructed of wood framing with corrugated metal roof and siding. A concrete slab floor, which appeared to be in good condition, was present beneath the main barn structure. On the northeast side of the barn was an attached, partially enclosed extension with gravel flooring. The barn was observed to be used as a work shop for general

maintenance and repair activities. Vehicles, searchlights, tools, various machinery, general household items and numerous other miscellaneous items were observed to be stored within the barn and covered area to the northeast. Similar items were observed to be stored within three semi-truck trailers located immediately east of the barn. A fourth trailer, located further east, was observed to contain supplies and props used for the seasonal sale of pumpkins.

Hazardous materials observed on-Site were located within the barn and within the attached enclosure to the northeast. These materials included numerous vehicle and facility maintenance products consisting mainly of lubricants, paints, paint thinners, and cleaning supplies. These products were observed to be in retail containers with capacities ranging mainly from 1-quart to 1-gallon, along with numerous aerosol cans. A few 5-gallon containers of paints and thinners also were observed. The hazardous materials were stored mainly on shelving or within a wall mounted hazardous materials storage cabinet. A few items were observed on the concrete floor slab and gravel surfaces. The hazardous materials appeared to be stored in an orderly manner and general housekeeping appeared good; no signs of significant hazardous materials spills were readily apparent.

Numerous searchlights were stored on-Site; some were mounted on trailers or trucks. Mr. Orlando indicated that he collects old searchlights and also operates a searchlight rental business on-Site (West Coast Searchlights). Numerous generators used to power searchlights also were collected by Mr. Orlando and stored on-Site; some were trailer mounted and others were resting on the ground. Mr. Orlando indicated that most of the generators were fueled from integral gasoline tanks; the fuel had reportedly been drained from the generators that were not used as part of the rental business. No evidence of significant fuel leaks was readily apparent.

An area to the southeast of the residence was used for storage of wooden pallets, wooden, crates, used vehicles and firewood, along with additional searchlights and generators. Mr. Orlando indicated that wood is accepted from tree cutting contractors and then cut and sold on-Site as firewood. The remaining area on the southeastern portion of the Site appeared to have been recently tilled for weed control and contained several trees that were the remnants of a former orchard. An agricultural well was observed on-Site adjacent to Sierra Road. Mr. Orlando indicated that the well was installed to a depth of approximately 750 feet; it is currently not in use. A concrete pad was observed adjacent to the well. According to Mr. Orlando, a water tank was formerly located on the pad. The tank reportedly was originally located on the opposite side of the well and when Sierra Road was constructed, the City poured the current pad and relocated the water tank. Three pole mounted electrical transformers were observed on a wooden utility pole near the well. No evidence of transformer oil leakage was readily apparent.

Table 6. Summary of Readily Observable Site Features

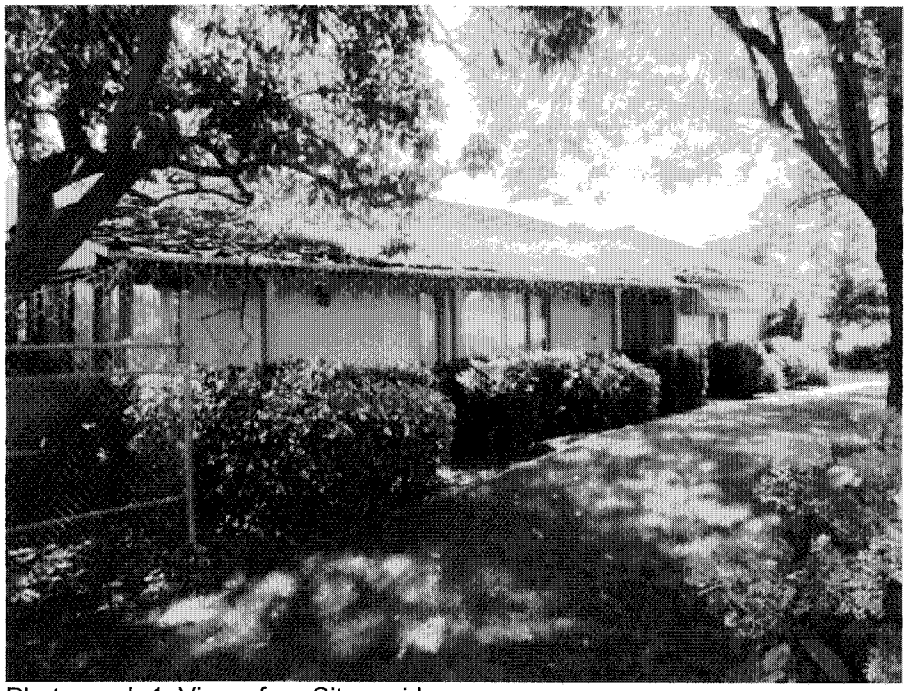
General Observation	Comments
Aboveground Storage Tanks	Not Observed
Agricultural Wells	Observed
Air Emission Control Systems	Not Observed
Boilers	Not Observed
Burning Areas	Not Observed
Chemical Mixing Areas	Not Observed
Chemical Storage Areas	Observed
Clean Rooms	Not Observed

Table 6, continued.

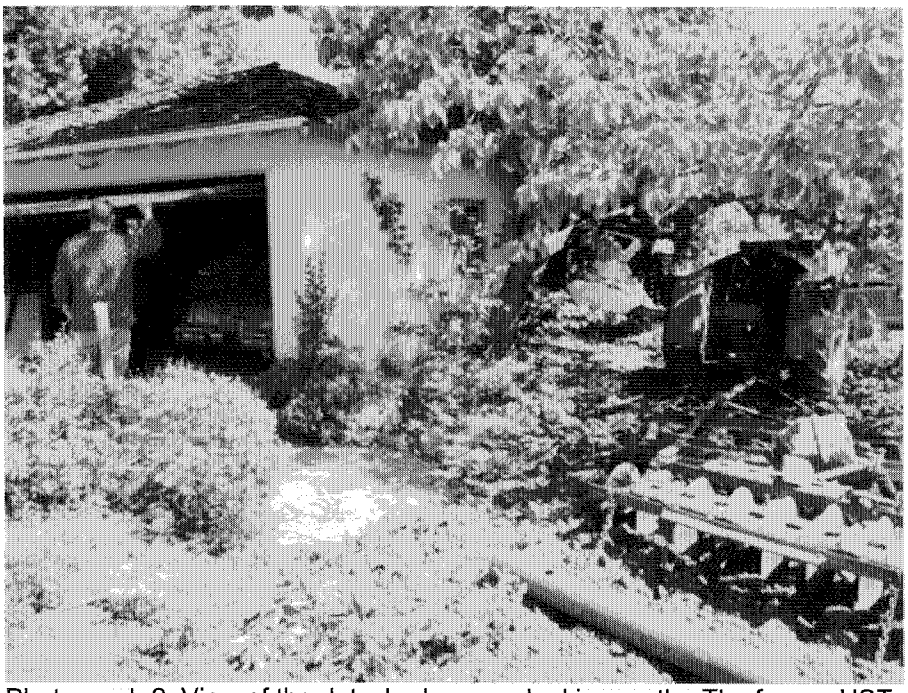
General Observation	Comments
Drainage Ditches	Not Observed
Elevators	Not Observed
Emergency Generators	Generators associated with searchlights were observed.
Equipment Maintenance Areas	Observed
Fill Placement	Gravel fill placed in driveways.
Ground Water Monitoring Wells	Not Observed
High Power Transmission Lines	Not Observed
Hoods and Ducting	Not Observed
Hydraulic Lifts	Not Observed
Incinerator	Not Observed
Petroleum Pipelines	Not Observed. Former gasoline UST pipeline reported.
Petroleum Wells	Not Observed
Ponds or Streams	Not Observed
Railroad Lines	Not Observed
Row Crops or Orchards	Observed
Stockpiles of Soil or Debris	Not Observed
Sumps or Clarifiers	Not Observed
Transformers	Observed
Underground Storage Tanks	Not Observed. Former UST reported.
Vehicle Maintenance Areas	Observed
Vehicle Wash Areas	Not Observed
Wastewater Neutralization Systems	Not Observed

The comment "Not Observed" does not warrant that these features are not present on-Site; it only indicates that these features were not readily observed during the Site visit.

7.2.1 Site Photographs



Photograph 1. View of on-Site residence.



Photograph 2. View of the detached garage looking north. The former UST reportedly was located behind the tractor.

Photograph 3. View of the barn (southwest side).

Photograph 4. Workshop area within the barn.

Photograph 5. Interior view of the barn showing hazardous materials storage.

Photograph 6. Northeast side of barn.

Photograph 7. Searchlights, generator and used car. Typical of many others stored on-Site.

Photograph 8. Remnants of former orchard. Stored wood pallets and crates shown at top.

Photograph 9. View of on-Site well.

Photograph 10. Firewood storage area east of the residence.

Photograph 11. Undeveloped, northwestern portion of the Site looking northeast.

SECTION 8: INTERVIEWS

8.1 ENVIRONMENTAL QUESTIONNAIRE AND OWNER INTERVIEWS

During our Site visit, Mr. David Orlando (the son of the Site owner) was interviewed regarding the Site. The information supplied by David was discussed in Section 7.2.

To obtain additional information on current and historical Site use and use/storage of hazardous materials on-Site, we provided an environmental questionnaire to the Site owner, Mr. William Orlando. A copy of the completed questionnaire is attached in Appendix E. Most of the information provided on the questionnaire appears consistent with that discussed in Section 7.2; however, several additional items were noted on the questionnaire including the presence of above ground storage tanks (ASTs), garbage/waste disposal areas, chemical storage in a basement, on-Site fill placement and waste burning areas.

To obtain additional information and clarification regarding these items, Mr. William Orlando was interviewed by telephone on April 26, 2009. Regarding the presence of ASTs, Mr. Orlando indicated that, on the questionnaire, he was referring to the prior UST used to store gasoline. No ASTs were reportedly present. Regarding the presence of on-Site waste or garbage disposal areas, Mr. Orlando indicated that he did not recall making an affirmative response to that question and stated that no waste or garbage were disposed on-Site. He stated that garbage was historically transported to an off-Site landfill by his family and more recently disposed by typical City trash collection services. Regarding chemical storage in a basement, Mr. Orlando indicated that a basement is present below the residence and that his affirmative response pertained to typical household cleaning and maintenance products that were stored there. He also noted that Roundup (a herbicide) was stored in a few retail containers with capacities of approximately 2½ gallons. Regarding on-Site fill, Mr. Orlando indicated that baserock was imported to the Site from a quarry and placed and compacted beneath the concrete floor slab of the barn. He also stated that gravel was imported from a quarry and placed around the barn in the yard areas to support vehicle and truck traffic associated with on-Site farming activities. Regarding waste burning areas, Mr. Orlando stated that diseased or beetle infested tree cuttings from the orchard were historically burned on-Site. He indicated that the burning usually occurred within the orchard on the eastern portion of the Site, generally between the current firewood storage pile and the Sierra Road/Havenwood Drive intersection.

During our conversation, Mr. Orlando additionally indicated that a barn and corral used for horses were present on-Site prior to construction of the current residence and garage during the late 1940s. Additionally, he indicated that pesticides historically were applied to on-Site orchards. He did not recall that pesticides were stored on-Site but indicated that, when purchased, they were typically applied using a spray rig that was filled near the on-Site well.

8.2 INTERVIEWS WITH PREVIOUS OWNERS AND OCCUPANTS

Contact information for previous Site owners and occupants was not provided to us. Therefore, interviews with previous Site owners and occupants could not be performed.

SECTION 9: PRELIMINARY SOIL QUALITY EVALUATION

Based on the findings of this Phase I ESA, the following potential near-surface soil quality concerns were identified:

- Potential for residual pesticides from the former on-Site orchard and in former horse barn and corral reported in area of current residence and barn.
- Reported historic pesticide mixing near the water supply well.
- Possible residual pesticide residue around the foundation of the existing structures from pesticide spraying and lead from lead paint residue from exterior walls.
- Potential presence of polynuclear aromatic hydrocarbons (PAHs) in soil from reported historic orchard burning in northeast portion of the Site.
- General soil quality in areas used for equipment and vehicle storage.

On April 23, 2010, Cornerstone's staff geologist collected 29 soil samples from the Site, including 10 samples (approximately one per ½ acre) randomly collected from the natural ground surface to a depth of approximately ½ foot using hand-sampling equipment to evaluate soil quality in former orchard areas. Two of these samples (SS-15 and SS-16) were located near a remnant orchard tree, with sample SS-15 located within the drip line of the tree and sample SS-16 located outside the tree drip line. Three additional soil samples (SS-17, SS-18 and SS-19) were selectively collected near the water supply well and concrete pad near the east property boundary. Soil samples SS-1, SS-2, SS-3, SS-8, SS-10, SS-12 and SS-13 were collected within approximately 5 feet of on-Site structures, samples SS-5 and SS-6 were collected from soil beneath the gravel floor of the shed adjacent to the barn, and samples SS-4, SS-7, SS-9, SS-23, SS-24, SS-25 and SS-26 were collected from areas where vehicles and equipment were stored. Apparent oil staining was observed on the gravel floor at the location of sample SS-5 that appeared to be from vehicle parking and maintenance activities. In addition, apparent burned wood fragments were observed on the soil at the location of sample SS-24. The remaining soil samples were collected from former orchard areas.

The 29 soil samples were analyzed at a state-certified laboratory for organochlorine pesticides (EPA Test Method 8081), and pesticide related metals (arsenic, lead, and mercury) (EPA Test Method 6010/7000). Fifteen soil samples collected from equipment storage areas and near structures were additionally analyzed for total petroleum hydrocarbons in the diesel (TPHd) and motor oil (TPHmo) ranges (EPA Test Method 8015) and the remaining 17 California Assessment Manual (CAM) metals (EPA Test Method 6000). Five of these samples were additionally selected and analyzed for polychlorinated biphenyls (PCBs) (EPA Test Method 8082) and PAHs (EPA Test Method 8270SIM). Analytical results are summarized in Tables 1, 2 and 3 in the Tables section of this report. The complete analytical results are presented in Appendix F.

SECTION 10: SOIL AND SOIL VAPOR QUALITY EVALUATION – FORMER GASOLINE UST AREA

As noted above, a gasoline UST reportedly was located near the southern corner of the detached garage. The UST reportedly was removed by the Orlando's during the 1970s without regulatory agency oversight. The property owner reported that the UST appeared intact when removed with no readily apparent signs of leakage. To evaluate potential presence of residual

gasoline constituents in the subsurface from the former UST, the following soil and soil vapor quality evaluation was performed.

10.1 SUBSURFACE INVESTIGATION

Subsurface investigation activities were performed on May 21, 2010. To evaluate soil quality, two exploratory borings (SB-1 and SB-2) were drilled to a depth of approximately 10 to 15 feet using direct push technology (2-inch diameter single walled sampler driven by a truck-mounted Geoprobe 6600 rig). Soil samples were collected from the borings continuously. Ground water was not encountered. Soil boring locations are shown on Figure 3.

Boring SB-1 was advanced in the approximate location of the pipeline from the gasoline UST to the reported former fuel pump in the garage, based on the apparent location where the pipeline formerly passed through the exterior wall of the garage. Boring SB-2 was drilled within the former gasoline UST pit, based on the reported location by David Orlando.

Soil samples were screened at approximately 1-foot intervals for volatile compounds using a MiniRAE 3000 Organic Vapor Meter (OVM). The soil was screened by cutting a small hole in the acetate liner extending approximately ½ inch into the soil core. The OVM probe tip was then inserted into the created void space to record an OVM reading. The OVM readings are listed on the boring logs. No volatile compounds were detected using the OVM at the time of screening.

Soil sampling protocol and boring logs are presented in Appendix G.

10.1.1 Subsurface Materials

Approximately 2 to 3 feet of clay fill were encountered in boring SB-1, apparently backfill of the former pipeline trench. In addition, approximately 7 feet of clay fill was encountered in the boring SB-2; the fill appeared to be the former gasoline UST pit backfill. Native light brown clay with sand was encountered in the borings beneath the fill to the maximum depth explored of 15 feet. No suspected odors or discoloration was observed in the soil samples collected.

10.2 SOIL SAMPLE COLLECTION AND LABORATORY ANALYSES

To evaluate soil quality, soil samples were collected from SB-1 at depths of approximately 2 to 2 ½ feet and approximately 6 to 6 ½ feet and from SB-2 at depths of approximately 2 to 2 ½ feet and approximately 7 ½ to 8 feet for laboratory analyses. These samples were selected to evaluate quality of the tank pit and pipeline backfill and underlying native soil.

Soil samples were submitted to a state certified laboratory and analyzed for total petroleum hydrocarbons in the gasoline range (TPHg), plus benzene, toluene, ethylbenzene, and xylene (BTEX) and MTBE (EPA Test Method 8015/8260) and total petroleum hydrocarbons in the diesel range (TPHd) (EPA Test Method 8015). To help evaluate re-use or off-Site disposal alternative of the backfill, the samples of the backfill were additionally analyzed for organochlorine pesticides (EPA Test Method 8081) and 17 California Assessment Manual (CAM) metals (EPA Test Method 6010).

A silica gel cleanup was performed for the TPHd analysis to help remove naturally occurring orgnanic compounds that can be picked up in the diesel scan, providing false positive results.

The laboratory analyses were selected to evaluate potential impacts from the reported gasoline UST. Laboratory analytical results are summarized in Tables 1, 2 and 5 in the Tables section of this report. Chain of custody documentation and laboratory analytical reports are presented in Appendix F.

10.3 SOIL VAPOR SAMPLE COLLECTION AND LABORATORY ANALYSES

10.3.1 Soil Vapor (SV) Well Installation

Protocols presented below follow the general requirements of the January 28, 2003 document entitled, "Advisory – Active Soil Gas Investigations", prepared by the Department of Toxic Substances and Control and the California Regional Water Quality Control Board, Los Angeles Region. Borings SB-1 and SB-2 were completed as temporary multi-depth wells, as discussed below.

Temporary multi-depth well SB-1, located near the garage and former product piping, was completed with stainless steel expendable tips and screens affixed to Teflon™ tubing within sand intervals extending from approximately 4 ½ to 5 ½ feet and from approximately 9 to 10 feet. Temporary multi-depth well SB-2, located in the former UST area, was completed similarly, but with intervals extending from approximately 4 ½ feet to approximately 5 ½ feet and from approximately 10 to 11 feet. Since boring SB-2 was completed to a deeper depth of approximately 15 feet, bentonite was tremied and hydrated to a depth of 12 feet followed by dry bentonite to 11 feet to facilitate the placement of the lower sand interval to extend from approximately 10 to 11 feet. The wells were constructed by first placing approximately 3 to 6 inches of No. 2/12 sand into the bottom of the borehole. The stainless steel tip and tubing were then lowered into the borehole via a tremie pipe. Additional sand was then placed in the borehole via tremie when needed to create an approximately 1 foot sand pack interval around the vapor tip. Approximately 1 foot of granular bentonite (Cetco™) was placed on top of the sand pack. Hydrated bentonite was then placed down-hole by the approximate mixing of 50 percent water to bentonite in less than six-inch lifts utilizing tremie pipe when needed. The hydrated bentonite was placed on top of the dry granular bentonite to the bottom depth of the upper-sand pack housing the vapor tip. Prior to installing the upper-sand pack, a layer of dry granular bentonite was placed on top of the hydrated bentonite to help prevent settling of the upper-sand pack. The upper vapor point screen interval was constructed similar to the lower, and the remainder of the borehole was sealed to the surface utilizing the hydrated bentonite procedures. The Teflon™ tubing was labeled with depth of placement and capped utilizing a vapor-tight Swagelok valve set in the "off" position. The temporary wells were protected from tampering by installing a surface mounted 8-inch diameter vault box.

10.3.1 Soil Vapor Sample Collection and Laboratory Analyses

On May 24, 2010, sampling of the two multi-depth vapor wells was performed by a California registered Professional Geologist. Prior to sampling, the tubing emanating from the vapor points was affixed to a sample shut-off valve in the "off" position during the time needed to reach equilibrium (at least 48 hours). A 167 milliliters-per-minute flow regulator inclusive of a particulate filter was fitted to the shut-off valve and the other end to a "T" fitting. A summa canister was connected to the "T" fitting. The other end of the "T" fitting was affixed to a digital vacuum gauge and a 1-liter summa canister utilized for purging.

A minimum 10 minute vacuum tightness test was performed on the manifold and connections by opening and closing the 1-liter purge canister valve and applying and monitoring a vacuum on the vacuum gauge. The sample shut-off valve on the down-hole side of the sampling manifold remained in the "off" position. When gauge vacuum was maintained for at least 10 minutes without any noticeable decrease (less than approximately 0.1 inches of mercury (Hg) for properly connected fittings), purging began. The down-hole shut off valve was opened and approximately three purge volumes of vapor were removed using the purging 1-liter summa. The volume of vapor removed was verified by the calculated versus observed pressure drop in the purging summa canister. The purge volume was calculated based on the length and inner diameter of the sampling probe and the connected sampling tubing and equipment. Assuming the vapor probe was properly sealed, the borehole sand pack vapor space will have equilibrated with the surrounding vapors following the 48 hour equilibration period. Thus, the sand pack vapor space was not included in the purge volume calculation.

Isopropyl alcohol (2-propanol, 91 percent) was utilized as a leak detection compound during sampling by applying 10 drops to cotton gauze and placing the moistened gauze near the borehole. Sampling began by opening the summa canister valve. Immediately upon opening the sampling valve, a shroud was placed over and enclosed the atmosphere of the borehole and entire sampling train including all connections.

A data logging PID was utilized during sampling to monitor the atmosphere inside the shroud through a bulk-head fitting. The logged data (at minimum 30 second intervals) was corrected to parts per million by volume isopropyl alcohol concentrations and utilized to evaluate the integrity of the sampling train.

2-propanol was not detected above the laboratory detection limits (ranging from less than <11 $\mu g/m^3$ to less than <12 $\mu g/m^3$) in the collected soil vapor samples, indicating that the sample trains were tight, and no significant leakage occurred.

To confirm the isopropyl alcohol atmosphere, one confirmation sample was collected from the shroud atmosphere by connecting a new Tedlar bag to the outlet of the PID during sampling. The shroud atmosphere sample collected during sampling well SB-2 (5 feet) on May 24, 2010 was analyzed by the laboratory to contain 2-propanol at 60,000 $\mu g/m^3$. During the same sampling time period (approximately 2 minutes), the shroud atmosphere was measured by the PID to contain approximately 69,000 $\mu g/m^3$ (approximately 14 percent relative percent difference [RPD] above the laboratory reported value). The PID appeared to slightly overestimate the shroud atmosphere.

During soil vapor sample collection, the average shroud concentrations of 2-propanol measured during sampling with the datalogging PID ranged between approximately 43,000 to 150,000 $\mu g/m^3$. These values were utilized to estimate the maximum possible leakage rate based on assuming the detection limit concentration of 2-propanol (which ranged from <11 to <12 $\mu g/m^3$. In the soil vapor samples, the maximum leakage rate was estimated to be less than 0.15 percent.

The Active Soil Gas Investigation Advisory (DTSC/LARWQCB, 2003) recommends that the leak check compound have a minimum detection limit of 10µ/L or 10,000 $\mu g/m^3$ and some agencies, such as New York State Department of Environmental Conservation, allow tracer concentrations up to 10 percent of the starting concentration before considering the soil gas sample compromised (ITRC Vapor Intrusion Pathway: A Practical Guideline, January 2007).

Therefore, the sampling trains appear sufficiently tight for representative soil vapor sample collection.

Soil vapor samples were analyzed for benzene, toluene, ethylbenzene, xylenes (BTEX) and 2-Propanol (EPA Test Method TO-15) and for gasoline range total petroleum hydrocarbons (TPHg) by EPA Method TO3. For quality assurance, the laboratory reanalyzed the soil vapor sample collected from well SB- 2 (5 feet) for BTEX and 2-Propanopl and from well SB-1 (10 feet) for TPHg. A trip blank summa canister accompanied the samples and was analyzed by the laboratory with no compounds detected above the reporting limit. Selected analytical data are presented on Table 6 (Table Section of the report); the analytical datasheets are presented in Appendix F.

SECTION 11: CONCLUSIONS (FINDINGS) AND RECOMMENDATIONS

Cornerstone performed this Phase I ESA and Preliminary Soil and Soil Vapor Quality Evaluation to support Trumark Companies in evaluation of Recognized Environmental Conditions. Our conclusions and recommendations are summarized below.

11.1 HISTORICAL SITE USAGE

Based on the information obtained during this study, the Site appears to have been owned by the Orlando family since 1897 and historically used mainly as a cherry orchard. The current on-Site residence and detached garage were constructed in approximately 1948. A barn and corral used for horses were present on-Site, along with orchards, prior to construction of the current residence. The current on-Site barn was constructed during the 1960s and used to support on-Site agricultural activities. Currently, the Site is used for the seasonal sales of Christmas trees and pumpkins, as well as firewood. The barn is currently used mainly as a workshop and for storage. The residence reportedly is vacant and an on-Site mobile home is intermittently occupied. Mr. David Orlando also currently operates a searchlight rental business on-Site and uses the property for storage of old collected searchlights and associated power generators, along with used vehicles and other miscellaneous items.

11.2 CHEMICAL STORAGE AND USE

Hazardous materials observed on-Site were located within the barn and within the attached enclosure to the northeast. As described in Section 7.2, these materials included numerous vehicle and facility maintenance products consisting mainly of lubricants, paints, paint thinners, and cleaning supplies. The hazardous materials appeared to be stored in an orderly manner and general housekeeping appeared good; no signs of significant hazardous materials spills were readily apparent. We recommend that the current property owner remove all hazardous materials and debris for appropriate off-Site disposal prior to Trumark purchasing the Site.

11.3 AGRICULTURAL USE

The Site was used for agricultural purposes for several decades. Pesticides reportedly were applied to the orchard in the normal course of farming operations. Because of the planned residential redevelopment of the Site, soil sampling and laboratory analyses were performed to evaluate the residual pesticide concentrations, if any, and potential health risks to future residents; our findings and conclusions regarding soil quality are discussed below in Section 10.7.

11.4 LEAD-BASED PAINT AND PEST CONTROL ACTIVITIES

The Consumer Product Safety Commission banned the use of lead as an additive in paint in 1978. Based on the age of the building, lead-based paint may be present. If demolition is planned, the removal of lead-based paint isn't required if it is bonded to the building materials. However, if the lead-based paint is flaking, peeling, or blistering, it should be removed prior to demolition. In either case, applicable OSHA regulations must be followed; these include requirements for worker training, air monitoring and dust control, among others. Any debris or soil containing lead must be disposed appropriately.

Additionally, soil adjacent to structures that are painted with lead-containing paint can become impacted with lead as a result of the weathering and/or peeling of painted surfaces. Soil near wood framed structures also can be impacted by pesticides historically used to control termites. Soil sampling was preformed to evaluate soil quality near the on-Site structures for the possible presence of lead and pesticides; our findings and conclusions regarding soil quality are discussed below in Section 11.6

11.5 ASBESTOS CONTAINING MATERIALS (ACMS)

Due to the age of the on-Site structures, building materials may contain asbestos. If demolition, renovation, or re-roofing of the buildings is planned, an asbestos survey is required by local authorities and/or National Emissions Standards for Hazardous Air Pollutants (NESHAP) guidelines. NESHAP guidelines require the removal of potentially friable ACBMs prior to building demolition or renovation that may disturb the ACBM.

11.6 SURFACE SOIL QUALITY

The analytical results discussed below were compared to residential California Human Health Screening Levels (CHHSLs) developed by the California Environmental Protection Agency (CalEPA) (CalEPA, 2005 and 2009). Selected results were also compared to Total Threshold Limit Concentration (TTLC) values established by the State of California (Title 22, California Code of Regulations) for hazardous waste designation. Additional screening levels were used to evaluate potential soil impacts for chemicals detected but for which CHHSLs are not available. These screening levels include Regional Screening Levels (RSLs) and Environmental Screening Levels (ESLs) established by the U.S. EPA Region 9 (USEPA, 2009) and San Francisco Bay Regional Water Quality Control Board (RWQCB, 2007), respectively. ESLs were used in the event that both CHHSLs and RSLs are not established.

11.6.1 Organochlorine Pesticides

Laboratory analyses of 29 soil samples collected from the Site did not detect OCPs above residential (unrestricted) CHHSLs except for 0.67 ppm chlordane detected in sample SS-1 and 2.9 ppm chlordane detected in sample SS-2. Soil samples SS-1 and SS-2 were located near the garage (Figure 3). The residential CHHSL for chlordane is 0.43 ppm. CHHSLs are used to screen sites for potential human health concerns where releases of hazardous chemicals to soils have occurred. Under most circumstances, the presence of a chemical in soil, soil gas or indoor air at concentrations below the corresponding CHHSLs can be assumed not to pose a significant health risk. The California hazardous waste limit (TTLC) for chlordane is 2.5 ppm.

The chlordane detected may be a result of pesticide spraying around the perimeter of the garage. We recommend over-excavation and appropriate off-Site disposal of the pesticide

impacted soil. Because chlordane exceeded California's hazardous waste criteria in 1 of 2 samples collected in this area, this soil may require disposal as a California hazardous waste. For a higher degree of comfort, soil samples could be collected and analyzed for OCP to evaluate the lateral and vertical extent of chlordane in soil requiring over-excavation prior to the property transfer.

11.6.2 Metals

Metals generally were detected at concentrations that appeared consistent with typical background levels (Scott, 1991), except as discussed below. EPA recommends using the average concentration to represent "a reasonable estimate of the concentration likely to be contacted over time" (EPA 1989). In EPA's guidance document, titled "Supplemental Guidance to RAGS: Calculating the Concentration Term", dated 1992, it states that "because of the uncertainty associated with estimating true average concentration at a site, the 95 percent upper confidence limit (UCL) of the arithmetic mean should be used for this variable". Confidence limits for the mean are an interval estimate of the mean. A 95 percent UCL does not mean that there is a 95 percent probability that the interval contains the true mean. The confidence coefficient is simply the proportion of the samples that may be expected to contain the true mean. For a 95 percent UCL, if several sample sets are collected and the confidence limit is computed, in the long run approximately 95 percent of these intervals would contain the true mean.

Cadmium was detected in sample SS-5 at 18 ppm, which is above the published background maximum of 14 ppm for northern Santa Clara County (Scott, 1991). Assuming that soil in the general area of SS-5 is over-excavated and disposed off-Site, the 95 percent UCL of the sample mean for cadmium, excluding sample SS-5, was calculated at 2.8 ppm. The UCL was calculated using EPA's ProUCL software version 3.0. Although the 95 percent UCL exceeds the residential CHHSL of 1.7 ppm, the concentrations are below Scott's maximum concentration used to define background levels (14 ppm) and are below the residential RSL of 70 ppm (USEPA, 2009). Although the 95 percent UCL exceeds the residential screening level, the concentrations of cadmium detected may represent natural background levels. Naturally occurring background concentrations of arsenic (discussed further below), beryllium, cadmium, chromium and other metals in soils may exceed their respective soil CHHSLs. Cal/EPA generally does not require cleanup of soil to below background levels. As discussed below, removal of soil at the location of SS-5 is recommended because of the concentrations of petroleum hydrocarbons detected in the sample.

Arsenic concentrations detected in soil samples collected from orchard areas and near the well were below 10 ppm and appeared higher in samples collected near structures, with a maximum of 20 ppm detected in sample SS-24. The 95 percent UCL of the arsenic detected in the samples was calculated at 10.8 ppm. Scott (1991) found background arsenic concentrations in northern Santa Clara County soils at a maximum of 20 ppm. Therefore, in our opinion, the arsenic detected in the soil samples generally appears consistent with typical background levels.

Lead was detected above typical background levels in samples SS-5 (130 ppm), SS-10 (120 ppm), SS-13 (83 ppm) and SS-24 (150 ppm). The residential CHHSL for lead is 80 ppm, respectively. As noted below, limited soil removal is recommended at the locations of samples SS-5 and SS-24 because of concentrations of petroleum hydrocarbons and PAHs, respectively, detected in these samples. Excluding samples SS-5 and SS-24, the 95 percent UCL for lead

was calculated at 52 ppm, which appears acceptable for residential development of the Site. Consideration should be given to evaluating the risk to human health using the highest concentration of detected lead that will remain on-Site by using 'LeadSpread 7', which is the latest version of the DTSC Lead Risk Assessment Spreadsheet. LeadSpread is a tool that can be used to estimate blood lead concentrations resulting from exposure to lead via dietary intake, drinking water, soil and dust ingestion, inhalation, and dermal contact. Each of these pathways is represented by an equation relating incremental blood lead increase to a concentration in an environmental medium, using contact rates and empirically determined ratios. The contributions via the five pathways are added to arrive at an estimate of median blood lead concentration resulting from the multi-pathway exposure. Ninetieth, ninety-fifth, ninety-eighth, and ninety-ninth percentile concentrations are estimated from the median by assuming a log-normal distribution with a geometric standard deviation (GSD) of 1.6.

In addition, samples SS-3, SS-5, SS-6, SS-11, SS-12, SS-13, SS-24 and SS-25 exceeded published background maximum concentration for zinc (120 ppm; Scott, 1991) but were below the residential CHHSL of 23,000 ppm. The concentrations of zinc detected also do not appear to be a significant concern for residential development of the Site.

11.6.3 Petroleum Hydrocarbons

Laboratory analysis of soil sample SS-5 detected 1,100 ppm TPHd and 3,700 ppm TPHmo. The residential Environmental Screening Levels (ESLs) (Cal/EPA, January 2005) for TPHd and TPHmo are 83 ppm and 370 ppm, respectively. No CHHSLs are available for TPHd and TPHmo. Per CalEPA guidance, petroleum hydrocarbon data are compared to ESLs, which are used to screen sites for potential human health concerns where releases of hazardous chemicals to soils have occurred. Under most circumstances, the presence of a chemical in soil at concentrations below the corresponding ESLs can be assumed not to pose a significant health risk. Sample SS-5 was collected from native soil beneath the gravel floor in the shed that is adjacent to the barn. The area near the sample appeared to have been used for vehicle and equipment maintenance. We recommend over-excavation and appropriate off-Site disposal of the petroleum impacted soil prior to Site development. For a higher degree of comfort, additional soil sampling could be performed in this area to evaluate the lateral and vertical extent of soil exceeding the residential ESL prior to acquiring the Site.

Laboratory analyses of 14 other soil samples for TPHd and TPHmo did not detect these constituents above residential ESLs.

11.6.4 PAHs and PCBs

As a conservative measure, five soil samples collected from apparent vehicle and equipment storage areas were analyzed for PCBs. No PCBs were detected above the laboratory reporting limits.

Soil samples SS-20 and SS-21 were collected from the northeast portion of the Site in the general area where the property owner reported historical orchard burning activities. Burning of organic materials can result in the generation of PAHs as a result of incomplete combustion. No PAHs were detected in these two soil samples.

Sample SS-1, collected from the ground surface adjacent to the garage and also near the location of the former gasoline UST dispenser, detected several PAHs at concentrations below residential CHHSLs.

Sample SS-3 was collected from an area that appears to have been used historically for barbequing and sample SS-24 was collected from a location where apparent burn material/charcoal was observed on the ground surface. Benzo(a)pyrene was detected in samples SS-3 and SS-24 at 0.11 ppm and 0.054 ppm, which are above the residential CHHSL of 0.038 ppm and residential Regional Screening Level (RSL) (USEPA, 2009) of 0.015 ppm. The RSLs are similar to CHHSLs and also are used to screen properties for potential health concerns. In addition, 0.016 ppm dibenz(a,h)anthracene was detected in sample SS-3. The residential RSL for this compound is 0.015 ppm; no CHHSL has been established for dibenz(a,h)anthracene. We recommend over-excavation and appropriate off-Site disposal of soil at the locations of SS-3 and SS-24. Consideration should be given to performing this work prior to acquiring the Site to confirm the volume of soil that will require over-excavation and off-Site disposal at a licensed facility.

11.6.5 Soil Removal and Regulatory Agency Oversight

As the Site is proposed for residential development, we recommend that soil that exceeds residential (unrestricted use) screening levels and/or natural background concentrations be over-excavated and appropriately disposed at a licensed facility. Verification samples should be collected and analyzed for contaminants of concern to document that the impacted soil has been sufficiently removed from the Site.

As an alternative, a risk-based cleanup (under regulatory oversight) can be performed in more isolated areas, likely removing much less soil for off-Site disposal.

Trumark or the Site owner could request regulatory agency oversight prior to conducting removal activities, or could perform removal activities and then request regulatory agency review of the final completion report.

As noted above, laboratory analyses of soil samples SS-1, SS-2, SS-3, SS-5, SS-10, SS-13 and SS-24 detected soil contaminants at concentrations exceeding residential screening levels. The following two removal options are further discussed below:

- As a conservative measure, over-excavate the upper approximately 1 to 2 feet of soil from the central portion of the Site (the general area of the residence, garage, and barn, including the area of sample SS-24 - an area where a higher percentage of samples exceeded the residential screening level) for off-Site disposal at a licensed facility; or

- Based on a human health risk approach (under regulatory oversight), perform more limited soil removal around the garage (samples SS-1 and SS-2) and locations of samples SS-3, SS-5, SS-10, SS-13 and SS-24.

- Lastly, for either of the above options, we recommend that; 1) the seller sign all manifests; 2) the seller be identified as the waste generator; and 3) the seller be financially liable for the cleanup.

After over-excavation of soil under either option, verification samples will need to be collected and analyzed for contaminants of concern to document that the impacted soil has been sufficiently removed from the Site.

11.7 FORMER UST

A gasoline UST reportedly was located near the southern corner of the detached garage that was used to fuel vehicles. The UST reportedly was removed by the Orlando's during the 1970s without regulatory agency oversight. The property owner reported that the UST appeared intact when removed with no readily apparent signs of leakage.

Two exploratory borings were drilled in the former gasoline UST and associated piping area for the collection of soil samples. Laboratory analyses of two soil samples collected from the UST tank pit and pipeline trench backfill and two samples of underlying native soil did not detect gasoline range hydrocarbons. Up to 1.2 ppm diesel range hydrocarbons (TPHd) were detected in three of the four samples. The residential ESL for TPHd is 83 ppm.

Laboratory analyses of four soil vapor samples (two from a depth of approximately 5 feet and two from a depth of approximately 10 feet) detected up to 1.4 $\mu g/m^3$ benzene (residential CHHSL = 36.2 $\mu g/m^3$; residential ESL = 84 $\mu g/m^3$), 2.7 $\mu g/m^3$ toluene (residential CHHSL = 135,000 $\mu g/m^3$; residential ESL = 63,000 $\mu g/m^3$) , 1.6 $\mu g/m^3$ ethylbenzene (no residential CHHSL; residential ESL = 490 $\mu g/m^3$), 6.1 $\mu g/m^3$ m,p-xylene (residential CHHSL = 317,000 $\mu g/m^3$; residential ESL = 17,000 $\mu g/m^3$) and 3.3 $\mu g/m^3$ o-xylene (residential CHHSL = 315,000 $\mu g/m^3$; residential ESL = 21,000 $\mu g/m^3$). TPHg was detected at a maximum concentration of 1,200 $\mu g/m^3$ (SB-1 at 10 feet). The residential ESL for TPHg is 10,000 $\mu g/m^3$. There is no CHHSL for TPHg.

The concentrations of TPHg detected increased with depth at SB-1. Because of the low concentrations of TPHg detected (below the residential ESL), and the apparent lack of a significant release from the former gasoline UST system, the increase with depth at SB-1 does not appear to be a significant concern. If a greater degree of comfort is desired, deeper soil and soil vapor quality could be evaluated in the area of SB-1.

The geotechnical engineer of record likely will require that the tank pit and pipeline backfill be over-excavated and re-compacted as engineered fill during development. Based on the analytical results of the soil samples collected from the backfill, the backfill appears appropriate for on-Site re-use. If pockets of soil with noticeable petroleum odor or discoloration are encountered in the former UST area during this over-excavation or subsequent grading/construction activities, the soil should be evaluated by an environmental professional.

11.8 WATER SUPPLY WELL AND SEPTIC SYSTEM

An agricultural well reported to be approximately 750 feet deep is present on the southeastern portion of the Site near Sierra Road. The well reportedly was used for irrigation purposes but is no longer in use. If future use of the well is not planned, we recommend that the Site owner destroy the well in accordance with applicable regulations of the Santa Clara Valley Water District.

A septic system was observed near the northern corner of the on-Site residence. This septic system should be properly abandoned in accordance with applicable regulations prior to Site development. Because the septic system is associated with residential use, disposal of significant quantities of hazardous materials to the septic system appears unlikely. If a higher level of comfort is desired, this system can be sampled to confirm that unlawful discharges of hazardous materials have not occurred.

11.9 SITE MANAGEMENT PLAN

Based on the long agricultural and residential history of the Site, buried structures, wells, burn areas, debris, or impacted soil may be encountered during Site development activities; these materials may require special handling and disposal. To limit construction delays, we recommend that a Site management plan (SMP) be developed to establish management practices for handling these materials/structures, if encountered.

11.10 IMPORTED SOIL

If the planned development will require importing soil for Site grading, we recommend documenting the source and quality of imported soil. The DTSC's October 2001 Clean Fill Advisory provides useful guidance on evaluating imported fill.

11.11 POTENTIAL ENVIRONMENTAL CONCERNS WITHIN THE SITE VICINITY

Based on the information obtained during this study, no hazardous material incidents have been reported in the Site vicinity that would be likely to significantly impact the Site.

11.12 ADDITIONAL CONSIDERATIONS

We recommend consulting with an environmental attorney regarding liabilities associated with acquiring and remediating the Site, including associated cleanup costs and preparing the Purchase and Sale Agreement.

If Trumark Companies is to manage/perform cleanup, we recommend the Seller set aside funds for Trumark Companies or provide a reduction in the purchase price. However, estimating cleanup fees is difficult to approximate at this time.

11.13 DATA GAPS

ASTM Standard Designation E 1527-05 requires the environmental professional to comment on significant data gaps that affect our ability to identify Recognized Environmental Conditions. A data gap is a lack of or inability to obtain information required by ASTM Standard Designation E 1527-05 despite good faith efforts by the environmental professional to gather such information. A data gap by itself is not inherently significant; it only becomes significant if it raises reasonable concerns. The following data gap was identified during this Phase I ESA.

- The interior of the residence and trailer home were not observed. Because of the residential use of these structures, this data gap does not appear significant.

11.14 DATA FAILURES

As described by ASTM Standard Designation E 1527-05, a data failure occurs when all of the standard historical sources that are reasonably ascertainable and likely to be useful have been reviewed and yet the objectives have not been met. Data failures are not uncommon when attempting to identify the use of a Site at five year intervals back to the first use or to 1940 (whichever is earlier). ASTM Standard Designation E 1527-05 requires the environmental professional to comment on the significance of data failures and whether the data failure affects our ability to identify Recognized Environmental Conditions. A data failure by itself is not

inherently significant; it only becomes significant if it raises reasonable concerns. No significant data failures were identified during this Phase I ESA.

11.15 RECOGNIZED ENVIRONMENTAL CONDITIONS

Cornerstone has performed a Phase I Environmental Site Assessment in general conformance with the scope and limitations of ASTM E 1527-05 and a Preliminary Soil Quality Evaluation. This assessment identified the following Recognized Environmental Conditions; however, please read the entire report for an overview of the Site.

- Laboratory analyses of surface soil samples detected several metals and organic compounds above residential screening levels in soil samples collected from the central portion of the Site (Figure 3). Removal of impacted soil is recommended.

SECTION 12: LIMITATIONS

Cornerstone performed this Phase I ESA and Preliminary Soil Quality Evaluation to support Trumark Companies in evaluation of Recognized Environmental Conditions associated with the Site. Trumark Companies understands that no Phase I ESA can wholly eliminate uncertainty regarding the potential for Recognized Environmental Conditions to be present at the Site. This Phase I ESA is intended to reduce, but not eliminate, uncertainty regarding the potential for Recognized Environmental Conditions. Trumark Companies understands that the extent of information obtained is based on the reasonable limits of time and budgetary constraints.

Conclusions presented in this report are based on selected, readily available information and conditions readily observed at the time of the Site visit. Phase I ESAs are inherently limited because findings are developed based on information obtained from a non-intrusive Site evaluation. Cornerstone does not accept liability for deficiencies, errors, or misstatements that have resulted from inaccuracies in the publicly available information or from interviews of persons knowledgeable of Site use. In addition, publicly available information and field observations often cannot affirm the presence of Recognized Environmental Conditions; there is a possibility that such conditions exist.

Cornerstone acquired an environmental database of selected publicly available information for the general area of the Site. Cornerstone cannot verify the accuracy or completeness of the database report, nor is Cornerstone obligated to identify mistakes or insufficiencies in the information provided (ASTM E 1527-05, Section 8.1.3). Due to inadequate address information, the environmental database may have mapped several facilities inaccurately or could not map the facilities. Releases from these facilities, if nearby, could impact the Site.

This report, an instrument of professional service, was prepared for the sole use of Trumark Companies and may not be reproduced or distributed without written authorization from Cornerstone. It is valid for 180 days. An electronic transmission of this report may also have been issued. While Cornerstone has taken precautions to produce a complete and secure electronic transmission, please check the electronic transmission against the hard copy version for conformity.

Trumark Companies understands that the extent of soil quality data obtained is based on the reasonable limits of time and budgetary constraints. In addition, the chemical information presented in this report can change over time and is only valid at the time of this investigation and for the locations sampled.

Cornerstone makes no warranty, expressed or implied, except that our services have been performed in accordance with the environmental principles generally accepted at this time and location.

SECTION 13: REFERENCES

California Department of Conservation (CDC), Division of Mines and Geology. 2001. *Seismic Hazard Zone Report for the Calaveras Reservoir 7.5-minute Quadrangle, Santa Clara County, California.*

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USGS, 2009, Earthquake Ground Motion Parameters, Version 5.0.9a, revision date October 21, 2009 - A Computer Program for determining mapped ground motion parameters for use with IBC 2006 available at http://earthquake.usgs.gov/research/hazmaps/design/index.php.

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Table 1. Analytical Results of Selected Soil Samples - Metals
(Concentrations in mg/Kg [ppm])

Sample ID	Date	Depth (feet)	Arsenic	Barium	Beryllium	Cadmium	Total Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
SS-1	4/23/2010	0-½	4.8	84	0.38	0.52	110	12	48	20	0.27	<0.53	33	<1.1	<0.26	0.62	76	77
SS-2	4/23/2010	0-½	8.4	260	0.26	0.65	40	9.7	46	71	0.18	0.61	50	<1.0	<0.26	<0.52	37	120
SS-3	4/23/2010	0-½	3.8	110	0.17	0.84	18	3.3	32	31	0.15	4.6	20	<1.1	<0.26	<0.53	20	340
SS-4	4/23/2010	0-½	6.6	140	0.15	0.8	32	7.5	41	24	0.084	<0.51	41	<1.0	<0.26	<0.51	26	61
SS-5	4/23/2010	0-½	4.6	160	<0.10	**18**	62	8.2	110	**130**	0.16	2.7	43	4.6	1.9	<0.51	28	210
SS-6	4/23/2010	0-½	5.1	95	0.11	2.5	41	6.9	130	25	0.33	1	58	<1.0	2.3	<0.51	23	210
SS-7	4/23/2010	0-½	6.8	120	0.25	0.75	39	8.2	43	20	0.085	1.4	52	<1.0	<0.26	<0.52	28	68
SS-8	4/23/2010	0-½	2.2	45	0.25	3.4	8.3	1.9	8.9	4.8	0.75	1.9	18	1.7	<0.26	<0.53	14	93
SS-9	4/23/2010	0-½	5.7	---	---	---	---	---	---	26	0.094	---	---	---	---	---	---	---
SS-10	4/23/2010	0-½	5.6	110	0.19	1.4	27	6.1	33	**120**	0.16	1.5	36	<1.0	<0.25	<0.50	21	1,500
SS-11	4/23/2010	0-½	3	---	---	---	---	---	---	30	0.1	---	---	---	---	---	---	---
SS-12	4/23/2010	0-½	18	170	0.23	2.1	37	8	33	57	0.1	0.62	50	<1.0	<0.26	<0.52	28	290
SS-13	4/23/2010	0-½	2.6	130	<0.10	4.6	56	6	25	**83**	0.1	1.7	76	<1.0	<0.26	<0.51	16	190
SS-14	4/23/2010	0-½	8.6	---	---	---	---	---	---	31	0.075	---	---	---	---	---	---	---
SS-15	4/23/2010	0-½	8.5	---	---	---	---	---	---	21	0.072	---	---	---	---	---	---	---
SS-16	4/23/2010	0-½	8.1	---	---	---	---	---	---	20	0.068	---	---	---	---	---	---	---
SS-17	4/23/2010	0-½	7.9	---	---	---	---	---	---	21	0.06	---	---	---	---	---	---	---
SS-18	4/23/2010	0-½	9.1	---	---	---	---	---	---	31	0.072	---	---	---	---	---	---	---
SS-19	4/23/2010	0-½	8.7	---	---	---	---	---	---	44	0.093	---	---	---	---	---	---	---
SS-20	4/23/2010	0-½	9.5	---	---	---	---	---	---	24	0.053	---	---	---	---	---	---	---
SS-21	4/23/2010	0-½	9.9	---	---	---	---	---	---	21	0.067	---	---	---	---	---	---	---
SS-22	4/23/2010	0-½	8.6	---	---	---	---	---	---	19	0.071	---	---	---	---	---	---	---
SS-23	4/23/2010	0-½	10	160	0.25	0.47	36	8.4	65	24	0.048	0.56	49	<1.0	<0.25	<0.51	30	59
SS-24	4/23/2010	0-½	20	400	<0.096	3.3	31	4.3	110	**150**	0.058	3.7	34	<0.96	0.29	<0.48	13	1,700
SS-25	4/23/2010	0-½	9.5	190	0.27	0.66	57	10	73	31	0.083	0.61	70	<1.0	<0.25	<0.50	31	73
SS-26	4/23/2010	0-½	13	160	0.24	0.7	37	8.6	47	21	0.065	0.61	65	<0.98	<0.25	<0.49	29	160
SS-27	4/23/2010	0-½	4.4	---	---	---	---	---	---	13	0.056	---	---	---	---	---	---	---

Continued.

Table 1, continued.

Sample ID	Date	Depth (feet)	Arsenic	Barium	Beryllium	Cadmium	Total Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
SS-28	4/23/2010	0-½	3.9	---	---	---	---	---	---	10	0.049	---	---	---	---	---	---	---
SS-29	4/23/2010	0-½	2	---	---	---	---	---	---	4.3	0.085	---	---	---	---	---	---	---
SB-1	5/21/2010	2-2 ½	14	330	0.52	<0.50	59	16	42	12	0.056	<2.0	86	<4.0	<1.0	<2.0	49	77
SB-2	5/21/2010	2-2 ½	17	340	0.63	<0.50	71	17	56	15	0.068	<2.0	93	<4.0	<0.99	<2.0	58	89
95% UCL			10.8	244	0.23	7.3	50.4	8.2	69	67	0.23	2.8	52	NC	NC	NC	44	876
Typical Background Range*			0.2 to 5.5	NE	0.3 to 1.2	NE	30.5 to 72	NE	23.8 to 47.5	6.8 to 16.1	NE	NE	46.4 to 101	NE	NE	NE	NE	47.7 to 82.8
Typical Background Maximum*			20	NE	3.2	14	170	NE	54	54	1.3	NE	145	4	NE	3.8	NE	120
Residential CHHSL1			0.07	5,200	150	1.7	NE	660	3,000	80	18	380	1,600	380	380	5	530	23,000

Table 1 Footnotes

1 California Human Health Screening Level (CHHSL), CalEPA - January 2005 and September 2009

< Not detected at or above laboratory reporting limit

NE Not Established

NC UCL not calculated because of limited number of detections

--- Not Analyzed

BOLD Concentration exceeds CHHSL and background maximum

* Christina M. Scott, December 1991

Note Other CAM 17 metals were not detected

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Table 2. Analytical Results of Selected Soil Samples - OCPs and PCBs
(Concentrations in mg/Kg [ppm])

Sample Location	Date	Depth (feet)	Dieldrin	Endrin ketone	Heptachlor epoxide	4,4'-DDT	4,4'-DDE	4,4'-DDD	DDT Total	Endosulfan I	Endosulfan II	alpha-BHC	Endosulfan Sulfate	Methoxychlor	Chlordane	alpha-Chlordane	gamma-Chlordane	PCBs
SS-1	4/23/2010	0-½	0.0028	<0.002	<0.002	0.084	0.082	0.017	0.183	<0.002	0.0039	<0.002	<0.002	<0.002	**0.67**	0.079	0.075	<0.050
SS-2	4/23/2010	0-½	<0.0099	<0.0099	0.082	0.54	0.22	0.031	0.791	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	**2.9**	0.61	0.44	---
SS-3	4/23/2010	0-½	0.0024	<0.002	<0.002	0.065	0.08	0.016	0.161	<0.002	<0.002	<0.002	<0.002	<0.002	0.07	0.012	0.014	<0.050
SS-4	4/23/2010	0-½	<0.002	<0.002	<0.002	0.11	0.2	<0.002	0.31	<0.002	<0.002	<0.002	<0.002	<0.002	0.047	0.011	0.0046	---
SS-5	4/23/2010	0-½	0.0064	<0.002	<0.002	0.094	0.013	0.016	0.123	<0.002	<0.002	0.0067	<0.002	<0.002	<0.04	<0.002	<0.002	---
SS-6	4/23/2010	0-½	0.0062	<0.002	<0.002	0.14	0.019	0.046	0.205	0.0034	<0.002	<0.002	<0.002	<0.002	0.29	0.026	0.016	---
SS-7	4/23/2010	0-½	<0.002	<0.002	<0.002	0.02	0.042	0.0036	0.0656	<0.002	<0.002	<0.002	<0.002	<0.002	<0.040	0.0059	0.0038	---
SS-8	4/23/2010	0-½	<0.002	<0.002	<0.002	0.0045	<0.002	<0.002	0.0045	<0.002	<0.002	<0.002	<0.002	<0.002	<0.040	<0.002	<0.002	<0.049
SS-9	4/23/2010	0-½	<0.002	<0.002	<0.002	0.0094	0.037	0.0024	0.0488	<0.002	0.0039	<0.002	0.021	<0.002	<0.040	0.0054	0.003	---
SS-10	4/23/2010	0-½	0.0021	<0.002	<0.002	0.047	0.058	0.013	0.118	<0.002	<0.002	<0.002	<0.002	<0.002	0.053	0.014	0.0096	---
SS-11	4/23/2010	0-½	<0.002	<0.002	<0.002	0.0028	0.0024	<0.002	0.0052	<0.002	<0.002	<0.002	0.0036	<0.002	<0.040	<0.002	<0.002	---
SS-12	4/23/2010	0-½	0.0053	<0.002	0.0082	0.096	0.13	0.018	0.244	<0.002	0.0031	<0.002	0.0035	<0.002	0.3	0.058	0.037	---
SS-13	4/23/2010	0-½	<0.002	<0.002	<0.002	0.0082	0.003	<0.002	0.0112	<0.002	0.0022	<0.002	0.0029	<0.002	0.076	0.009	0.0037	---
SS-14	4/23/2010	0-½	<0.002	<0.002	<0.002	0.018	0.061	0.0042	0.0832	<0.002	<0.002	<0.002	<0.002	<0.002	<0.040	<0.002	<0.002	---
SS-15	4/23/2010	0-½	<0.002	<0.002	<0.002	0.0068	0.037	0.0033	0.0471	<0.002	<0.002	<0.002	<0.002	<0.002	<0.040	<0.002	<0.002	---
SS-16	4/23/2010	0-½	<0.002	<0.002	<0.002	0.011	0.058	0.0043	0.0733	<0.002	<0.002	<0.002	<0.002	<0.002	<0.040	<0.002	<0.002	---
SS-17	4/23/2010	0-½	<0.002	<0.002	<0.002	0.084	0.028	0.019	0.131	<0.002	<0.002	<0.002	<0.002	<0.002	<0.040	<0.002	<0.002	---
SS-18	4/23/2010	0-½	<0.002	<0.002	<0.002	0.044	0.036	0.011	0.091	<0.002	<0.002	<0.002	<0.002	<0.002	<0.040	<0.002	<0.002	---
SS-19	4/23/2010	0-½	<0.002	0.0042	<0.002	0.065	0.098	0.021	0.184	<0.002	<0.002	<0.002	<0.002	<0.002	<0.040	0.0028	0.0049	---
SS-20	4/23/2010	0-½	<0.002	<0.002	<0.002	0.0092	0.065	0.0056	0.0798	<0.002	<0.002	<0.002	<0.002	<0.002	<0.040	<0.002	<0.002	---
SS-21	4/23/2010	0-½	<0.002	<0.002	<0.002	0.013	0.079	0.0072	0.0992	<0.002	<0.002	<0.002	<0.002	<0.002	<0.040	<0.002	<0.002	---
SS-22	4/23/2010	0-½	<0.002	<0.002	<0.002	0.02	0.13	0.011	0.161	<0.002	<0.002	<0.002	<0.002	<0.002	<0.040	<0.002	<0.002	---
SS-23	4/23/2010	0-½	<0.002	<0.002	<0.002	0.013	0.071	0.0068	0.0908	<0.002	<0.002	<0.002	<0.002	<0.002	<0.040	<0.002	<0.002	---
SS-24	4/23/2010	0-½	<0.002	<0.002	<0.002	0.0051	0.0058	<0.002	0.0109	<0.002	<0.002	<0.002	<0.002	0.018	<0.040	<0.002	<0.002	<0.050
SS-25	4/23/2010	0-½	<0.002	<0.002	<0.002	0.033	0.2	0.018	0.251	<0.002	<0.002	<0.002	<0.002	<0.002	<0.040	<0.002	<0.002	---
SS-26	4/23/2010	0-½	<0.002	<0.002	<0.002	0.053	0.2	0.022	0.275	<0.002	<0.002	<0.002	<0.002	<0.002	0.1	0.014	0.0085	<0.050
SS-27	4/23/2010	0-½	<0.002	<0.002	<0.002	0.0085	0.033	0.0046	0.0461	<0.002	<0.002	<0.002	<0.002	<0.002	<0.040	0.0046	0.0022	---
SS-28	4/23/2010	0-½	<0.002	<0.002	<0.002	0.0021	0.013	0.0021	0.0172	<0.002	<0.002	<0.002	<0.002	<0.002	<0.040	<0.002	<0.002	---
SS-29	4/23/2010	0-½	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0	<0.002	<0.002	<0.002	<0.002	<0.002	<0.040	<0.002	<0.002	---
SB-1	5/21/2010	2-2½	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0	<0.002	<0.002	<0.002	<0.002	<0.002	<0.040	<0.002	<0.002	---
SB-2	5/21/2010	2-2½	<0.002	<0.002	<0.002	0.0033	<0.002	<0.002	0.0033	<0.002	<0.002	<0.002	<0.002	<0.002	<0.040	<0.002	<0.002	---
Residential CHHSL[1]			0.035	NE	NE	2.3	1.6	1.6	NE	NE	NE	NE	NE	NE	0.43	NE	NE	0.089

Table 2 Footnotes

1 California Human Health Screening Level (CHHSL), CalEPA - January 2005
< Not detected at or above laboratory reporting limit
ND Not detected at or above reporting limit
NE Not Established
--- Not Analyzed
OCPs Organochlorine Pesticides
PCBs Polychlorinated Biphenols

Table 3. Analytical Results of Selected Soil Samples - Petroleum Hydrocarbons
(Concentrations in mg/Kg [ppm])

Sample Location	Date	Depth (feet)	TPHd	TPHo
SS-1	4/23/2010	0-½	7.2	<50
SS-2	4/23/2010	0-½	30	100
SS-3	4/23/2010	0-½	3.4	<50
SS-4	4/23/2010	0-½	3.4	<49
SS-5	4/23/2010	0-½	**1,100**	**3,700**
SS-6	4/23/2010	0-½	29	110
SS-7	4/23/2010	0-½	1.1	<49
SS-8	4/23/2010	0-½	4	<50
SS-10	4/23/2010	0-½	2.6	<50
SS-12	4/23/2010	0-½	14	69
SS-13	4/23/2010	0-½	52	150
SS-23	4/23/2010	0-½	<0.99	<49
SS-24	4/23/2010	0-½	18	<50
SS-25	4/23/2010	0-½	4	<50
SS-26	4/23/2010	0-½	2.5	<49
Residential ESL[1]			83	370
Residential CHHSL[2]			NE	NE

Table 3 Footnotes

1 Environmental Screening Level (ESL), Regional Water
2 California Human Health Screening Level (CHHSL), CalEPA -
< Not detected at or above laboratory reporting limit
ND Not detected at or above reporting limit
NE Not Established
Bold Concentration exceeds ESL

Table 4. Analytical Results of Selected Soil Samples - Polyaromatic Hydrocarbons (PAH's)
(Concentrations in parts per million [ppm])

Sample Location	Date	Depth (feet)	Naphthalene	Acenaphthylene	Fluorene	Phenanthrene	Anthracene	Benzo[a]anthracene	Chrysene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[k]fluoranthene	Benzo[g,h,i]perylene	Indeno[1,2,3-cd]pyrene	Fluoranthene	Pyrene	Dibenz[a,h]anthracene
SS-1	4/23/2010	0-½	<0.025	<0.025	<0.025	0.038	<0.025	<0.025	0.034	0.037	0.029	0.027	0.048	0.029	0.063	0.074	<0.025
SS-3	4/23/2010	0-½	0.017	0.027	0.012	0.2	0.013	0.055	0.098	**0.11**	0.089	0.076	0.15	0.1	0.25	0.27	**0.016**
SS-20	4/23/2010	0-½	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049
SS-21	4/23/2010	0-½	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SS-24	4/23/2010	0-½	0.001	<0.005	<0.005	0.075	0.0081	0.062	0.1	**0.054**	0.072	0.066	0.039	0.04	0.12	0.11	0.011
Residential CHHSL[1]			NE	NE	NE	NE	NE	NE	NE	0.038	NE	NE	NE	NE	NE	NE	NE
Regional Screening Level[2]			3.6	NE	2,300	NE	17,000	0.15	15	0.015	0.15	1.5	NE	0.15	2,300	1,700	0.015

Table 4 Footnotes

1 California Human Health Screening Level (CHHSL), CalEPA - January 2005 for 2,3,7,8-TCDD
2 Regional Screening Level, EPA December 2009
< Not detected at or above laboratory reporting limit
NE Not Established
Note: No other PAH's were detected

Table 5. Analytical Results of Selected Soil Samples in former UST area - Petroleum Hydrocarbons
(Concentrations in mg/Kg [ppm])

Sample Location	Date	Depth (feet)	TPHd	TPHg	BTEX	MTBE
SB-1 (2-2.5)	5/21/2010	2-2½	1.1	<0.24	ND	<0.0048
SB-1 (6-6.5)	5/21/2010	6-6½	1.2	<0.25	ND	<0.0050
SB-2 (2-2.5)	5/21/2010	2-2½	1.2	<0.24	ND	<0.0044
SB-2 (7.5-8)	5/21/2010	7½-8	<0.99	<0.25	ND	<0.0049
Residential ESL[1]			83	370	various	0.023
Residential CHHSL[2]			NE	NE	NE	NE

Table 6 Footnotes

1 California Human Health Screening Level (CHHSL), CalEPA - January 2005
2 Environmental Screening Level (ESL), Regional Water Quality Control Board - May 2008
< Not detected at or above laboratory reporting limit
NE Not Established
ND None Detected

Table 6. Analytical Results of Selected Soil Vapor Samples in Former Gasoline UST area - Petroleum Hydrocarbons

(Concentrations in $\mu g/M^3$)

Sample Location	Depth (feet)	TPHg	Benzene	Toluene	Ethyl Benzene	m,p-Xylene	o-Xylene
SB1-D5	5	280	<1.2	1.6	<1.2	2.4	1.4
SB-1D10	10	1,200	<1.2	1.2	<1.2	<1.2	<1.2
SB-1D10 (Duplicate)	10	1,100	--	--	--	--	--
SB-2D5	5	740	1.4	2.7	1.6	6.0	2.3
SB-2D5 (Duplicate)	5	--	1.4	2.6	1.6	6.1	2.2
SB-2D10.5	10.5	370	<1.2	<1.2	<1.2	1.6	<1.2
Residential CHHSL[1]		NE	36.2	135,000	NE	317,000	315,000
Residential ESL[2]		10,000	84	63,000	490	21,000	21,000

Table 6 Footnotes

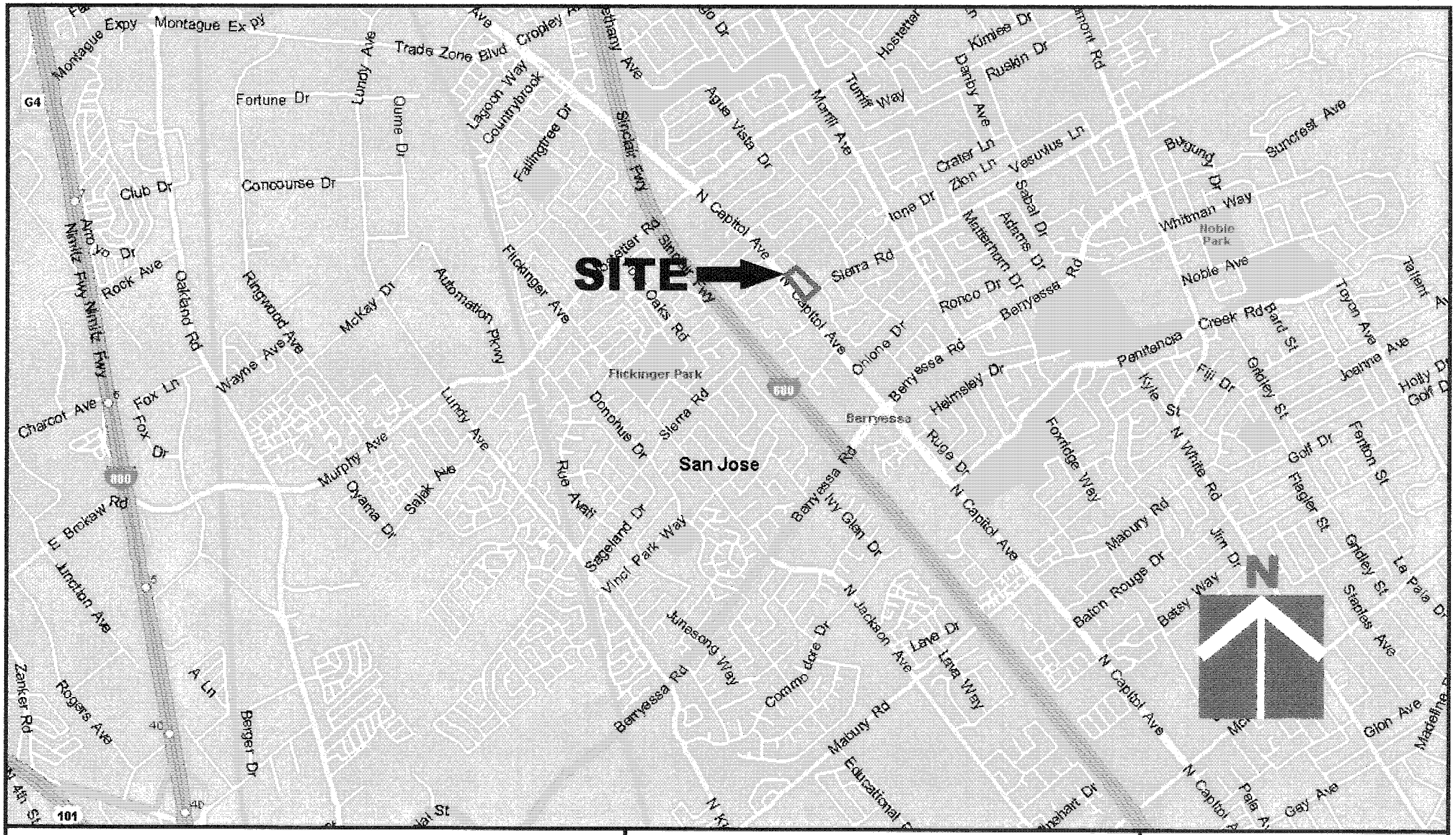
1 California Human Health Screening Level (CHHSL), CalEPA - January 2005

2 Environmental Screening Level (ESL), Regional Water Quality Control Board - May 2008

< Not detected at or above laboratory reporting limit

NE Not Established

-- Not Analyzed



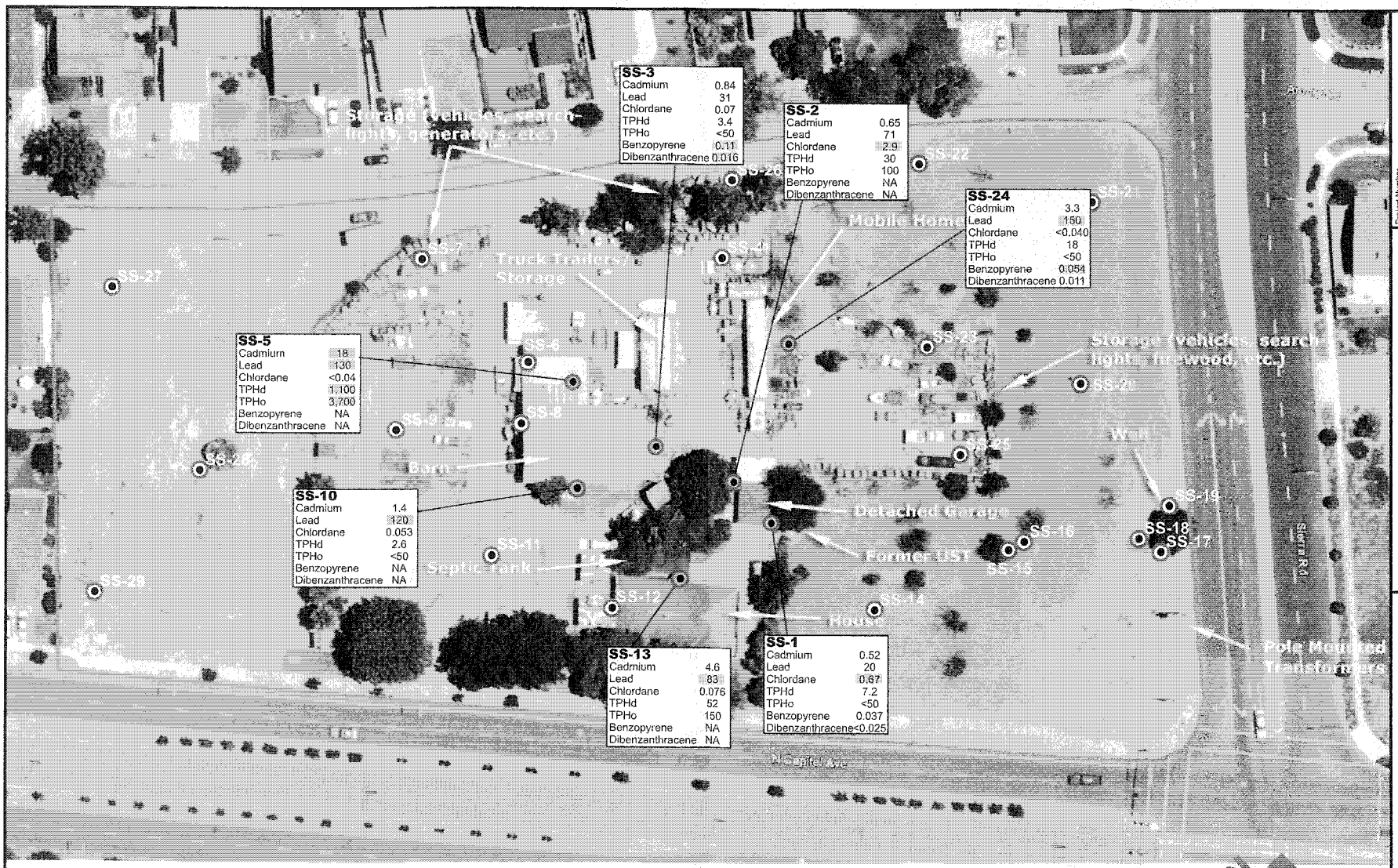
CORNERSTONE EARTH GROUP

Vicinity Map

1328 North Capitol Avenue
San Jose, CA

Project Number	206-3-1
Figure Number	Figure 1
Date	May 2010
Drawn By	FLL

CORNERSTONE EARTH GROUP	Site Plan	Project Number: 206-3-1
	1328 North Capitol Avenue San Jose, CA	Figure Number: Figure 2
		Date: May 2010 / Drawn By: FLL



Legend

- Approximate soil sample location
- Soil sample location recommended to be over-excavated and removed for off-site disposal. Constituents of concern and concentrations detected are listed.
- Highlighted concentrations exceeds CHHSL
- NA Not Analyzed

Note: 1) All concentrations in parts per million (ppm)
2) (CHHSL): California Human Health Screening Level for residential (unrestricted) use

0 54 108
APPROXIMATE SCALE (FEET)

Select Soil Sample Analytical Results

1328 North Capitol Avenue
San Jose, CA

Project Number	Figure Number	Date	Drawn By
206-3-1	Figure 3	June 2010	FLL

CORNERSTONE EARTH GROUP

Legend

Approximate Location of Soil and Soil Vapor Boring

0 15 30

APPROXIMATE SCALE (FEET)

Boring Locations in the Former Gasoline UST Area

1328 North Capitol Avenue
San Jose, CA

CORNERSTONE EARTH GROUP

Project Number	206-3-1
Figure Number	Figure 4
Date	June 2010
Drawn By	MGV

The following appendices are included on the CD in the pocket on the back cover of this document

APPENDIX A – TERMS AND CONDITIONS

APPENDIX B – DATABASE SEARCH REPORT

APPENDIX C – HISTORIC AERIAL PHOTOGRAPHS AND MAPS

APPENDIX D – LOCAL STREET DIRECTORY SEARCH RESULTS

APPENDIX E – QUESTIONNAIRE

APPENDIX F – LABORATORY ANALYTICAL RESULTS

APPENDIX G – SUBSURFACE INVESTIGATION PROTOCOL AND BORING LOGS

Appendix A

Terms and Conditions

PROFESSIONAL SERVICES AGREEMENT
GENERAL TERMS AND CONDITIONS

EACH PARTY'S ENTRY INTO THIS AGREEMENT IS EXPRESSLY CONDITIONED ON THE OTHER PARTY'S CONSENT TO ALL OF THE FOLLOWING GENERAL TERMS AND CONDITIONS.

1. TIME OF ESSENCE. The Work is to be commenced and completed by the dates indicated under "Time for Performance" in Section D on the first page of this Agreement.

2. MONTHLY INVOICES. Payments shall be made no more often than once each calendar month within 30 days after Owner's receipt of a monthly invoice for fees and costs incurred during the preceding month; provided that (i) all Work covered by the invoice has been fully performed; (ii) Consultant furnishes Owner with copies of reasonable supporting documentation for all costs covered by the invoice; and (iii) Consultant is not otherwise in default under this Agreement. In order to properly account for and monitor work product, consultant agrees that they will keep their invoices current to within 60 days of providing the service. In the event consultant fails to invoice Owner for services that were provided more than 60 days, and less than 90 days, prior to the invoice date, a penalty of 15% of the amount of the invoice will be deducted from the amount owed. In the event consultant fails to invoice Owner for services that were provided more than 90 days, and less than 120 days, prior to the invoice date, a penalty of 25% of the amount of the invoice will be deducted from the amount owed. Any services billed six months after the date the service is performed will not be paid.

3. COMPLIANCE WITH LAWS; GOVERNMENTAL AGENCY COMMUNICATIONS. Except as otherwise directed by Owner in writing, Consultant shall comply with laws, rules, regulations and ordinances applicable to the Work and Consultant's performance thereof. Consultant shall not contact any governmental agency unless Owner's approval is secured prior to the communication or is required by law.

4. PERFORMANCE STANDARD. Consultant shall perform the Work in an efficient and economical manner consistent with Owner's needs as set forth on EXHIBIT A attached hereto and in accordance with the professional standards for the type of Work being performed under this Agreement with that level of care and skill ordinarily exercised by other members of the Consultant's profession currently practicing in the same locality under similar conditions.

5. AMENDMENTS. Owner may, without invalidating this Agreement, from time to time request changes in the scope of the Work. Consultant shall submit a description of the scope, detail and impact of any requested changes, including impact on costs and completion date, in a proposal to Owner within five (5) working days after Owner's request. Owner will review Consultant's proposal within five (5) working days after its receipt from Consultant, and will promptly respond to Consultant. No such change shall be binding upon either party hereto until both Consultant and Owner have agreed upon such change in a written amendment to the Agreement.

6. NO ASSIGNMENTS OR DELEGATION OF WORK.

(a) This Agreement may not be assigned, by operation of law or otherwise, without the prior written consent of Owner and Consultant.

(b) Consultant shall not enter into any agreement with a subcontractor which does not expressly bind said subcontractor to assume all obligations and responsibilities which Consultant, by this Agreement, assumes toward Owner. Consultant shall promptly provide Owner with a copy of all subcontractor agreements. None of the Work may be delegated or subcontracted to an independent contractor without the prior written consent of Owner.

Initial RML _____

7. INDEMNITY. Consultant shall indemnify, defend and hold harmless Owner and any other party designated by Owner and its and their officers, agents, employees, representatives, consultants and contractors, of and from any and all claims, damages, losses and expenses, including, but not limited to, reasonable attorneys' fees, only to the extent caused by the negligent performance of the Work and/or which are caused by, any breach of this Agreement or any negligent, reckless or illegal act or omission of Consultant, any subcontractor engaged by Consultant, anyone directly or indirectly employed by them or anyone for whose acts any of them may be liable.

8. INSURANCE. Consultant shall obtain and provide Owner with written evidence of the following insurance coverage, which coverage shall remain in force during the term of this Agreement: (a) commercial general liability insurance covering personal injury and death and damage to and loss of property arising in connection with the Work with limits of not less than $1,000,000 per person each occurrence for personal injury and death and $1,000,000 per occurrence for property damage and loss; (b) professional liability insurance, including errors and omissions, with limits of liability equal to at least $1,000,000 per claim and annual aggregate; (c) if licensed vehicles will be used in connection with performance of the Work, automobile liability insurance, whether owned, hired, rented, borrowed or otherwise, with limits of liability of not less than $1,000,000 per occurrence combined single limit for bodily injury and property damage, which insurance provides a waiver of rights of subrogation against Owner; and (d) insurance in accordance with all applicable laws relating to workers' compensation with respect to all of Consultant's employees, regardless of whether such coverage or insurance is mandatory or merely elective under the law. Each policy of insurance shall be in a form and with insurers satisfactory to Owner, naming Owner as an additional insured and providing thirty (30) days' advance notice to Owner of non-renewal, material change or cancellation. Upon request Consultant shall provide Owner with certificates evidencing such insurance. In jurisdictions requiring mandatory participation in a monopolistic state workers' compensation fund, the insurance certificate requirements for the coverage required for workers' compensation will be satisfied by a letter from the appropriate state agency confirming participation in accordance with statutory requirements. Limitations on the amount of insurance coverage shall in no way be construed to reduce or limit the liability of Consultant to Owner.

9. CONSULTANT'S DEFAULT. If Consultant performs Work negligently or breaches any obligation under this Agreement, Owner may give Consultant seven (7) days' written notice of such matter. Unless (a) such matter has been corrected within such seven-day period or (b) such matter is of a nature that it cannot reasonably be corrected within such period and Consultant has commenced to correct such matter during such period and is thereafter diligently prosecuting such correction to its completion, then Owner may, without prejudice to any other right or remedy it may have, (x) correct any negligent Work and either charge Consultant for all costs and expenses incurred by Owner in correcting such defects or deduct the same from sums otherwise due Consultant or (y) finish the Work by such means as it sees fit, and if the unpaid balance of the compensation due Consultant exceeds the cost of finishing the Work and damages suffered by Owner, such excess shall be paid to Consultant following final completion of the Work, but if such exceeds the unpaid balance due Consultant, Consultant shall immediately pay the difference to Owner.

10. ATTORNEYS' FEES. If a lawsuit arises in connection with the Agreement, the substantially prevailing party therein shall be entitled to recover from the other party the substantially prevailing party's reasonable attorneys' fees, costs and expenses.

11. DOCUMENTS AND DATA. Upon receipt of final payment to Consultant, Consultant agrees that all documents, drawings, reports and other information prepared or obtained by Consultant in connection with the Work, including work in progress, are the sole property of Owner for use exclusively by Owner or its designated agents and employees and shall be submitted to Owner within five (5) working days after a written request from Owner. In the event the work consists of drawings or renderings, Consultant shall deliver to Owner reproducible mylars and, if any Work has been generated on computer or CADD, then Consultant shall provide Owner with a disk copying said data schematics and renderings. Consultant shall not be liable for any modifications to documents prepared by Consultant which are made without Consultant's advice after delivery of such documents to Owner, nor shall Consultant be liable for their use by Owner without Consultant's consent in projects other than the Work.

12. CONFIDENTIALITY. Consultant agrees that all documents and reports, and all other data and information prepared or obtained by Consultant in the performance of the Work are confidential

Initial MC _____

and shall not be disclosed or made available to any individual or entity other than Owner and its designated agents or employees except with the prior approval of Owner.

13. NOTICES. All notices provided for herein may be telecopied, delivered or mailed registered or certified mail, return receipt requested, and, if mailed, shall be considered delivered three (3) days after being deposited in such mail. The addresses to be used in connection with such correspondence and notices are as set forth on the first page of this Agreement, or such other address as a party shall from time to time direct. Notices or correspondence to Owner shall be sent to such address marked for the attention of the Owner's Representative designated in Section E on the first page of this Agreement, or such other representative as Owner may hereafter designate from time to time.

14. GOVERNING LAW; JURISDICTION. The validity, meaning and effect of this Agreement shall be determined in accordance with the laws of the State of California.

15. SUSPENSION OF WORK; TERMINATION. Owner may, upon written notice, direct Consultant to suspend all or a portion of the Work. In the event of such suspension, Consultant shall be entitled to payment of: (a) all fees properly earned up to the effective date of suspension and (b) all reimbursable expenses actually and property incurred up to such date. If the Work is suspended for a continuous period of more than sixty (60) days, and such suspension is not due to the fault of Consultant, then Consultant shall also be entitled to payment of unavoidable out-of-pocket losses, other than loss of profit, actually suffered as a result of such suspension. Owner also reserves the right to terminate this Agreement for the convenience of Owner at any time upon ten (10) days' prior notice to Consultant. If Owner so terminates this Agreement, Consultant shall be entitled to payment of: (a) all fees properly earned up to the effective date of termination, (b) all reimbursable expenses actually and properly incurred up to such date and (c) unavoidable out-of-pocket losses, other than loss of profit, actually suffered as a result of such early termination.

16. ENTIRE AGREEMENT. This Agreement constitutes the final and complete agreement between the parties hereto with respect to the subject matter of this Agreement, superseding all prior agreements or discussions with respect thereto. No additions, deletions or modifications hereof shall become part of this Agreement unless each party hereto specifically recognizes and consents to their inclusion by a signed instrument.

17. PROPERTY DAMAGE. Owner agrees and acknowledges that in the normal course of Consultant's Work, some damage may occur to landscaping, pavements, underground utilities and/or other conditions of the site, the correction of which is not part of this Agreement unless caused by Consultant's negligence.

18. NO THIRD PARTY BENEFICIARY. Nothing contained in this Agreement shall be construed to be for the benefit of any person not a party to this Agreement and no third party beneficiary rights are inferred to be created by this Agreement.

19. CORPORATE PROTECTION. It is intended by the partners to this Agreement that Consultant's services in connection with the Work shall not subject Consultant's individual employees, officers, directors or principals to any personal legal exposure for risk associated with the Project.

Initial GMV _____

Appendix B

Database Search Report

Phase I ESA
1328 N. Capitol Avenue
San Jose, CA 95132

Inquiry Number: 2750010.2s
April 20, 2010

The EDR Radius Map™ Report with GeoCheck®

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
Toll Free: 800.352.0050
www.edrnet.com

FORM-STD-ROM

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Map Findings	8
Orphan Summary	24
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GEOCHECK ADDENDUM

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

1328 N. CAPITOL AVENUE
SAN JOSE, CA 95132

COORDINATES

Latitude (North):	37.392400 - 37˚ 23' 32.6''
Longitude (West):	121.865700 - 121˚ 51' 56.5''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	600408.8
UTM Y (Meters):	4138803.5
Elevation:	131 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	37121-D7 CALAVERAS RESERVOIR, CA
Most Recent Revision:	1980
West Map:	37121-D8 MILPITAS, CA
Most Recent Revision:	1980

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	2006, 2005
Source:	USDA

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL..... National Priority List

EXECUTIVE SUMMARY

Proposed NPL..... Proposed National Priority List Sites
NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

CERCLIS..... Comprehensive Environmental Response, Compensation, and Liability Information System
FEDERAL FACILITY..... Federal Facility Site Information listing

Federal CERCLIS NFRAP site List

CERC-NFRAP..... CERCLIS No Further Remedial Action Planned

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG..... RCRA - Large Quantity Generators
RCRA-SQG..... RCRA - Small Quantity Generators
RCRA-CESQG..... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

US ENG CONTROLS..... Engineering Controls Sites List
US INST CONTROL..... Sites with Institutional Controls

Federal ERNS list

ERNS..... Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE..... State Response Sites

State- and tribal - equivalent CERCLIS

ENVIROSTOR..... EnviroStor Database

State and tribal landfill and/or solid waste disposal site lists

SWF/LF..... Solid Waste Information System

State and tribal leaking storage tank lists

SLIC..... Statewide SLIC Cases
INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

UST	Active UST Facilities
AST	Aboveground Petroleum Storage Tank Facilities
INDIAN UST	Underground Storage Tanks on Indian Land
FEMA UST	Underground Storage Tank Listing

State and tribal voluntary cleanup sites

INDIAN VCP	Voluntary Cleanup Priority Listing
VCP	Voluntary Cleanup Program Properties

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS	A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations
ODI	Open Dump Inventory
WMUDS/SWAT	Waste Management Unit Database
HAULERS	Registered Waste Tire Haulers Listing
INDIAN ODI	Report on the Status of Open Dumps on Indian Lands

Local Lists of Hazardous waste / Contaminated Sites

US CDL	Clandestine Drug Labs
HIST Cal-Sites	Historical Calsites Database
SCH	School Property Evaluation Program
Toxic Pits	Toxic Pits Cleanup Act Sites
CDL	Clandestine Drug Labs
US HIST CDL	National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

CA FID UST	Facility Inventory Database
SWEEPS UST	SWEEPS UST Listing

Local Land Records

LIENS 2	CERCLA Lien Information
LUCIS	Land Use Control Information System
LIENS	Environmental Liens Listing
DEED	Deed Restriction Listing

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
CHMIRS	California Hazardous Material Incident Report System
LDS	Land Disposal Sites Listing
MCS	Military Cleanup Sites Listing

Other Ascertainable Records

RCRA-NonGen	RCRA - Non Generators
DOT OPS	Incident and Accident Data
DOD	Department of Defense Sites
FUDS	Formerly Used Defense Sites
CONSENT	Superfund (CERCLA) Consent Decrees
ROD	Records Of Decision
UMTRA	Uranium Mill Tailings Sites
MINES	Mines Master Index File
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
SSTS	Section 7 Tracking Systems
ICIS	Integrated Compliance Information System
PADS	PCB Activity Database System
MLTS	Material Licensing Tracking System
RADINFO	Radiation Information Database
FINDS	Facility Index System/Facility Registry System
RAATS	RCRA Administrative Action Tracking System
CA BOND EXP. PLAN	Bond Expenditure Plan
CA WDS	Waste Discharge System
NPDES	NPDES Permits Listing
Cortese	"Cortese" Hazardous Waste & Substances Sites List
SAN JOSE HAZMAT	Hazardous Material Facilities
DRYCLEANERS	Cleaner Facilities
WIP	Well Investigation Program Case List
HAZNET	Facility and Manifest Data
EMI	Emissions Inventory Data
INDIAN RESERV	Indian Reservations
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
PROC	Certified Processors Database
HWP	EnviroStor Permitted Facilities Listing
HWT	Registered Hazardous Waste Transporter Database
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
COAL ASH DOE	Sleam-Electric Plan Operation Data
MWMP	Medical Waste Management Program Listing
PCB TRANSFORMER	PCB Transformer Registration Database
FINANCIAL ASSURANCE	Financial Assurance Information Listing

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants	EDR Proprietary Manufactured Gas Plants
EDR Historical Auto Stations	EDR Proprietary Historic Gas Stations
EDR Historical Cleaners	EDR Proprietary Historic Dry Cleaners

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, and dated 03/22/2010 has revealed that there are 5 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
JACK LA CORTE PROPERTY Status: Completed - Case Closed	***1378 MORRILL AVE***	***NE 1/4 - 1/2 (0.393 mi.)***	***2***	***8***
CHEVRON #9-3837 Status: Completed - Case Closed	***1140 N CAPITOL AVE***	***SE 1/4 - 1/2 (0.430 mi.)***	***A4***	***9***
ARCO #0674 Status: Open - Site Assessment	***1145 N CAPITOL AVE***	***SE 1/4 - 1/2 (0.452 mi.)***	***B5***	***14***

Lower Elevation	Address	Direction / Distance	Map ID	Page
SHELL OIL Status: Completed - Case Closed	***1601 N CAPITOL AVE***	***NW 1/4 - 1/2 (0.486 mi.)***	***C9***	***20***
SHELL Status: Completed - Case Closed	***1601 N CAPITOL AVE***	***NW 1/4 - 1/2 (0.486 mi.)***	***C10***	***21***

HIST LUST: A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

A review of the HIST LUST list, as provided by EDR, and dated 03/29/2005 has revealed that there are 5 HIST LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
JACK LA CORTE PROPERTY	***1378 MORRILL AVE***	***NE 1/4 - 1/2 (0.393 mi.)***	***2***	***8***
CHEVRON #9-3837	***1140 N CAPITOL AVE***	***SE 1/4 - 1/2 (0.430 mi.)***	***A4***	***9***
ARCO #0674	***1145 N CAPITOL AVE***	***SE 1/4 - 1/2 (0.452 mi.)***	***B5***	***14***

Lower Elevation	Address	Direction / Distance	Map ID	Page
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ADDITIONAL ENVIRONMENTAL RECORDS

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NEXCYCLE	2558 BERRYESSA RD	SE 1/4 - 1/2 (0.477 mi.)	7	19

Local Lists of Registered Storage Tanks

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there is 1 HIST UST site within approximately 0.25 miles of the target property.

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EXECUTIVE SUMMARY

Notify 65: Notify 65 records contain facility notifications about any release that could impact drinking water and thereby expose the public to a potential health risk. The data come from the State Water Resources Control Board's Proposition 65 database.

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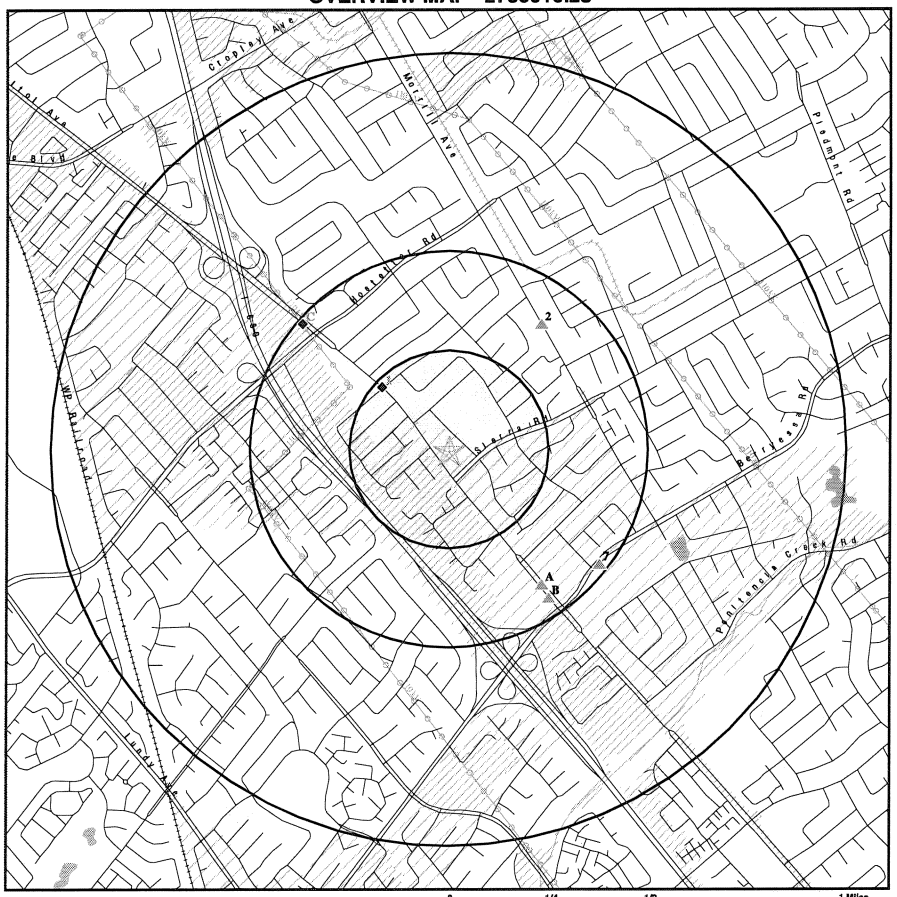
ARCO SERVICE STATION #674	1145 NORTH CAPITOL AVEN	SE 1/4 - 1/2 (0.413 mi.)	A3	9

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

Site Name	Database(s)
CALTRANS	HIST CORTESE
BP	HIST CORTESE
HAMPTON PARK PHASE 1	NPDES
ALMADEN LAKE PARK PHASE 2	NPDES
GUADALUPE RIVER-3A PHASE I	NPDES
GUADALUPE 3C PHASE 3 FLOODWALL A L	NPDES
GUADALUPE RI REACH 3A PHASE II	NPDES
EBAY PHASE 1 CAMPUS EXTENSION	NPDES
HAWTHORN PHASE 2	NPDES
COCA COLA BOTTLING COMPANY	SWEEPS UST
SILVERADO CONDOMINIUMS	CERC-NFRAP
MARSHLAND SOLID WASTE FACILITY	SWF/LF
SUNNYVALE, CITY OF	LUST
DAVID FEECE RESIDENCE	LUST
P&G INVESTMENT COMPANY	LUST
BARTYZEL PROPERTY	LUST
W.X.I.I./S.C.V. RE-ESTATE LLP	HAZNET
TRIMBALL DEVELOPMENT GROUP I REAL	HAZNET
ORANGESTONE	RCRA-SQG, FINDS
CIVIC PLAZA	SLIC
GUADALUPE RI REACH 3A PHASE II	CA WDS
24 HOUR FITNESS INC#505	SAN JOSE HAZMAT
PROTO SERVICES, INC	SAN JOSE HAZMAT
TARGET #1426	SAN JOSE HAZMAT
RAINBOW DENTAL GROUP	SAN JOSE HAZMAT
AUTOZONE #3354	SAN JOSE HAZMAT
CAPITOL VALERO AUTO CARE,	SAN JOSE HAZMAT
VIP CLEANERS	SAN JOSE HAZMAT
NEW CINGULAR WIRELESS14132	SAN JOSE HAZMAT
L&M PIEDMONT SHELL#136013	SAN JOSE HAZMAT
VERIZON PIEDMONT/SIERRA	SAN JOSE HAZMAT
METRO PCS INC.	SAN JOSE HAZMAT
T-MOBILE	SAN JOSE HAZMAT

OVERVIEW MAP - 2750010.2s



0 1/4 1/2 1 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Phase I ESA ADDRESS: 1328 N. Capitol Avenue San Jose CA 95132 LAT/LONG: 37.3924 / 121.8657	CLIENT: Cornerstone Earth Group CONTACT: Stason Foster INQUIRY #: 2750010.2s DATE: April 20, 2010 12:17 pm

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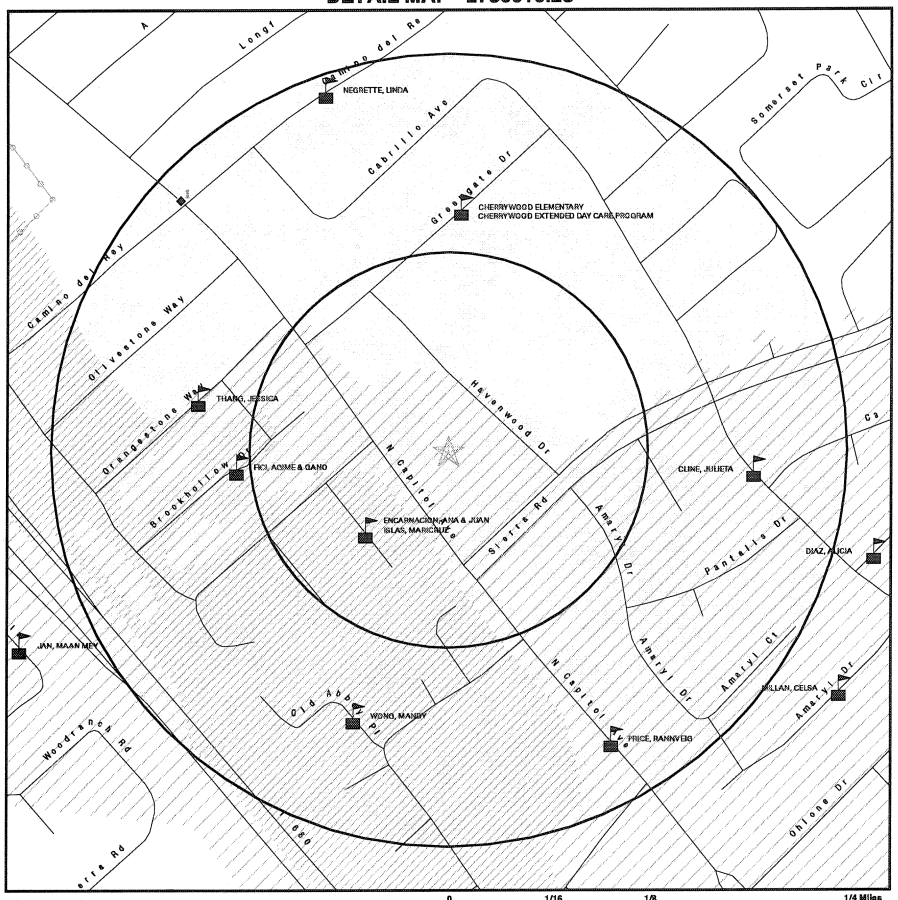
DETAIL MAP - 2750010.2s



0 1/16 1/8 1/4 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
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Phase I ESA
1328 N. Capitol Avenue
San Jose, CA 95132

Inquiry Number: 2750010.2s
April 20, 2010

The EDR Radius Map™ Report with GeoCheck®

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
Toll Free: 800.352.0050
www.edrnet.com

FORM-STD-ROM

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

1328 N. CAPITOL AVENUE
SAN JOSE, CA 95132

COORDINATES

Latitude (North):	37.392400 - 37' 23' 32.6''
Longitude (West):	121.865700 - 121' 51' 56.5''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	600408.8
UTM Y (Meters):	4138803.5
Elevation:	131 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	37121-D7 CALAVERAS RESERVOIR, CA
Most Recent Revision:	1980
West Map:	37121-D8 MILPITAS, CA
Most Recent Revision:	1980

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	2006, 2005
Source:	USDA

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL..... National Priority List

EXECUTIVE SUMMARY

Proposed NPL..... Proposed National Priority List Sites
NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

CERCLIS..... Comprehensive Environmental Response, Compensation, and Liability Information System
FEDERAL FACILITY..... Federal Facility Site Information listing

Federal CERCLIS NFRAP site List

CERC-NFRAP..... CERCLIS No Further Remedial Action Planned

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG..... RCRA - Large Quantity Generators
RCRA-SQG..... RCRA - Small Quantity Generators
RCRA-CESQG..... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

US ENG CONTROLS..... Engineering Controls Sites List
US INST CONTROL..... Sites with Institutional Controls

Federal ERNS list

ERNS..... Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE..... State Response Sites

State- and tribal - equivalent CERCLIS

ENVIROSTOR..... EnviroStor Database

State and tribal landfill and/or solid waste disposal site lists

SWF/LF..... Solid Waste Information System

State and tribal leaking storage tank lists

SLIC..... Statewide SLIC Cases
INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

UST	Active UST Facilities
AST	Aboveground Petroleum Storage Tank Facilities
INDIAN UST	Underground Storage Tanks on Indian Land
FEMA UST	Underground Storage Tank Listing

State and tribal voluntary cleanup sites

INDIAN VCP	Voluntary Cleanup Priority Listing
VCP	Voluntary Cleanup Program Properties

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS	A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations
ODI	Open Dump Inventory
WMUDS/SWAT	Waste Management Unit Database
HAULERS	Registered Waste Tire Haulers Listing
INDIAN ODI	Report on the Status of Open Dumps on Indian Lands

Local Lists of Hazardous waste / Contaminated Sites

US CDL	Clandestine Drug Labs
HIST Cal-Sites	Historical Calsites Database
SCH	School Property Evaluation Program
Toxic Pits	Toxic Pits Cleanup Act Sites
CDL	Clandestine Drug Labs
US HIST CDL	National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

CA FID UST	Facility Inventory Database
SWEEPS UST	SWEEPS UST Listing

Local Land Records

LIENS 2	CERCLA Lien Information
LUCIS	Land Use Control Information System
LIENS	Environmental Liens Listing
DEED	Deed Restriction Listing

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
CHMIRS	California Hazardous Material Incident Report System
LDS	Land Disposal Sites Listing
MCS	Military Cleanup Sites Listing

Other Ascertainable Records

RCRA-NonGen	RCRA - Non Generators
DOT OPS	Incident and Accident Data
DOD	Department of Defense Sites
FUDS	Formerly Used Defense Sites
CONSENT	Superfund (CERCLA) Consent Decrees
ROD	Records Of Decision
UMTRA	Uranium Mill Tailings Sites
MINES	Mines Master Index File
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
SSTS	Section 7 Tracking Systems
ICIS	Integrated Compliance Information System
PADS	PCB Activity Database System
MLTS	Material Licensing Tracking System
RADINFO	Radiation Information Database
FINDS	Facility Index System/Facility Registry System
RAATS	RCRA Administrative Action Tracking System
CA BOND EXP. PLAN	Bond Expenditure Plan
CA WDS	Waste Discharge System
NPDES	NPDES Permits Listing
Cortese	"Cortese" Hazardous Waste & Substances Sites List
SAN JOSE HAZMAT	Hazardous Material Facilities
DRYCLEANERS	Cleaner Facilities
WIP	Well Investigation Program Case List
HAZNET	Facility and Manifest Data
EMI	Emissions Inventory Data
INDIAN RESERV	Indian Reservations
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
PROC	Certified Processors Database
HWP	EnviroStor Permitted Facilities Listing
HWT	Registered Hazardous Waste Transporter Database
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
COAL ASH DOE	Sleam-Electric Plan Operation Data
MWMP	Medical Waste Management Program Listing
PCB TRANSFORMER	PCB Transformer Registration Database
FINANCIAL ASSURANCE	Financial Assurance Information Listing

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants	EDR Proprietary Manufactured Gas Plants
EDR Historical Auto Stations	EDR Proprietary Historic Gas Stations
EDR Historical Cleaners	EDR Proprietary Historic Dry Cleaners

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, and dated 03/22/2010 has revealed that there are 5 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
JACK LA CORTE PROPERTY Status: Completed - Case Closed	***1378 MORRILL AVE***	***NE 1/4 - 1/2 (0.393 mi.)***	***2***	***8***
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EXECUTIVE SUMMARY

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GUADALUPE 3C PHASE 3 FLOODWALL A L	NPDES
GUADALUPE RI REACH 3A PHASE II	NPDES
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COCA COLA BOTTLING COMPANY	SWEEPS UST
SILVERADO CONDOMINIUMS	CERC-NFRAP
MARSHLAND SOLID WASTE FACILITY	SWF/LF
SUNNYVALE, CITY OF	LUST
DAVID FEECE RESIDENCE	LUST
P&G INVESTMENT COMPANY	LUST
BARTYZEL PROPERTY	LUST
W.X.I.I.I./S.C.V. RE-ESTATE LLP	HAZNET
TRIMBALL DEVELOPMENT GROUP I REAL	HAZNET
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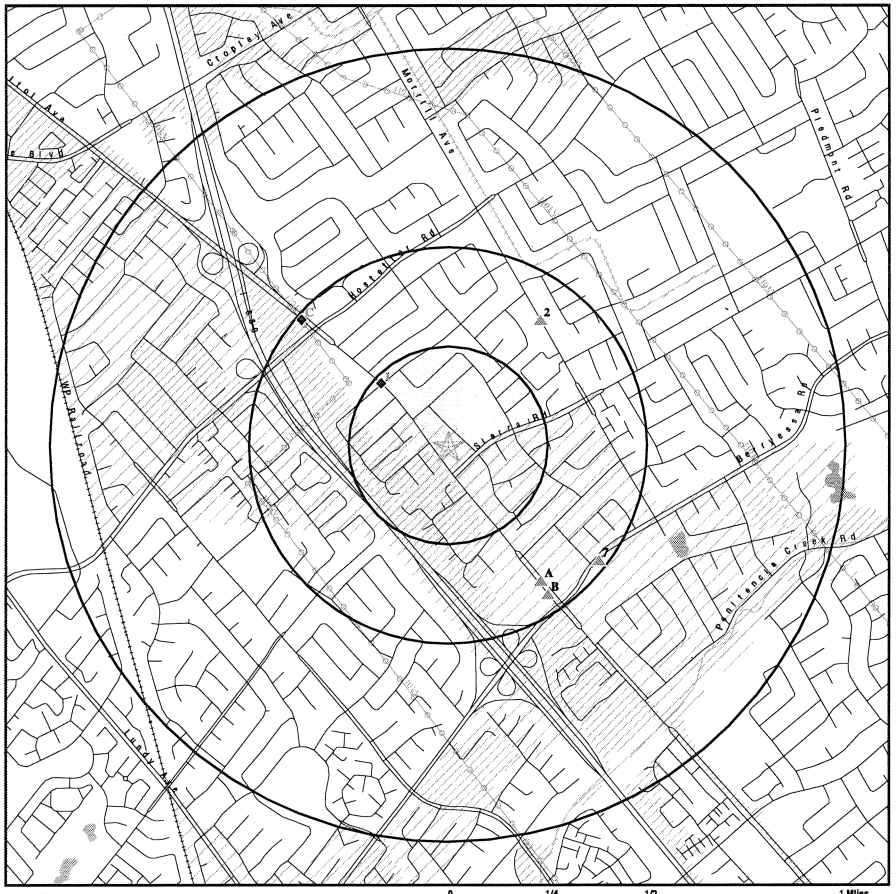

0 1/4 1/2 1 Miles

- Target Property
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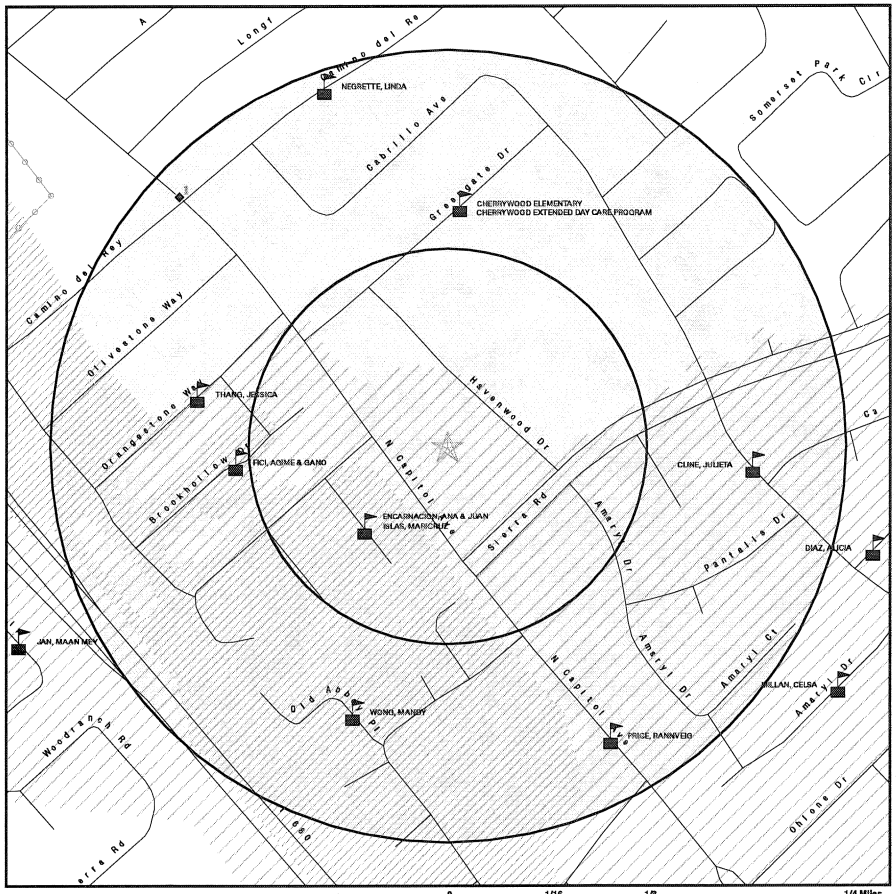

0 1/16 1/8 1/4 Miles

- Target Property
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MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL		1.000	0	0	0	0	NR	0
Proposed NPL		1.000	0	0	0	0	NR	0
NPL LIENS		TP	NR	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL		1.000	0	0	0	0	NR	0
Federal CERCLIS list								
CERCLIS		0.500	0	0	0	NR	NR	0
FEDERAL FACILITY		1.000	0	0	0	0	NR	0
Federal CERCLIS NFRAP site List								
CERC-NFRAP		0.500	0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS		1.000	0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF		0.500	0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG		0.250	0	0	NR	NR	NR	0
RCRA-SQG		0.250	0	0	NR	NR	NR	0
RCRA-CESQG		0.250	0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
US ENG CONTROLS		0.500	0	0	0	NR	NR	0
US INST CONTROL		0.500	0	0	0	NR	NR	0
Federal ERNS list								
ERNS		TP	NR	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE		1.000	0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR		1.000	0	0	0	0	NR	0
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF		0.500	0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST		0.500	0	0	5	NR	NR	5
SLIC		0.500	0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
HIST LUST		0.500	0	0	5	NR	NR	5
INDIAN LUST		0.500	0	0	0	NR	NR	0
State and tribal registered storage tank lists								
UST		0.250	0	0	NR	NR	NR	0
AST		0.250	0	0	NR	NR	NR	0
INDIAN UST		0.250	0	0	NR	NR	NR	0
FEMA UST		0.250	0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP		0.500	0	0	0	NR	NR	0
VCP		0.500	0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
DEBRIS REGION 9		0.500	0	0	0	NR	NR	0
ODI		0.500	0	0	0	NR	NR	0
WMUDS/SWAT		0.500	0	0	0	NR	NR	0
SWRCY		0.500	0	0	1	NR	NR	1
HAULERS		TP	NR	NR	NR	NR	NR	0
INDIAN ODI		0.500	0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL		TP	NR	NR	NR	NR	NR	0
HIST Cal-Sites		1.000	0	0	0	0	NR	0
SCH		0.250	0	0	NR	NR	NR	0
Toxic Pits		1.000	0	0	0	0	NR	0
CDL		TP	NR	NR	NR	NR	NR	0
US HIST CDL		TP	NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
CA FID UST		0.250	0	0	NR	NR	NR	0
HIST UST		0.250	0	1	NR	NR	NR	1
SWEEPS UST		0.250	0	0	NR	NR	NR	0
Local Land Records								
LIENS 2		TP	NR	NR	NR	NR	NR	0
LUCIS		0.500	0	0	0	NR	NR	0
LIENS		TP	NR	NR	NR	NR	NR	0
DEED		0.500	0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS		TP	NR	NR	NR	NR	NR	0
CHMIRS		TP	NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LDS		TP	NR	NR	NR	NR	NR	0
MCS		TP	NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA-NonGen		0.250	0	0	NR	NR	NR	0
DOT OPS		TP	NR	NR	NR	NR	NR	0
DOD		1.000	0	0	0	0	NR	0
FUDS		1.000	0	0	0	0	NR	0
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0
UMTRA		0.500	0	0	0	NR	NR	0
MINES		0.250	0	0	NR	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
FTTS		TP	NR	NR	NR	NR	NR	0
HIST FTTS		TP	NR	NR	NR	NR	NR	0
SSTS		TP	NR	NR	NR	NR	NR	0
ICIS		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
RADINFO		TP	NR	NR	NR	NR	NR	0
FINDS		TP	NR	NR	NR	NR	NR	0
RAATS		TP	NR	NR	NR	NR	NR	0
CA BOND EXP. PLAN		1.000	0	0	0	0	NR	0
CA WDS		TP	NR	NR	NR	NR	NR	0
NPDES		TP	NR	NR	NR	NR	NR	0
Cortese		0.500	0	0	0	NR	NR	0
HIST CORTESE		0.500	0	0	3	NR	NR	3
SAN JOSE HAZMAT		0.250	0	0	NR	NR	NR	0
Notify 65		1.000	0	0	1	0	NR	1
DRYCLEANERS		0.250	0	0	NR	NR	NR	0
WIP		0.250	0	0	NR	NR	NR	0
HAZNET		TP	NR	NR	NR	NR	NR	0
EMI		TP	NR	NR	NR	NR	NR	0
INDIAN RESERV		1.000	0	0	0	0	NR	0
SCRD DRYCLEANERS		0.500	0	0	0	NR	NR	0
PROC		0.500	0	0	0	NR	NR	0
HWP		1.000	0	0	0	0	NR	0
HWT		0.250	0	0	NR	NR	NR	0
COAL ASH EPA		0.500	0	0	0	NR	NR	0
COAL ASH DOE		TP	NR	NR	NR	NR	NR	0
MWMP		0.250	0	0	NR	NR	NR	0
PCB TRANSFORMER		TP	NR	NR	NR	NR	NR	0
FINANCIAL ASSURANCE		TP	NR	NR	NR	NR	NR	0
EDR PROPRIETARY RECORDS								
EDR Proprietary Records								
Manufactured Gas Plants		1.000	0	0	0	0	NR	0
EDR Historical Auto Stations		0.250	0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
EDR Historical Cleaners		0.250	0	0	NR	NR	NR	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

1 NW 1/8-1/4 0.231 mi. 1219 ft. — **MRS. WILLIAM ORLANDO**, **1454 N CAPITOL AVE**, **SAN JOSE, CA 95132** — **HIST UST** — **U001603080** / **N/A**

Relative: Lower

Actual: 122 ft.

HIST UST:

Region:	STATE
Facility ID:	00000035815
Facility Type:	Other
Other Type:	FARM
Total Tanks:	0001
Contact Name:	Not reported
Telephone:	4082581360
Owner Name:	MRS. WILLIAM ORLANDO
Owner Address:	1454 N. CAPITOL AVE.
Owner City,St,Zip:	SAN JOSE, CA 95132
Tank Num:	001
Container Num:	I
Year Installed:	Not reported
Tank Capacity:	00001000
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Tank Construction:	Not reported
Leak Detection:	None

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2 NE 1/4-1/2 0.393 mi. 2078 ft. — **JACK LA CORTE PROPERTY**, **1378 MORRILL AVE**, **SAN JOSE, CA 95132** — **HIST CORTESE**, **LUST**, **HIST LUST** — **S103473077** / **N/A**

Relative: Higher

Actual: 141 ft.

CORTESE:

Region:	CORTESE
Facility County Code:	43
Reg By:	LTNKA
Reg Id:	43-0954

LUST:

Region:	STATE
Global Id:	T0608500959
Latitude:	37.398056
Longitude:	-121.861178
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	1990-08-08 00:00:00
Lead Agency:	SANTA CLARA COUNTY LOP
Case Worker:	Not reported
Local Agency:	SANTA CLARA COUNTY LOP
RB Case Number:	Not reported
LOC Case Number:	Not reported
File Location:	Stored on Microfiche
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

LUST REG 2:

Region:	2

JACK LA CORTE PROPERTY (Continued) — **S103473077**

Facility Id:	Not reported
Facility Status:	Case Closed
Case Number:	06S1E21H01f
How Discovered:	Not reported
Leak Cause:	Not reported
Leak Source:	Not reported
Date Leak Confirmed:	Not reported
Oversight Program:	LUST
Prelim. Site Assesment Wokplan Submitted:	Not reported
Preliminary Site Assesment Began:	5/14/1990
Pollution Characterization Began:	Not reported
Pollution Remediation Plan Submitted:	Not reported
Date Remediation Action Underway:	Not reported
Date Post Remedial Action Monitoring Began:	Not reported

LUST SANTA CLARA:

Region:	SANTA CLARA
SCVWD ID:	06S1E21H01f
Closed Date:	8/8/1990

HIST LUST SANTA CLARA:

Region:	SANTA CLARA
Region Code:	2
SCVWD ID:	06S1E21H01
Oversite Agency:	SCVWD
Date Listed:	1991-01-01 00:00:00
Closed Date:	1990-08-08 00:00:00

A3 SE 1/4-1/2 0.413 mi. 2183 ft. — **ARCO SERVICE STATION #674**, **1145 NORTH CAPITOL AVENUE**, **SAN JOSE, CA 93212** — **Notify 65** — **S100179112** / **N/A**

Site 1 of 2 in cluster A

Relative: Higher

Actual: 146 ft.

Notify 65:

Date Reported:	Not reported
Staff Initials:	Not reported
Board File Number:	Not reported
Facility Type:	Not reported
Discharge Date:	Not reported
Incident Description:	93212

A4 SE 1/4-1/2 0.430 mi. 2271 ft. — **CHEVRON #9-3837**, **1140 N CAPITOL AVE**, **SAN JOSE, CA 95133** — **LUST**, **HIST LUST**, **HIST UST**, **SAN JOSE HAZMAT**, **SWEEPS UST**, **HAZNET** — **U001603070** / **N/A**

Site 2 of 2 in cluster A

Relative: Higher

Actual: 147 ft.

LUST:

Region:	STATE
Global Id:	T0608500332
Latitude:	37.3862
Longitude:	-121.8592
Case Type:	LUST Cleanup Site

CHEVRON #9-3837 (Continued) **U001603070**

Status:	Completed - Case Closed
Status Date:	2003-06-30 00:00:00
Lead Agency:	SANTA CLARA COUNTY LOP
Case Worker:	Not reported
Local Agency:	SANTA CLARA COUNTY LOP
RB Case Number:	Not reported
LOC Case Number:	Not reported
File Location:	Stored electronically as an E-file
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Stoddard solvent / Mineral Spriits / Distillates
Site History:	Not reported

LUST REG 2:

Region:	2
Facility Id:	Not reported
Facility Status:	Case Closed
Case Number:	06S1E27D01f
How Discovered:	Not reported
Leak Cause:	Not reported
Leak Source:	Not reported
Date Leak Confirmed:	Not reported
Oversight Program:	LUST
Prelim. Site Assesment Wokplan Submitted:	Not reported
Preliminary Site Assesment Began:	12/17/1990
Pollution Characterization Began:	7/15/1999
Pollution Remediation Plan Submitted:	Not reported
Date Remediation Action Underway:	Not reported
Date Post Remedial Action Monitoring Began:	Not reported

LUST SANTA CLARA:

Region:	SANTA CLARA
SCVWD ID:	06S1E27D01f
Closed Date:	6/30/2003

HIST LUST SANTA CLARA:

Region:	SANTA CLARA
Region Code:	2
SCVWD ID:	06S1E27D01
Oversite Agency:	SCVWD
Date Listed:	1987-01-01 00:00:00
Closed Date:	2003-06-30 00:00:00

HIST UST:

Region:	STATE
Facility ID:	00000062518
Facility Type:	Gas Station
Other Type:	Not reported
Total Tanks:	0004
Contact Name:	DORRELL, JOHN D
Telephone:	4083733200
Owner Name:	CHEVRON U.S.A. INC.
Owner Address:	575 MARKET
Owner City,St,Zip:	SAN FRANCISCO, CA 94105
Tank Num:	001

CHEVRON #9-3837 (Continued) **U001603070**

Container Num:	1
Year Installed:	1970
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Tank Construction:	0000250 unknown
Leak Detection:	Stock Inventor
Tank Num:	002
Container Num:	2
Year Installed:	1970
Tank Capacity:	00005000
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Tank Construction:	0000250 unknown
Leak Detection:	Stock Inventor
Tank Num:	003
Container Num:	3
Year Installed:	1970
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Tank Construction:	0000250 unknown
Leak Detection:	Stock Inventor
Tank Num:	004
Container Num:	4
Year Installed:	1970
Tank Capacity:	00001000
Tank Used for:	WASTE
Type of Fuel:	Not reported
Tank Construction:	0000130 unknown
Leak Detection:	Stock Inventor

SAN JOSE HAZMAT:

Region:	SAN JOSE
File Num:	400849
Class:	Gasoline Station

SWEEPS UST:

Status:	A
Comp Number:	400849
Number:	9
Board Of Equalization:	Not reported
Ref Date:	09-30-92
Act Date:	09-08-92
Created Date:	02-29-88
Tank Status:	A
Owner Tank Id:	Not reported
Swrcb Tank Id:	43-060-400849-000001
Actv Date:	Not reported
Capacity:	10000
Tank Use:	M.V. FUEL
Stg:	P
Content:	REG UNLEADED

CHEVRON #9-3837 (Continued) **U001603070**

Number Of Tanks: 4

Status: A
Comp Number: 400849
Number: 9
Board Of Equalization: Not reported
Ref Date: 09-30-92
Act Date: 09-08-92
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 43-060-400849-000002
Actv Date: Not reported
Capacity: 10000
Tank Use: M.V. FUEL
Stg: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: A
Comp Number: 400849
Number: 9
Board Of Equalization: Not reported
Ref Date: 09-30-92
Act Date: 09-08-92
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 43-060-400849-000003
Actv Date: Not reported
Capacity: 5000
Tank Use: M.V. FUEL
Stg: P
Content: LEADED
Number Of Tanks: Not reported

Status: A
Comp Number: 400849
Number: 9
Board Of Equalization: Not reported
Ref Date: 09-30-92
Act Date: 09-08-92
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 43-060-400849-000005
Actv Date: Not reported
Capacity: 1000
Tank Use: OIL
Stg: W
Content: Not reported
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 400849
Number: Not reported
Board Of Equalization: Not reported

CHEVRON #9-3837 (Continued) **U001603070**

Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 43-060-400849-000004
Actv Date: Not reported
Capacity: 1000
Tank Use: OIL
Stg: WASTE
Content: Not reported
Number Of Tanks: 1

HAZNET:
Gepaid: CAR000144097
Contact: RON DONOVAN
Telephone: 2538968716
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 3450 S 344TH WAY STE 201
Mailing City,St,Zip: FEDERAL WAY, WA 980019540
Gen County: Santa Clara
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Aqueous solution with less than 10% total organic residues
Disposal Method: H039
Tons: 1.323
Facility County: Santa Clara

Gepaid: CAR000144097
Contact: RON DONOVAN
Telephone: 2538968716
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 3450 S 344TH WAY STE 201
Mailing City,St,Zip: FEDERAL WAY, WA 980019540
Gen County: Santa Clara
TSD EPA ID: NVT330010000
TSD County: 99
Waste Category: Other organic solids
Disposal Method: H132
Tons: 0.2
Facility County: Santa Clara

Gepaid: CAR000144097
Contact: RON DONOVAN
Telephone: 2538968716
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 3450 S 344TH WAY STE 201
Mailing City,St,Zip: FEDERAL WAY, WA 980019540
Gen County: Santa Clara
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Aqueous solution with less than 10% total organic residues
Disposal Method: H135
Tons: 0.02

CHEVRON #9-3837 (Continued) **U001603070**

Facility County: Santa Clara

Gepaid: CAR000144097
Contact: RON DONOVAN
Telephone: 2538968716
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 3450 S 344TH WAY STE 201
Mailing City,St,Zip: FEDERAL WAY, WA 980019540
Gen County: Santa Clara
TSD EPA ID: NVT330010000
TSD County: 99
Waste Category: Other organic solids
Disposal Method: H132
Tons: 0.04
Facility County: Santa Clara

Click this hyperlink while viewing on your computer to access
-1 additional CA_HAZNET: record(s) in the EDR Site Report.

B5 ARCO #0674 **LUST U001603082**
SE 1145 N CAPITOL AVE **HIST LUST N/A**
1/4-1/2 SAN JOSE, CA 95132 **HIST UST**
0.452 mi. SWEEPS UST
2385 ft. Site 1 of 2 in cluster B

Relative: Higher

Actual: 148 ft.

LUST:
Region: STATE
Global Id: T0608533095
Latitude: 37.387051
Longitude: -121.861232
Case Type: LUST Cleanup Site
Status: Open - Site Assessment
Status Date: 1992-02-06 00:00:00
Lead Agency: SANTA CLARA COUNTY LOP
Case Worker: Not reported
Local Agency: SANTA CLARA COUNTY LOP
RB Case Number: 01-036
LOC Case Number: 06S1E28A02f
File Location: Stored electronically as an E-file
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST REG 2:
Region: 2
Facility Id: Not reported
Facility Status: Pollution Characterization
Case Number: 06S1E28A02f
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Leak Confirmed: Not reported
Oversight Program: LUST
Prelim. Site Assesment Wokplan Submitted: Not reported
Preliminary Site Assesment Began: 6/29/1991
Pollution Characterization Began: 2/6/1992

ARCO #0674 (Continued) **U001603082**

Pollution Remediation Plan Submitted: Not reported
Date Remediation Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

LUST SANTA CLARA:
Region: SANTA CLARA
SCVWD ID: 06S1E28A02f
Closed Date: Not reported

HIST LUST SANTA CLARA:
Region: SANTA CLARA
Region Code: 2
SCVWD ID: 06S1E28A02
Oversite Agency: SCCDEH
Date Listed: 1987-01-01 00:00:00
Closed Date: Not reported

HIST UST:
Region: STATE
Facility ID: 00000026952
Facility Type: Gas Station
Other Type: Not reported
Total Tanks: 0005
Contact Name: Not reported
Telephone: 0000000000
Owner Name: ARCO PETROLEUM PRODUCTS CO.
Owner Address: 515 SOUTH FLOWER STREET
Owner City,St,Zip: LOS ANGELES, CA 90071

Tank Num: 001
Container Num: 0000000001
Year Installed: 1981
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: 06
Tank Construction: Not reported
Leak Detection: Stock Inventor, 10

Tank Num: 002
Container Num: 0000000002
Year Installed: 1981
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: 06
Tank Construction: Not reported
Leak Detection: Stock Inventor, 10

Tank Num: 003
Container Num: 0000000003
Year Installed: 1981
Tank Capacity: 00008000
Tank Used for: PRODUCT
Type of Fuel: 06
Tank Construction: Not reported
Leak Detection: Stock Inventor, 10

ARCO #0674 (Continued) **U001603082**

Tank Num: 004
Container Num: 0000000004
Year Installed: 1956
Tank Capacity: 00004000
Tank Used for: PRODUCT
Type of Fuel: 06
Tank Construction: 0000167 inches
Leak Detection: Stock Inventor, 10

Tank Num: 005
Container Num: 0000000005
Year Installed: 1956
Tank Capacity: 00000250
Tank Used for: PRODUCT
Type of Fuel: WASTE OIL
Tank Construction: 0000093 inches
Leak Detection: Stock Inventor

SWEEPS UST:
Status: A
Comp Number: 401234
Number: 9
Board Of Equalization: Not reported
Ref Date: 09-30-92
Act Date: 09-08-92
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 43-060-401234-000006
Actv Date: Not reported
Capacity: 10000
Tank Use: M.V. FUEL
Stg: P
Content: REG UNLEADED
Number Of Tanks: 4

Status: A
Comp Number: 401234
Number: 9
Board Of Equalization: Not reported
Ref Date: 09-30-92
Act Date: 09-08-92
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 43-060-401234-000007
Actv Date: Not reported
Capacity: 10000
Tank Use: M.V. FUEL
Stg: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: A
Comp Number: 401234
Number: 9
Board Of Equalization: Not reported

ARCO #0674 (Continued) **U001603082**

Ref Date: 09-30-92
Act Date: 09-08-92
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 43-060-401234-000008
Actv Date: Not reported
Capacity: 10000
Tank Use: M.V. FUEL
Stg: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: A
Comp Number: 401234
Number: 9
Board Of Equalization: Not reported
Ref Date: 09-30-92
Act Date: 09-08-92
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 43-060-401234-000009
Actv Date: Not reported
Capacity: 10000
Tank Use: M.V. FUEL
Stg: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 401234
Number: Not reported
Board Of Equalization: Not reported
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 43-060-401234-000001
Actv Date: Not reported
Capacity: 10000
Tank Use: M.V. FUEL
Stg: PRODUCT
Content: REG UNLEADED
Number Of Tanks: 6

Status: Not reported
Comp Number: 401234
Number: Not reported
Board Of Equalization: Not reported
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 43-060-401234-000002

ARCO #0674 (Continued) **U001603082**

Actv Date:	Not reported
Capacity:	10000
Tank Use:	M.V. FUEL
Stg:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	401234
Number:	Not reported
Board Of Equalization:	Not reported
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	43-060-401234-000003
Actv Date:	Not reported
Capacity:	8000
Tank Use:	M.V. FUEL
Stg:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	401234
Number:	Not reported
Board Of Equalization:	Not reported
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	43-060-401234-000004
Actv Date:	Not reported
Capacity:	4000
Tank Use:	M.V. FUEL
Stg:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	401234
Number:	Not reported
Board Of Equalization:	Not reported
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	43-060-401234-000005
Actv Date:	Not reported
Capacity:	250
Tank Use:	OIL
Stg:	WASTE
Content:	Not reported
Number Of Tanks:	Not reported

ARCO #0674 (Continued) **U001603082**

Status:	Not reported
Comp Number:	401234
Number:	Not reported
Board Of Equalization:	Not reported
Ref Date:	Not reported
Act Date:	Not reported
Created Date:	Not reported
Tank Status:	Not reported
Owner Tank Id:	Not reported
Swrcb Tank Id:	43-060-401234-000010
Actv Date:	Not reported
Capacity:	100
Tank Use:	UNKNOWN
Stg:	PRODUCT
Content:	Not reported
Number Of Tanks:	Not reported

B6 **ARCO** **HIST CORTESE** **S104396991**
SE **1145 CAPITOL** **N/A**
1/4-1/2 **SAN JOSE, CA 95132**
0.452 mi.
2385 ft. **Site 2 of 2 in cluster B**

Relative:
Higher

Actual:
148 ft.

CORTESE:

Region:	CORTESE
Facility County Code:	43
Reg By:	LTNKA
Reg Id:	43-0090

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7 **NEXCYCLE** **SWRCY** **S107869711**
SE **2558 BERRYESSA RD** **N/A**
1/4-1/2 **SAN JOSE, CA 95132**
0.477 mi.
2518 ft.

Relative:
Higher

Actual:
155 ft.

SWRCY:

Certification Status:	O
Facility Phone Number:	(909) 796-2210
Date facility became certified:	4/28/2006
Date facility began operating:	6/1/2006
Date facility ceased operating:	Still operating
Whether The Facility Is Grandfathered:	Not reported
Convenience Zone Where Facilty Located:	2497
Convenience Zone Where Facilty Located 2:	2501
Convenience Zone Where Facilty Located 3:	Not Accepted
Convenience Zone Where Facilty Located 4:	Not Accepted
Convenience Zone Where Facilty Located 5:	Not Accepted
Convenience Zone Where Facilty Located 6:	Not Accepted
Convenience Zone Where Facilty Located 7:	Not Accepted
Aluminum Beverage Containers Redeemed:	AL
Glass Beverage Containers Redeemed:	GL
Plastic Beverage Containers Redeemed:	PL
Other mat beverage containers redeemed:	Not reported
Refillable Beverage Containers Redeemed:	Not reported

C8 NW 1/4-1/2 0.484 mi. 2558 ft. — **SHELL, 1601 CAPITOL, SAN JOSE, CA 95132** — **HIST CORTESE** — **S110060329 / N/A**

Site 1 of 3 in cluster C

Relative: Lower
Actual: 107 ft.

CORTESE:

Region:	CORTESE
Facility County Code:	43
Reg By:	LTNKA
Reg Id:	43-1900

C9 NW 1/4-1/2 0.486 mi. 2567 ft. — **SHELL OIL, 1601 N CAPITOL AVE, SAN JOSE, CA 95132** — **LUST, HIST LUST** — **S103880625 / N/A**

Site 2 of 3 in cluster C

Relative: Lower
Actual: 107 ft.

LUST:

Region:	STATE
Global Id:	T0608502279
Latitude:	Not reported
Longitude:	Not reported
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	1995-04-27 00:00:00
Lead Agency:	SANTA CLARA COUNTY LOP
Case Worker:	Not reported
Local Agency:	SANTA CLARA COUNTY LOP
RB Case Number:	Not reported
LOC Case Number:	Not reported
File Location:	Stored electronically as an E-file
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Waste Oil / Motor / Hydraulic / Lubricating
Site History:	Not reported

LUST REG 2:

Region:	2
Facility Id:	Not reported
Facility Status:	Case Closed
Case Number:	06S1E21E01f
How Discovered:	Not reported
Leak Cause:	Not reported
Leak Source:	Not reported
Date Leak Confirmed:	Not reported
Oversight Program:	LUST
Prelim. Site Assesment Wokplan Submitted:	Not reported
Preliminary Site Assesment Began:	Not reported
Pollution Characterization Began:	Not reported
Pollution Remediation Plan Submitted:	Not reported
Date Remediation Action Underway:	Not reported
Date Post Remedial Action Monitoring Began:	Not reported

LUST SANTA CLARA:

Region:	SANTA CLARA
SCVWD ID:	06S1E21E01f
Closed Date:	4/27/1995

SHELL OIL (Continued) — **S103880625**

HIST LUST SANTA CLARA:

Region:	SANTA CLARA
Region Code:	2
SCVWD ID:	06S1E21E01
Oversite Agency:	SCVWD
Date Listed:	1994-08-12 00:00:00
Closed Date:	1995-04-27 00:00:00

C10 NW 1/4-1/2 0.486 mi. 2567 ft. — **SHELL, 1601 N CAPITOL AVE, SAN JOSE, CA 95132** — **LUST, HIST LUST, SAN JOSE HAZMAT, SWEEPS UST** — **S105126384 / N/A**

Site 3 of 3 in cluster C

Relative: Lower
Actual: 107 ft.

LUST:

Region:	STATE
Global Id:	T0608501818
Latitude:	37.396734
Longitude:	-121.870959
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	2004-10-29 00:00:00
Lead Agency:	SANTA CLARA COUNTY LOP
Case Worker:	Not reported
Local Agency:	SANTA CLARA COUNTY LOP
RB Case Number:	Not reported
LOC Case Number:	Not reported
File Location:	Stored electronically as an E-file
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

LUST REG 2:

Region:	2
Facility Id:	Not reported
Facility Status:	Pollution Characterization
Case Number:	06S1E21E02f
How Discovered:	Not reported
Leak Cause:	Not reported
Leak Source:	Not reported
Date Leak Confirmed:	Not reported
Oversight Program:	LUST
Prelim. Site Assesment Wokplan Submitted:	Not reported
Preliminary Site Assesment Began:	11/13/1996
Pollution Characterization Began:	9/15/1997
Pollution Remediation Plan Submitted:	Not reported
Date Remediation Action Underway:	Not reported
Date Post Remedial Action Monitoring Began:	Not reported

LUST SANTA CLARA:

Region:	SANTA CLARA
SCVWD ID:	06S1E21E02f
Closed Date:	10/29/2004

HIST LUST SANTA CLARA:

Region:	SANTA CLARA

SHELL (Continued) **S105126384**

Region Code: 2
SCVWD ID: 06S1E21E02
Oversite Agency: SCVWD
Date Listed: 1998-09-09 00:00:00
Closed Date: 2004-10-29 00:00:00

SAN JOSE HAZMAT:
Region: SAN JOSE
File Num: 400847
Class: Gasoline Station

SWEEPS UST:
Status: A
Comp Number: 400847
Number: 9
Board Of Equalization: Not reported
Ref Date: 09-30-92
Act Date: 09-08-92
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 43-060-400847-000001
Actv Date: Not reported
Capacity: 12000
Tank Use: M.V. FUEL
Stg: P
Content: REG UNLEADED
Number Of Tanks: 4

Status: A
Comp Number: 400847
Number: 9
Board Of Equalization: Not reported
Ref Date: 09-30-92
Act Date: 09-08-92
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 43-060-400847-000002
Actv Date: Not reported
Capacity: 12000
Tank Use: M.V. FUEL
Stg: P
Content: REG UNLEADED
Number Of Tanks: 4

Status: A
Comp Number: 400847
Number: 9
Board Of Equalization: Not reported
Ref Date: 09-30-92
Act Date: 09-08-92
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 43-060-400847-000003

SHELL (Continued) **S105126384**

Actv Date: Not reported
Capacity: 12000
Tank Use: M.V. FUEL
Stg: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: A
Comp Number: 400847
Number: 9
Board Of Equalization: Not reported
Ref Date: 09-30-92
Act Date: 09-08-92
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 43-060-400847-000004
Actv Date: Not reported
Capacity: 550
Tank Use: OIL
Stg: W
Content: Not reported
Number Of Tanks: Not reported

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
SAN JOSE	S106235047	CIVIC PLAZA	4TH ST & SAN FERNANDO		SLIC
SAN JOSE	S108224691	W.X.I.I.I./S.C.V. RE-ESTATE LLP	2830 N 1ST ST	95131	HAZNET
SAN JOSE	S109445287	HAMPTON PARK PHASE 1	2055 TO 2059 OAKLAND RD	95131	NPDES
SAN JOSE	S109435800	ALMADEN LAKE PARK PHASE 2	ALMADEN EXPRESSWAY COLEMAN RD		NPDES
SAN JOSE	S105026251	CALTRANS	EL CAMINO REAL & W JULIA		HIST CORTESE
SAN JOSE	S103085298	BP	2000 EL CAMINO REAL		HIST CORTESE
SAN JOSE	S103945978	24 HOUR FITNESS INC#505	375 N CAPITOL AVE	95133	SAN JOSE HAZMAT
SAN JOSE	S106779303	PROTO SERVICES, INC	2021 N CAPITOL AVE	95132	SAN JOSE HAZMAT
SAN JOSE	S105990181	TARGET #1426	450 N CAPITOL AVE	95133	SAN JOSE HAZMAT
SAN JOSE	S103618632	RAINBOW DENTAL GROUP	1206 N CAPITOL AVE	95132	SAN JOSE HAZMAT
SAN JOSE	S106779301	AUTOZONE #3354	1204 N CAPITOL AVE	95132	SAN JOSE HAZMAT
SAN JOSE	S106779302	CAPITOL VALERO AUTO CARE,	1898 N CAPITOL AVE	95132	SAN JOSE HAZMAT
SAN JOSE	S102415471	VIP CLEANERS	305 N CAPITOL AVE	95133	SAN JOSE HAZMAT
SAN JOSE	S108223225	TRIMBALL DEVELOPMENT GROUP I REAL	2470 CRUZ AVE	95131	HAZNET
SAN JOSE	S109692611	GUADALUPE RIVER-3A PHASE I	GUADALUPE RIVER NEAR JULIAN ST		NPDES
SAN JOSE	S109821497	MARSHLAND SOLID WASTE FACILITY	NW HWY 237 & GOLD STREET ALVIS		SWF/LF
SAN JOSE	S109445093	GUADALUPE 3C PHASE 3 FLOODWALL A L	JOSEFIA SAINT WILLIS AVE & MIN		NPDES
SAN JOSE	S106779440	NEW CINGULAR WIRELESS14132	9770 MONTEREY HWY	95131	SAN JOSE HAZMAT
SAN JOSE	S106101952	GUADALUPE RI REACH 3A PHASE II	NEW JULIAN ST		CA WDS
SAN JOSE	S109692609	GUADALUPE RI REACH 3A PHASE II	NEW JULIAN ST		NPDES
SAN JOSE	S106924778	COCA COLA BOTTLING COMPANY	1555 OLD BAYSHORE HWY 4		SWEEPS UST
SAN JOSE	S109442455	EBAY PHASE 1 CAMPUS EXTENSION	ONEL DR & KATRINA CT	95131	NPDES
SAN JOSE	1004676566		ORANGESTONE	95132	RCRA-SQG, FINDS
SAN JOSE	S109445491	HAWTHORN PHASE 2	ROCK AVE	95131	NPDES
SAN JOSE	S102622382	L&M PIEDMONT SHELL#136013	3295 SIERRA RD	95132	SAN JOSE HAZMAT
SAN JOSE	S107592245	VERIZON PIEDMONT/SIERRA	3430 SIERRA RD	95132	SAN JOSE HAZMAT
SAN JOSE	S106916751	METRO PCS INC.	2265 SIERRA RD	95131	SAN JOSE HAZMAT
SAN JOSE	S106779512	T-MOBILE	3245 SIERRA RD	95132	SAN JOSE HAZMAT
SAN JOSE	1003879313	SILVERADO CONDOMINIUMS	TOWNSEND AVE	95131	CERC-NFRAP
SANTA CLARA COUNTY	S107996976	SUNNYVALE, CITY OF	FAIROAKS / 237 HWY		LUST
SANTA CLARA COUNTY	S107995747	DAVID FEECE RESIDENCE	15471 FRANCIS OAKS WAY		LUST
SANTA CLARA COUNTY	S107996451	P&G INVESTMENT COMPANY	1775 MONTEREY BLDG. #64 HWY		LUST
SANTA CLARA COUNTY	S107995400	BARTYZEL PROPERTY	880 SAN TOMAS AQUINO (1213 SMI		LUST

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List
National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 03/31/2010
Date Data Arrived at EDR: 04/02/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 10

Source: EPA
Telephone: N/A
Last EDR Contact: 04/02/2010
Next Scheduled EDR Contact: 07/26/2010
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites
A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 03/31/2010
Date Data Arrived at EDR: 04/02/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 10

Source: EPA
Telephone: N/A
Last EDR Contact: 04/02/2010
Next Scheduled EDR Contact: 07/26/2010
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens
Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 03/01/2010
Next Scheduled EDR Contact: 05/31/2010
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

DELISTED NPL: National Priority List Deletions
The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 03/31/2010
Date Data Arrived at EDR: 04/02/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 10

Source: EPA
Telephone: N/A
Last EDR Contact: 04/02/2010
Next Scheduled EDR Contact: 07/26/2010
Data Release Frequency: Quarterly

Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System
CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 01/29/2010
Date Data Arrived at EDR: 02/09/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 62

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 03/30/2010
Next Scheduled EDR Contact: 07/12/2010
Data Release Frequency: Quarterly

FEDERAL FACILITY: Federal Facility Site Information listing
A listing of NPL and Base Realignment & Closure sites found in the CERCLIS database where FERRO is involved in cleanup projects.

Date of Government Version: 06/23/2009
Date Data Arrived at EDR: 01/15/2010
Date Made Active in Reports: 02/10/2010
Number of Days to Update: 26

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 04/14/2010
Next Scheduled EDR Contact: 07/26/2010
Data Release Frequency: Varies

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned
Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 06/23/2009
Date Data Arrived at EDR: 09/02/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 19

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 03/11/2010
Next Scheduled EDR Contact: 06/14/2010
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report
CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/11/2009
Date Data Arrived at EDR: 12/29/2009
Date Made Active in Reports: 02/10/2010
Number of Days to Update: 43

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 02/15/2010
Next Scheduled EDR Contact: 05/31/2010
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal
RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 01/13/2010
Date Data Arrived at EDR: 01/15/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 34

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 04/16/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators
RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 01/13/2010
Date Data Arrived at EDR: 01/15/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 34

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 04/16/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators
RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 01/13/2010
Date Data Arrived at EDR: 01/15/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 34

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 04/16/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators
RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 01/13/2010
Date Data Arrived at EDR: 01/15/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 34

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 04/16/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List
A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 12/20/2009
Date Data Arrived at EDR: 01/20/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 03/15/2010
Next Scheduled EDR Contact: 06/28/2010
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls
A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 12/20/2009
Date Data Arrived at EDR: 01/20/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 03/15/2010
Next Scheduled EDR Contact: 06/28/2010
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System
Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 01/22/2010
Date Made Active in Reports: 02/11/2010
Number of Days to Update: 20

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 04/07/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Annually

State- and tribal - equivalent NPL

RESPONSE: State Response Sites
Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 02/08/2010
Date Data Arrived at EDR: 02/09/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 9

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/09/2010
Next Scheduled EDR Contact: 05/24/2010
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database
The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 02/08/2010
Date Data Arrived at EDR: 02/09/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 9

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/09/2010
Next Scheduled EDR Contact: 05/24/2010
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System
Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 02/22/2010
Date Data Arrived at EDR: 02/24/2010
Date Made Active in Reports: 03/04/2010
Number of Days to Update: 8

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 02/24/2010
Next Scheduled EDR Contact: 06/07/2010
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 03/29/2010
Next Scheduled EDR Contact: 07/12/2010
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 03/15/2010
Next Scheduled EDR Contact: 06/28/2010
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 02/12/2010
Next Scheduled EDR Contact: 05/31/2010
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 04/05/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Quarterly

LUST REG 4: Underground Storage Tank Leak List
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 03/08/2010
Next Scheduled EDR Contact: 06/21/2010
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 04/19/2010
Next Scheduled EDR Contact: 08/02/2010
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 03/22/2010
Next Scheduled EDR Contact: 07/05/2010
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: No Update Planned

LUST: Geotracker's Leaking Underground Fuel Tank Report
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 03/22/2010
Date Data Arrived at EDR: 03/23/2010
Date Made Active in Reports: 04/09/2010
Number of Days to Update: 17

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 03/23/2010
Next Scheduled EDR Contact: 07/05/2010
Data Release Frequency: Quarterly

LUST REG 8: Leaking Underground Storage Tanks
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 04/19/2010
Next Scheduled EDR Contact: 08/02/2010
Data Release Frequency: Varies

SLIC: Statewide SLIC Cases
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 03/22/2010
Date Data Arrived at EDR: 03/23/2010
Date Made Active in Reports: 04/09/2010
Number of Days to Update: 17

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/23/2010
Next Scheduled EDR Contact: 07/05/2010
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 03/22/2010
Next Scheduled EDR Contact: 07/05/2010
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 04/19/2010
Next Scheduled EDR Contact: 08/02/2010
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 04/05/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 03/15/2010
Next Scheduled EDR Contact: 06/28/2010
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 12/10/2009
Next Scheduled EDR Contact: 03/29/2010
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 02/15/2010
Next Scheduled EDR Contact: 05/31/2010
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 03/15/2010
Next Scheduled EDR Contact: 06/28/2010
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 02/08/2010
Next Scheduled EDR Contact: 05/24/2010
Data Release Frequency: Annually

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 02/02/2010
Date Data Arrived at EDR: 02/03/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 15

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Quarterly

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 02/19/2009
Date Data Arrived at EDR: 02/19/2009
Date Made Active in Reports: 03/16/2009
Number of Days to Update: 25

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 03/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 02/25/2010
Date Data Arrived at EDR: 02/25/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 46

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Quarterly

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 03/05/2010
Date Data Arrived at EDR: 03/05/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 38

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 03/10/2010
Date Data Arrived at EDR: 03/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 27

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Semi-Annually

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 02/01/2010
Date Data Arrived at EDR: 03/03/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 03/24/2009
Date Data Arrived at EDR: 05/20/2009
Date Made Active in Reports: 06/17/2009
Number of Days to Update: 28

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Varies

State and tribal registered storage tank lists

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 03/22/2010
Date Data Arrived at EDR: 03/23/2010
Date Made Active in Reports: 04/14/2010
Number of Days to Update: 22

Source: SWRCB
Telephone: 916-480-1028
Last EDR Contact: 03/23/2010
Next Scheduled EDR Contact: 07/05/2010
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
Registered Aboveground Storage Tanks.

Date of Government Version: 08/01/2009
Date Data Arrived at EDR: 09/10/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 21

Source: State Water Resources Control Board
Telephone: 916-341-5712
Last EDR Contact: 04/12/2010
Next Scheduled EDR Contact: 07/26/2010
Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 02/02/2010
Date Data Arrived at EDR: 02/03/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 15

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 02/17/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 02/01/2010
Date Data Arrived at EDR: 03/03/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 40

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Quarterly

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 02/25/2010
Date Data Arrived at EDR: 02/25/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 46

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Quarterly

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/01/2008
Date Data Arrived at EDR: 12/30/2008
Date Made Active in Reports: 03/16/2009
Number of Days to Update: 76

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 02/08/2010
Date Data Arrived at EDR: 02/09/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 9

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 02/11/2010
Date Data Arrived at EDR: 02/11/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 60

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 03/10/2010
Date Data Arrived at EDR: 03/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 27

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Semi-Annually

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 02/19/2009
Date Data Arrived at EDR: 02/19/2009
Date Made Active in Reports: 03/16/2009
Number of Days to Update: 25

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 03/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Varies

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 04/19/2010
Next Scheduled EDR Contact: 08/02/2010
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 02/08/2010
Date Data Arrived at EDR: 02/09/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 9

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/09/2010
Next Scheduled EDR Contact: 02/22/2010
Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 04/02/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 04/05/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 10/01/2009
Date Data Arrived at EDR: 11/04/2009
Date Made Active in Reports: 12/16/2009
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 03/23/2010
Next Scheduled EDR Contact: 07/12/2010
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-972-3336
Last EDR Contact: 03/22/2010
Next Scheduled EDR Contact: 06/21/2010
Data Release Frequency: Varies

WMUDS/SWAT: Waste Management Unit Database
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 03/15/2010
Next Scheduled EDR Contact: 05/31/2010
Data Release Frequency: Quarterly

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 01/06/2010
Date Data Arrived at EDR: 03/24/2010
Date Made Active in Reports: 04/09/2010
Number of Days to Update: 16

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/24/2010
Next Scheduled EDR Contact: 07/05/2010
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 03/09/2010
Date Data Arrived at EDR: 03/10/2010
Date Made Active in Reports: 04/09/2010
Number of Days to Update: 30

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 03/08/2010
Next Scheduled EDR Contact: 06/07/2010
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 02/08/2010
Next Scheduled EDR Contact: 05/24/2010
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US CDL: Clandestine Drug Labs
A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 08/19/2009
Date Data Arrived at EDR: 12/29/2009
Date Made Active in Reports: 02/10/2010
Number of Days to Update: 43

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 12/14/2009
Next Scheduled EDR Contact: 03/22/2010
Data Release Frequency: Quarterly

HIST CAL-SITES: Calsites Database
The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program
This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 02/08/2010
Date Data Arrived at EDR: 02/09/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 9

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/09/2010
Next Scheduled EDR Contact: 05/24/2010
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites
Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

CDL: Clandestine Drug Labs
A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 02/25/2010
Date Made Active in Reports: 03/04/2010
Number of Days to Update: 7

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 04/05/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Varies

US HIST CDL: National Clandestine Laboratory Register
A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/01/2007
Date Data Arrived at EDR: 11/19/2008
Date Made Active in Reports: 03/30/2009
Number of Days to Update: 131

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

Local Lists of Registered Storage Tanks

CA FID UST: Facility Inventory Database
The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database
A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 09/23/2009
Date Data Arrived at EDR: 09/23/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 8

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 03/08/2010
Next Scheduled EDR Contact: 06/21/2010
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database
The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWEEPS UST: SWEEPS UST Listing
Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS 2: CERCLA Lien Information
A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/05/2010
Date Data Arrived at EDR: 02/11/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 60

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Varies

LUCIS: Land Use Control Information System
LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005
Date Data Arrived at EDR: 12/11/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 31

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 03/17/2010
Next Scheduled EDR Contact: 06/07/2010
Data Release Frequency: Varies

LIENS: Environmental Liens Listing
A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 01/28/2010
Date Data Arrived at EDR: 01/29/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 20

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/18/2010
Next Scheduled EDR Contact: 05/03/2010
Data Release Frequency: Varies

DEED: Deed Restriction Listing
Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 03/15/2010
Date Data Arrived at EDR: 03/16/2010
Date Made Active in Reports: 04/09/2010
Number of Days to Update: 24

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 03/16/2010
Next Scheduled EDR Contact: 12/28/2009
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System
Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 01/06/2010
Date Made Active in Reports: 02/10/2010
Number of Days to Update: 35

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 04/07/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Annually

CHMIRS: California Hazardous Material Incident Report System
California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 05/09/2008
Date Made Active in Reports: 06/20/2008
Number of Days to Update: 42

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing
The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 03/22/2010
Date Data Arrived at EDR: 03/23/2010
Date Made Active in Reports: 04/09/2010
Number of Days to Update: 17

Source: State Water Quality Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/23/2010
Next Scheduled EDR Contact: 07/05/2010
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing
The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 03/22/2010
Date Data Arrived at EDR: 03/23/2010
Date Made Active in Reports: 04/09/2010
Number of Days to Update: 17

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/23/2010
Next Scheduled EDR Contact: 07/05/2010
Data Release Frequency: Quarterly

Other Ascertainable Records

RCRA-NonGen: RCRA - Non Generators
RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 01/13/2010
Date Data Arrived at EDR: 01/15/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 34

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 04/16/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Varies

DOT OPS: Incident and Accident Data
Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/12/2010
Date Data Arrived at EDR: 02/09/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 62

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 02/09/2010
Next Scheduled EDR Contact: 05/24/2010
Data Release Frequency: Varies

DOD: Department of Defense Sites
This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 703-692-8801
Last EDR Contact: 01/19/2010
Next Scheduled EDR Contact: 05/03/2010
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites
The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 09/30/2009
Date Made Active in Reports: 12/01/2009
Number of Days to Update: 62

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 03/18/2010
Next Scheduled EDR Contact: 06/28/2010
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees
Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 08/03/2009
Date Data Arrived at EDR: 10/27/2009
Date Made Active in Reports: 11/09/2009
Number of Days to Update: 13

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 04/05/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Varies

ROD: Records Of Decision
Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 12/01/2009
Date Data Arrived at EDR: 12/15/2009
Date Made Active in Reports: 01/19/2010
Number of Days to Update: 35

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 04/02/2010
Next Scheduled EDR Contact: 06/28/2010
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites
Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 01/05/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 05/08/2009
Number of Days to Update: 1

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 01/21/2010
Next Scheduled EDR Contact: 06/14/2010
Data Release Frequency: Varies

MINES: Mines Master Index File
Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 11/17/2009
Date Data Arrived at EDR: 12/08/2009
Date Made Active in Reports: 01/19/2010
Number of Days to Update: 42

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 03/10/2010
Next Scheduled EDR Contact: 06/21/2010
Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System
Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 01/13/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 36

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 03/02/2010
Next Scheduled EDR Contact: 06/14/2010
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act
Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2002
Date Data Arrived at EDR: 04/14/2006
Date Made Active in Reports: 05/30/2006
Number of Days to Update: 46

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 03/30/2010
Next Scheduled EDR Contact: 07/12/2010
Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 03/01/2010
Next Scheduled EDR Contact: 06/14/2010
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 03/01/2010
Next Scheduled EDR Contact: 06/14/2010
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems
Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 01/06/2010
Date Made Active in Reports: 02/10/2010
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/10/2009
Date Data Arrived at EDR: 11/18/2009
Date Made Active in Reports: 01/19/2010
Number of Days to Update: 62

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 03/29/2010
Next Scheduled EDR Contact: 07/12/2010
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 09/01/2009
Date Data Arrived at EDR: 10/21/2009
Date Made Active in Reports: 12/01/2009
Number of Days to Update: 41

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 02/16/2010
Next Scheduled EDR Contact: 05/03/2010
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 12/24/2009
Date Data Arrived at EDR: 12/31/2009
Date Made Active in Reports: 02/10/2010
Number of Days to Update: 41

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 03/15/2010
Next Scheduled EDR Contact: 06/28/2010
Data Release Frequency: Quarterly

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 01/12/2010
Date Data Arrived at EDR: 01/13/2010
Date Made Active in Reports: 02/10/2010
Number of Days to Update: 28

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 04/14/2010
Next Scheduled EDR Contact: 07/26/2010
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System
Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 10/19/2009
Date Data Arrived at EDR: 10/22/2009
Date Made Active in Reports: 12/01/2009
Number of Days to Update: 40

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 03/15/2010
Next Scheduled EDR Contact: 06/28/2010
Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System
RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

BRS: Biennial Reporting System
The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 02/19/2009
Date Made Active in Reports: 05/22/2009
Number of Days to Update: 92

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 02/25/2010
Next Scheduled EDR Contact: 06/07/2010
Data Release Frequency: Biennially

CA BOND EXP. PLAN: Bond Expenditure Plan
Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CA WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 03/01/2010
Next Scheduled EDR Contact: 06/14/2010
Data Release Frequency: Quarterly

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 02/22/2010
Date Data Arrived at EDR: 02/24/2010
Date Made Active in Reports: 03/04/2010
Number of Days to Update: 8

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 02/24/2010
Next Scheduled EDR Contact: 06/07/2010
Data Release Frequency: Quarterly

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites). This listing is no longer updated by the state agency.

Date of Government Version: 01/06/2010
Date Data Arrived at EDR: 01/06/2010
Date Made Active in Reports: 01/18/2010
Number of Days to Update: 12

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 04/07/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List
The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES].

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

NOTIFY 65: Proposition 65 Records
Proposition 65 Notification Records. NOTIFY 65 contains facility notifications about any release which could impact drinking water and thereby expose the public to a potential health risk.

Date of Government Version: 10/21/1993
Date Data Arrived at EDR: 11/01/1993
Date Made Active in Reports: 11/19/1993
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 03/29/2010
Next Scheduled EDR Contact: 07/12/2010
Data Release Frequency: No Update Planned

DRYCLEANERS: Cleaner Facilities
A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 12/22/2009
Date Data Arrived at EDR: 01/25/2010
Date Made Active in Reports: 01/29/2010
Number of Days to Update: 4

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 03/15/2010
Next Scheduled EDR Contact: 06/28/2010
Data Release Frequency: Annually

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 04/14/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data
Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 10/21/2009
Date Made Active in Reports: 10/28/2009
Number of Days to Update: 7

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 01/21/2010
Next Scheduled EDR Contact: 05/03/2010
Data Release Frequency: Annually

EMI: Emissions Inventory Data
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 07/14/2009
Date Made Active in Reports: 07/23/2009
Number of Days to Update: 9

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 04/09/2010
Next Scheduled EDR Contact: 07/12/2010
Data Release Frequency: Varies

INDIAN RESERV: Indian Reservations
This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 01/19/2010
Next Scheduled EDR Contact: 05/03/2010
Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing
The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 02/10/2010
Date Data Arrived at EDR: 02/11/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 60

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 02/08/2010
Next Scheduled EDR Contact: 05/10/2010
Data Release Frequency: Varies

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 01/06/2010
Date Data Arrived at EDR: 03/24/2010
Date Made Active in Reports: 04/09/2010
Number of Days to Update: 16

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/24/2010
Next Scheduled EDR Contact: 07/05/2010
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 02/24/2010
Date Data Arrived at EDR: 03/17/2010
Date Made Active in Reports: 04/09/2010
Number of Days to Update: 23

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 03/15/2010
Next Scheduled EDR Contact: 06/28/2010
Data Release Frequency: Varies

COAL ASH DOE: Sleam-Electric Plan Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 01/27/2010
Next Scheduled EDR Contact: 05/03/2010
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 11/09/2009
Date Data Arrived at EDR: 12/18/2009
Date Made Active in Reports: 02/10/2010
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 03/16/2010
Next Scheduled EDR Contact: 06/28/2010
Data Release Frequency: Varies

HWT: Registered Hazardous Waste Transporter Database
A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 01/18/2010
Date Data Arrived at EDR: 01/19/2010
Date Made Active in Reports: 01/29/2010
Number of Days to Update: 10

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 01/19/2010
Next Scheduled EDR Contact: 05/03/2010
Data Release Frequency: Quarterly

HWP: EnviroStor Permitted Facilities Listing
Detailed information on permitted hazardous waste facilities and corrective action (a??cleanupsa??) tracked in EnviroStor.

Date of Government Version: 02/08/2010
Date Data Arrived at EDR: 02/09/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 9

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/09/2010
Next Scheduled EDR Contact: 05/24/2010
Data Release Frequency: Quarterly

FINANCIAL ASSURANCE 2: Financial Assurance Information Listing
A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 03/09/2010
Date Data Arrived at EDR: 03/10/2010
Date Made Active in Reports: 04/09/2010
Number of Days to Update: 30

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 03/08/2010
Next Scheduled EDR Contact: 06/07/2010
Data Release Frequency: Varies

FINANCIAL ASSURANCE: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 03/01/2007
Date Data Arrived at EDR: 06/01/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 28

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 03/12/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands
Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 01/19/2010
Next Scheduled EDR Contact: 05/03/2010
Data Release Frequency: N/A

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 01/01/2008
Date Data Arrived at EDR: 02/18/2009
Date Made Active in Reports: 05/29/2009
Number of Days to Update: 100

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 02/24/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Varies

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Historical Auto Stations: EDR Proprietary Historic Gas Stations
EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Historical Cleaners: EDR Proprietary Historic Dry Cleaners
EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites
A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/19/2010
Date Data Arrived at EDR: 01/21/2010
Date Made Active in Reports: 01/29/2010
Number of Days to Update: 8

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 04/05/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Semi-Annually

Underground Tanks
Underground storage tank sites located in Alameda county.

Date of Government Version: 01/19/2010
Date Data Arrived at EDR: 01/21/2010
Date Made Active in Reports: 02/02/2010
Number of Days to Update: 12

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 04/05/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 02/10/2010
Date Data Arrived at EDR: 02/11/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 7

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 02/08/2010
Next Scheduled EDR Contact: 05/24/2010
Data Release Frequency: Semi-Annually

FRESNO COUNTY:

CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 01/20/2010
Date Made Active in Reports: 01/29/2010
Number of Days to Update: 9
Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 04/16/2010
Next Scheduled EDR Contact: 05/03/2010
Data Release Frequency: Semi-Annually

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 03/16/2010
Date Data Arrived at EDR: 03/17/2010
Date Made Active in Reports: 04/14/2010
Number of Days to Update: 28
Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 03/15/2010
Next Scheduled EDR Contact: 05/31/2010
Data Release Frequency: Quarterly

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206
Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 03/29/2010
Next Scheduled EDR Contact: 07/12/2010
Data Release Frequency: No Update Planned

HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 09/30/2009
Date Data Arrived at EDR: 12/28/2009
Date Made Active in Reports: 01/18/2010
Number of Days to Update: 21
Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 04/19/2010
Next Scheduled EDR Contact: 08/02/2010
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 01/25/2010
Date Data Arrived at EDR: 01/27/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 22
Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 01/25/2010
Next Scheduled EDR Contact: 05/10/2010
Data Release Frequency: Varies

City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 03/05/2009
Date Data Arrived at EDR: 03/10/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 29
Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 03/02/2010
Next Scheduled EDR Contact: 06/07/2010
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 02/09/2010
Date Data Arrived at EDR: 02/12/2010
Date Made Active in Reports: 03/04/2010
Number of Days to Update: 20
Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 01/25/2010
Next Scheduled EDR Contact: 05/10/2010
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/25/2010
Date Data Arrived at EDR: 01/25/2010
Date Made Active in Reports: 02/02/2010
Number of Days to Update: 8
Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 01/25/2010
Next Scheduled EDR Contact: 05/10/2010
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/28/2003
Date Data Arrived at EDR: 10/23/2003
Date Made Active in Reports: 11/26/2003
Number of Days to Update: 34
Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 01/21/2010
Date Data Arrived at EDR: 01/25/2010
Date Made Active in Reports: 02/02/2010
Number of Days to Update: 8
Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 04/19/2010
Next Scheduled EDR Contact: 08/02/2010
Data Release Frequency: Semi-Annually

MARIN COUNTY:

Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 01/20/2010
Date Data Arrived at EDR: 02/03/2010
Date Made Active in Reports: 02/23/2010
Number of Days to Update: 20
Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 04/12/2010
Next Scheduled EDR Contact: 07/26/2010
Data Release Frequency: Semi-Annually

NAPA COUNTY:

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 07/09/2008
Date Data Arrived at EDR: 07/09/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 22
Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 03/08/2010
Next Scheduled EDR Contact: 06/21/2010
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 03/08/2010
Next Scheduled EDR Contact: 06/21/2010
Data Release Frequency: No Update Planned

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 12/02/2009
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 03/04/2010
Number of Days to Update: 16

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/12/2010
Next Scheduled EDR Contact: 05/31/2010
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 02/03/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 03/04/2010
Number of Days to Update: 16

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/12/2010
Next Scheduled EDR Contact: 05/31/2010
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 02/03/2010
Date Data Arrived at EDR: 02/12/2010
Date Made Active in Reports: 02/23/2010
Number of Days to Update: 11

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/12/2010
Next Scheduled EDR Contact: 05/31/2010
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 03/16/2010
Date Data Arrived at EDR: 03/17/2010
Date Made Active in Reports: 04/09/2010
Number of Days to Update: 23

Source: Placer County Health and Human Services
Telephone: 530-889-7312
Last EDR Contact: 03/15/2010
Next Scheduled EDR Contact: 06/28/2010
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 01/21/2010
Date Data Arrived at EDR: 01/27/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 22

Source: Department of Public Health
Telephone: 951-358-5055
Last EDR Contact: 03/29/2010
Next Scheduled EDR Contact: 07/12/2010
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 01/21/2010
Date Data Arrived at EDR: 01/27/2010
Date Made Active in Reports: 02/02/2010
Number of Days to Update: 6

Source: Health Services Agency
Telephone: 951-358-5055
Last EDR Contact: 03/29/2010
Next Scheduled EDR Contact: 07/12/2010
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 01/05/2010
Date Data Arrived at EDR: 01/15/2010
Date Made Active in Reports: 01/29/2010
Number of Days to Update: 14

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 04/12/2010
Next Scheduled EDR Contact: 07/26/2010
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 01/21/2010
Date Data Arrived at EDR: 02/02/2010
Date Made Active in Reports: 02/18/2010
Number of Days to Update: 16

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 04/12/2010
Next Scheduled EDR Contact: 07/26/2010
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 03/16/2010
Date Data Arrived at EDR: 03/17/2010
Date Made Active in Reports: 04/09/2010
Number of Days to Update: 23

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 02/15/2010
Next Scheduled EDR Contact: 05/31/2010
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database
The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 07/16/2008
Date Data Arrived at EDR: 10/29/2008
Date Made Active in Reports: 11/26/2008
Number of Days to Update: 28

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 03/31/2010
Next Scheduled EDR Contact: 06/28/2010
Data Release Frequency: Quarterly

Solid Waste Facilities
San Diego County Solid Waste Facilities.

Date of Government Version: 10/01/2009
Date Data Arrived at EDR: 12/04/2009
Date Made Active in Reports: 01/18/2010
Number of Days to Update: 45

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Varies

Environmental Case Listing
The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 09/23/2009
Date Data Arrived at EDR: 12/15/2009
Date Made Active in Reports: 01/18/2010
Number of Days to Update: 34

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 03/16/2010
Next Scheduled EDR Contact: 06/28/2010
Data Release Frequency: Varies

SAN FRANCISCO COUNTY:

Local Oversite Facilities
A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 03/16/2010
Next Scheduled EDR Contact: 05/31/2010
Data Release Frequency: Quarterly

Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 10/01/2008
Number of Days to Update: 12

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 03/16/2010
Next Scheduled EDR Contact: 05/31/2010
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 10/14/2009
Date Data Arrived at EDR: 10/15/2009
Date Made Active in Reports: 11/02/2009
Number of Days to Update: 18

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 03/29/2010
Next Scheduled EDR Contact: 07/12/2010
Data Release Frequency: Semi-Annually

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 01/05/2010
Date Made Active in Reports: 01/18/2010
Number of Days to Update: 13

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/22/2010
Next Scheduled EDR Contact: 07/05/2010
Data Release Frequency: Annually

Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/22/2010
Date Data Arrived at EDR: 03/23/2010
Date Made Active in Reports: 04/09/2010
Number of Days to Update: 17

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/22/2010
Next Scheduled EDR Contact: 07/05/2010
Data Release Frequency: Semi-Annually

SANTA CLARA COUNTY:

HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 05/29/2009
Date Data Arrived at EDR: 06/01/2009
Date Made Active in Reports: 06/15/2009
Number of Days to Update: 14

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 03/08/2010
Next Scheduled EDR Contact: 06/21/2010
Data Release Frequency: Annually

Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 08/31/2009
Date Data Arrived at EDR: 08/31/2009
Date Made Active in Reports: 09/18/2009
Number of Days to Update: 18

Source: City of San Jose Fire Department
Telephone: 408-277-4659
Last EDR Contact: 02/15/2010
Next Scheduled EDR Contact: 05/31/2010
Data Release Frequency: Annually

SOLANO COUNTY:

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 03/11/2010
Date Data Arrived at EDR: 03/16/2010
Date Made Active in Reports: 04/09/2010
Number of Days to Update: 24

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 03/08/2010
Next Scheduled EDR Contact: 06/21/2010
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 03/11/2010
Date Data Arrived at EDR: 03/16/2010
Date Made Active in Reports: 04/14/2010
Number of Days to Update: 29

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 03/08/2010
Next Scheduled EDR Contact: 06/21/2010
Data Release Frequency: Quarterly

SONOMA COUNTY:

Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 01/05/2010
Date Data Arrived at EDR: 01/06/2010
Date Made Active in Reports: 01/18/2010
Number of Days to Update: 12

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 04/05/2010
Next Scheduled EDR Contact: 07/19/2010
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 04/01/2009
Date Data Arrived at EDR: 04/02/2009
Date Made Active in Reports: 04/09/2009
Number of Days to Update: 7

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 04/13/2010
Next Scheduled EDR Contact: 06/28/2010
Data Release Frequency: Semi-Annually

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 01/26/2010
Date Data Arrived at EDR: 02/25/2010
Date Made Active in Reports: 03/04/2010
Number of Days to Update: 7

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 02/23/2010
Next Scheduled EDR Contact: 06/07/2010
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 08/01/2009
Date Data Arrived at EDR: 10/05/2009
Date Made Active in Reports: 10/13/2009
Number of Days to Update: 8

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 02/01/2010
Next Scheduled EDR Contact: 05/17/2010
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 02/23/2010
Next Scheduled EDR Contact: 06/07/2010
Data Release Frequency: Quarterly

Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 03/05/2010
Date Data Arrived at EDR: 03/24/2010
Date Made Active in Reports: 04/14/2010
Number of Days to Update: 21

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/24/2010
Next Scheduled EDR Contact: 07/05/2010
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 12/28/2009
Date Data Arrived at EDR: 12/31/2009
Date Made Active in Reports: 01/18/2010
Number of Days to Update: 18

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 03/29/2010
Next Scheduled EDR Contact: 07/12/2010
Data Release Frequency: Annually

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 12/31/2007
Date Data Arrived at EDR: 08/26/2009
Date Made Active in Reports: 09/11/2009
Number of Days to Update: 16

Source: Department of Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 03/02/2010
Next Scheduled EDR Contact: 06/07/2010
Data Release Frequency: Annually

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 01/20/2010
Date Made Active in Reports: 02/05/2010
Number of Days to Update: 16

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 01/20/2010
Next Scheduled EDR Contact: 05/03/2010
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/04/2010
Date Data Arrived at EDR: 02/11/2010
Date Made Active in Reports: 03/17/2010
Number of Days to Update: 34

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 02/11/2010
Next Scheduled EDR Contact: 05/24/2010
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 12/01/2009
Date Made Active in Reports: 12/14/2009
Number of Days to Update: 13

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 02/23/2010
Next Scheduled EDR Contact: 06/07/2010
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 11/03/2009
Date Data Arrived at EDR: 02/12/2010
Date Made Active in Reports: 02/22/2010
Number of Days to Update: 10

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 03/01/2010
Next Scheduled EDR Contact: 06/14/2010
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2008
Date Data Arrived at EDR: 07/17/2009
Date Made Active in Reports: 08/10/2009
Number of Days to Update: 24

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 03/22/2010
Next Scheduled EDR Contact: 07/05/2010
Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data
Source: PennWell Corporation
Telephone: (800) 823-6277
This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2009 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

STREET AND ADDRESS INFORMATION

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GEOCHECK®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

PHASE I ESA
1328 N. CAPITOL AVENUE
SAN JOSE, CA 95132

TARGET PROPERTY COORDINATES

Latitude (North):	37.39240 - 37˚ 23' 32.6''
Longitude (West):	121.8657 - 121˚ 51' 56.5''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	600408.8
UTM Y (Meters):	4138803.5
Elevation:	131 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	37121-D7 CALAVERAS RESERVOIR, CA
Most Recent Revision:	1980
West Map:	37121-D8 MILPITAS, CA
Most Recent Revision:	1980

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

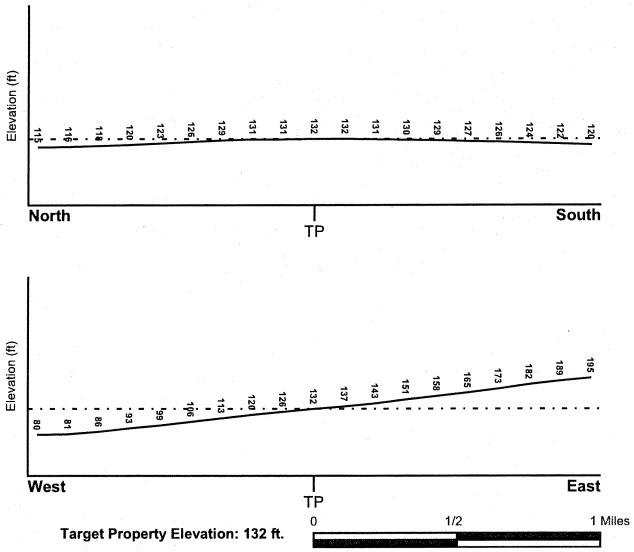
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General West

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Target Property Elevation: 132 ft.

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County	FEMA Flood Electronic Data
SANTA CLARA, CA	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 06085C - FEMA DFIRM Flood data

Additional Panels in search area: Not Reported

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
CALAVERAS RESERVOIR	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius: 1.25 miles
Status: Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site-specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era: Cenozoic
System: Quaternary
Series: Quaternary
Code: Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: BOTELLA

Soil Surface Texture: clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Not reported

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: MODERATE

Depth to Bedrock Min: > 60 inches

Depth to Bedrock Max: > 60 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)
1	0 inches	9 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 0.60 Min: 0.20	Max: 7.30 Min: 5.60
2	9 inches	41 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 0.60 Min: 0.20	Max: 7.80 Min: 5.60
3	41 inches	76 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 0.60 Min: 0.20	Max: 7.80 Min: 5.60

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: No Other Soil Types

Surficial Soil Types: No Other Soil Types

Shallow Soil Types: No Other Soil Types

Deeper Soil Types: No Other Soil Types

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

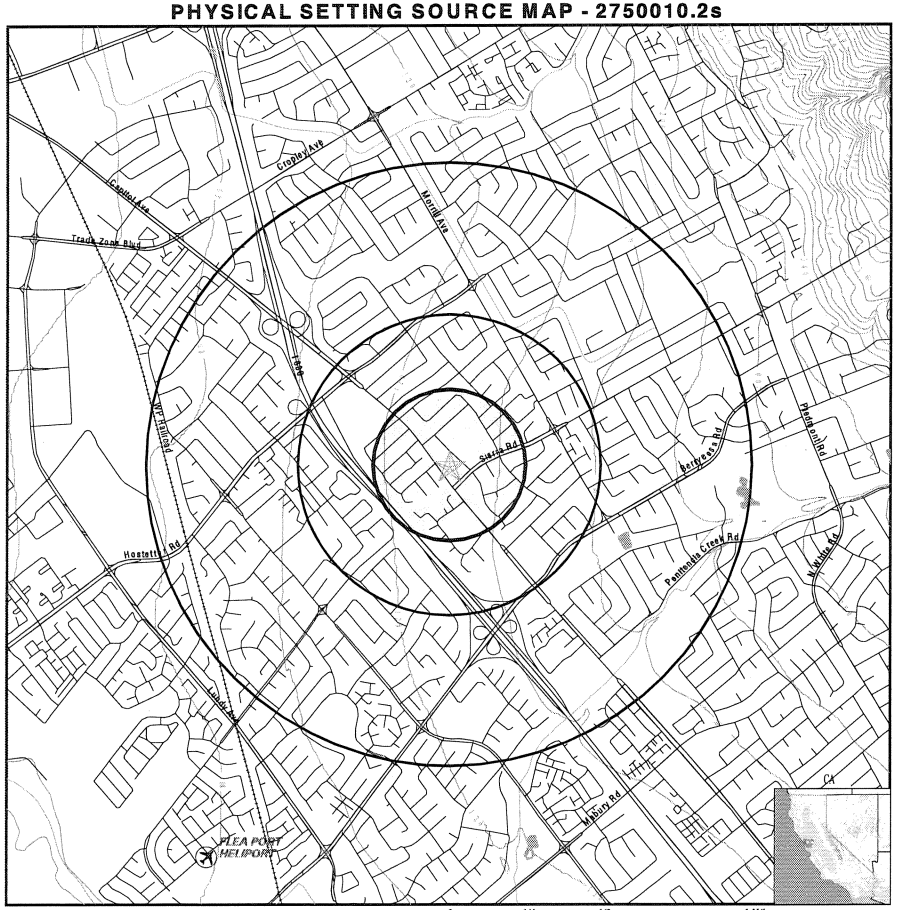
MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

PHYSICAL SETTING SOURCE MAP - 2750010.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME: Phase I ESA ADDRESS: 1328 N. Capitol Avenue San Jose CA 95132 LAT/LONG: 37.3924 / 121.8657	CLIENT: Cornerstone Earth Group CONTACT: Stason Foster INQUIRY #: 2750010.2s DATE: April 20, 2010 12:24 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zip	Total Sites	> 4 Pci/L	Pct. > 4 Pci/L
95132	5	0	0.00

Federal EPA Radon Zone for SANTA CLARA County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 95132

Number of sites tested: 3

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	1.233 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2009 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW[R] Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Health Services
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Department of Conservation
Telephone: 916-323-1779
Oil and Gas well locations in the state.

RADON

State Database: CA Radon
Source: Department of Health Services
Telephone: 916-324-2208
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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Appendix C

Historic Aerial Photographs and Maps

Phase I ESA
1328 N. Capitol Avenue
San Jose, CA 95132

Inquiry Number: 2750010.3
April 20, 2010

Certified Sanborn® Map Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

4/20/10

Site Name:
Phase I ESA
1328 N. Capitol Avenue
San Jose, CA 95132

EDR Inquiry # 2750010.3

Client Name:
Cornerstone Earth Group
1259 Oakmead Parkway
Sunnyvale, CA 94085

Contact: Stason Foster

EDR® Environmental Data Resources Inc

The complete Sanborn Library collection has been searched by EDR, and fire insurance maps covering the target property location provided by Cornerstone Earth Group were identified for the years listed below. The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by Sanborn Library LLC, the copyright holder for the collection.

Certified Sanborn Results:

Site Name: Phase I ESA
Address: 1328 N. Capitol Avenue
City, State, Zip: San Jose, CA 95132
Cross Street:
P.O. # P1619
Project: P1619 PML
Certification # ACDA-4A3B-8EA6

Sanborn® Library search results
Certification # ACDA-4A3B-8EA6

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

The Sanborn Library includes more than 1.2 million Sanborn fire insurance maps, which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ✓ Library of Congress
- ✓ University Publications of America
- ✓ EDR Private Collection

The Sanborn Library LLC Since 1866™

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Phase I ESA
1328 N. Capitol Avenue
San Jose, CA 95132

Inquiry Number: 2750010.4
April 20, 2010

The EDR Historical Topographic Map Report

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

EDR Historical Topographic Map Report

Environmental Data Resources, Inc.s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topographic Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the early 1900s.

Thank you for your business.
Please contact EDR at 1-800-352-0050
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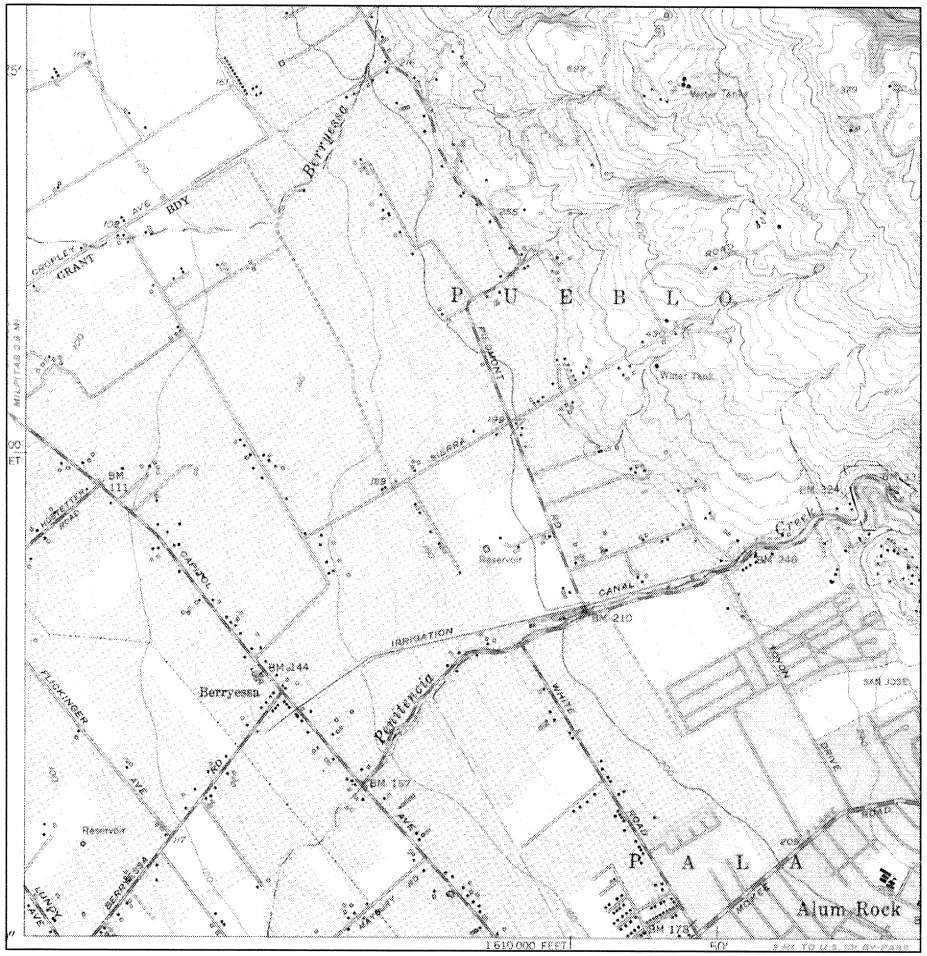
Historical Topographic Map

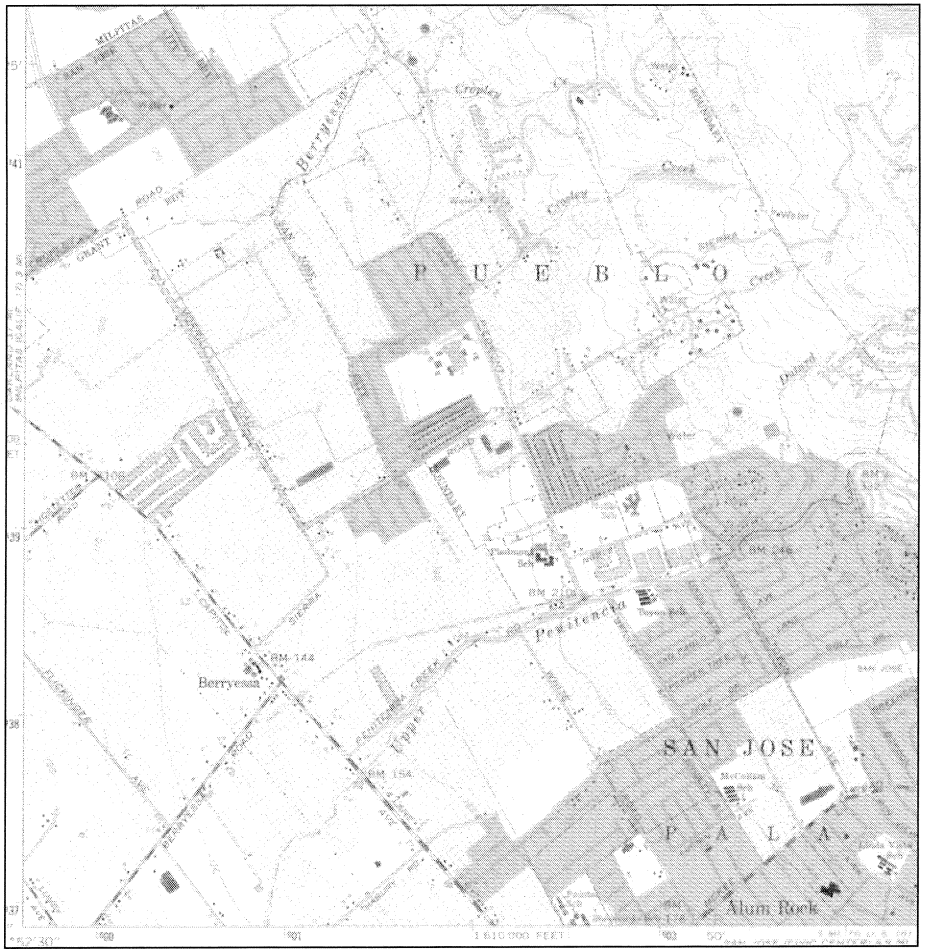


N	TARGET QUAD NAME: CALAVERAS RESERVOIR MAP YEAR: 1953 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Phase I ESA ADDRESS: 1328 N. Capitol Avenue San Jose, CA 95132 LAT/LONG: 37.3924 / 121.8657	CLIENT: Cornerstone Earth Group CONTACT: Stason Foster INQUIRY#: 2750010.4 RESEARCH DATE: 04/20/2010

Historical Topographic Map

N	TARGET QUAD NAME: CALAVERAS RESERVOIR MAP YEAR: 1961 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Phase I ESA ADDRESS: 1328 N. Capitol Avenue San Jose, CA 95132 LAT/LONG: 37.3924 / 121.8657	CLIENT: Cornerstone Earth Group CONTACT: Stason Foster INQUIRY#: 2750010.4 RESEARCH DATE: 04/20/2010

Historical Topographic Map



N	TARGET QUAD NAME: CALAVERAS RESERVOIR MAP YEAR: 1968 PHOTOREVISED FROM:1961 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Phase I ESA ADDRESS: 1328 N. Capitol Avenue San Jose, CA 95132 LAT/LONG: 37.3924 / 121.8657	CLIENT: Cornerstone Earth Group CONTACT: Stason Foster INQUIRY#: 2750010.4 RESEARCH DATE: 04/20/2010

Historical Topographic Map

N	TARGET QUAD NAME: CALAVERAS RESERVOIR MAP YEAR: 1973 PHOTOREVISED FROM:1961 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Phase I ESA ADDRESS: 1328 N. Capitol Avenue San Jose, CA 95132 LAT/LONG: 37.3924 / 121.8657	CLIENT: Cornerstone Earth Group CONTACT: Stason Foster INQUIRY#: 2750010.4 RESEARCH DATE: 04/20/2010

Historical Topographic Map

N	TARGET QUAD NAME: CALAVERAS RESERVOIR MAP YEAR: 1980 PHOTOREVISED FROM:1961 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Phase I ESA ADDRESS: 1328 N. Capitol Avenue San Jose, CA 95132 LAT/LONG: 37.3924 / 121.8657	CLIENT: Cornerstone Earth Group CONTACT: Stason Foster INQUIRY#: 2750010.4 RESEARCH DATE: 04/20/2010

Phase I ESA
1328 N. Capitol Avenue
San Jose, CA 95132

Inquiry Number: 2750010.5
April 22, 2010

The EDR Aerial Photo Decade Package

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

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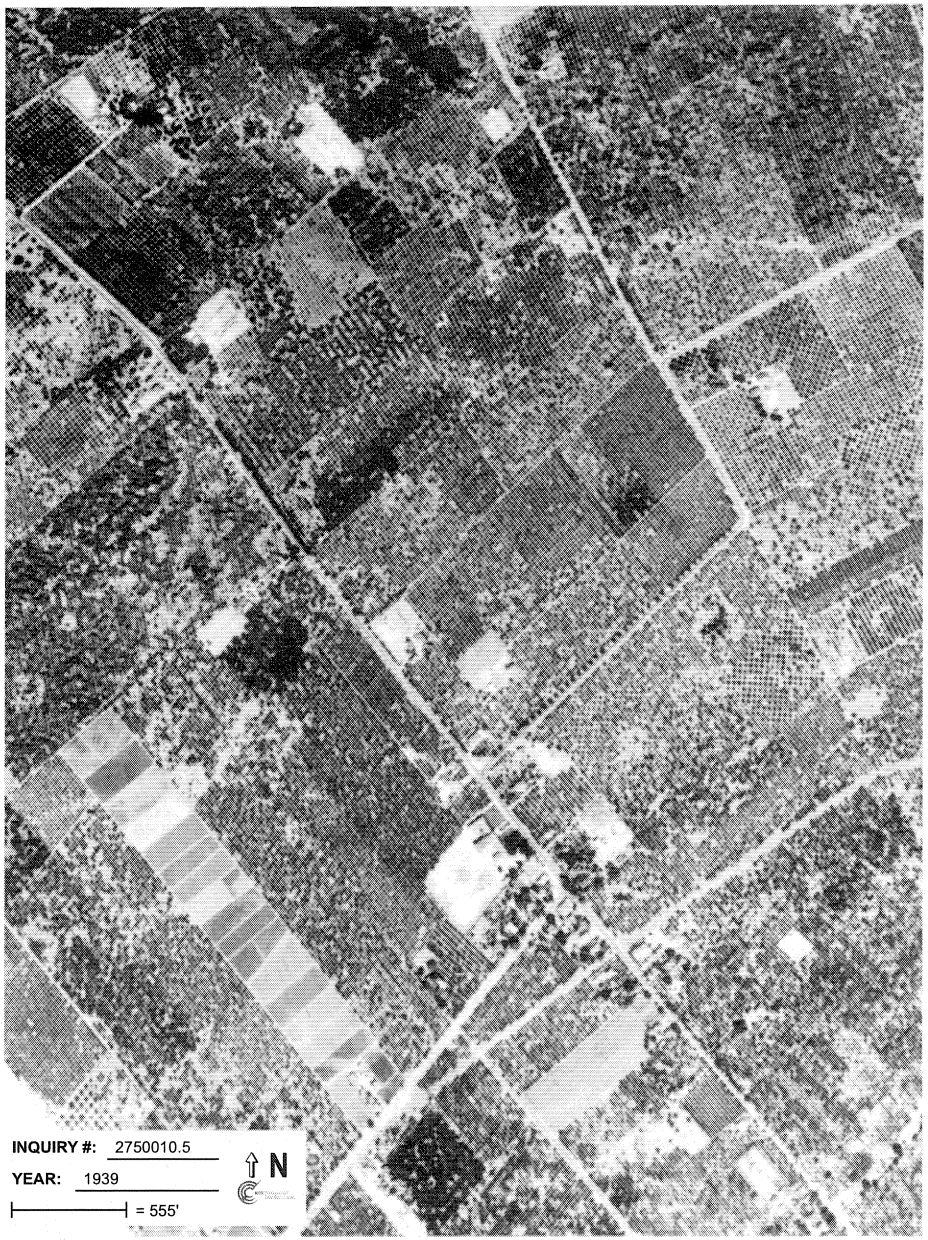
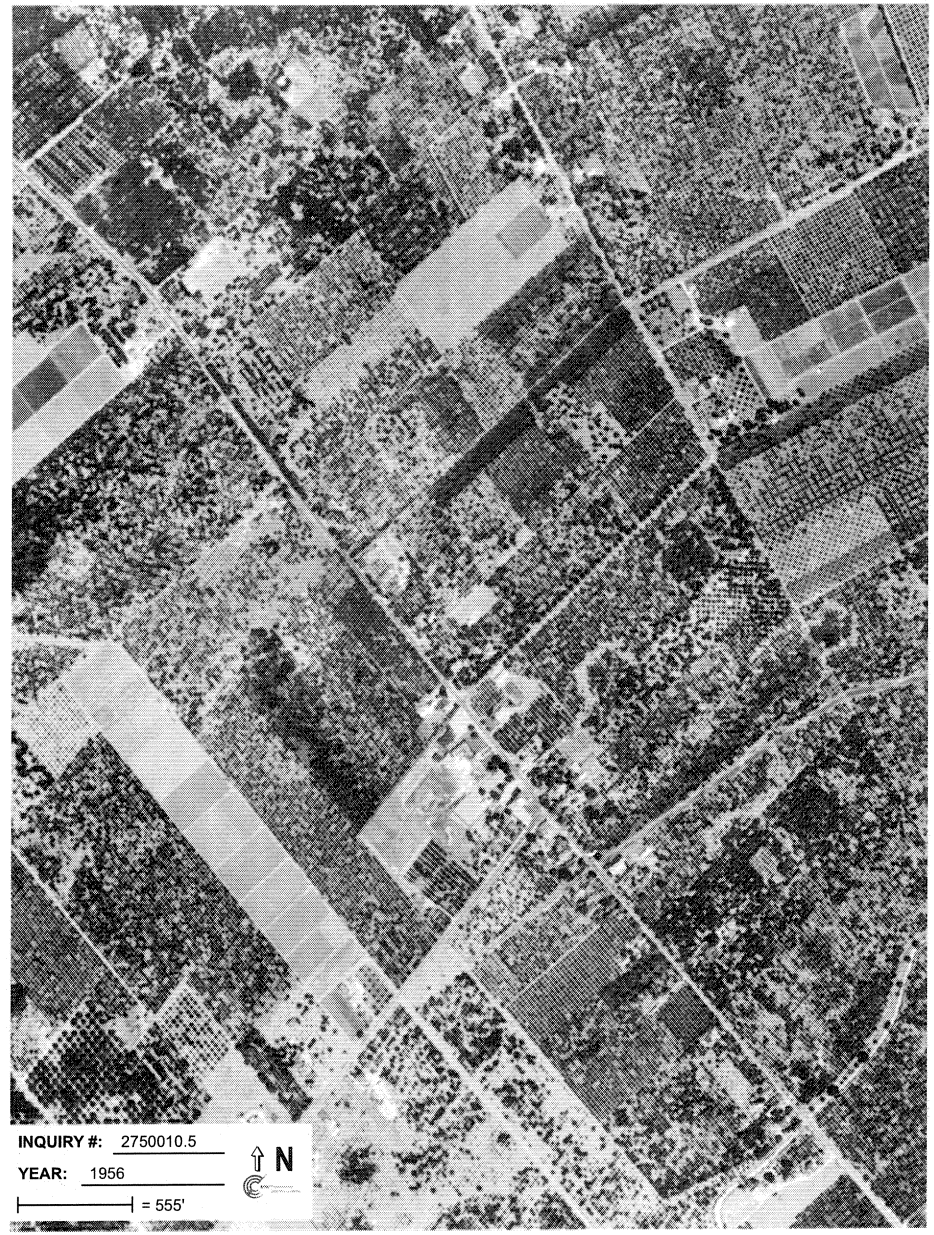
Date EDR Searched Historical Sources:
Aerial Photography April 22, 2010

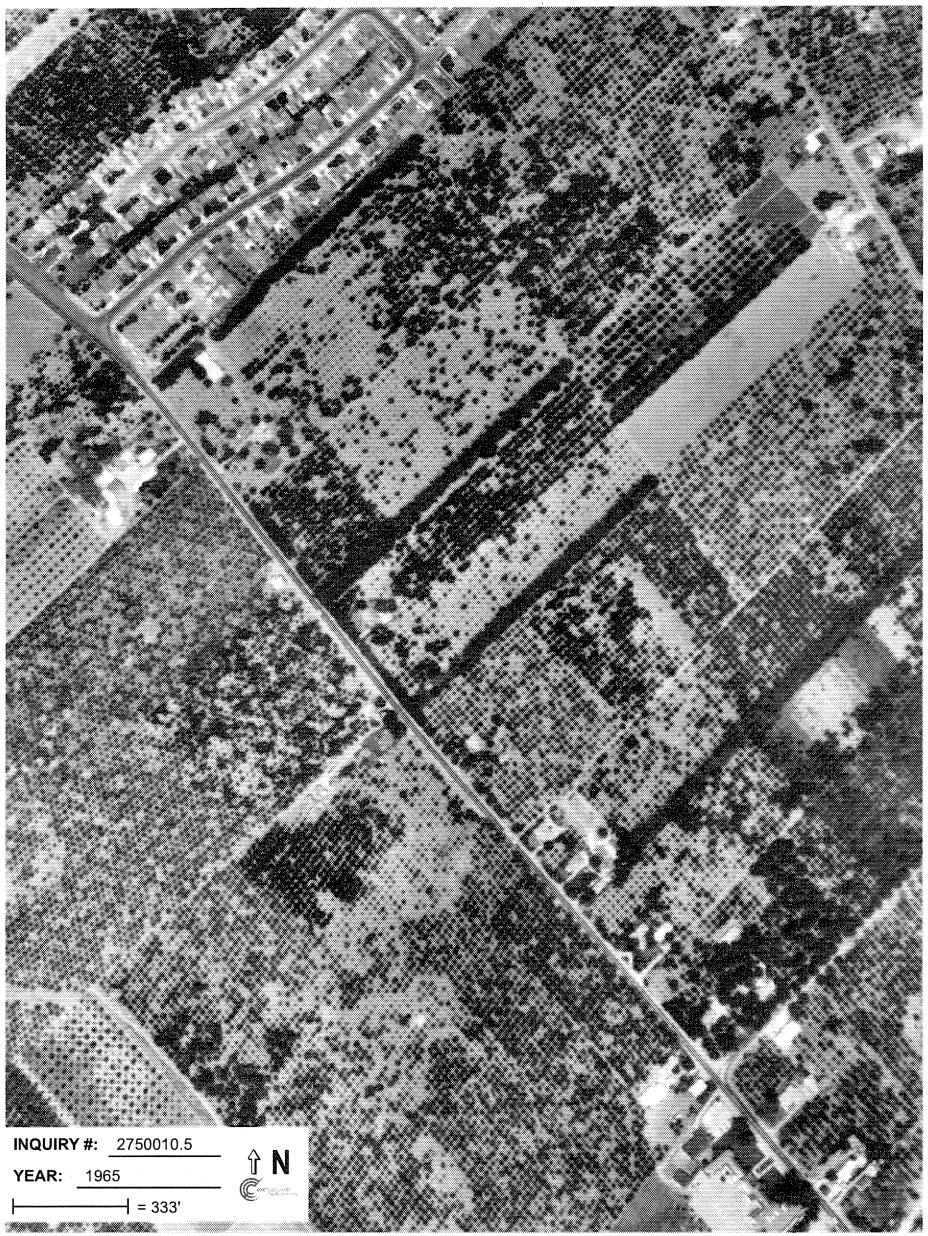
Target Property:
1328 N. Capitol Avenue
San Jose, CA 95132

Year	***Scale***	***Details***	***Source***
1939	Aerial Photograph. Scale: 1"=555'	Flight Year: 1939	Fairchild
1948	Aerial Photograph. Scale: 1"=655'	Flight Year: 1948	Exxon
1956	Aerial Photograph. Scale: 1"=555'	Flight Year: 1956	Aero
1965	Aerial Photograph. Scale: 1"=333'	Flight Year: 1965	Cartwright
1975	Aerial Photograph. Scale: 1"=550'	Flight Year: 1975	NASA
1982	Aerial Photograph. Scale: 1"=690'	Flight Year: 1982	USGS
1993	Aerial Photograph. Scale: 1"=666'	Flight Year: 1993	USGS
1998	Aerial Photograph. Scale: 1"=666'	Flight Year: 1998	USGS
2005	Aerial Photograph. 1" = 604'	Flight Year: 2005	EDR



INQUIRY #: 2750010.5
YEAR: 1948
= 655'
N

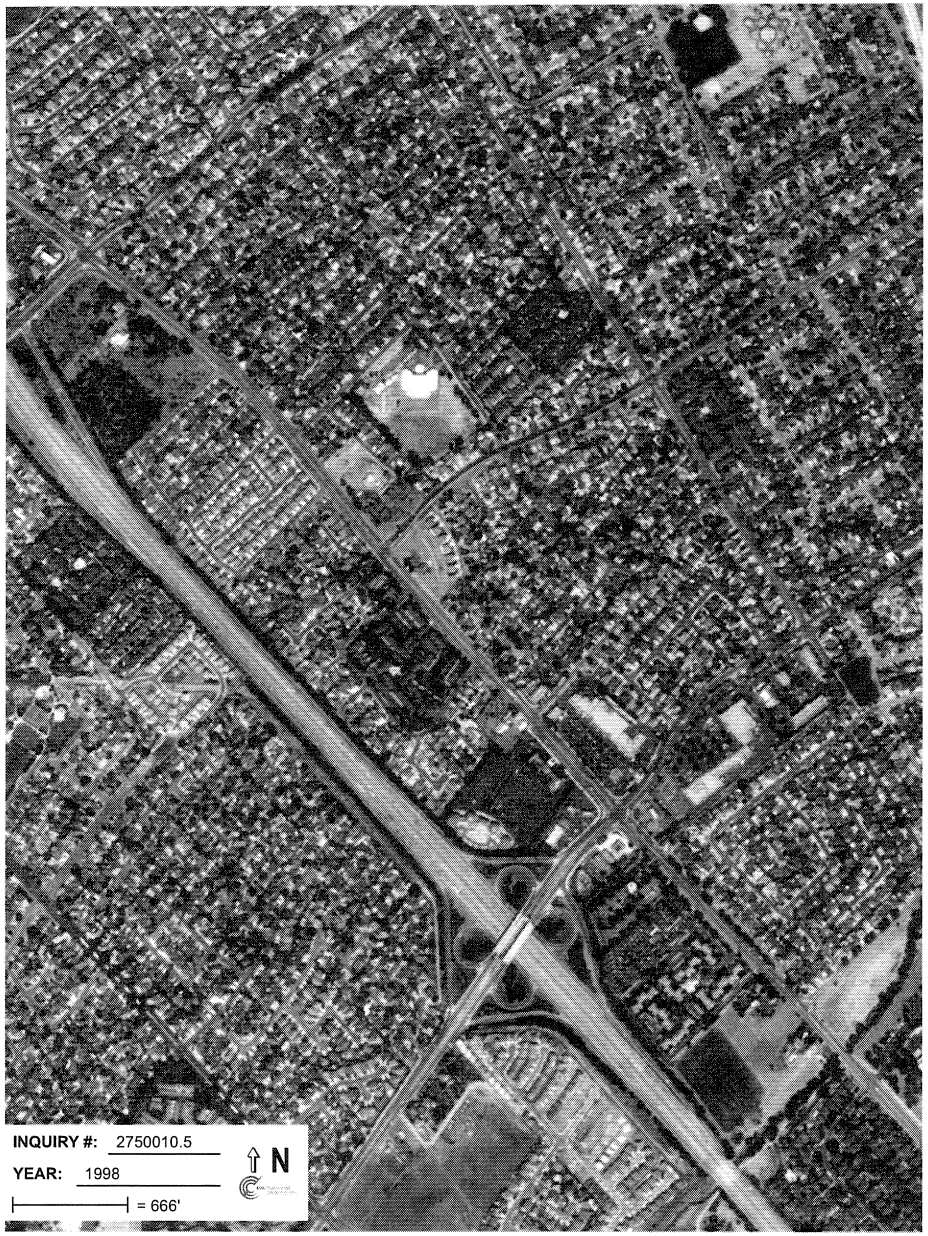

INQUIRY #: 2750010.5
YEAR: 1956
= 555'
N


INQUIRY #: 2750010.5
YEAR: 1965
= 333'
N

INQUIRY #: 2750010.5
YEAR: 1975
= 550'
N

INQUIRY #: 2750010.5
YEAR: 1982
= 690'
N

INQUIRY #: 2750010.5
YEAR: 1993
= 666'
N


INQUIRY #: 2750010.5
YEAR: 1998
= 666'
N

INQUIRY #: 2750010.5
YEAR: 2005
= 604'
N

Appendix D

Local Street Directory Search Results

Phase I ESA
1328 N. Capitol Avenue
San Jose, CA 95132

Inquiry Number: 2750010.6
April 20, 2010

The EDR-City Directory Abstract

EDR® Environmental Data Resources Inc

440 Wheelers Farms Road
Milford, CT 06461
800.352.0050
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Executive Summary

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2009 Enhancements to EDR City Directory Abstract

New for 2009, the EDR City Directory Abstract has been enhanced with additional information and features. These enhancements will make your city directory research process more efficient, flexible, and insightful than ever before. The enhancements will improve the options for selecting adjoining properties, and will speed up your review of the report.

City Directory Report. Three important enhancements have been made to the EDR City Directory Abstract:

1. *Executive Summary.* The report begins with an Executive Summary that lists the sources consulted in the preparation of the report. Where available, a parcel map is also provided within the report, showing the locations of properties researched.

2. *Page Images.* Where available, the actual page source images will be included in the Appendix, so that you can review them for information that may provide additional insight. EDR has copyright permission to include these images.

3. *Findings Listed by Location.* Another useful enhancement is that findings are now grouped by address. This will significantly reduce the time you need to review your abstracts. Findings are provided under each property address, listed in reverse chronological order and referencing the source for each entry.

Options for Selecting Adjoining Properties. Ensuring that the right adjoining property addresses are searched is one of the biggest challenges that environmental professionals face when conducting city directory historical research. EDR's new enhancements make it easier for you to meet this challenge. Now, when you place an order for the EDR City Directory Abstract, you have the following choices for determining which addresses should be researched.

1. *You Select Addresses and EDR Selects Addresses.* Use the "Add Another Address" feature to specify the addresses you want researched. Your selections will be supplemented by addresses selected by EDR researchers using our established research methods. Where available, a digital map will be shown, indicating property lines overlaid on a color aerial photo and their corresponding addresses. Simply use the address list below the map to check off which properties shown on the map you want to include. You may also select other addresses using the "Add Another Address" feature at the bottom of the list.

2. *EDR Selects Addresses.* Choose this method if you want EDR's researchers to select the addresses to be researched for you, using our established research methods.

3. *You Select Addresses.* Use this method for research based solely on the addresses you select or enter into the system.

4. *Hold City Directory Research Option.* If you choose to select your own adjoining addresses, you may pause production of your EDR City Directory Abstract report until you have had a chance to look at your other EDR reports and sources. Sources for property addresses include: your Certified Sanborn Map Report may show you the location of property addresses; the new EDR Property Tax Map Report may show the location of property addresses; and your field research can supplement these sources with additional address information. To use this capability, simply click "Hold City Directory research" box under "Other Options" at the bottom of the page. Once you have determined what addresses you want researched, go to your EDR Order Status page, select the EDR City Directory Abstract, and enter the addresses and submit for production.

Questions? Contact your EDR representative at 800-352-0050. For more information about all of EDR's 2009 report and service enhancements, visit www.edrnet.com/2009enhancements

EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1922 through 2006. This report compiles information gathered in this review by geocoding the latitude and longitude of properties identified and gathering information about properties within 660 feet of the target property.

A summary of the information obtained is provided in the text of this report.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

Year	Source	TP	Adjoining	Text Abstract	Source Image
2006	Haines Company, Inc.	-	X	X	-
2001	Haines Company, Inc.	-	-	-	-
2000	Haines & Company	-	X	X	-
1996	Pacific Bell	X	X	X	-
1991	PACIFIC BELL WHITE PAGES	-	X	X	-
1986	Pacific Bell	-	X	X	-
1985	Pacific Bell	-	X	X	-
1982	Pacific Telephone	-	-	-	-
1980	Pacific Telephone	-	X	X	-
1978	R. L. Polk & Co.	-	-	-	-
1975	Pacific Telephone	-	X	X	-
1974	R. L. Polk & Co.	-	-	-	-
1970	R. L. Polk & Co.	-	X	X	-
1968	R. L. Polk & Co.	-	-	-	-
1966	R. L. Polk & Co.	-	X	X	-
1965	R. L. Polk & Co.	-	-	-	-
1964	R. L. Polk Co.	-	-	-	-
1963	Pacific Telephone	-	X	X	-
1962	R. L. Polk & Co.	-	-	-	-
1960	R. L. Polk & Co.	-	-	-	-
1957	R. L. Polk Co.	-	-	-	-
1955	R.L. Polk and Co Publishers	-	-	-	-
1950	R. L. Polk Co.	-	-	-	-
1946	R. L. Polk Co.	-	-	-	-
1945	R. L. Polk & Co.	-	-	-	-
1942	R. L. Polk Co.	-	-	-	-

EXECUTIVE SUMMARY

Year	Source	TP	Adjoining	Text Abstract	Source Image
1940	R. L. Polk & Co.	-	-	-	-
1936	R. L. Polk Co.	-	-	-	-
1935	R. L. Polk Co. of California	-	-	-	-
1931	R. L. Polk Co.	-	-	-	-
1930	R. L. Polk Co. of California	-	-	-	-
1926	R. L. Polk Co.	-	-	-	-
1925	R. L. Polk Co. of California	-	-	-	-
1922	R. L. Polk Co.	-	-	-	-

EXECUTIVE SUMMARY

MAP INFORMATION

The Overview Map provides information on nearby property parcel boundaries. Properties on this map that were selected for research are listed below the map.

SELECTED ADDRESSES

The following addresses were selected by the client. Detailed findings are contained in the findings section. An "X" indicates where information was identified.

Address	Type	Findings
1328 N. Capitol Avenue	Map ID: 1	X
1359 HAVENWOOD DR	Map ID: 2	X
1358 N CAPITOL AVE	Map ID: 3	X

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

1328 N. Capitol Avenue
San Jose, CA 95132

MapID: 1

FINDINGS DETAIL

Target Property research detail.

Year	Uses	Source
1996	ORLANDO WM	Pacific Bell
	ORLANDO WM	Pacific Bell

FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

AMARYL DR

2407 AMARYL DR

Year	Uses	Source
2000	IOA 8 LEYJol IO	Haines & Company

2408 AMARYL DR

Year	Uses	Source
2000	194 M 4 TPa	Haines & Company

2451 AMARYL DR

Year	Uses	Source
1991	Herrick Robt E	PACIFIC BELL WHITE PAGES
1986	Herrick Robt E	Pacific Bell
1985	HERRICK ROBT E	Pacific Bell
1980	Herricle Kathleen	Pacific Telephone
	Herrick Robt E	Pacific Telephone
1975	HERRICK ROBT E	Pacific Telephone
	HERRICK ROB E	Pacific Telephone

2453 AMARYL DR

Year	Uses	Source
2006	o GORTNER Susan M	Haines Company, Inc.
2000	G 0 R 11 ER Susan	Haines & Company
	DOARMA 94 Jeaoan	Haines & Company
1975	GORTNER VERNON	Pacific Telephone

2455 AMARYL DR

Year	Uses	Source
2006	NGUYEN Ban	Haines Company, Inc.
2000	8090808rn 00 O	Haines & Company
1975	VACANT	Pacific Telephone

2456 AMARYL DR

Year	Uses	Source
2006	a YAO Chlenm In	Haines Company, Inc.
2000	y AQC 9rdenmi	Haines & Company

FINDINGS

2459 AMARYL DR

Year	Uses	Source
1986	Hemmann Robert	Pacific Bell
1985	HEIMANN ROBERT	Pacific Bell
	HEMMINGER MICHAEL	Pacific Bell
1980	Heimonn Robert	Pacific Telephone
1975	T HEIMANN ROBT	Pacific Telephone
	HEIMANN ROBERT	Pacific Telephone

2463 AMARYL DR

Year	Uses	Source
1986	Rowley Alberta C	Pacific Bell
1985	ROWLEY ALBERTA C	Pacific Bell
1975	RUDRIGUEZ ALEX	Pacific Telephone

2467 AMARYL DR

Year	Uses	Source
1991	BAE SUK	PACIFIC BELL WHITE PAGES
1986	Baker Victor R	Pacific Bell
1985	BAKER VICTOR R	Pacific Bell
1980	Baker Victor R	Pacific Telephone
1975	SOUTHWORTH KENNETH R	Pacific Telephone

2471 AMARYL DR

Year	Uses	Source
1986	U S Fabrications	Pacific Bell
1985	HUTTO GEOFFRY K	Pacific Bell
1980	Carstens Fred	Pacific Telephone
1975	ARMENTROUT W H	Pacific Telephone

2479 AMARYL DR

Year	Uses	Source
1991	VANDINH CUONG	PACIFIC BELL WHITE PAGES
1986	Vandinh Cuong	Pacific Bell
1985	VANDINH CUONG	Pacific Bell
1980	Ollins Richard	Pacific Telephone
1975	011INS RICHD	Pacific Telephone
	OLLINS RICHARD	Pacific Telephone

FINDINGS

2481 AMARYL DR

Year	Uses	Source
2000	08891 EDAEmasto	Haines & Company

2483 AMARYL DR

Year	Uses	Source
1991	Lee Tim	PACIFIC BELL WHITE PAGES
1986	Lee rim	Pacific Bell
1985	LEE TIM	Pacific Bell
1980	Lee Tim	Pacific Telephone
	Hom Gary	Pacific Telephone
1975	ELARMO VIC	Pacific Telephone

2487 AMARYL DR

Year	Uses	Source
1980	Farley John F	Pacific Telephone
1975	HOBBS D	Pacific Telephone

2491 AMARYL DR

Year	Uses	Source
2006	LONG Sopech	Haines Company, Inc.
2000	G 9 19494 Ang	Haines & Company
1986	Borg Ted & Brenda	Pacific Bell
	Berg Susan	Pacific Bell
1985	BERG TED & BRENDA	Pacific Bell
1980	Berg Ted & Brenda	Pacific Telephone
1975	WALTERS GENE	Pacific Telephone

2494 AMARYL DR

Year	Uses	Source
2006	YUShu	Haines Company, Inc.
2000	LOOBANooaonj	Haines & Company
1980	Morley Sandra	Pacific Telephone
1975	VETTER ROY	Pacific Telephone

BATTAGLIA CIR

2470 BATTAGLIA CIR

Year	Uses	Source
2006	a BECKHAM Cad	Haines Company, Inc.
2000	BECKHAMCad	Haines & Company

Year	Uses	Source
2000	X OLD MANOR PL	Haines & Company

2484 BATTAGLIA CIR

Year	Uses	Source
2006	BAUTISTACrds Ora	Haines Company, Inc.
2000	EBLACASJu 8lo	Haines & Company
1975	PIERSON RONALD	Pacific Telephone

2486 BATTAGLIA CIR

Year	Uses	Source
1985	METEK ASSEMBLY SERVICE INC	Pacific Bell
	MEHTA MANISH	Pacific Bell
	MEHTA KAUSHIK	Pacific Bell
1980	Tighe James W	Pacific Telephone
1975	ALMIRAL S	Pacific Telephone

2488 BATTAGLIA CIR

Year	Uses	Source
2006	a CARNEY Ray	Haines Company, Inc.
2000	WALKERJohn	Haines & Company
	X OLD FORGE LN	Haines & Company
1991	Hutton Bill D	PACIFIC BELL WHITE PAGES
1986	Hutton Bill D	Pacific Bell
1985	HUTTON BILL D	Pacific Bell
1980	Hutton Bill D	Pacific Telephone
1975	HUTTON BILL D	Pacific Telephone

2490 BATTAGLIA CIR

Year	Uses	Source
2006	a UMALI Maia	Haines Company, Inc.
2000	UMAURamon	Haines & Company
1975	VACANT	Pacific Telephone

2492 BATTAGLIA CIR

Year	Uses	Source
2006	BRIL Tod	Haines Company, Inc.
2000	HA IADASadao	Haines & Company
1991	HAMADA SADAO	PACIFIC BELL WHITE PAGES
1986	Hamada Sadao	Pacific Bell
1985	HAMADA SADAO	Pacific Bell

Year	Uses	Source
1980	Hamada Sado	Pacific Telephone
1975	VACANT	Pacific Telephone

2494 BATTAGLIA CIR

Year	Uses	Source
2006	ZERTUCHE TIna O	Haines Company, Inc.
2000	ZER 1 UCHENTIa	Haines & Company
1975	MARTIN PAUL D	Pacific Telephone

2496 BATTAGLIA CIR

Year	Uses	Source
2006	PEPEUnda CO	Haines Company, Inc.
2000	PEPE Linda	Haines & Company
1975	WAY PAT	Pacific Telephone

2498 BATTAGLIA CIR

Year	Uses	Source
2006	GAOIRANY	Haines Company, Inc.
2000	04 AOIRANY	Haines & Company
1996	GAOIRAN Y	Pacific Bell
1975	BOESE EARL D	Pacific Telephone

CAPITOL AVE N

1265 CAPITOL AVE N

Year	Uses	Source
1996	-9TRAN THAO	Pacific Bell
	-11THALASILA PRAVIN C	Pacific Bell
	-16KIM DONG HO	Pacific Bell
	-18BURGOON DON	Pacific Bell
	32AZLZ ZAHEER	Pacific Bell
	-40LETTS PHILIP	Pacific Bell
	-51NG PAUL C	Pacific Bell
	-61ZHANG SHU-AN	Pacific Bell
	-66SHARMA CHANDER V	Pacific Bell
	-76SHANALEC NATHAN J	Pacific Bell
	-90SHELTON CHIM	Pacific Bell
	-93FLORES M R	Pacific Bell
	-94PULSIPHER KEITH	Pacific Bell
	-99WADHAWAN RAJAN	Pacific Bell

FINDINGS

Year	Uses	Source
1996	-107PRADHAN RANJIT	Pacific Bell
	-111GAITONDE UMESH	Pacific Bell
	-164YANAMANDALA JAY	Pacific Bell
	-165QN GINGANMING	Pacific Bell
	-178WILEY AARON R	Pacific Bell
	-181TROUGHTON JOHN	Pacific Bell
	-198LIN CHEN	Pacific Bell
	-199MANGLA ANLI	Pacific Bell
	-216NGUYEN THAT	Pacific Bell
	-217ANDERSON E L	Pacific Bell
	98SINGH HARBIR	Pacific Bell
	-22ADEBEBE ABRAHAM	Pacific Bell
	213CAO ANTHONY	Pacific Bell
	SIERRA BROOK APARTMENTS	Pacific Bell
	-152LUDERS RYAN	Pacific Bell
1975	1 STARR K D	Pacific Telephone
	2 BLANK JAMES H	Pacific Telephone
	3 RUSH RAMAUL	Pacific Telephone
	4 KING J	Pacific Telephone
	5 FRANCIS JAY	Pacific Telephone
	6 WHITE M	Pacific Telephone
	7 CABERA JERRY	Pacific Telephone
	8 ARNOLD S	Pacific Telephone
	10 VACANT	Pacific Telephone
	11 CORNELL JEROME	Pacific Telephone
	12 VACANT	Pacific Telephone
	13 CHRISTIAN BARBARA	Pacific Telephone
	14 CLEMENS HARVEY	Pacific Telephone
	16 OSBORNE S	Pacific Telephone
	17 VACANT	Pacific Telephone
	18 DECAREAR R	Pacific Telephone
	19 EDWARDS P A	Pacific Telephone
	20 ECTOR R	Pacific Telephone
	21 0NEILL JOHN	Pacific Telephone
	23 LOVEGREN J	Pacific Telephone
	24 VACANT	Pacific Telephone
	26 ANDERSON CROY	Pacific Telephone
	27 CHISM E	Pacific Telephone

FINDINGS

Year	Uses	Source
1975	29 VACANT	Pacific Telephone
	30 GREEN FREDOY L	Pacific Telephone
	31 DE VANE D	Pacific Telephone
	32 ANDERSON F	Pacific Telephone
	33 ANDERSON A	Pacific Telephone
	34 TROWELL CLARK	Pacific Telephone
	35 SMITH RONALD	Pacific Telephone
	37 MC DANIELS C	Pacific Telephone
	38 KEEMAN M	Pacific Telephone
	39 MALOY N	Pacific Telephone
	40 TURNER C	Pacific Telephone
	41 PATTERSON HELEN	Pacific Telephone
	42 FOX J	Pacific Telephone
	44 VACANT	Pacific Telephone
	45 BROWNE M	Pacific Telephone
	46 VACANT	Pacific Telephone
	49 HALL VADA L MRS	Pacific Telephone
	50 CURRY E	Pacific Telephone
	51 MOORE RICHD D	Pacific Telephone
	52 WOODLIFF M S	Pacific Telephone
	53 POOLE DAVID	Pacific Telephone
	54 STINE HELEN	Pacific Telephone
	56 RICHERT GARY J	Pacific Telephone
	57 BLUM K	Pacific Telephone
	58 AKALIFF MICHL	Pacific Telephone
	59 WILLIAMS MELVIN S	Pacific Telephone
	60 YOUNG D	Pacific Telephone
	61 IBARRD A Y	Pacific Telephone
	63 BEARD RAMONA	Pacific Telephone
	65 AR STARLING M	Pacific Telephone
	66 JAMES I	Pacific Telephone
	67 BLACK DAN T	Pacific Telephone
	68 SIMERAL KEITH	Pacific Telephone
	69 SAYERS M	Pacific Telephone
	70 HAGENSON CLOYD W	Pacific Telephone
	71 TENES C	Pacific Telephone
	72 NEWNS G	Pacific Telephone
	75 CARDICK C	Pacific Telephone

FINDINGS

Year	Uses	Source
1975	76 PEREZ J	Pacific Telephone
	77 VIRAMONTES JOEL R	Pacific Telephone
	78 GRADY CURTIS	Pacific Telephone
	79 CLEMIT M	Pacific Telephone
	80 VACANT	Pacific Telephone
	81 ZUNIGA ALM	Pacific Telephone
	163 COSTA J	Pacific Telephone
	164 COLLINS L	Pacific Telephone
	165 SIGALA DOLORES F	Pacific Telephone
	166 TERRY DARRELL	Pacific Telephone
	167 0ROURKE MARVIN W	Pacific Telephone
	168 PAXTON STEVE	Pacific Telephone
	169 FINNEY M	Pacific Telephone
	171 TRIBBLE JOHNNY	Pacific Telephone
	174 HINES WILBUR	Pacific Telephone
	175 SIEBECK S	Pacific Telephone
	176 FUJILL R	Pacific Telephone
	177 FAIRCLOTH ROY T	Pacific Telephone
	178 GARTNER DAN	Pacific Telephone
	179 AGNEW E L	Pacific Telephone
	180 TERRAL C G	Pacific Telephone
	MATNEY C	Pacific Telephone
	183 FAGMAN A	Pacific Telephone
	184 VACANT	Pacific Telephone
	185 CUENCA R	Pacific Telephone
	187 GRANUM LIND	Pacific Telephone
	188 BADGER C	Pacific Telephone
	189 VENTURA R	Pacific Telephone
	190 VACANT	Pacific Telephone
	191 NORMAN VICTOR	Pacific Telephone
	192 FLORES E	Pacific Telephone
	193 BERTELS M	Pacific Telephone
	194 GRIFFIN ROBT W	Pacific Telephone
	197 WISE NEIL	Pacific Telephone
	198 RAMOS A	Pacific Telephone
	199 GONG J	Pacific Telephone
	199 STEVENS RICHD J	Pacific Telephone
	200 0DELL A	Pacific Telephone

FINDINGS

Year	Uses	Source
1975	201 VACANT	Pacific Telephone
	202 MOONEYHAM SUE	Pacific Telephone
	204 GONZALEZ R	Pacific Telephone
	205 GOVELLO MARK E	Pacific Telephone
	206 DE STEFANI R	Pacific Telephone
	209 CERVANTES RICHD	Pacific Telephone
	210 GRASSMAN S	Pacific Telephone
	211 DUVAL K S	Pacific Telephone
	212 JAINI J	Pacific Telephone
	213 SOUCY R	Pacific Telephone
	214 RAMIREZ R	Pacific Telephone
	215 CROCHETIER L	Pacific Telephone
	216 SOARES EDWIN L	Pacific Telephone
	217 JACKSON B	Pacific Telephone
	218 HOSKINS D	Pacific Telephone
	219 SAVIN MICHI	Pacific Telephone
	22 WELCH G	Pacific Telephone
	43 VACANT	Pacific Telephone
	55 SHOEMATE MIKE	Pacific Telephone
	74 JASSO RAY JR	Pacific Telephone
	95 TREVINO GILBERT R	Pacific Telephone
	119 BUNNELL D	Pacific Telephone
	143 HIKOYEDA ALLAN T	Pacific Telephone
	172 ARCHIE OXCELIOUS	Pacific Telephone
	181 CORREA MANUAL	Pacific Telephone
	203 REKOUTIS S	Pacific Telephone
	9 VACANT	Pacific Telephone
	25 FORD JEROME	Pacific Telephone
	48 VACANT	Pacific Telephone
	64 BREDLEV K	Pacific Telephone
	73 FETERLE J	Pacific Telephone
	84 BRIGGS R	Pacific Telephone
	93 GONIA J	Pacific Telephone
	111 AMADOR IRM	Pacific Telephone
	126 JOHNSON J	Pacific Telephone
	135 CALLANAN RICHD	Pacific Telephone
	147 SUNERI J	Pacific Telephone
	170 HUNT D JOHN	Pacific Telephone

FINDINGS

Year	Uses	Source
1975	195 SCOTT RONALD E	Pacific Telephone
	207 GOMES WM	Pacific Telephone
	SIERRA BROOK APARTMENTS	Pacific Telephone
	15 DAVIS EDW D	Pacific Telephone
	28 BRIGGS Z	Pacific Telephone
	36 VACANT	Pacific Telephone
	47 PURCELLE GARY	Pacific Telephone
	62 SAX R	Pacific Telephone
	82 VASS M	Pacific Telephone
	102 GETTROST K	Pacific Telephone
	125 LEAL RANDY	Pacific Telephone
	136 PINILLA ANTONIO	Pacific Telephone
	150 VACANT	Pacific Telephone
	161 CALHOUN B	Pacific Telephone
	173 NUNES JOHN A JR	Pacific Telephone
	186 SPECKER TOM	Pacific Telephone
	196 HARRIS DANI J	Pacific Telephone
	208 ANDERSON MICHL	Pacific Telephone
	83 VACANT	Pacific Telephone
	85 VACANT	Pacific Telephone
	86 OICLES GERALD	Pacific Telephone
	87 DIXON BOBBY	Pacific Telephone
	88 GUPTON BERNARD F	Pacific Telephone
	89 WHITE MICHL	Pacific Telephone
	90 MC NAY RONALD	Pacific Telephone
	91 JOHNSON PAUL	Pacific Telephone
	92 EASTMAN D III	Pacific Telephone
	94 FAIRCLOTH ROYCE T JR	Pacific Telephone
	96 GULLETT F	Pacific Telephone
	97 DIGGINA L	Pacific Telephone
	98 VACANT	Pacific Telephone
	99 SANCHEZ J M	Pacific Telephone
	100 RAMIREZ R	Pacific Telephone
	101 ATENCIO JOHN	Pacific Telephone
	103 BUCKNER P	Pacific Telephone
	104 EASTMAN P	Pacific Telephone
	105 NOLEN SAMI L	Pacific Telephone
	106 BUTTER K	Pacific Telephone

FINDINGS

Year	Uses	Source
1975	107 MAZZULLA M	Pacific Telephone
	108 CERVANTES RICHD	Pacific Telephone
	109 LUEVANO DAVID	Pacific Telephone
	110 ADAMS A	Pacific Telephone
	112 WILLIAMS RONALD	Pacific Telephone
	113 BRUCH C	Pacific Telephone
	114 TARONE SHEI	Pacific Telephone
	115 VACANT	Pacific Telephone
	116 CARL LARRY	Pacific Telephone
	117 COLE L	Pacific Telephone
	118 VACANT	Pacific Telephone
	120 CASSIDY M	Pacific Telephone
	121 LAGEMAN HENRY J	Pacific Telephone
	122 LALONE R	Pacific Telephone
	123 WEISGERBER WM 0 JR	Pacific Telephone
	124 MEDDOWS J	Pacific Telephone
	127 COLEMAN JOHN D	Pacific Telephone
	128 VACANT	Pacific Telephone
	129 HARDIN J	Pacific Telephone
	130 VACANT	Pacific Telephone
	131 WHITE MICHELLE	Pacific Telephone
	132 VALENTI ANTHONY	Pacific Telephone
	133 YBARRA K	Pacific Telephone
	134 SMITH K	Pacific Telephone
	137 HOVER CAROL	Pacific Telephone
	138 WILKOFF BRUCE R	Pacific Telephone
	139 TABISH ROBT	Pacific Telephone
	140 MATTLE JACK	Pacific Telephone
	141 DAVIS DOUGLAS	Pacific Telephone
	142 CADBY DEBBIE	Pacific Telephone
	144 PETTIGREW J	Pacific Telephone
	145 SANDOVAL JOHNNY	Pacific Telephone
	146 ROBERTS HERBERT B	Pacific Telephone
	148 ARCEY ALBERT	Pacific Telephone
	149 MONASCO MARK D	Pacific Telephone
	151 BUTTERWORTH LEONARD	Pacific Telephone
	152 VACANT	Pacific Telephone
	153 BALANSAG ABRAHM	Pacific Telephone

Year	Uses	Source
1975	154 CLEMENS HERBERT	Pacific Telephone
	155 PEICHOTO JOHN	Pacific Telephone
	156 JOHNSON FANNY	Pacific Telephone
	157 BRAJAS P	Pacific Telephone
	158 ARECHIAGA RUBEN	Pacific Telephone
	159 NOBLE JOHN L	Pacific Telephone
	160 AHMANN D	Pacific Telephone
	162 VACANT	Pacific Telephone

1276 CAPITOL AVE N

Year	Uses	Source
1975	LANTOSCA ANTONIO	Pacific Telephone
1970	LANTOSCA ANTONIO	R. L. Polk & Co.
1966	IANTOSCA ANTONIO	R. L. Polk & Co.

1298 CAPITOL AVE N

Year	Uses	Source
1996	BERRYESSA BAPTIST FELLOWSHIP	Pacific Bell

1314 CAPITOL AVE N

Year	Uses	Source
1975	SCIMECA LEONARD C	Pacific Telephone
1970	SCIMECA LEONARD C	R. L. Polk & Co.
1966	SCIMECA LEONARD C	R. L. Polk & Co.

1326 CAPITOL AVE N

Year	Uses	Source
1970	SCIMECA CARLO	R. L. Polk & Co.
1966	SCIMECA CARLOS	R. L. Polk & Co.

HAVEN WOOD DR

1368 HAVEN WOOD DR

Year	Uses	Source
1996	LADAO CHARMAINE	Pacific Bell

HAVENWOOD DR

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1359 HAVENWOOD DR

Year	Uses	Source
2006	a LAM Julle Huynh	Haines Company, Inc.

Year	Uses	Source
2000	SLAMTiin O	Haines & Company
1991	LAM HUYNH JULIE	PACIFIC BELL WHITE PAGES
1985	HUYNH KIM-YEN	Pacific Bell

1368 HAVENWOOD DR

Year	Uses	Source
2006	o LADAO Charmalne	Haines Company, Inc.
2000	SLADAOCharolnel	Haines & Company
1980	Glaneman Norma	Pacific Telephone

1394 HAVENWOOD DR

Year	Uses	Source
2000	GLOSLEW	Haines & Company

N CAPITOL AVE

1265 N CAPITOL AVE

Year	Uses	Source
1991	DE YOUNG THOMAS	PACIFIC BELL WHITE PAGES
	SHENG TSE-SHENG	PACIFIC BELL WHITE PAGES
	S IE RRA BROOK APARTME N TS	PACIFIC BELL WHITE PAGES
	SU WEN-HERNG	PACIFIC BELL WHITE PAGES
	N W TCORP	PACIFIC BELL WHITE PAGES
	TRAN S SON	PACIFIC BELL WHITE PAGES
	GA IT E A	PACIFIC BELL WHITE PAGES
	MORRIS ALBERT W	PACIFIC BELL WHITE PAGES
	ANDERSON E L	PACIFIC BELL WHITE PAGES
	Lawler Robert	PACIFIC BELL WHITE PAGES
	Sang Park	PACIFIC BELL WHITE PAGES
	Alday Rodney	PACIFIC BELL WHITE PAGES
	Anderson EL	PACIFIC BELL WHITE PAGES
	Bearicks C E	PACIFIC BELL WHITE PAGES
	Baker John P	PACIFIC BELL WHITE PAGES
	Frost Scott	PACIFIC BELL WHITE PAGES
	Geer Grace	PACIFIC BELL WHITE PAGES
	Frey	PACIFIC BELL WHITE PAGES
	Orey Tom	PACIFIC BELL WHITE PAGES
	Mazda Babak	PACIFIC BELL WHITE PAGES
	SIERRA BROOK APARTMENTS	PACIFIC BELL WHITE PAGES
	Sherwood Jared	PACIFIC BELL WHITE PAGES

FINDINGS

Year	Uses	Source
1991	Sheng Tse Sheng	PACIFIC BELL WHITE PAGES
	Berstler B & G	PACIFIC BELL WHITE PAGES
	Green Ricky	PACIFIC BELL WHITE PAGES
	Golzio Richard	PACIFIC BELL WHITE PAGES
	Singal Ashaln	PACIFIC BELL WHITE PAGES
	Sriknsaly Danal	PACIFIC BELL WHITE PAGES
	Hakimuddin Mukerram	PACIFIC BELL WHITE PAGES
	Hai Tran	PACIFIC BELL WHITE PAGES
	Guerra Mario	PACIFIC BELL WHITE PAGES
	NWTCorp	PACIFIC BELL WHITE PAGES
	Na Chul	PACIFIC BELL WHITE PAGES
	Naimi Mitra	PACIFIC BELL WHITE PAGES
	HNair Vijayan& Claire	PACIFIC BELL WHITE PAGES
	Su Wen Herng	PACIFIC BELL WHITE PAGES
	Canaday Felisa G	PACIFIC BELL WHITE PAGES
	Torres Pat	PACIFIC BELL WHITE PAGES
	Chang Chiwen	PACIFIC BELL WHITE PAGES
	Cho Dave	PACIFIC BELL WHITE PAGES
	Chellappa VV	PACIFIC BELL WHITE PAGES
	Chtgler Joseph	PACIFIC BELL WHITE PAGES
	Cendejas Jose	PACIFIC BELL WHITE PAGES
	Choi Yong Hun	PACIFIC BELL WHITE PAGES
	Inouye Alan S	PACIFIC BELL WHITE PAGES
	Tran SSon	PACIFIC BELL WHITE PAGES
	Cline J M	PACIFIC BELL WHITE PAGES
	Johnson Eric	PACIFIC BELL WHITE PAGES
	i Johnson Eric A	PACIFIC BELL WHITE PAGES
	Paul John F	PACIFIC BELL WHITE PAGES
	Perko Jimn	PACIFIC BELL WHITE PAGES
	Peterson Tom	PACIFIC BELL WHITE PAGES
	Do Bang	PACIFIC BELL WHITE PAGES
	Koo Mywang	PACIFIC BELL WHITE PAGES
	Keeton Paul	PACIFIC BELL WHITE PAGES
	Rane Sanjeeva	PACIFIC BELL WHITE PAGES
	Wiley Aaron R	PACIFIC BELL WHITE PAGES
	Dorsett A	PACIFIC BELL WHITE PAGES
	Krishmanurthi Ashok	PACIFIC BELL WHITE PAGES
	Lally Balbir	PACIFIC BELL WHITE PAGES

FINDINGS

Year	Uses	Source
1991	Lane Thomas K	PACIFIC BELL WHITE PAGES
	Roberts PP	PACIFIC BELL WHITE PAGES
	Ritter Stephen	PACIFIC BELL WHITE PAGES
	Won Joung Joo	PACIFIC BELL WHITE PAGES
	Won Young Hwa	PACIFIC BELL WHITE PAGES
1986	Brown Eric W	Pacific Bell
	Brown Geoffry	Pacific Bell
	Hubman Gerald W Jr	Pacific Bell
	Caron Dave & Kim	Pacific Bell
	Han Uk Tea	Pacific Bell
	Morales Chas & Nancy Jr	Pacific Bell
	Nelson Craig	Pacific Bell
	Nielsen Chris Holly	Pacific Bell
	Neusso l udan	Pacific Bell
	Travel Gallery	Pacific Bell
	Torres Eddie	Pacific Bell
	Chase Eric M & Shelley M	Pacific Bell
	Church Of Christ	Pacific Bell
	Choe Hyung	Pacific Bell
	Hessinger Mark	Pacific Bell
	Hester David D	Pacific Bell
	Hwa She Jen	Pacific Bell
	Hsia Kuong Chi	Pacific Bell
	Huang Chien	Pacific Bell
	OLeary Tod M	Pacific Bell
	aeary Toddlndy	Pacific Bell
	Perezarce K	Pacific Bell
	Von Niessen A	Pacific Bell
	Vasquez Roy A	Pacific Bell
	Vierra Victor	Pacific Bell
	Welch Harold	Pacific Bell
	Christensen Gary C	Pacific Bell
	Connors Dennis	Pacific Bell
	Inouye Alan S	Pacific Bell
	Jones Georgette	Pacific Bell
	Porter Scott S	Pacific Bell
	Prieto Octavio	Pacific Bell
	i Prieto Raynaldo	Pacific Bell

FINDINGS

Year	Uses	Source
1986	Pollock Wm D	Pacific Bell
	Wright Clint	Pacific Bell
	Kahwaty George J	Pacific Bell
	Kang Jae H	Pacific Bell
	Kang Shyh Hao	Pacific Bell
	Kwon Dae H	Pacific Bell
	Roberts P P	Pacific Bell
	Davis Anthony R	Pacific Bell
	Cunha L	Pacific Bell
	Cunha T	Pacific Bell
	Davis Jeffery	Pacific Bell
	Kipp Lloyd	Pacific Bell
	Lee Gan Shu	Pacific Bell
	Lee Yung Ju	Pacific Bell
	Roberson Pauletta	Pacific Bell
	Rorabaugh M A	Pacific Bell
	Evans J	Pacific Bell
	Lockett Samuel minstr Church Of Christ	Pacific Bell
	Lockett Samuel Jr	Pacific Bell
	Fall Jerry	Pacific Bell
	Mann Kamaljit	Pacific Bell
	SIERRA BROOK APARTMENTS	Pacific Bell
	Shuy Tseng Tan	Pacific Bell
	Anderson E L	Pacific Bell
	Ballesteros D	Pacific Bell
	Baptista O	Pacific Bell
	Flournoy Iris	Pacific Bell
	Flournoy Timothy Sr	Pacific Bell
	Froehling Gordon W	Pacific Bell
	Fulcher S P	Pacific Bell
	Gait EA	Pacific Bell
	Manley Michael A	Pacific Bell
	Mc Cue David K	Pacific Bell
	Menchak J	Pacific Bell
	Squafhic James F	Pacific Bell
	Geer Grace	Pacific Bell
	Gibsdn Todd	Pacific Bell
	Minares David & Sharon	Pacific Bell

FINDINGS

Year	Uses	Source
1986	Strang Jane	Pacific Bell
	Brooks David A	Pacific Bell
	Hanes Niel & Pamela	Pacific Bell
	Green Ricky	Pacific Bell
1985	FROEHLING GORDON W	Pacific Bell
	GARCIA LEOPOLDO	Pacific Bell
	FULCHER S P	Pacific Bell
	GOER GRACE	Pacific Bell
	NALAR MARTIN JR	Pacific Bell
	NAUM LUCIAN	Pacific Bell
	NELSON CRAIG	Pacific Bell
	OBANA SUSUMU	Pacific Bell
	WELCH HAROLD	Pacific Bell
	SOLIZ NORMA	Pacific Bell
	LYNN DOROTHY	Pacific Bell
	DAY VERNON L	Pacific Bell
	DIXON PRISCILLA	Pacific Bell
	MASCSAK ANDREW	Pacific Bell
	MACNDOZEA S	Pacific Bell
	THOMPSON STANLEY E SR	Pacific Bell
	TUMBO G	Pacific Bell
	MENCHAK J	Pacific Bell
	METTER MATT F	Pacific Bell
	NESTLER MATT	Pacific Bell
	MEXIA JOHN	Pacific Bell
	MINJARES DAVID & SHARON	Pacific Bell
	MOBASHER MOHAMMAD	Pacific Bell
	TOVAR RICHARD	Pacific Bell
	VAN LEER DARRELL	Pacific Bell
	VASQUEZ ROY A	Pacific Bell
	AHN KANG SOON	Pacific Bell
	ALARID MATTHEW	Pacific Bell
	ANDERSON E L	Pacific Bell
	GREEN RICKY	Pacific Bell
	OLSON PETER K	Pacific Bell
	FIERRO MIKE	Pacific Bell
	BARRETT L	Pacific Bell
	BARROW JOHN & LONA	Pacific Bell

FINDINGS

Year	Uses	Source
1985	HAIRSTON AMELIA	Pacific Bell
	HAN SANG	Pacific Bell
	HANES NIEL & PAMELA	Pacific Bell
	HARRIS ALLEN M	Pacific Bell
	PEPPER P	Pacific Bell
	RACZ DAVID	Pacific Bell
	MA URE LEVON M	Pacific Bell
	BOWLES WILLIAM L	Pacific Bell
	HO CHONG SUK	Pacific Bell
	HESSINGER MARK	Pacific Bell
	HWA SHU-JEN	Pacific Bell
	HSIA JIM	Pacific Bell
	HSIA KUONG CHI	Pacific Bell
	HUANG CHIEN	Pacific Bell
	RINALDI RICK	Pacific Bell
	PRIETO RAYNALDO	Pacific Bell
	SIMPERS SCOTT	Pacific Bell
	STANTON J D	Pacific Bell
	VASQUEZ FRANK & GRACE	Pacific Bell
	VENALA KUMAR	Pacific Bell
	HUBMAN GERALD W JR	Pacific Bell
	JACKSON L M	Pacific Bell
	INOUYE ALAN S	Pacific Bell
	KANG JAE H	Pacific Bell
	ROBERTS A M	Pacific Bell
	ROBERTS PP	Pacific Bell
	ROBERTS KIM	Pacific Bell
	RONDLAK PETER S	Pacific Bell
	RORABAUGH M A	Pacific Bell
	ROGERS MICHAEL C	Pacific Bell
	SANCHEZ G M	Pacific Bell
	SALAZAR ALBERT	Pacific Bell
	BURDICK S	Pacific Bell
	CHASE ERIC M & SHELLEY M	Pacific Bell
	GWALTNEY TOM	Pacific Bell
	MANLEY MICHAEL A	Pacific Bell
	WRIGHT RICHARD I	Pacific Bell
	CARON DAVE & KIM	Pacific Bell

FINDINGS

Year	Uses	Source
1985	CHA T H	Pacific Bell
	KINGSLEY CHRIS	Pacific Bell
	KIPP LLOYD	Pacific Bell
	KINCAIDE B	Pacific Bell
	CHEN ROBT S N	Pacific Bell
	KWON DAE H	Pacific Bell
	LEE YUNG JU	Pacific Bell
	SHUY TSENG-TAN	Pacific Bell
	SIERRA BROOK APARTMENTS	Pacific Bell
1980	Bachar David	Pacific Telephone
	Wright Arlene	Pacific Telephone
	Castro George M	Pacific Telephone
	Crain James	Pacific Telephone
	Jordan Karen	Pacific Telephone
	Kilubrough B	Pacific Telephone
	Kihcaide B	Pacific Telephone
	Kwon Tae Hwa	Pacific Telephone
	Roberts P P	Pacific Telephone
	Read R	Pacific Telephone
	Roy Allan Donald	Pacific Telephone
	Culbertson Jeff	Pacific Telephone
	Derushia S	Pacific Telephone
	Lee Hyunchan B Ky Ungon	Pacific Telephone
	tle Hyaanoo	Pacific Telephone
	Rumohr Harry & Lourdes	Pacific Telephone
	Ruhlin Jeff	Pacific Telephone
	Hoffar Margaret	Pacific Telephone
	Pimentel Abraham	Pacific Telephone
	Pickerell Rodney Rf	Pacific Telephone
	Plikeroing Charles	Pacific Telephone
	Wells Darlene	Pacific Telephone
	Wiley Wanda	Pacific Telephone
	Chavez Jerry I Mr & Mrs	Pacific Telephone
	Castillo Yolanda	Pacific Telephone
	James Ira	Pacific Telephone
	Hunsaker L A	Pacific Telephone
	Huhman Gerald W Jr	Pacific Telephone
	Ingrao Santino	Pacific Telephone

FINDINGS

Year	Uses	Source
1980	Johnson M	Pacific Telephone
	Ives Richard H	Pacific Telephone
	vas S	Pacific Telephone
	Joseph Joette	Pacific Telephone
	Jones Jack L	Pacific Telephone
	Petty Lewis J	Pacific Telephone
	Pretzer Kirk	Pacific Telephone
	Rawaf Abdul	Pacific Telephone
	Presberry Calvin K	Pacific Telephone
	Pressell Gary W & Judy G	Pacific Telephone
	Diggins L	Pacific Telephone
	Daverin David J	Pacific Telephone
	Diepeveen R J	Pacific Telephone
	Diestel Scott	Pacific Telephone
	Lindholm J	Pacific Telephone
	Lenz Richard O	Pacific Telephone
	Engelman J	Pacific Telephone
	Adams Scott	Pacific Telephone
	Alexander Terry E	Pacific Telephone
	Mc Caskey Al	Pacific Telephone
	Martin Mark	Pacific Telephone
	Mc Cowan Ozzie L	Pacific Telephone
	Marcucci Anthoely	Pacific Telephone
	SIERRA BROOK APARTMENTS	Pacific Telephone
	Silva James	Pacific Telephone
	Sotelo Abe Sr	Pacific Telephone
	Sotelo Dolores	Pacific Telephone
	Fleming PA	Pacific Telephone
	Foster Daniel Scott	Pacific Telephone
	Frausto Frank J	Pacific Telephone
	Martinez Joe Jr	Pacific Telephone
	Mc Donald Denise	Pacific Telephone
	MAc Monagle Keith	Pacific Telephone
	Smith Mary Jo	Pacific Telephone
	Avila Adrian H	Pacific Telephone
	Bardo Missy	Pacific Telephone
	Barber Steve	Pacific Telephone
	Barber WJ	Pacific Telephone

FINDINGS

Year	Uses	Source
1980	Garcia Leapoldo	Pacific Telephone
	Gonzales Steve	Pacific Telephone
	Galvan Abraham F	Pacific Telephone
	Mc Dougall Mi L	Pacific Telephone
	Morris Nancy K	Pacific Telephone
	Messer Chas	Pacific Telephone
	Minjares David & Sharon	Pacific Telephone
	Moore Wayne	Pacific Telephone
	ibore Willie	Pacific Telephone
	Mooneyham S	Pacific Telephone
	Morell James & Carmen	Pacific Telephone
	Staudacher David	Pacific Telephone
	Tiscareno Albert	Pacific Telephone
	Suarez Dan C	Pacific Telephone
	Bartz L M	Pacific Telephone
	Boart ZSteve	Pacific Telephone
	Aoki Kokichi	Pacific Telephone
	Bartice Timothy W	Pacific Telephone
	Bertrand Charlene	Pacific Telephone
	Bertrand Marcel	Pacific Telephone
	Hamamoto N	Pacific Telephone
	Nance Stephen A	Pacific Telephone
	Nomura Keith L	Pacific Telephone
	Obana Susumu	Pacific Telephone
	Thorn David R	Pacific Telephone
	Treadway J	Pacific Telephone
	Van Zent Daniel	Pacific Telephone
	Blair John R	Pacific Telephone
	Bradley Gregory	Pacific Telephone
	Butterworth Keith L	Pacific Telephone
	Butterworth L	Pacific Telephone
	Brown Jeff	Pacific Telephone
	Hamman Eva	Pacific Telephone
	Pacheco Jack W	Pacific Telephone
	Osborne Stephen R	Pacific Telephone
	Wagner Donald L	Pacific Telephone
	Hobein H W	Pacific Telephone
	Sober Jim	Pacific Telephone

FINDINGS

Year	Uses	Source
1975	FABISH ROHT	Pacific Telephone
	FAIRCLOTH ROY T SR	Pacific Telephone
	FAIRCLOTH ROYCE T JR	Pacific Telephone
	FREELAND M H	Pacific Telephone
	FRANCIS J	Pacific Telephone
	PATTERSON HELEN	Pacific Telephone
	RAWLLNGS DIXON	Pacific Telephone
	GOBBLE P	Pacific Telephone
	GODDARD CLIFFORD E	Pacific Telephone
	GARTNER DAN	Pacific Telephone
	GREEN FREDOY L	Pacific Telephone
	GOWING PHIL	Pacific Telephone
	GONZALEZ ROBT W	Pacific Telephone
	GUPTON BERNARD F	Pacific Telephone
	RINAUDO MICHAEL A	Pacific Telephone
	ROBERTS HERBERT B	Pacific Telephone
	HALL VADA L	Pacific Telephone
	HAMAMOTO M	Pacific Telephone
	HAMMAN EVA	Pacific Telephone
	HAGENSON CLOYD W	Pacific Telephone
	GUILIEN DANIEL G	Pacific Telephone
	GUMINA JOHN	Pacific Telephone
	SANCHES RONALD V	Pacific Telephone
	SAVIN MICHAEL	Pacific Telephone
	SCOTT RONALD E	Pacific Telephone
	AKATIFF MICHAEL	Pacific Telephone
	ANDERSON FRANCES	Pacific Telephone
	HUBBARD CHAS	Pacific Telephone
	HINES WILBUR	Pacific Telephone
	HUNT JOHN	Pacific Telephone
	SIMAS MIKE J	Pacific Telephone
	SIMERAL KEITH	Pacific Telephone
	SIERRA BROOK APARTMENTS	Pacific Telephone
	SIGALA DOLORES F	Pacific Telephone
	SNYDER GRANT E	Pacific Telephone
	SMITH K	Pacific Telephone
	SMITH RONALD	Pacific Telephone
	ADAMS ALICE	Pacific Telephone

FINDINGS

Year	Uses	Source
1975	ANDERSON ANNAJEAN	Pacific Telephone
	ATENCLO JOHN	Pacific Telephone
	BARONE GARY A	Pacific Telephone
	BIELSKI MIKE	Pacific Telephone
	JOHNSON FANNIE	Pacific Telephone
	JOHNSON PAUL A	Pacific Telephone
	KING SAMUEL L	Pacific Telephone
	STARR KEN	Pacific Telephone
	STEVENS RICHARD J	Pacific Telephone
	TANNER DEBBIE	Pacific Telephone
	BONOGOFSKY JAMES	Pacific Telephone
	BUCKNER P	Pacific Telephone
	BULLARD DARRELL	Pacific Telephone
	KEYES CINDY	Pacific Telephone
	LALONE RAMONA	Pacific Telephone
	LAMBERT W	Pacific Telephone
	LEAL RANDY	Pacific Telephone
	LEHRER GARY	Pacific Telephone
	TERRA CG	Pacific Telephone
	THOMPSON T L	Pacific Telephone
	TROWELL CLARK	Pacific Telephone
	VENTURA ELIAS	Pacific Telephone
	BROWN CITA	Pacific Telephone
	BRYANT C G	Pacific Telephone
	CADABONA LINDA M	Pacific Telephone
	CADBY DEBBIE A	Pacific Telephone
	BUTTERWORTH L	Pacific Telephone
	CERVANTES RICHARD	Pacific Telephone
	MANASCO MARK D	Pacific Telephone
	LOVGREN J	Pacific Telephone
	LOPEZ WILLIE	Pacific Telephone
	WHITE R R	Pacific Telephone
	WHITE RONALD	Pacific Telephone
	WILLIAMS MELVIN S	Pacific Telephone
	CLEMENS HARVEY	Pacific Telephone
	MEADOWS J	Pacific Telephone
	ME NAY RONALD A	Pacific Telephone
	MOONEYHAM S	Pacific Telephone

FINDINGS

Year	Uses	Source
1975	WILKOFF BRUCE R	Pacific Telephone
	YERBURY L ROBT F	Pacific Telephone
	YOON DENNIS	Pacific Telephone
	ACREY ALBERT	Pacific Telephone
	COVELLO MARK E	Pacific Telephone
	DAVIS DOUGLAS	Pacific Telephone
	DIGGINS L	Pacific Telephone
	NAVARRO D	Pacific Telephone
	MOORE RICHARD D	Pacific Telephone
	MOSHOS ALEXANDER J	Pacific Telephone
	NUNES JOHN A JR	Pacific Telephone
	NUNES RANDY	Pacific Telephone
	NOBLE JOHN L	Pacific Telephone
	BARTLEBAUGH JAMES F	Pacific Telephone
	ZUNIGA ALMA	Pacific Telephone
	WILLIAMS RONALD	Pacific Telephone
	RUSH RAMAUL	Pacific Telephone
	GRIGGS RAYMOND F JR	Pacific Telephone
	MICHELETTI DOROTHY	Pacific Telephone
	SHOEMATE MIKE	Pacific Telephone
	PAXTON STEVE	Pacific Telephone
	ESCOBEDO DAVID	Pacific Telephone
	VALENTI ANTHONY	Pacific Telephone
	LEE RUSSELL	Pacific Telephone
	CORREA MANUEL	Pacific Telephone
	SANDOVAL JOHNNY	Pacific Telephone
	SAX R	Pacific Telephone
	NOLEN SAMI L	Pacific Telephone
	NORMAN VICTOR	Pacific Telephone
	PENCE STEVE	Pacific Telephone
	GARCIA I L	Pacific Telephone
	STANTON RICHARD	Pacific Telephone
	GRIFFIN ROBT W	Pacific Telephone
	OICLES GERALD	Pacific Telephone
	OLSON WILLIAM	Pacific Telephone
	CARE LARRY	Pacific Telephone
	PEICHOTO JOHN P	Pacific Telephone
	WHITE MICHELLE ANN	Pacific Telephone

FINDINGS

Year	Uses	Source
1975	FLYNN JEFFREY	Pacific Telephone
	FETERLE J	Pacific Telephone

1276 N CAPITOL AVE

Year	Uses	Source
1991	Iantosca Antonio	PACIFIC BELL WHITE PAGES
1986	IACOMINI CONSTRUCTION CO INC	Pacific Bell
	Iantosca Antonio	Pacific Bell
1985	LANTOSCA ANTONIO	Pacific Bell
1980	Iantosca Antonio	Pacific Telephone
	IACOMINI CONSTRUCTION CO INC	Pacific Telephone
1975	IANNE CHAS LMD	Pacific Telephone
1963	Iantosca Antonio	Pacific Telephone

1295 N CAPITOL AVE

Year	Uses	Source
1980	Sironen Alex U	Pacific Telephone

1311 N CAPITOL AVE

Year	Uses	Source
1980	Settle D	Pacific Telephone

1314 N CAPITOL AVE

Year	Uses	Source
1991	Scimeca Lenny	PACIFIC BELL WHITE PAGES

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1358 N CAPITOL AVE

Year	Uses	Source
1986	Crede Don	Pacific Bell
1985	CREDE DON	Pacific Bell
1980	Crede Don	Pacific Telephone
1975	CREDE DONALD	Pacific Telephone

NIEMEYER CT

2385 NIEMEYER CT

Year	Uses	Source
2006	a VAZIR Rakesh	Haines Company, Inc.
2000	MEHTANt Iln	Haines & Company
1991	Deras Mauricio	PACIFIC BELL WHITE PAGES
1986	Kirk Alan & Sue	Pacific Bell

Year	Uses	Source
1985	RUGATA JAS	Pacific Bell

2389 NIEMEYER CT

Year	Uses	Source
2000	STANTONZenaida	Haines & Company

2390 NIEMEYER CT

Year	Uses	Source
2006	a MCOANIELS Claudia	Haines Company, Inc.
2000	MCDANIELSC 18udia	Haines & Company

2391 NIEMEYER CT

Year	Uses	Source
2006	WONG Peck	Haines Company, Inc.
2000	WONGPeck	Haines & Company
1996	SLAYYEH KHALED	Pacific Bell

2394 NIEMEYER CT

Year	Uses	Source
2006	ZELLMER Keith	Haines Company, Inc.
2000	ZELLMERKe llh	Haines & Company

2395 NIEMEYER CT

Year	Uses	Source
2006	MENG LI	Haines Company, Inc.
2000	DIAZOscar	Haines & Company
1996	LHEUREUX HANNAH	Pacific Bell
1991	LHeureux Hannah	PACIFIC BELL WHITE PAGES
1986	LHeureux Hannah	Pacific Bell
1985	FAULTLESS JANITOR SERVICE	Pacific Bell
1980	Nakazzono Gene	Pacific Telephone

2398 NIEMEYER CT

Year	Uses	Source
2006	DANG Phuong	Haines Company, Inc.
	OVOLuc	Haines Company, Inc.
2000	STAYLORRene	Haines & Company
	X BATTAGLIA CIR	Haines & Company

OLD ABBEY PL

1342 OLD ABBEY PL

Year	Uses	Source
2006	BAINIWAL Sukhbirpal	Haines Company, Inc.
2000	BAINIWALS	Haines & Company
1996	KAUR HARVINTER	Pacific Bell
1991	Bainiwal Ravinder	PACIFIC BELL WHITE PAGES
1985	COLON ANTONIO	Pacific Bell

1343 OLD ABBEY PL

Year	Uses	Source
2006	o CHANKal	Haines Company, Inc.
2000	0 CHANKal	Haines & Company

1346 OLD ABBEY PL

Year	Uses	Source
1991	Pauls D&M	PACIFIC BELL WHITE PAGES
1986	Pauls D&M	Pacific Bell
1985	PAULS D & M	Pacific Bell

OLD GATE CT

2410 OLD GATE CT

Year	Uses	Source
2006	e LAYUG Angelilto	Haines Company, Inc.
2000	NGUYEN C	Haines & Company

2412 OLD GATE CT

Year	Uses	Source
2006	LAYUGAngelito	Haines Company, Inc.
2000	GUERRARichard	Haines & Company
1991	LAM HOA	PACIFIC BELL WHITE PAGES
1986	Hokada Gilbert	Pacific Bell
1985	HOKADA GILBERT	Pacific Bell
1980	Brackett R	Pacific Telephone

2416 OLD GATE CT

Year	Uses	Source
1986	Truong Quang	Pacific Bell
1985	LE MUNG CONG	Pacific Bell

Year	Uses	Source
1980	Le Mung Cong	Pacific Telephone
	La Hao	Pacific Telephone

2418 OLD GATE CT

Year	Uses	Source
1991	TEP CHHUM	PACIFIC BELL WHITE PAGES

OLD PARK PL

1329 OLD PARK PL

Year	Uses	Source
1980	Wright Steven & Judy	Pacific Telephone

1334 OLD PARK PL

Year	Uses	Source
1980	Deardorff G	Pacific Telephone

OLD ROSE PL

1314 OLD ROSE PL

Year	Uses	Source
1980	Cruz Daniel R	Pacific Telephone

1340 OLD ROSE PL

Year	Uses	Source
2006	o ISLASLuis	Haines Company, Inc.
2000	DOWNER James	Haines & Company
1986	Downer Jas C	Pacific Bell

1341 OLD ROSE PL

Year	Uses	Source
2006	ENCARNACIONJusn	Haines Company, Inc.
	COLLAN Cidaca	Haines Company, Inc.
2000	GALEANAJose	Haines & Company
	ENCARNACIONJuan	Haines & Company
	CASTILLOBadrulor Me	Haines & Company
1985	DEAD ROSE DELIVERY	Pacific Bell
1980	Brodeur George & Mae	Pacific Telephone

1344 OLD ROSE PL

Year	Uses	Source
2006	CRUZ Dan Iel R	Haines Company, Inc.
2000	CRUZ Daniel R	Haines & Company
1996	CRUZ DANIEL R	Pacific Bell
1991	CRUZ DANIEL R	PACIFIC BELL WHITE PAGES
1986	Cruz aniel R	Pacific Bell
1985	CRUZ DANIEL R	Pacific Bell

1345 OLD ROSE PL

Year	Uses	Source
1991	STANLEY BILL	PACIFIC BELL WHITE PAGES
1986	Stanley Bill	Pacific Bell

1346 OLD ROSE PL

Year	Uses	Source
2000	STANLEYBII	Haines & Company
	STANLEY BIII	Haines & Company

1348 OLD ROSE PL

Year	Uses	Source
2006	CANCILLAFrankle	Haines Company, Inc.
2000	CANCILLAFrankl I	Haines & Company
1986	Cancilla Frank	Pacific Bell
1985	CANCILLA FRANK	Pacific Bell

1349 OLD ROSE PL

Year	Uses	Source
2006	HOANG Thal	Haines Company, Inc.
2000	HOANGThal	Haines & Company
1986	Hoang Thai	Pacific Bell
1985	HOANG THAI	Pacific Bell
1980	Ver Nooy Stan	Pacific Telephone

1352 OLD ROSE PL

Year	Uses	Source
1991	CAYTON MANNY	PACIFIC BELL WHITE PAGES
1986	Olson Betty Brewster	Pacific Bell

1353 OLD ROSE PL

Year	Uses	Source
2006	TRAN Bal	Haines Company, Inc.
	o NSUYEN Brian	Haines Company, Inc.
2000	NGUYEN Mmh	Haines & Company
1991	Dao Ptuong S	PACIFIC BELL WHITE PAGES
	DO QUYY KU	PACIFIC BELL WHITE PAGES

1355 OLD ROSE PL

Year	Uses	Source
2000	XXXX	Haines & Company

1356 OLD ROSE PL

Year	Uses	Source
2006	a ESTELLA Agaplto	Haines Company, Inc.
2000	ESTELLAAgaplito	Haines & Company
1980	Lennox Dominador	Pacific Telephone

1357 OLD ROSE PL

Year	Uses	Source
2006	e TOMITA Lee	Haines Company, Inc.
2000	OTOMITALee	Haines & Company
1996	TOMITA LEE	Pacific Bell
1991	TOMITA LEE	PACIFIC BELL WHITE PAGES
1985	TOMITA LEE	Pacific Bell

1360 OLD ROSE PL

Year	Uses	Source
2006	PRAMANIK Tapen	Haines Company, Inc.
2000	SPRAMANIKTapan STEELE Gregory	Haines & Company

1361 OLD ROSE PL

Year	Uses	Source
2006	TARARUG Chare	Haines Company, Inc.
2000	TARARUG Chare	Haines & Company
1991	Disque WL	PACIFIC BELL WHITE PAGES
	DISQUE W L	PACIFIC BELL WHITE PAGES
1986	Disque W L	Pacific Bell
1985	DISQUE W L	Pacific Bell
1980	Disque W L	Pacific Telephone

1364 OLD ROSE PL

Year	Uses	Source
2006	o LAZARO Evenclo	Haines Company, Inc.
	REYES Francisco	Haines Company, Inc.
	REYES Pr Imltiva	Haines Company, Inc.
2000	NGUYENTu	Haines & Company
1991	HOAG BE	PACIFIC BELL WHITE PAGES

1368 OLD ROSE PL

Year	Uses	Source
2006	NGUYENSG	Haines Company, Inc.
2000	HOANGLong	Haines & Company

PANTALIS CT

2556 PANTALIS CT

Year	Uses	Source
2006	LYMinh	Haines Company, Inc.
	LE Tuyet trlnh	Haines Company, Inc.
2000	OLYM Nh	Haines & Company
1975	MOCHEL DAVID R	Pacific Telephone

2558 PANTALIS CT

Year	Uses	Source
2006	TRAN Khanh	Haines Company, Inc.
	BUI Phat	Haines Company, Inc.
2000	SCANLANThomas	Haines & Company
1985	SALCIDO FORTINO	Pacific Bell
1980	Salcido Fortino	Pacific Telephone
1975	SCANLAN TJ	Pacific Telephone

2560 PANTALIS CT

Year	Uses	Source
2006	a SHARMA Panduranga	Haines Company, Inc.
2000	SHARMAPP	Haines & Company
1996	SHARMA P P	Pacific Bell
1991	SHARMA P P	PACIFIC BELL WHITE PAGES
1986	Sharma P P	Pacific Bell
1985	SHARMA P P	Pacific Bell

2562 PANTALIS CT

Year	Uses	Source
2006	a STANLEY John	Haines Company, Inc.
2000	STANLEYJohn	Haines & Company
1986	Stanley John A	Pacific Bell
1980	Stanley John A	Pacific Telephone
1975	SANDERS WM A	Pacific Telephone

2564 PANTALIS CT

Year	Uses	Source
2006	STANLEY John	Haines Company, Inc.
2000	STANLEYJohn	Haines & Company
1996	LUDWIG MICHAEL R	Pacific Bell
1975	GORDON D W	Pacific Telephone

2566 PANTALIS CT

Year	Uses	Source
1985	OLIVER MARK P	Pacific Bell
1980	Hattori Hidefumi	Pacific Telephone
1975	SANTO N E JOS R JR	Pacific Telephone

SIERRA

1249 SIERRA

Year	Uses	Source
1980	Rodriguez Jim & Lori	Pacific Telephone

SIERRA AVE

2550 SIERRA AVE

Year	Uses	Source
1975	ALFARO LEONARDO MRS	Pacific Telephone

SIERRA CT

1262 SIERRA CT

Year	Uses	Source
2000	YAOAnna ZHAOZhong	Haines & Company

1275 SIERRA CT

Year	Uses	Source
2006	TYLER INVESTMENT	Haines Company, Inc.

Year	Uses	Source
2006	a TYLER Tommie	Haines Company, Inc.
	GROUP	Haines Company, Inc.
2000	GALLEGOSVIc Ioria	Haines & Company
	DUMPITAntonio	Haines & Company
1975	GALLEGOS RICHD I	Pacific Telephone
	GALLEGOS RICHARD I	Pacific Telephone

1278 SIERRA CT

Year	Uses	Source
2006	a HUEYKang sen	Haines Company, Inc.
2000	HUEYKang	Haines & Company
1975	LIERSCH KLAUS	Pacific Telephone

1279 SIERRA CT

Year	Uses	Source
2006	a TZOU Chamg an	Haines Company, Inc.
2000	XXXX	Haines & Company
1991	Tzou CA	PACIFIC BELL WHITE PAGES
1985	LANNING WILLIAM E	Pacific Bell
1975	BOSWELL PATRICIA L MRS	Pacific Telephone

1281 SIERRA CT

Year	Uses	Source
2000	STRANTral G 0a	Haines & Company

1282 SIERRA CT

Year	Uses	Source
1980	Otsuka Richard	Pacific Telephone
1975	SKELLY WILFRED M	Pacific Telephone

1283 SIERRA CT

Year	Uses	Source
2006	WALLIN James	Haines Company, Inc.
2000	WALLINJamee	Haines & Company
1991	Kinkle P	PACIFIC BELL WHITE PAGES
	HINKLE MARK W A	PACIFIC BELL WHITE PAGES
1986	Hinkle P	Pacific Bell
1985	HINKLE P	Pacific Bell
1975	TERAMOTO BOB	Pacific Telephone

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SIERRA RD

1205 SIERRA RD

Year	Uses	Source
1986	THOMAS DONALD R	Pacific Bell
	TWIETMYER TIMOTHY R	Pacific Bell

1222 SIERRA RD

Year	Uses	Source
1986	HAZELTON L	Pacific Bell

1231 SIERRA RD

Year	Uses	Source
1986	GARCIA MODESTO	Pacific Bell

2525 SIERRA RD

Year	Uses	Source
2000	XXXX	Haines & Company

2561 SIERRA RD

Year	Uses	Source
2000	G 03 WARDJohn	Haines & Company
1986	Godward John A	Pacific Bell
1985	GODWARD JOHN A	Pacific Bell
1975	GODWARD JOHN A	Pacific Telephone
	GODWARD JOHN	Pacific Telephone

2567 SIERRA RD

Year	Uses	Source
2000	NGUYENThuy 00 S	Haines & Company
	X SIERRA CT	Haines & Company
1975	STOPPLER THOS M	Pacific Telephone
	STOEPLER THOS M	Pacific Telephone

FINDINGS

TARGET PROPERTY: ADDRESS NOT LISTED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not listed in the research source.

Address Researched	Address Not Listed in Research Source
1328 N. Capitol Avenue	2006, 2001, 2000, 1991, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922

ADJOINING PROPERTY: ADDRESSES NOT LISTED IN RESEARCH SOURCE

The following Adjoining Property addresses were researched for this report, and the addresses were not listed in research source.

Address Researched	Address Not Listed in Research Source
1205 SIERRA RD	2006, 2001, 2000, 1996, 1991, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1222 SIERRA RD	2006, 2001, 2000, 1996, 1991, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1231 SIERRA RD	2006, 2001, 2000, 1996, 1991, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1249 SIERRA	2006, 2001, 2000, 1996, 1991, 1986, 1985, 1982, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1262 SIERRA CT	2006, 2001, 1996, 1991, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1265 CAPITOL AVE N	2006, 2001, 2000, 1991, 1986, 1985, 1982, 1980, 1978, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1265 N CAPITOL AVE	2006, 2001, 2000, 1996, 1982, 1978, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1275 SIERRA CT	2001, 1996, 1991, 1986, 1985, 1982, 1980, 1978, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1276 CAPITOL AVE N	2006, 2001, 2000, 1996, 1991, 1986, 1985, 1982, 1980, 1978, 1974, 1968, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1276 N CAPITOL AVE	2006, 2001, 2000, 1996, 1982, 1978, 1974, 1970, 1968, 1966, 1965, 1964, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1278 SIERRA CT	2001, 1996, 1991, 1986, 1985, 1982, 1980, 1978, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1279 SIERRA CT	2001, 1996, 1986, 1982, 1980, 1978, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1281 SIERRA CT	2006, 2001, 1996, 1991, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922

FINDINGS

Address Researched	Address Not Listed in Research Source
1282 SIERRA CT	2006, 2001, 2000, 1996, 1991, 1986, 1985, 1982, 1978, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1283 SIERRA CT	2001, 1996, 1982, 1980, 1978, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1295 N CAPITOL AVE	2006, 2001, 2000, 1996, 1991, 1986, 1985, 1982, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1298 CAPITOL AVE N	2006, 2001, 2000, 1991, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1311 N CAPITOL AVE	2006, 2001, 2000, 1996, 1991, 1986, 1985, 1982, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1314 CAPITOL AVE N	2006, 2001, 2000, 1996, 1991, 1986, 1985, 1982, 1980, 1978, 1974, 1968, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1314 N CAPITOL AVE	2006, 2001, 2000, 1996, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1314 OLD ROSE PL	2006, 2001, 2000, 1996, 1991, 1986, 1985, 1982, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1326 CAPITOL AVE N	2006, 2001, 2000, 1996, 1991, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1968, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1329 OLD PARK PL	2006, 2001, 2000, 1996, 1991, 1986, 1985, 1982, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1334 OLD PARK PL	2006, 2001, 2000, 1996, 1991, 1986, 1985, 1982, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1340 OLD ROSE PL	2001, 1996, 1991, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1341 OLD ROSE PL	2001, 1996, 1991, 1986, 1982, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1342 OLD ABBEY PL	2001, 1986, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1343 OLD ABBEY PL	2001, 1996, 1991, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1344 OLD ROSE PL	2001, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1345 OLD ROSE PL	2006, 2001, 2000, 1996, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1346 OLD ABBEY PL	2006, 2001, 2000, 1996, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1346 OLD ROSE PL	2006, 2001, 1996, 1991, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922

FINDINGS

Address Researched	Address Not Listed in Research Source
1348 OLD ROSE PL	2001, 1996, 1991, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1349 OLD ROSE PL	2001, 1996, 1991, 1982, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1352 OLD ROSE PL	2006, 2001, 2000, 1996, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1353 OLD ROSE PL	2001, 1996, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1355 OLD ROSE PL	2006, 2001, 1996, 1991, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1356 OLD ROSE PL	2001, 1996, 1991, 1986, 1985, 1982, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1357 OLD ROSE PL	2001, 1986, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1358 N CAPITOL AVE	2006, 2001, 2000, 1996, 1991, 1982, 1978, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1359 HAVENWOOD DR	2001, 1996, 1986, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1360 OLD ROSE PL	2001, 1996, 1991, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1361 OLD ROSE PL	2001, 1996, 1982, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1364 OLD ROSE PL	2001, 1996, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1368 HAVEN WOOD DR	2006, 2001, 2000, 1991, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1368 HAVENWOOD DR	2001, 1996, 1991, 1986, 1985, 1982, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1368 OLD ROSE PL	2001, 1996, 1991, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
1394 HAVENWOOD DR	2006, 2001, 1996, 1991, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2385 NIEMEYER CT	2001, 1996, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2389 NIEMEYER CT	2006, 2001, 1996, 1991, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2390 NIEMEYER CT	2001, 1996, 1991, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922

FINDINGS

Address Researched	Address Not Listed in Research Source
2391 NIEMEYER CT	2001, 1991, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2394 NIEMEYER CT	2001, 1996, 1991, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2395 NIEMEYER CT	2001, 1982, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2398 NIEMEYER CT	2001, 1996, 1991, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2407 AMARYL DR	2006, 2001, 1996, 1991, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2408 AMARYL DR	2006, 2001, 1996, 1991, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2410 OLD GATE CT	2001, 1996, 1991, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2412 OLD GATE CT	2001, 1996, 1982, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2416 OLD GATE CT	2006, 2001, 2000, 1996, 1991, 1982, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2418 OLD GATE CT	2006, 2001, 2000, 1996, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2451 AMARYL DR	2006, 2001, 2000, 1996, 1982, 1978, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2453 AMARYL DR	2001, 1996, 1991, 1986, 1985, 1982, 1980, 1978, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2455 AMARYL DR	2001, 1996, 1991, 1986, 1985, 1982, 1980, 1978, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2456 AMARYL DR	2001, 1996, 1991, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2459 AMARYL DR	2006, 2001, 2000, 1996, 1991, 1982, 1978, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2463 AMARYL DR	2006, 2001, 2000, 1996, 1991, 1982, 1980, 1978, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2467 AMARYL DR	2006, 2001, 2000, 1996, 1982, 1978, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2470 BATTAGLIA CIR	2001, 1996, 1991, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2471 AMARYL DR	2006, 2001, 2000, 1996, 1991, 1982, 1978, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922

FINDINGS

Address Researched	Address Not Listed in Research Source
2479 AMARYL DR	2006, 2001, 2000, 1996, 1982, 1978, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2481 AMARYL DR	2006, 2001, 1996, 1991, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2483 AMARYL DR	2006, 2001, 2000, 1996, 1982, 1978, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2484 BATTAGLIA CIR	2001, 1996, 1991, 1986, 1985, 1982, 1980, 1978, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2486 BATTAGLIA CIR	2006, 2001, 2000, 1996, 1991, 1986, 1982, 1978, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2487 AMARYL DR	2006, 2001, 2000, 1996, 1991, 1986, 1985, 1982, 1978, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2488 BATTAGLIA CIR	2001, 1996, 1982, 1978, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2490 BATTAGLIA CIR	2001, 1996, 1991, 1986, 1985, 1982, 1980, 1978, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2491 AMARYL DR	2001, 1996, 1991, 1982, 1978, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2492 BATTAGLIA CIR	2001, 1996, 1982, 1978, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2494 AMARYL DR	2001, 1996, 1991, 1986, 1985, 1982, 1978, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2494 BATTAGLIA CIR	2001, 1996, 1991, 1986, 1985, 1982, 1980, 1978, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2496 BATTAGLIA CIR	2001, 1996, 1991, 1986, 1985, 1982, 1980, 1978, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2498 BATTAGLIA CIR	2001, 1991, 1986, 1985, 1982, 1980, 1978, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2525 SIERRA RD	2006, 2001, 1996, 1991, 1986, 1985, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2550 SIERRA AVE	2006, 2001, 2000, 1996, 1991, 1986, 1985, 1982, 1980, 1978, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2556 PANTALIS CT	2001, 1996, 1991, 1986, 1985, 1982, 1980, 1978, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2558 PANTALIS CT	2001, 1996, 1991, 1986, 1982, 1978, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2560 PANTALIS CT	2001, 1982, 1980, 1978, 1975, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922

FINDINGS

Address Researched	Address Not Listed in Research Source
2561 SIERRA RD	2006, 2001, 1996, 1991, 1982, 1980, 1978, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2562 PANTALIS CT	2001, 1996, 1991, 1985, 1982, 1978, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2564 PANTALIS CT	2001, 1991, 1986, 1985, 1982, 1980, 1978, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2566 PANTALIS CT	2006, 2001, 2000, 1996, 1991, 1986, 1982, 1978, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922
2567 SIERRA RD	2006, 2001, 1996, 1991, 1986, 1985, 1982, 1980, 1978, 1974, 1970, 1968, 1966, 1965, 1964, 1963, 1962, 1960, 1957, 1955, 1950, 1946, 1945, 1942, 1940, 1936, 1935, 1931, 1930, 1926, 1925, 1922

Appendix E

Questionnaire

CORNERSTONE EARTH GROUP

General Environmental Questionnaire

Cornerstone Earth Group is performing a Phase I environmental site assessment (ESA). The purpose of the ESA is to evaluate current and historic uses of the property that may have involved the use, generation, or storage of hazardous materials. Please respond to these questions to the best of your knowledge.

Return the completed, signed questionnaire by fax at (408) 245-4620 or by mail to the address below. Alternatively, a scanned copy can be emailed to plangtry@cornerstoneearth.com. The completed questionnaire will be attached to the ESA report. Thank you for your assistance and timely response.

GENERAL PROPERTY INFORMATION

1) **Site Address(es) and Assessor's Parcel Number(s):** Please list all current and former addresses. Some sites have multiple addresses; all are needed, even if they are not in current use.

Address(es)	APN Number(s)

2) **Property Size:** 4.17 ± (Sq. Ft. or Acres [circle one])

3) **Current site owner(s) and purchase date:**

Current Owner Name	Year Purchased

4) **Previous site owner(s) and dates of ownership:**

Prior Owner Name	Year Purchased	Year Sold

CORNERSTONE EARTH GROUP

STRUCTURES AND OCCUPANTS

5) **Please describe all on-site buildings:**

Building Size (sq. ft)	Building Use	Date of Construction
Barn 2400±	Storage	1960's
House 2400±	Dwelling	1948
Garage - 2 car	Parking Cars	1948

Potable Water Source (*e.g.*, city or other water agency, on-site well, etc.): City - Well Not Connected

Sewage Disposal System (*e.g.*, city sewer, septic tank, etc.): Cesspool

Heating/Cooling System and Fuel Source (*e.g.*, electric, natural gas, fuel oil, etc.): Electric & Gas

6) **Current site tenant(s), site use, and years of occupancy:**

Tenant	Site Use	Years of Occupancy (*e.g.*, From 1995 to 2007)

7) **Prior site tenant(s), site use, and years of occupancy:**

Tenant	Site Use	Years of Occupancy (*e.g.*, From 1975 to 1983)

OTHER SITE FEATURES AND INFORMATION

8) Please indicate if you are aware of any of the following structures, features, or activities currently or formerly at the site.

Structure/Feature	Yes	No	Do Not Know
Aboveground Storage Tanks (ASTs)	✓		
Agricultural fields	✓		
Agricultural or drinking water supply wells	✓		
Air emission control systems		✓	
Areas where garbage or other wastes have been disposed on-site	✓		
Boilers		✓	
Chemical mixing or processing activities			✓
Chemical storage areas BASEMENT	✓		
Current or former drainage ditches, ponds, or streams		✓	
Dry cleaning equipment		✓	
Dry wells		✓	
Elevators		✓	
Emergency generators	✓		
Equipment maintenance or repair areas	✓		
Fill materials placed on-site (*i.e.*, fill used to build up the site elevation to current level)	✓		
Ground water monitoring wells		✓	
Ground water or soil remediation systems		✓	
Hydraulic lifts FORK LIFTS	✓		
Incinerators		✓	
Manufacturing machinery	✓		
Medical Waste		✓	
Oil or gas wells		✓	
Petroleum pipelines		✓	
Railroad lines		✓	
Septic tanks	✓		
Stockpiles of soil or debris		✓	
Storage sheds	✓		
Sumps, clarifiers, oil/water separators, or similar structures		✓	
Transformers By Pump/well	✓		
Underground Storage Tanks (USTs) REMOVED	✓		
Vapor or dust control hoods and ducting		✓	
Waste burning areas (i.e. burn pit) or ash disposal area	✓		

If you checked yes to any of the above, please provide additional information here or attach to this questionnaire.

9) Please indicate if, to your knowledge, any of the following documents exist:

Document	Yes	No	Do Not Know
Environmental site assessments		✓	
Environmental permits or violation notices		✓	
Underground or above ground storage tank documents/permits			✓
Geotechnical reports or hydrogeologic studies		✓	
Risk assessments		✓	
Hazardous materials management plans or chemical inventories			✓
Safety/emergency response plans or spill prevention plans			✓
Compliance audits or community right-to-know plans		✓	
Asbestos or lead based paint surveys		✓	

If you checked yes to any of the above, please indicate the location of the documents.
Can copies be provided? Yes _____ No _____

10) Have significant quantities of hazardous materials been used, stored, or generated on-site?
Yes _____ No _____ DON'T KNOW ✓

If so, please list types and quantities and where these materials are or were located.

CORNERSTONE EARTH GROUP

11) Are you aware of commonly known or reasonably ascertainable information about the site that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example, do you know of past uses of the site, specific chemicals that were or are present at the site, have knowledge of spills or other chemical releases at the site, or any environmental cleanups at the site.

Yes ✓ No ____

If so, please briefly describe below, including whether reports documenting the activities are available for review by Cornerstone Earth Group.

Pesticides & Fertilizers, Diesel, Oil, Gasoline, Use in Farming

12) Are you aware of any environmental cleanup liens against the site that are filed or recorded under federal, tribal, state, or local law?

Yes ____ No ✓

13) Are you aware of any activity or use limitations (UALs), such as engineering controls, land use restrictions, or institutional controls that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state, or local law?

Yes ____ No ✓

If so, please briefly describe below.

14) Are you aware of 1) any pending, threatened or past litigation, or administrative proceedings relevant to hazardous substances or petroleum products at the site, or 2) any notices from any governmental entity regarding possible violations of environmental laws or possible liability related to hazardous substances or petroleum products?

Yes ____ No ✓

If so, please briefly describe below.

15) Completed by:

William Orlando	William A. Orlando		4/21/2010
Name (print)	Signature	Company	Date

Appendix F

Laboratory Analytical Results

Air Toxics LTD.
Laboratory Services Since 1989

6/8/2010
Mr. Peter Langtry
Cornerstone Earth Group
2737 North Main St.
Suite 10
Walnut Creek CA 94597

Project Name: 1328 N Capitol, SJ
Project #: North Capitol
Workorder #: 1005589A

Dear Mr. Peter Langtry

The following report includes the data for the above referenced project for sample(s) received on 5/25/2010 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kyle Vagadori at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kyle Vagadori
Project Manager

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 1005589A

Work Order Summary

CLIENT:	Mr. Peter Langtry Cornerstone Earth Group 2737 North Main St. Suite 10 Walnut Creek, CA 94597	**BILL TO:**	Accounts Payable Cornerstone Earth Group 1259 Oakmead Parkway Sunnyvale, CA 94085
PHONE:	925-988-9500	**P.O. #**	206-3-1
FAX:		**PROJECT #**	North Capitol 1328 N Capitol, SJ
DATE RECEIVED:	05/25/2010	**CONTACT:**	Kyle Vagadori
DATE COMPLETED:	06/08/2010		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	SB-1D10	Modified TO-15	4.0 "Hg	15 psi
02A	SB-1D5	Modified TO-15	4.5 "Hg	15 psi
03A	SB-2D10.5	Modified TO-15	4.5 "Hg	15 psi
04A	SB-2D5	Modified TO-15	5.0 "Hg	15 psi
04AA	SB-2D5 Lab Duplicate	Modified TO-15	5.0 "Hg	15 psi
05A	SB-2D5 (IPA)	Modified TO-15	Tedlar Bag	Tedlar Bag
06A	Trip Blank	Modified TO-15	27.5 "Hg	15 psi
07A	Lab Blank	Modified TO-15	NA	NA
07B	Lab Blank	Modified TO-15	NA	NA
08A	CCV	Modified TO-15	NA	NA
08B	CCV	Modified TO-15	NA	NA
09A	LCS	Modified TO-15	NA	NA
09B	LCS	Modified TO-15	NA	NA

CERTIFIED BY: Linda S. Freeman DATE: 06/08/10

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

LABORATORY NARRATIVE
Modified TO-15 Std & Soil Gas
Cornerstone Earth Group
Workorder# 1005589A

Five 1 Liter Summa Canister and one 1 Liter Tedlar Bag samples were received on May 25, 2010. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan mode. The method involves concentrating up to 1.0 liter of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	*TO-15*	*ATL Modifications*
Daily CCV	+- 30% Difference	</= 30% Difference with two allowed out up to </=40%.; flag and narrate outliers
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtractior not performed).
J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the reporting limit.
UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SB-1D10

Lab ID#: 1005589A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Toluene	1.2	1.2	4.4	4.7

Client Sample ID: SB-1D5

Lab ID#: 1005589A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Toluene	1.2	1.6	4.5	6.1
m,p-Xylene	1.2	2.7	5.2	12
o-Xylene	1.2	1.4	5.2	6.3

Client Sample ID: SB-2D10.5

Lab ID#: 1005589A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
m,p-Xylene	1.2	1.6	5.2	6.8

Client Sample ID: SB-2D5

Lab ID#: 1005589A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.2	1.4	3.9	4.6
Toluene	1.2	2.7	4.6	10
Ethyl Benzene	1.2	1.6	5.2	6.8
m,p-Xylene	1.2	6.0	5.2	26
o-Xylene	1.2	2.3	5.2	9.9

Client Sample ID: SB-2D5 Lab Duplicate

Lab ID#: 1005589A-04AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.2	1.4	3.9	4.5
Toluene	1.2	2.6	4.6	9.7
Ethyl Benzene	1.2	1.6	5.2	7.0
m,p-Xylene	1.2	6.1	5.2	26

Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SB-2D5 Lab Duplicate

Lab ID#: 1005589A-04AA

o-Xylene	1.2	2.2	5.2	9.7

Client Sample ID: SB-2D5 (IPA)

Lab ID#: 1005589A-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	250	24000	610	60000

Client Sample ID: Trip Blank

Lab ID#: 1005589A-06A

No Detections Were Found.

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SB-1D10
Lab ID#: 1005589A-01A
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x052618	Date of Collection:	5/24/10 10:07:00 AM
Dil. Factor:	2.33	Date of Analysis:	5/26/10 08:31 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	4.7	Not Detected	11	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
Toluene	1.2	1.2	4.4	4.7
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	Not Detected	5.0	Not Detected
o-Xylene	1.2	Not Detected	5.0	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	93	70-130
1,2-Dichloroethane-d4	104	70-130
4-Bromofluorobenzene	122	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SB-1D5
Lab ID#: 1005589A-02A
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x052619	Date of Collection:	5/24/10 10:58:00 AM
Dil. Factor:	2.38	Date of Analysis:	5/26/10 09:12 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	4.8	Not Detected	12	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
Toluene	1.2	1.6	4.5	6.1
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	2.7	5.2	12
o-Xylene	1.2	1.4	5.2	6.3

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	107	70-130
4-Bromofluorobenzene	122	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SB-2D10.5
Lab ID#: 1005589A-03A
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x052620	Date of Collection:	5/24/10 11:49:00 AM
Dil. Factor:	2.38	Date of Analysis:	5/26/10 09:52 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	4.8	Not Detected	12	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
Toluene	1.2	Not Detected	4.5	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	1.6	5.2	6.8
o-Xylene	1.2	Not Detected	5.2	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	109	70-130
4-Bromofluorobenzene	120	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SB-2D5
Lab ID#: 1005589A-04A
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x052621	Date of Collection:	5/24/10 12:45:00 PM
Dil. Factor:	2.42	Date of Analysis:	5/26/10 10:38 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	4.8	Not Detected	12	Not Detected
Benzene	1.2	1.4	3.9	4.6
Toluene	1.2	2.7	4.6	10
Ethyl Benzene	1.2	1.6	5.2	6.8
m,p-Xylene	1.2	6.0	5.2	26
o-Xylene	1.2	2.3	5.2	9.9

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	93	70-130
1,2-Dichloroethane-d4	111	70-130
4-Bromofluorobenzene	124	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SB-2D5 Lab Duplicate
Lab ID#: 1005589A-04AA
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x052622	Date of Collection:	5/24/10 12:45:00 PM
Dil. Factor:	2.42	Date of Analysis:	5/26/10 11:56 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	4.8	Not Detected	12	Not Detected
Benzene	1.2	1.4	3.9	4.5
Toluene	1.2	2.6	4.6	9.7
Ethyl Benzene	1.2	1.6	5.2	7.0
m,p-Xylene	1.2	6.1	5.2	26
o-Xylene	1.2	2.2	5.2	9.7

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	92	70-130
1,2-Dichloroethane-d4	109	70-130
4-Bromofluorobenzene	123	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SB-2D5 (IPA)
Lab ID#: 1005589A-05A
MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b052610	Date of Collection:	5/24/10 12:44:00 PM
Dil. Factor:	12.5	Date of Analysis:	5/27/10 05:18 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	250	24000	610	60000

Container Type: 1 Liter Tedlar Bag

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	96	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Trip Blank
Lab ID#: 1005589A-06A
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x052623	Date of Collection:	5/24/10
Dil. Factor:	1.00	Date of Analysis:	5/27/10 12:48 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	2.0	Not Detected	4.9	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	93	70-130
1,2-Dichloroethane-d4	109	70-130
4-Bromofluorobenzene	117	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank
Lab ID#: 1005589A-07A
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x052605	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	5/26/10 10:52 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	2.0	Not Detected	4.9	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	92	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	113	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank
Lab ID#: 1005589A-07B
MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b052606	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 5/27/10 03:11 AM	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
2-Propanol	20	Not Detected	49	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	99	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: CCV
Lab ID#: 1005589A-08A
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x052602	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 5/26/10 08:18 AM	

Compound	%Recovery
2-Propanol	81
Benzene	92
Toluene	97
Ethyl Benzene	102
m,p-Xylene	105
o-Xylene	108

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	103	70-130
4-Bromofluorobenzene	129	70-130

Air Toxics LTD.
Laboratory Services Since 1980

Client Sample ID: CCV
Lab ID#: 1005589A-08B
MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b052602	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 5/26/10 11:57 PM	

Compound	%Recovery
2-Propanol	101

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	101	70-130

Air Toxics LTD.
Laboratory Services Since 1980

Client Sample ID: LCS
Lab ID#: 1005589A-09A
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	x052603	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 5/26/10 09:06 AM	

Compound	%Recovery
2-Propanol	80
Benzene	95
Toluene	96
Ethyl Benzene	106
m,p-Xylene	110
o-Xylene	111

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	128	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS
Lab ID#: 1005589A-09B
MODIFIED EPA METHOD TO-15 GC/MS

File Name:	b052603	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 5/27/10 01:09 AM	

Compound	%Recovery
2-Propanol	98

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	102	70-130

Air Toxics LTD.
Laboratory Services Since 1989

6/8/2010
Mr. Peter Langtry
Cornerstone Earth Group
2737 North Main St.
Suite 10
Walnut Creek CA 94597

Project Name: 1328 N Capitol, SJ
Project #: North Capitol
Workorder #: 1005589B

Dear Mr. Peter Langtry

The following report includes the data for the above referenced project for sample(s) received on 5/25/2010 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-3 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kyle Vagadori at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kyle Vagadori
Project Manager

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 1005589B

Work Order Summary

CLIENT:	Mr. Peter Langtry Cornerstone Earth Group 2737 North Main St. Suite 10 Walnut Creek, CA 94597	**BILL TO:**	Accounts Payable Cornerstone Earth Group 1259 Oakmead Parkway Sunnyvale, CA 94085
PHONE:	925-988-9500	**P.O. #**	206-3-1
FAX:		**PROJECT #**	North Capitol 1328 N Capitol, SJ
DATE RECEIVED:	05/25/2010	**CONTACT:**	Kyle Vagadori
DATE COMPLETED:	06/08/2010		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	SB-1D10	Modified TO-3	4.0 "Hg	15 psi
01AA	SB-1D10 Lab Duplicate	Modified TO-3	4.0 "Hg	15 psi
02A	SB-1D5	Modified TO-3	4.5 "Hg	15 psi
03A	SB-2D10.5	Modified TO-3	4.5 "Hg	15 psi
04A	SB-2D5	Modified TO-3	5.0 "Hg	15 psi
06A	Trip Blank	Modified TO-3	27.5 "Hg	15 psi
07A	Lab Blank	Modified TO-3	NA	NA
08A	LCS	Modified TO-3	NA	NA

CERTIFIED BY: Linda J. Freeman DATE: 06/08/10
Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE
Modified TO-3
Cornerstone Earth Group
Workorder# 1005589B

Five 1 Liter Summa Canister samples were received on May 25, 2010. The laboratory performed analysis for volatile organic compounds in air via modified EPA Method TO-3 using gas chromatography with flame ionization detection. The method involves concentrating up to 200 mL of sample. The concentrated aliquot is then dry purged to remove water vapor prior to entering the chromatographic system. The TPH (Gasoline Range) results are calculated using the response factor of Gasoline. A molecular weight of 100 is used to convert the TPH (Gasoline Range) ppmv result to ug/L.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	*TO-3*	*ATL Modifications*
Daily Calibration Standard Frequency	Prior to sample analysis and every 4 - 6 hrs	Prior to sample analysis and after the analytical batch </= 20 samples
Initial Calibration Calculation	4-point calibration using a linear regression model	5-point calibration using average Response Factor
Initial Calibration Frequency	Weekly	When daily calibration standard recovery is outside 75 - 125 %, or upon significant changes to procedure or instrumentation
Moisture Control	Nafion system	Sorbent system
Minimum Detection Limit (MDL)	Calculated using the equation DL = A+3.3S, where A is intercept of calibration line and S is the standard deviation of at least 3 reps of low level standard	40 CFR Pt. 136 App. B
Preparation of Standards	Levels achieved through dilution of gas mixture	Levels achieved through loading various volumes of the gas mixture

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

B - Compound present in laboratory blank greater than reporting limit.
J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the detection limit.
M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
MODIFIED EPA METHOD TO-3 GC/FID

Client Sample ID: SB-1D10

Lab ID#: 1005589B-01A

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.058	0.24	0.30	1.2

Client Sample ID: SB-1D10 Lab Duplicate

Lab ID#: 1005589B-01AA

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.058	0.24	0.26	1.1

Client Sample ID: SB-1D5

Lab ID#: 1005589B-02A

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.060	0.24	0.068	0.28

Client Sample ID: SB-2D10.5

Lab ID#: 1005589B-03A

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.060	0.24	0.092	0.37

Client Sample ID: SB-2D5

Lab ID#: 1005589B-04A

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.060	0.25	0.18	0.74

Client Sample ID: Trip Blank

Lab ID#: 1005589B-06A

No Detections Were Found.

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SB-1D10

Lab ID#: 1005589B-01A

MODIFIED EPA METHOD TO-3 GC/FID

File Name:	d060212	Date of Collection:	5/24/10 10:07:00 AM
Dil. Factor:	2.33	Date of Analysis:	6/2/10 03:16 PM

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.058	0.24	0.30	1.2

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	111	75-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SB-1D10 Lab Duplicate
Lab ID#: 1005589B-01AA
MODIFIED EPA METHOD TO-3 GC/FID

File Name:	d060217	Date of Collection:	5/24/10 10:07:00 AM
Dil. Factor:	2.33	Date of Analysis:	6/2/10 06:24 PM

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.058	0.24	0.26	1.1

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	107	75-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SB-1D5
Lab ID#: 1005589B-02A
MODIFIED EPA METHOD TO-3 GC/FID

File Name:	d060213	Date of Collection:	5/24/10 10:58:00 AM
Dil. Factor:	2.38	Date of Analysis:	6/2/10 03:49 PM

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.060	0.24	0.068	0.28

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	107	75-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SB-2D10.5
Lab ID#: 1005589B-03A
MODIFIED EPA METHOD TO-3 GC/FID

File Name:	d060214	Date of Collection:	5/24/10 11:49:00 AM
Dil. Factor:	2.38	Date of Analysis:	6/2/10 04:22 PM

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.060	0.24	0.092	0.37

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	105	75-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: SB-2D5
Lab ID#: 1005589B-04A
MODIFIED EPA METHOD TO-3 GC/FID

File Name:	d060215	Date of Collection:	5/24/10 12:45:00 PM
Dil. Factor:	2.42	Date of Analysis:	6/2/10 04:55 PM

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.060	0.25	0.18	0.74

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	108	75-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Trip Blank
Lab ID#: 1005589B-06A
MODIFIED EPA METHOD TO-3 GC/FID

File Name:	d060216	Date of Collection: 5/24/10	
Dil. Factor:	1.00	Date of Analysis: 6/2/10 05:41 PM	

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.025	0.10	Not Detected	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	107	75-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank
Lab ID#: 1005589B-07A
MODIFIED EPA METHOD TO-3 GC/FID

File Name:	d060204	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 6/2/10 10:25 AM	

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.025	0.10	Not Detected	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	103	75-150

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS
Lab ID#: 1005589B-08A
MODIFIED EPA METHOD TO-3 GC/FID

File Name:	d060219	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 6/2/10 07:32 PM	

Compound	%Recovery
TPH (Gasoline Range)	96

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	110	75-150

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 720-27633-1

Job Description: Capital Ave/SanJise

For:
Cornerstone Earth Group
2737 North Main Street, Unit 10
Walnut Creek, CA 94597

Attention: Peter Langtry

Approved for release.
Afsaneh Salimpour
Project Manager I
4/30/2010 5:09 PM

Afsaneh Salimpour
Project Manager I
afsaneh.salimpour@testamericainc.com
04/30/2010

CA ELAP Certification # 2496
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A trip blank is required to be provided for volatile analyses. If trip blank results are not included in the report, either the trip blank was not submitted or requested to be analyzed.

TestAmerica Laboratories, Inc.
TestAmerica San Francisco 1220 Quarry Lane, Pleasanton, CA 94566
Tel (925) 484-1919 Fax (925) 600-3002 www.testamericainc.com

Comments
No additional comments.

Receipt
All samples were received in good condition within temperature requirements.

GC/MS Semi VOA
Method(s) 8270C: The following sample(s) was diluted due to the abundance of non-target analytes: SS-1 (720-27633-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

GC Semi VOA
Method(s) 8081A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 70276 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method(s) 8082: The continuing calibration verification (CCV) for Aroclor 1016 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method(s) 8082: Due to the high concentration of 1260, the matrix spike / matrix spike duplicate (MS/MSD) for batch 70306 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

No other analytical or quality issues were noted.

Metals
Method(s) 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 70308 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method(s) 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 70307 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

EXECUTIVE SUMMARY - Detections

Client: Cornerstone Earth Group Job Number: 720-27633-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-27633-1	**SS-1**				
Phenanthrene		38	25	ug/Kg	8270C
Chrysene		34	25	ug/Kg	8270C
Benzo[a]pyrene		37	25	ug/Kg	8270C
Benzo[b]fluoranthene		29	25	ug/Kg	8270C
Benzo[k]fluoranthene		27	25	ug/Kg	8270C
Benzo[g,h,i]perylene		48	25	ug/Kg	8270C
Indeno[1,2,3-cd]pyrene		29	25	ug/Kg	8270C
Fluoranthene		63	25	ug/Kg	8270C
Pyrene		74	25	ug/Kg	8270C
Dieldrin		2.8	2.0	ug/Kg	8081A
4,4'-DDT		84	2.0	ug/Kg	8081A
4,4'-DDE		82	2.0	ug/Kg	8081A
4,4'-DDD		17	2.0	ug/Kg	8081A
Endosulfan II		3.9	2.0	ug/Kg	8081A
Chlordane (technical)		670	40	ug/Kg	8081A
alpha-Chlordane		79	2.0	ug/Kg	8081A
gamma-Chlordane		75	2.0	ug/Kg	8081A
Arsenic		4.8	1.1	mg/Kg	6010B
Barium		84	0.53	mg/Kg	6010B
Beryllium		0.38	0.11	mg/Kg	6010B
Cadmium		0.52	0.13	mg/Kg	6010B
Chromium		110	0.53	mg/Kg	6010B
Cobalt		12	0.21	mg/Kg	6010B
Copper		48	1.6	mg/Kg	6010B
Lead		20	0.53	mg/Kg	6010B
Nickel		33	0.53	mg/Kg	6010B
Thallium		0.62	0.53	mg/Kg	6010B
Vanadium		76	0.53	mg/Kg	6010B
Zinc		77	1.6	mg/Kg	6010B
Mercury		0.27	0.020	mg/Kg	7471A
Silica Gel Cleanup					
Diesel Range Organics [C10-C28]		7.2	1.0	mg/Kg	8015B

EXECUTIVE SUMMARY - Detections

Client: Cornerstone Earth Group Job Number: 720-27633-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-27633-2	**SS-2**				
Heptachlor epoxide		82	9.9	ug/Kg	8081A
4,4'-DDT		540	9.9	ug/Kg	8081A
4,4'-DDE		220	9.9	ug/Kg	8081A
4,4'-DDD		31	9.9	ug/Kg	8081A
Chlordane (technical)		2900	200	ug/Kg	8081A
alpha-Chlordane		610	9.9	ug/Kg	8081A
gamma-Chlordane		440	9.9	ug/Kg	8081A
Arsenic		8.4	1.0	mg/Kg	6010B
Barium		260	0.52	mg/Kg	6010B
Beryllium		0.26	0.10	mg/Kg	6010B
Cadmium		0.65	0.13	mg/Kg	6010B
Chromium		40	0.52	mg/Kg	6010B
Cobalt		9.7	0.21	mg/Kg	6010B
Copper		46	1.6	mg/Kg	6010B
Lead		71	0.52	mg/Kg	6010B
Molybdenum		0.61	0.52	mg/Kg	6010B
Nickel		50	0.52	mg/Kg	6010B
Vanadium		37	0.52	mg/Kg	6010B
Zinc		120	1.6	mg/Kg	6010B
Mercury		0.18	0.020	mg/Kg	7471A
Silica Gel Cleanup					
Diesel Range Organics [C10-C28]		30	0.99	mg/Kg	8015B
Motor Oil Range Organics [C24-C36]		100	49	mg/Kg	8015B

EXECUTIVE SUMMARY - Detections

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-27633-3	**SS-3**				
Naphthalene		17	5.0	ug/Kg	8270C
Acenaphthylene		27	5.0	ug/Kg	8270C
Fluorene		12	5.0	ug/Kg	8270C
Phenanthrene		200	5.0	ug/Kg	8270C
Anthracene		13	5.0	ug/Kg	8270C
Benzo[a]anthracene		55	5.0	ug/Kg	8270C
Chrysene		98	5.0	ug/Kg	8270C
Benzo[a]pyrene		110	5.0	ug/Kg	8270C
Benzo[b]fluoranthene		89	5.0	ug/Kg	8270C
Benzo[k]fluoranthene		76	5.0	ug/Kg	8270C
Benzo[g,h,i]perylene		150	5.0	ug/Kg	8270C
Indeno[1,2,3-cd]pyrene		100	5.0	ug/Kg	8270C
Fluoranthene		250	5.0	ug/Kg	8270C
Pyrene		270	5.0	ug/Kg	8270C
Dibenz(a,h)anthracene		16	5.0	ug/Kg	8270C
Dieldrin		2.4	2.0	ug/Kg	8081A
4,4'-DDT		65	2.0	ug/Kg	8081A
4,4'-DDE		80	2.0	ug/Kg	8081A
4,4'-DDD		16	2.0	ug/Kg	8081A
Chlordane (technical)		70	40	ug/Kg	8081A
alpha-Chlordane		12	2.0	ug/Kg	8081A
gamma-Chlordane		14	2.0	ug/Kg	8081A
Arsenic		3.8	1.1	mg/Kg	6010B
Barium		110	0.53	mg/Kg	6010B
Beryllium		0.17	0.11	mg/Kg	6010B
Cadmium		0.84	0.13	mg/Kg	6010B
Chromium		18	0.53	mg/Kg	6010B
Cobalt		3.3	0.21	mg/Kg	6010B
Copper		32	1.6	mg/Kg	6010B
Lead		31	0.53	mg/Kg	6010B
Molybdenum		4.6	0.53	mg/Kg	6010B
Nickel		20	0.53	mg/Kg	6010B
Vanadium		20	0.53	mg/Kg	6010B
Zinc		340	1.6	mg/Kg	6010B
Mercury		0.15	0.020	mg/Kg	7471A
Silica Gel Cleanup					
Diesel Range Organics [C10-C28]		3.4	0.99	mg/Kg	8015B

EXECUTIVE SUMMARY - Detections

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-27633-4	**SS-4**				
4,4'-DDT		110	2.0	ug/Kg	8081A
4,4'-DDE		200	2.0	ug/Kg	8081A
Chlordane (technical)		47	40	ug/Kg	8081A
alpha-Chlordane		11	2.0	ug/Kg	8081A
gamma-Chlordane		4.6	2.0	ug/Kg	8081A
Arsenic		6.6	1.0	mg/Kg	6010B
Barium		140	0.51	mg/Kg	6010B
Beryllium		0.15	0.10	mg/Kg	6010B
Cadmium		0.80	0.13	mg/Kg	6010B
Chromium		32	0.51	mg/Kg	6010B
Cobalt		7.5	0.20	mg/Kg	6010B
Copper		41	1.5	mg/Kg	6010B
Lead		24	0.51	mg/Kg	6010B
Nickel		41	0.51	mg/Kg	6010B
Vanadium		26	0.51	mg/Kg	6010B
Zinc		61	1.5	mg/Kg	6010B
Mercury		0.084	0.020	mg/Kg	7471A
Silica Gel Cleanup					
Diesel Range Organics [C10-C28]		3.4	0.99	mg/Kg	8015B

EXECUTIVE SUMMARY - Detections

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-27633-5	**SS-5**				
Dieldrin		6.4	2.0	ug/Kg	8081A
4,4'-DDT		94	2.0	ug/Kg	8081A
4,4'-DDE		13	2.0	ug/Kg	8081A
4,4'-DDD		16	2.0	ug/Kg	8081A
alpha-BHC		6.7	2.0	ug/Kg	8081A
Antimony		0.71	0.51	mg/Kg	6010B
Arsenic		4.6	1.0	mg/Kg	6010B
Barium		160	0.51	mg/Kg	6010B
Cadmium		18	0.13	mg/Kg	6010B
Chromium		62	0.51	mg/Kg	6010B
Cobalt		8.2	0.20	mg/Kg	6010B
Copper		110	1.5	mg/Kg	6010B
Lead		130	0.51	mg/Kg	6010B
Molybdenum		2.7	0.51	mg/Kg	6010B
Nickel		43	0.51	mg/Kg	6010B
Selenium		4.6	1.0	mg/Kg	6010B
Silver		1.9	0.26	mg/Kg	6010B
Vanadium		28	0.51	mg/Kg	6010B
Zinc		210	1.5	mg/Kg	6010B
Mercury		0.16	0.021	mg/Kg	7471A
Silica Gel Cleanup					
Diesel Range Organics [C10-C28]		1100	20	mg/Kg	8015B
Motor Oil Range Organics [C24-C36]		3700	990	mg/Kg	8015B

EXECUTIVE SUMMARY - Detections

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-27633-6	**SS-6**				
Dieldrin		6.2	2.0	ug/Kg	8081A
4,4'-DDT		140	2.0	ug/Kg	8081A
4,4'-DDE		19	2.0	ug/Kg	8081A
4,4'-DDD		46	2.0	ug/Kg	8081A
Endosulfan I		3.4	2.0	ug/Kg	8081A
Endosulfan sulfate		3.4	2.0	ug/Kg	8081A
Chlordane (technical)		290	40	ug/Kg	8081A
alpha-Chlordane		26	2.0	ug/Kg	8081A
gamma-Chlordane		16	2.0	ug/Kg	8081A
Arsenic		5.1	1.0	mg/Kg	6010B
Barium		95	0.51	mg/Kg	6010B
Beryllium		0.11	0.10	mg/Kg	6010B
Cadmium		2.5	0.13	mg/Kg	6010B
Chromium		41	0.51	mg/Kg	6010B
Cobalt		6.9	0.20	mg/Kg	6010B
Copper		130	1.5	mg/Kg	6010B
Lead		25	0.51	mg/Kg	6010B
Molybdenum		1.0	0.51	mg/Kg	6010B
Nickel		58	0.51	mg/Kg	6010B
Silver		2.3	0.26	mg/Kg	6010B
Vanadium		23	0.51	mg/Kg	6010B
Zinc		210	1.5	mg/Kg	6010B
Mercury		0.33	0.020	mg/Kg	7471A
Silica Gel Cleanup					
Diesel Range Organics [C10-C28]		29	0.99	mg/Kg	8015B
Motor Oil Range Organics [C24-C36]		110	49	mg/Kg	8015B

EXECUTIVE SUMMARY - Detections

Client: Cornerstone Earth Group Job Number: 720-27633-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-27633-7	**SS-7**				
4,4'-DDT		20	2.0	ug/Kg	8081A
4,4'-DDE		42	2.0	ug/Kg	8081A
4,4'-DDD		3.6	2.0	ug/Kg	8081A
alpha-Chlordane		5.9	2.0	ug/Kg	8081A
gamma-Chlordane		3.8	2.0	ug/Kg	8081A
Arsenic		6.8	1.0	mg/Kg	6010B
Barium		120	0.52	mg/Kg	6010B
Beryllium		0.25	0.10	mg/Kg	6010B
Cadmium		0.75	0.13	mg/Kg	6010B
Chromium		39	0.52	mg/Kg	6010B
Cobalt		8.2	0.21	mg/Kg	6010B
Copper		43	1.5	mg/Kg	6010B
Lead		20	0.52	mg/Kg	6010B
Molybdenum		1.4	0.52	mg/Kg	6010B
Nickel		52	0.52	mg/Kg	6010B
Vanadium		28	0.52	mg/Kg	6010B
Zinc		68	1.5	mg/Kg	6010B
Mercury		0.085	0.019	mg/Kg	7471A
Silica Gel Cleanup					
Diesel Range Organics [C10-C28]		1.1	0.99	mg/Kg	8015B
720-27633-8	**SS-8**				
4,4'-DDT		4.5	2.0	ug/Kg	8081A
Arsenic		2.2	1.1	mg/Kg	6010B
Barium		45	0.53	mg/Kg	6010B
Beryllium		0.25	0.11	mg/Kg	6010B
Cadmium		3.4	0.13	mg/Kg	6010B
Chromium		8.3	0.53	mg/Kg	6010B
Cobalt		1.9	0.21	mg/Kg	6010B
Copper		8.9	1.6	mg/Kg	6010B
Lead		4.8	0.53	mg/Kg	6010B
Molybdenum		1.9	0.53	mg/Kg	6010B
Nickel		18	0.53	mg/Kg	6010B
Selenium		1.7	1.1	mg/Kg	6010B
Vanadium		14	0.53	mg/Kg	6010B
Zinc		93	1.6	mg/Kg	6010B
Mercury		0.75	0.021	mg/Kg	7471A
Silica Gel Cleanup					
Diesel Range Organics [C10-C28]		4.0	0.99	mg/Kg	8015B

EXECUTIVE SUMMARY - Detections

Client: Cornerstone Earth Group Job Number: 720-27633-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-27633-9	**SS-9**				
4,4'-DDT		9.4	2.0	ug/Kg	8081A
4,4'-DDE		37	2.0	ug/Kg	8081A
4,4'-DDD		2.4	2.0	ug/Kg	8081A
Endosulfan II		3.9	2.0	ug/Kg	8081A
Endosulfan sulfate		21	2.0	ug/Kg	8081A
alpha-Chlordane		5.4	2.0	ug/Kg	8081A
gamma-Chlordane		3.0	2.0	ug/Kg	8081A
Lead		26	0.50	mg/Kg	6010B
Arsenic		5.7	1.0	mg/Kg	6010B
Mercury		0.094	0.019	mg/Kg	7471A
720-27633-10	**SS-10**				
Dieldrin		2.1	2.0	ug/Kg	8081A
4,4'-DDT		47	2.0	ug/Kg	8081A
4,4'-DDE		58	2.0	ug/Kg	8081A
4,4'-DDD		13	2.0	ug/Kg	8081A
Chlordane (technical)		53	39	ug/Kg	8081A
alpha-Chlordane		14	2.0	ug/Kg	8081A
gamma-Chlordane		9.6	2.0	ug/Kg	8081A
Arsenic		5.6	1.0	mg/Kg	6010B
Barium		110	0.50	mg/Kg	6010B
Beryllium		0.19	0.10	mg/Kg	6010B
Cadmium		1.4	0.12	mg/Kg	6010B
Chromium		27	0.50	mg/Kg	6010B
Cobalt		6.1	0.20	mg/Kg	6010B
Copper		33	1.5	mg/Kg	6010B
Lead		120	0.50	mg/Kg	6010B
Molybdenum		1.5	0.50	mg/Kg	6010B
Nickel		36	0.50	mg/Kg	6010B
Vanadium		21	0.50	mg/Kg	6010B
Zinc		1500	1.5	mg/Kg	6010B
Mercury		0.16	0.020	mg/Kg	7471A
Silica Gel Cleanup					
Diesel Range Organics [C10-C28]		2.6	1.0	mg/Kg	8015B
720-27633-11	**SS-11**				
4,4'-DDT		2.8	2.0	ug/Kg	8081A
4,4'-DDE		2.4	2.0	ug/Kg	8081A
Endosulfan sulfate		3.6	2.0	ug/Kg	8081A
Lead		30	0.49	mg/Kg	6010B
Arsenic		3.0	0.98	mg/Kg	6010B
Mercury		0.10	0.021	mg/Kg	7471A

EXECUTIVE SUMMARY - Detections

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-27633-12	**SS-12**				
Dieldrin		5.3	2.0	ug/Kg	8081A
Heptachlor epoxide		8.2	2.0	ug/Kg	8081A
4,4'-DDT		96	2.0	ug/Kg	8081A
4,4'-DDE		130	2.0	ug/Kg	8081A
4,4'-DDD		18	2.0	ug/Kg	8081A
Endosulfan II		3.1	2.0	ug/Kg	8081A
Endosulfan sulfate		3.5	2.0	ug/Kg	8081A
Chlordane (technical)		300	40	ug/Kg	8081A
alpha-Chlordane		58	2.0	ug/Kg	8081A
gamma-Chlordane		37	2.0	ug/Kg	8081A
Antimony		1.9	0.52	mg/Kg	6010B
Arsenic		18	1.0	mg/Kg	6010B
Barium		170	0.52	mg/Kg	6010B
Beryllium		0.23	0.10	mg/Kg	6010B
Cadmium		2.1	0.13	mg/Kg	6010B
Chromium		37	0.52	mg/Kg	6010B
Cobalt		8.0	0.21	mg/Kg	6010B
Copper		33	1.5	mg/Kg	6010B
Lead		57	0.52	mg/Kg	6010B
Molybdenum		0.62	0.52	mg/Kg	6010B
Nickel		50	0.52	mg/Kg	6010B
Vanadium		28	0.52	mg/Kg	6010B
Zinc		290	1.5	mg/Kg	6010B
Mercury		0.10	0.019	mg/Kg	7471A
Silica Gel Cleanup					
Diesel Range Organics [C10-C28]		14	0.99	mg/Kg	8015B
Motor Oil Range Organics [C24-C36]		69	50	mg/Kg	8015B

EXECUTIVE SUMMARY - Detections

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-27633-13	**SS-13**				
4,4'-DDT		8.2	2.0	ug/Kg	8081A
4,4'-DDE		3.0	2.0	ug/Kg	8081A
Endosulfan II		2.2	2.0	ug/Kg	8081A
Endosulfan sulfate		2.9	2.0	ug/Kg	8081A
Chlordane (technical)		76	40	ug/Kg	8081A
alpha-Chlordane		9.0	2.0	ug/Kg	8081A
gamma-Chlordane		3.7	2.0	ug/Kg	8081A
Antimony		13	0.51	mg/Kg	6010B
Arsenic		2.6	1.0	mg/Kg	6010B
Barium		130	0.51	mg/Kg	6010B
Cadmium		4.6	0.13	mg/Kg	6010B
Chromium		56	0.51	mg/Kg	6010B
Cobalt		6.0	0.20	mg/Kg	6010B
Copper		25	1.5	mg/Kg	6010B
Lead		83	0.51	mg/Kg	6010B
Molybdenum		1.7	0.51	mg/Kg	6010B
Nickel		76	0.51	mg/Kg	6010B
Vanadium		16	0.51	mg/Kg	6010B
Zinc		190	1.5	mg/Kg	6010B
Mercury		0.10	0.021	mg/Kg	7471A
Silica Gel Cleanup					
Diesel Range Organics [C10-C28]		52	1.0	mg/Kg	8015B
Motor Oil Range Organics [C24-C36]		150	50	mg/Kg	8015B
720-27633-14	**SS-14**				
4,4'-DDT		18	2.0	ug/Kg	8081A
4,4'-DDE		61	2.0	ug/Kg	8081A
4,4'-DDD		4.2	2.0	ug/Kg	8081A
Lead		31	0.52	mg/Kg	6010B
Arsenic		8.6	1.0	mg/Kg	6010B
Mercury		0.075	0.019	mg/Kg	7471A
720-27633-15	**SS-15**				
4,4'-DDT		6.8	2.0	ug/Kg	8081A
4,4'-DDE		37	2.0	ug/Kg	8081A
4,4'-DDD		3.3	2.0	ug/Kg	8081A
Lead		21	0.50	mg/Kg	6010B
Arsenic		8.5	1.0	mg/Kg	6010B
Mercury		0.072	0.019	mg/Kg	7471A

EXECUTIVE SUMMARY - Detections

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-27633-16	**SS-16**				
4,4'-DDT		11	2.0	ug/Kg	8081A
4,4'-DDE		58	2.0	ug/Kg	8081A
4,4'-DDD		4.3	2.0	ug/Kg	8081A
Lead		20	0.50	mg/Kg	6010B
Arsenic		8.1	1.0	mg/Kg	6010B
Mercury		0.068	0.019	mg/Kg	7471A
720-27633-17	**SS-17**				
4,4'-DDT		84	2.0	ug/Kg	8081A
4,4'-DDE		28	2.0	ug/Kg	8081A
4,4'-DDD		19	2.0	ug/Kg	8081A
Lead		21	0.52	mg/Kg	6010B
Arsenic		7.9	1.0	mg/Kg	6010B
Mercury		0.060	0.019	mg/Kg	7471A
720-27633-18	**SS-18**				
4,4'-DDT		44	2.0	ug/Kg	8081A
4,4'-DDE		36	2.0	ug/Kg	8081A
4,4'-DDD		11	2.0	ug/Kg	8081A
Lead		31	0.52	mg/Kg	6010B
Arsenic		9.1	1.0	mg/Kg	6010B
Mercury		0.072	0.021	mg/Kg	7471A
720-27633-19	**SS-19**				
Endrin ketone		4.2	2.0	ug/Kg	8081A
4,4'-DDT		65	2.0	ug/Kg	8081A
4,4'-DDE		98	2.0	ug/Kg	8081A
4,4'-DDD		21	2.0	ug/Kg	8081A
alpha-Chlordane		2.8	2.0	ug/Kg	8081A
gamma-Chlordane		4.9	2.0	ug/Kg	8081A
Lead		44	0.51	mg/Kg	6010B
Arsenic		8.7	1.0	mg/Kg	6010B
Mercury		0.093	0.020	mg/Kg	7471A

EXECUTIVE SUMMARY - Detections

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-27633-20	**SS-20**				
4,4'-DDT		9.2	2.0	ug/Kg	8081A
4,4'-DDE		65	2.0	ug/Kg	8081A
4,4'-DDD		5.6	2.0	ug/Kg	8081A
Lead		24	0.51	mg/Kg	6010B
Arsenic		9.5	1.0	mg/Kg	6010B
Mercury		0.053	0.021	mg/Kg	7471A
720-27633-21	**SS-21**				
4,4'-DDT		13	2.0	ug/Kg	8081A
4,4'-DDE		79	2.0	ug/Kg	8081A
4,4'-DDD		7.2	2.0	ug/Kg	8081A
Lead		21	0.51	mg/Kg	6010B
Arsenic		9.9	1.0	mg/Kg	6010B
Mercury		0.067	0.019	mg/Kg	7471A
720-27633-22	**SS-22**				
4,4'-DDT		20	2.0	ug/Kg	8081A
4,4'-DDE		130	2.0	ug/Kg	8081A
4,4'-DDD		11	2.0	ug/Kg	8081A
Lead		19	0.49	mg/Kg	6010B
Arsenic		8.6	0.98	mg/Kg	6010B
Mercury		0.071	0.019	mg/Kg	7471A
720-27633-23	**SS-23**				
4,4'-DDT		13	2.0	ug/Kg	8081A
4,4'-DDE		71	2.0	ug/Kg	8081A
4,4'-DDD		6.8	2.0	ug/Kg	8081A
Arsenic		10	1.0	mg/Kg	6010B
Barium		160	0.51	mg/Kg	6010B
Beryllium		0.25	0.10	mg/Kg	6010B
Cadmium		0.47	0.13	mg/Kg	6010B
Chromium		36	0.51	mg/Kg	6010B
Cobalt		8.4	0.20	mg/Kg	6010B
Copper		65	1.5	mg/Kg	6010B
Lead		24	0.51	mg/Kg	6010B
Molybdenum		0.56	0.51	mg/Kg	6010B
Nickel		49	0.51	mg/Kg	6010B
Vanadium		30	0.51	mg/Kg	6010B
Zinc		59	1.5	mg/Kg	6010B
Mercury		0.048	0.020	mg/Kg	7471A

EXECUTIVE SUMMARY - Detections

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-27633-24	**SS-24**				
Naphthalene		10	5.0	ug/Kg	8270C
Phenanthrene		75	5.0	ug/Kg	8270C
Anthracene		8.1	5.0	ug/Kg	8270C
Benzo[a]anthracene		62	5.0	ug/Kg	8270C
Chrysene		100	5.0	ug/Kg	8270C
Benzo[a]pyrene		54	5.0	ug/Kg	8270C
Benzo[b]fluoranthene		72	5.0	ug/Kg	8270C
Benzo[k]fluoranthene		66	5.0	ug/Kg	8270C
Benzo[g,h,i]perylene		39	5.0	ug/Kg	8270C
Indeno[1,2,3-cd]pyrene		40	5.0	ug/Kg	8270C
Fluoranthene		120	5.0	ug/Kg	8270C
Pyrene		110	5.0	ug/Kg	8270C
Dibenz(a,h)anthracene		11	5.0	ug/Kg	8270C
4,4'-DDT		5.1	2.0	ug/Kg	8081A
4,4'-DDE		5.8	2.0	ug/Kg	8081A
Methoxychlor		18	2.0	ug/Kg	8081A
Antimony		4.4	0.48	mg/Kg	6010B
Arsenic		20	0.96	mg/Kg	6010B
Barium		400	0.48	mg/Kg	6010B
Cadmium		3.3	0.12	mg/Kg	6010B
Chromium		31	0.48	mg/Kg	6010B
Cobalt		4.3	0.19	mg/Kg	6010B
Copper		110	1.4	mg/Kg	6010B
Lead		150	0.48	mg/Kg	6010B
Molybdenum		3.7	0.48	mg/Kg	6010B
Nickel		34	0.48	mg/Kg	6010B
Silver		0.29	0.24	mg/Kg	6010B
Vanadium		13	0.48	mg/Kg	6010B
Zinc		1700	1.4	mg/Kg	6010B
Mercury		0.058	0.021	mg/Kg	7471A
Silica Gel Cleanup					
Diesel Range Organics [C10-C28]		18	1.0	mg/Kg	8015B

EXECUTIVE SUMMARY - Detections

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-27633-25	**SS-25**				
4,4'-DDT		33	2.0	ug/Kg	8081A
4,4'-DDE		200	2.0	ug/Kg	8081A
4,4'-DDD		18	2.0	ug/Kg	8081A
Arsenic		9.5	1.0	mg/Kg	6010B
Barium		190	0.50	mg/Kg	6010B
Beryllium		0.27	0.10	mg/Kg	6010B
Cadmium		0.66	0.12	mg/Kg	6010B
Chromium		57	0.50	mg/Kg	6010B
Cobalt		10	0.20	mg/Kg	6010B
Copper		73	1.5	mg/Kg	6010B
Lead		31	0.50	mg/Kg	6010B
Molybdenum		0.61	0.50	mg/Kg	6010B
Nickel		70	0.50	mg/Kg	6010B
Vanadium		31	0.50	mg/Kg	6010B
Zinc		73	1.5	mg/Kg	6010B
Mercury		0.083	0.020	mg/Kg	7471A
Silica Gel Cleanup					
Diesel Range Organics [C10-C28]		4.0	0.99	mg/Kg	8015B
720-27633-26	**SS-26**				
4,4'-DDT		53	2.0	ug/Kg	8081A
4,4'-DDE		200	2.0	ug/Kg	8081A
4,4'-DDD		22	2.0	ug/Kg	8081A
Chlordane (technical)		100	40	ug/Kg	8081A
alpha-Chlordane		14	2.0	ug/Kg	8081A
gamma-Chlordane		8.5	2.0	ug/Kg	8081A
Arsenic		13	0.98	mg/Kg	6010B
Barium		160	0.49	mg/Kg	6010B
Beryllium		0.24	0.098	mg/Kg	6010B
Cadmium		0.70	0.12	mg/Kg	6010B
Chromium		37	0.49	mg/Kg	6010B
Cobalt		8.6	0.20	mg/Kg	6010B
Copper		47	1.5	mg/Kg	6010B
Lead		21	0.49	mg/Kg	6010B
Molybdenum		0.61	0.49	mg/Kg	6010B
Nickel		65	0.49	mg/Kg	6010B
Vanadium		29	0.49	mg/Kg	6010B
Zinc		160	1.5	mg/Kg	6010B
Mercury		0.065	0.021	mg/Kg	7471A
Silica Gel Cleanup					
Diesel Range Organics [C10-C28]		2.5	0.99	mg/Kg	8015B

EXECUTIVE SUMMARY - Detections

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-27633-27	**SS-27**				
4,4'-DDT		8.5	2.0	ug/Kg	8081A
4,4'-DDE		33	2.0	ug/Kg	8081A
4,4'-DDD		4.6	2.0	ug/Kg	8081A
alpha-Chlordane		4.6	2.0	ug/Kg	8081A
gamma-Chlordane		2.2	2.0	ug/Kg	8081A
Lead		13	0.51	mg/Kg	6010B
Arsenic		4.4	1.0	mg/Kg	6010B
Mercury		0.056	0.019	mg/Kg	7471A
720-27633-28	**SS-28**				
4,4'-DDT		2.1	2.0	ug/Kg	8081A
4,4'-DDE		13	2.0	ug/Kg	8081A
4,4'-DDD		2.1	2.0	ug/Kg	8081A
Lead		10	0.52	mg/Kg	6010B
Arsenic		3.9	1.0	mg/Kg	6010B
Mercury		0.049	0.019	mg/Kg	7471A
720-27633-29	**SS-29**				
Lead		4.3	0.50	mg/Kg	6010B
Arsenic		2.0	1.0	mg/Kg	6010B
Mercury		0.085	0.019	mg/Kg	7471A

METHOD SUMMARY

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Semivolatile Organic Compounds (GC/MS SIM)	TAL SF	SW846 8270C	
Ultrasonic Extraction	TAL SF		SW846 3550B
Diesel Range Organics (DRO) (GC)	TAL SF	SW846 8015B	
Ultrasonic Extraction	TAL SF		SW846 3550B
Organochlorine Pesticides (GC)	TAL SF	SW846 8081A	
Ultrasonic Extraction	TAL SF		SW846 3550B
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL SF	SW846 8082	
Ultrasonic Extraction	TAL SF		SW846 3550B
Metals (ICP)	TAL SF	SW846 6010B	
Preparation, Metals	TAL SF		SW846 3050B
Mercury (CVAA)	TAL SF	SW846 7471A	
Preparation, Mercury	TAL SF		SW846 7471A

Lab References:

TAL SF = TestAmerica San Francisco

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Method	Analyst	Analyst ID
SW846 8270C	Cavalli, Evan	EC
SW846 8015B	Hayashi, Derek	DH
SW846 8081A	Cavalli, Evan	EC
SW846 8081A	Vincent, Richard	RV
SW846 8082	Cavalli, Evan	EC
SW846 6010B	Monforte, Carl A	CAM
SW846 7471A	Vega, Anthony	AV

SAMPLE SUMMARY

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-27633-1	SS-1	Solid	04/23/2010 1230	04/23/2010 1530
720-27633-2	SS-2	Solid	04/23/2010 1230	04/23/2010 1530
720-27633-3	SS-3	Solid	04/23/2010 1245	04/23/2010 1530
720-27633-4	SS-4	Solid	04/23/2010 1245	04/23/2010 1530
720-27633-5	SS-5	Solid	04/23/2010 1300	04/23/2010 1530
720-27633-6	SS-6	Solid	04/23/2010 1300	04/23/2010 1530
720-27633-7	SS-7	Solid	04/23/2010 1315	04/23/2010 1530
720-27633-8	SS-8	Solid	04/23/2010 1315	04/23/2010 1530
720-27633-9	SS-9	Solid	04/23/2010 1330	04/23/2010 1530
720-27633-10	SS-10	Solid	04/23/2010 1330	04/23/2010 1530
720-27633-11	SS-11	Solid	04/23/2010 1345	04/23/2010 1530
720-27633-12	SS-12	Solid	04/23/2010 1345	04/23/2010 1530
720-27633-13	SS-13	Solid	04/23/2010 1315	04/23/2010 1530
720-27633-14	SS-14	Solid	04/23/2010 1315	04/23/2010 1530
720-27633-15	SS-15	Solid	04/23/2010 1315	04/23/2010 1530
720-27633-16	SS-16	Solid	04/23/2010 1315	04/23/2010 1530
720-27633-17	SS-17	Solid	04/23/2010 1315	04/23/2010 1530
720-27633-18	SS-18	Solid	04/23/2010 1330	04/23/2010 1530
720-27633-19	SS-19	Solid	04/23/2010 1330	04/23/2010 1530
720-27633-20	SS-20	Solid	04/23/2010 1330	04/23/2010 1530
720-27633-21	SS-21	Solid	04/23/2010 1330	04/23/2010 1530
720-27633-22	SS-22	Solid	04/23/2010 1345	04/23/2010 1530
720-27633-23	SS-23	Solid	04/23/2010 1345	04/23/2010 1530
720-27633-24	SS-24	Solid	04/23/2010 1345	04/23/2010 1530
720-27633-25	SS-25	Solid	04/23/2010 1400	04/23/2010 1530
720-27633-26	SS-26	Solid	04/23/2010 1415	04/23/2010 1530
720-27633-27	SS-27	Solid	04/23/2010 1415	04/23/2010 1530
720-27633-28	SS-28	Solid	04/23/2010 1430	04/23/2010 1530
720-27633-29	SS-29	Solid	04/23/2010 1430	04/23/2010 1530

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-1

Lab Sample ID: 720-27633-1
Client Matrix: Solid

Date Sampled: 04/23/2010 1230
Date Received: 04/23/2010 1530

8270C Semivolatile Organic Compounds (GC/MS SIM)

Method:	8270C	Analysis Batch: 720-70368		Instrument ID:	SVOA HP 4
Preparation:	3550B	Prep Batch: 720-70254		Lab File ID:	04281026.D
Dilution:	5.0			Initial Weight/Volume:	30.36 g
Date Analyzed:	04/28/2010 1949			Final Weight/Volume:	1 mL
Date Prepared:	04/26/2010 1513			Injection Volume:	1 uL

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Naphthalene		ND		25
Acenaphthene		ND		25
Acenaphthylene		ND		25
Fluorene		ND		25
Phenanthrene		38		25
Anthracene		ND		25
Benzo[a]anthracene		ND		25
Chrysene		34		25
Benzo[a]pyrene		37		25
Benzo[b]fluoranthene		29		25
Benzo[k]fluoranthene		27		25
Benzo[g,h,i]perylene		48		25
Indeno[1,2,3-cd]pyrene		29		25
Fluoranthene		63		25
Pyrene		74		25
Dibenz(a,h)anthracene		ND		25

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	68		33 - 120
Terphenyl-d14	85		35 - 120

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-3

Lab Sample ID: 720-27633-3
Client Matrix: Solid

Date Sampled: 04/23/2010 1245
Date Received: 04/23/2010 1530

8270C Semivolatile Organic Compounds (GC/MS SIM)

Method:	8270C	Analysis Batch: 720-70368		Instrument ID:	SVOA HP 4
Preparation:	3550B	Prep Batch: 720-70254		Lab File ID:	04281027.D
Dilution:	1.0			Initial Weight/Volume:	30.17 g
Date Analyzed:	04/28/2010 2013			Final Weight/Volume:	1 mL
Date Prepared:	04/26/2010 1513			Injection Volume:	1 uL

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Naphthalene		17		5.0
Acenaphthene		ND		5.0
Acenaphthylene		27		5.0
Fluorene		12		5.0
Phenanthrene		200		5.0
Anthracene		13		5.0
Benzo[a]anthracene		55		5.0
Chrysene		98		5.0
Benzo[a]pyrene		110		5.0
Benzo[b]fluoranthene		89		5.0
Benzo[k]fluoranthene		76		5.0
Benzo[g,h,i]perylene		150		5.0
Indeno[1,2,3-cd]pyrene		100		5.0
Fluoranthene		250		5.0
Pyrene		270		5.0
Dibenz(a,h)anthracene		16		5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	65		33 - 120
Terphenyl-d14	87		35 - 120

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-20

Lab Sample ID: 720-27633-20
Client Matrix: Solid

Date Sampled: 04/23/2010 1330
Date Received: 04/23/2010 1530

8270C Semivolatile Organic Compounds (GC/MS SIM)

Method:	8270C	Analysis Batch: 720-70368		Instrument ID:	SVOA HP 4
Preparation:	3550B	Prep Batch: 720-70254		Lab File ID:	04281028.D
Dilution:	1.0			Initial Weight/Volume:	30.39 g
Date Analyzed:	04/28/2010 2037			Final Weight/Volume:	1 mL
Date Prepared:	04/26/2010 1513			Injection Volume:	1 uL

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Naphthalene		ND		4.9
Acenaphthene		ND		4.9
Acenaphthylene		ND		4.9
Fluorene		ND		4.9
Phenanthrene		ND		4.9
Anthracene		ND		4.9
Benzo[a]anthracene		ND		4.9
Chrysene		ND		4.9
Benzo[a]pyrene		ND		4.9
Benzo[b]fluoranthene		ND		4.9
Benzo[k]fluoranthene		ND		4.9
Benzo[g,h,i]perylene		ND		4.9
Indeno[1,2,3-cd]pyrene		ND		4.9
Fluoranthene		ND		4.9
Pyrene		ND		4.9
Dibenz(a,h)anthracene		ND		4.9

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	70		33 - 120
Terphenyl-d14	86		35 - 120

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-21

Lab Sample ID: 720-27633-21
Client Matrix: Solid

Date Sampled: 04/23/2010 1330
Date Received: 04/23/2010 1530

8270C Semivolatile Organic Compounds (GC/MS SIM)

Method:	8270C	Analysis Batch: 720-70368		Instrument ID:	SVOA HP 4
Preparation:	3550B	Prep Batch: 720-70254		Lab File ID:	04281032.D
Dilution:	1.0			Initial Weight/Volume:	30.08 g
Date Analyzed:	04/28/2010 2212			Final Weight/Volume:	1 mL
Date Prepared:	04/26/2010 1548			Injection Volume:	1 uL

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Naphthalene		ND		5.0
Acenaphthene		ND		5.0
Acenaphthylene		ND		5.0
Fluorene		ND		5.0
Phenanthrene		ND		5.0
Anthracene		ND		5.0
Benzo[a]anthracene		ND		5.0
Chrysene		ND		5.0
Benzo[a]pyrene		ND		5.0
Benzo[b]fluoranthene		ND		5.0
Benzo[k]fluoranthene		ND		5.0
Benzo[g,h,i]perylene		ND		5.0
Indeno[1,2,3-cd]pyrene		ND		5.0
Fluoranthene		ND		5.0
Pyrene		ND		5.0
Dibenz(a,h)anthracene		ND		5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	69		33 - 120
Terphenyl-d14	87		35 - 120

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-24

Lab Sample ID: 720-27633-24
Client Matrix: Solid

Date Sampled: 04/23/2010 1345
Date Received: 04/23/2010 1530

8270C Semivolatile Organic Compounds (GC/MS SIM)

Method:	8270C	Analysis Batch: 720-70368	Instrument ID:	SVOA HP 4
Preparation:	3550B	Prep Batch: 720-70254	Lab File ID:	04281031.D
Dilution:	1.0		Initial Weight/Volume:	30.12 g
Date Analyzed:	04/28/2010 2149		Final Weight/Volume:	1 mL
Date Prepared:	04/26/2010 1513		Injection Volume:	1 uL

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Naphthalene		10		5.0
Acenaphthene		ND		5.0
Acenaphthylene		ND		5.0
Fluorene		ND		5.0
Phenanthrene		75		5.0
Anthracene		8.1		5.0
Benzo[a]anthracene		62		5.0
Chrysene		100		5.0
Benzo[a]pyrene		54		5.0
Benzo[b]fluoranthene		72		5.0
Benzo[k]fluoranthene		66		5.0
Benzo[g,h,i]perylene		39		5.0
Indeno[1,2,3-cd]pyrene		40		5.0
Fluoranthene		120		5.0
Pyrene		110		5.0
Dibenz(a,h)anthracene		11		5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	63		33 - 120
Terphenyl-d14	86		35 - 120

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-1

Lab Sample ID: 720-27633-1
Client Matrix: Solid

Date Sampled: 04/23/2010 1230
Date Received: 04/23/2010 1530

8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch: 720-70278	Instrument ID:	CHDRO6
Preparation:	3550B	Prep Batch: 720-70244	Initial Weight/Volume:	30.09 g
Dilution:	1.0		Final Weight/Volume:	2 mL
Date Analyzed:	04/27/2010 1413		Injection Volume:	1 uL
Date Prepared:	04/26/2010 1351		Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		7.2		1.0
Motor Oil Range Organics [C24-C36]		ND		50

Surrogate	%Rec	Qualifier	Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	79		46 - 115

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-2

Lab Sample ID: 720-27633-2
Client Matrix: Solid

Date Sampled: 04/23/2010 1230
Date Received: 04/23/2010 1530

8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch: 720-70278	Instrument ID:	CHDRO6
Preparation:	3550B	Prep Batch: 720-70244	Initial Weight/Volume:	30.31 g
Dilution:	1.0		Final Weight/Volume:	2 mL
Date Analyzed:	04/27/2010 1435		Injection Volume:	1 uL
Date Prepared:	04/26/2010 1351		Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		30		0.99
Motor Oil Range Organics [C24-C36]		100		49

Surrogate	%Rec	Qualifier	Acceptance Limits
Capric Acid (Surr)	2		0 - 5
p-Terphenyl	74		46 - 115

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-3

Lab Sample ID: 720-27633-3
Client Matrix: Solid

Date Sampled: 04/23/2010 1245
Date Received: 04/23/2010 1530

8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch: 720-70359	Instrument ID:	CHDRO5
Preparation:	3550B	Prep Batch: 720-70244	Initial Weight/Volume:	30.18 g
Dilution:	1.0		Final Weight/Volume:	2 mL
Date Analyzed:	04/28/2010 1301		Injection Volume:	1 uL
Date Prepared:	04/26/2010 1351		Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		3.4		0.99
Motor Oil Range Organics [C24-C36]		ND		50

Surrogate	%Rec	Qualifier	Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	91		46 - 115

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-4

Lab Sample ID: 720-27633-4
Client Matrix: Solid

Date Sampled: 04/23/2010 1245
Date Received: 04/23/2010 1530

8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch: 720-70278	Instrument ID:	CHDRO6
Preparation:	3550B	Prep Batch: 720-70244	Initial Weight/Volume:	30.39 g
Dilution:	1.0		Final Weight/Volume:	2 mL
Date Analyzed:	04/27/2010 1518		Injection Volume:	1 uL
Date Prepared:	04/26/2010 1351		Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		3.4		0.99
Motor Oil Range Organics [C24-C36]		ND		49

Surrogate	%Rec	Qualifier	Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	87		46 - 115

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-5

Lab Sample ID: 720-27633-5
Client Matrix: Solid

Date Sampled: 04/23/2010 1300
Date Received: 04/23/2010 1530

8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch: 720-70278	Instrument ID:	CHDRO6
Preparation:	3550B	Prep Batch: 720-70244	Initial Weight/Volume:	30.44 g
Dilution:	20		Final Weight/Volume:	2 mL
Date Analyzed:	04/27/2010 1539		Injection Volume:	1 uL
Date Prepared:	04/26/2010 1351		Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		1100		20
Motor Oil Range Organics [C24-C36]		3700		990

Surrogate	%Rec	Qualifier	Acceptance Limits
Capric Acid (Surr)	1		0 - 5
p-Terphenyl	124	D	46 - 115

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-6

Lab Sample ID: 720-27633-6
Client Matrix: Solid

Date Sampled: 04/23/2010 1300
Date Received: 04/23/2010 1530

8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch: 720-70278	Instrument ID:	CHDRO6
Preparation:	3550B	Prep Batch: 720-70244	Initial Weight/Volume:	30.32 g
Dilution:	1.0		Final Weight/Volume:	2 mL
Date Analyzed:	04/27/2010 1601		Injection Volume:	1 uL
Date Prepared:	04/26/2010 1351		Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		29		0.99
Motor Oil Range Organics [C24-C36]		110		49

Surrogate	%Rec	Qualifier	Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	71		46 - 115

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-7

Lab Sample ID: 720-27633-7
Client Matrix: Solid

Date Sampled: 04/23/2010 1315
Date Received: 04/23/2010 1530

8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch: 720-70359	Instrument ID:	CHDRO5
Preparation:	3550B	Prep Batch: 720-70244	Initial Weight/Volume:	30.33 g
Dilution:	1.0		Final Weight/Volume:	2 mL
Date Analyzed:	04/28/2010 1326		Injection Volume:	1 uL
Date Prepared:	04/26/2010 1351		Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		1.1		0.99
Motor Oil Range Organics [C24-C36]		ND		49

Surrogate	%Rec	Qualifier	Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	90		46 - 115

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: **SS-8**

Lab Sample ID: 720-27633-8
Client Matrix: Solid

Date Sampled: 04/23/2010 1315
Date Received: 04/23/2010 1530

8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch: 720-70278	Instrument ID:	CHDRO6
Preparation:	3550B	Prep Batch: 720-70244	Initial Weight/Volume:	30.20 g
Dilution:	1.0		Final Weight/Volume:	2 mL
Date Analyzed:	04/27/2010 1644		Injection Volume:	1 uL
Date Prepared:	04/26/2010 1351		Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		4.0		0.99
Motor Oil Range Organics [C24-C36]		ND		50

Surrogate	%Rec	Qualifier	Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	79		46 - 115

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: **SS-10**

Lab Sample ID: 720-27633-10
Client Matrix: Solid

Date Sampled: 04/23/2010 1330
Date Received: 04/23/2010 1530

8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch: 720-70278	Instrument ID:	CHDRO6
Preparation:	3550B	Prep Batch: 720-70244	Initial Weight/Volume:	30.02 g
Dilution:	1.0		Final Weight/Volume:	2 mL
Date Analyzed:	04/27/2010 1705		Injection Volume:	1 uL
Date Prepared:	04/26/2010 1351		Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		2.6		1.0
Motor Oil Range Organics [C24-C36]		ND		50

Surrogate	%Rec	Qualifier	Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	81		46 - 115

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-12

Lab Sample ID: 720-27633-12
Client Matrix: Solid

Date Sampled: 04/23/2010 1345
Date Received: 04/23/2010 1530

8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch: 720-70278		Instrument ID:	CHDRO6
Preparation:	3550B	Prep Batch: 720-70244		Initial Weight/Volume:	30.30 g
Dilution:	1.0			Final Weight/Volume:	2 mL
Date Analyzed:	04/27/2010 1727			Injection Volume:	1 uL
Date Prepared:	04/26/2010 1351			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		14		0.99
Motor Oil Range Organics [C24-C36]		69		50

Surrogate	%Rec	Qualifier	Acceptance Limits
Capric Acid (Surr)	1		0 - 5
p-Terphenyl	79		46 - 115

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-13

Lab Sample ID: 720-27633-13
Client Matrix: Solid

Date Sampled: 04/23/2010 1315
Date Received: 04/23/2010 1530

8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch: 720-70278		Instrument ID:	CHDRO6
Preparation:	3550B	Prep Batch: 720-70244		Initial Weight/Volume:	30.13 g
Dilution:	1.0			Final Weight/Volume:	2 mL
Date Analyzed:	04/27/2010 1748			Injection Volume:	1 uL
Date Prepared:	04/26/2010 1351			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		52		1.0
Motor Oil Range Organics [C24-C36]		150		50

Surrogate	%Rec	Qualifier	Acceptance Limits
Capric Acid (Surr)	1		0 - 5
p-Terphenyl	60		46 - 115

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-23

Lab Sample ID: 720-27633-23
Client Matrix: Solid

Date Sampled: 04/23/2010 1345
Date Received: 04/23/2010 1530

8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch: 720-70359		Instrument ID:	CHDRO5
Preparation:	3550B	Prep Batch: 720-70244		Initial Weight/Volume:	30.41 g
Dilution:	1.0			Final Weight/Volume:	2 mL
Date Analyzed:	04/28/2010 1351			Injection Volume:	1 uL
Date Prepared:	04/26/2010 1351			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		ND		0.99
Motor Oil Range Organics [C24-C36]		ND		49

Surrogate	%Rec	Qualifier	Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	92		46 - 115

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-24

Lab Sample ID: 720-27633-24
Client Matrix: Solid

Date Sampled: 04/23/2010 1345
Date Received: 04/23/2010 1530

8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch: 720-70278		Instrument ID:	CHDRO6
Preparation:	3550B	Prep Batch: 720-70244		Initial Weight/Volume:	30.07 g
Dilution:	1.0			Final Weight/Volume:	2 mL
Date Analyzed:	04/27/2010 1832			Injection Volume:	1 uL
Date Prepared:	04/26/2010 1351			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		18		1.0
Motor Oil Range Organics [C24-C36]		ND		50

Surrogate	%Rec	Qualifier	Acceptance Limits
Capric Acid (Surr)	1		0 - 5
p-Terphenyl	86		46 - 115

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-25

Lab Sample ID: 720-27633-25
Client Matrix: Solid

Date Sampled: 04/23/2010 1400
Date Received: 04/23/2010 1530

8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch: 720-70278		Instrument ID:	CHDRO6
Preparation:	3550B	Prep Batch: 720-70244		Initial Weight/Volume:	30.21 g
Dilution:	1.0			Final Weight/Volume:	2 mL
Date Analyzed:	04/27/2010 1853			Injection Volume:	1 uL
Date Prepared:	04/26/2010 1351			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		4.0		0.99
Motor Oil Range Organics [C24-C36]		ND		50

Surrogate	%Rec	Qualifier	Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	84		46 - 115

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-26

Lab Sample ID: 720-27633-26
Client Matrix: Solid

Date Sampled: 04/23/2010 1415
Date Received: 04/23/2010 1530

8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch: 720-70278		Instrument ID:	CHDRO6
Preparation:	3550B	Prep Batch: 720-70244		Initial Weight/Volume:	30.38 g
Dilution:	1.0			Final Weight/Volume:	2 mL
Date Analyzed:	04/27/2010 1914			Injection Volume:	1 uL
Date Prepared:	04/26/2010 1351			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		2.5		0.99
Motor Oil Range Organics [C24-C36]		ND		49

Surrogate	%Rec	Qualifier	Acceptance Limits
Capric Acid (Surr)	1		0 - 5
p-Terphenyl	90		46 - 115

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-1

Lab Sample ID: 720-27633-1
Client Matrix: Solid

Date Sampled: 04/23/2010 1230
Date Received: 04/23/2010 1530

8081A Organochlorine Pesticides (GC)

Method:	8081A	Analysis Batch: 720-70293	Instrument ID:	Pest # 4
Preparation:	3550B	Prep Batch: 720-70305	Initial Weight/Volume:	30.24 g
Dilution:	1.0		Final Weight/Volume:	10 mL
Date Analyzed:	04/28/2010 0247		Injection Volume:	1 uL
Date Prepared:	04/27/2010 1124		Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Aldrin		ND		2.0
Dieldrin		2.8		2.0
Endrin aldehyde		ND		2.0
Endrin		ND		2.0
Endrin ketone		ND		2.0
Heptachlor		ND		2.0
Heptachlor epoxide		ND		2.0
4,4'-DDT		84		2.0
4,4'-DDE		82		2.0
4,4'-DDD		17		2.0
Endosulfan I		ND		2.0
Endosulfan II		3.9		2.0
alpha-BHC		ND		2.0
beta-BHC		ND		2.0
gamma-BHC (Lindane)		ND		2.0
delta-BHC		ND		2.0
Endosulfan sulfate		ND		2.0
Methoxychlor		ND		2.0
Toxaphene		ND		40
Chlordane (technical)		670		40
alpha-Chlordane		79		2.0
gamma-Chlordane		75		2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	91		54 - 109
DCB Decachlorobiphenyl	81		27 - 136

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-2

Lab Sample ID: 720-27633-2
Client Matrix: Solid

Date Sampled: 04/23/2010 1230
Date Received: 04/23/2010 1530

8081A Organochlorine Pesticides (GC)

Method:	8081A	Analysis Batch: 720-70405	Instrument ID:	Pest # 4
Preparation:	3550B	Prep Batch: 720-70276	Initial Weight/Volume:	30.17 g
Dilution:	5.0		Final Weight/Volume:	10 mL
Date Analyzed:	04/28/2010 1831		Injection Volume:	1 uL
Date Prepared:	04/26/2010 2000		Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Aldrin		ND		9.9
Dieldrin		ND		9.9
Endrin aldehyde		ND		9.9
Endrin		ND		9.9
Endrin ketone		ND		9.9
Heptachlor		ND		9.9
Heptachlor epoxide		82		9.9
4,4'-DDT		540		9.9
4,4'-DDE		220		9.9
4,4'-DDD		31		9.9
Endosulfan I		ND		9.9
Endosulfan II		ND		9.9
alpha-BHC		ND		9.9
beta-BHC		ND		9.9
gamma-BHC (Lindane)		ND		9.9
delta-BHC		ND		9.9
Endosulfan sulfate		ND		9.9
Methoxychlor		ND		9.9
Toxaphene		ND		200
Chlordane (technical)		2900		200
alpha-Chlordane		610		9.9
gamma-Chlordane		440		9.9

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	81		54 - 109
DCB Decachlorobiphenyl	133		27 - 136

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-3

Lab Sample ID: 720-27633-3
Client Matrix: Solid

Date Sampled: 04/23/2010 1245
Date Received: 04/23/2010 1530

8081A Organochlorine Pesticides (GC)

Method:	8081A	Analysis Batch: 720-70293	Instrument ID:	Pest # 4
Preparation:	3550B	Prep Batch: 720-70305	Initial Weight/Volume:	30.19 g
Dilution:	1.0		Final Weight/Volume:	10 mL
Date Analyzed:	04/28/2010 0304		Injection Volume:	1 uL
Date Prepared:	04/27/2010 1124		Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Aldrin		ND		2.0
Dieldrin		2.4		2.0
Endrin aldehyde		ND		2.0
Endrin		ND		2.0
Endrin ketone		ND		2.0
Heptachlor		ND		2.0
Heptachlor epoxide		ND		2.0
4,4'-DDT		65		2.0
4,4'-DDE		80		2.0
4,4'-DDD		16		2.0
Endosulfan I		ND		2.0
Endosulfan II		ND		2.0
alpha-BHC		ND		2.0
beta-BHC		ND		2.0
gamma-BHC (Lindane)		ND		2.0
delta-BHC		ND		2.0
Endosulfan sulfate		ND		2.0
Methoxychlor		ND		2.0
Toxaphene		ND		40
Chlordane (technical)		70		40
alpha-Chlordane		12		2.0
gamma-Chlordane		14		2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	89		54 - 109
DCB Decachlorobiphenyl	61		27 - 136

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-4

Lab Sample ID: 720-27633-4
Client Matrix: Solid

Date Sampled: 04/23/2010 1245
Date Received: 04/23/2010 1530

8081A Organochlorine Pesticides (GC)

Method:	8081A	Analysis Batch: 720-70292	Instrument ID:	CHPEST3
Preparation:	3550B	Prep Batch: 720-70276	Initial Weight/Volume:	30.18 g
Dilution:	1.0		Final Weight/Volume:	10 mL
Date Analyzed:	04/27/2010 2142		Injection Volume:	1 uL
Date Prepared:	04/26/2010 2000		Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Aldrin		ND		2.0
Dieldrin		ND		2.0
Endrin aldehyde		ND		2.0
Endrin		ND		2.0
Endrin ketone		ND		2.0
Heptachlor		ND		2.0
Heptachlor epoxide		ND		2.0
4,4'-DDT		110		2.0
4,4'-DDE		200		2.0
4,4'-DDD		ND		2.0
Endosulfan I		ND		2.0
Endosulfan II		ND		2.0
alpha-BHC		ND		2.0
beta-BHC		ND		2.0
gamma-BHC (Lindane)		ND		2.0
delta-BHC		ND		2.0
Endosulfan sulfate		ND		2.0
Methoxychlor		ND		2.0
Toxaphene		ND		40
Chlordane (technical)		47		40
alpha-Chlordane		11		2.0
gamma-Chlordane		4.6		2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	85		54 - 109
DCB Decachlorobiphenyl	89		27 - 136

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-5

Lab Sample ID: 720-27633-5
Client Matrix: Solid

Date Sampled: 04/23/2010 1300
Date Received: 04/23/2010 1530

8081A Organochlorine Pesticides (GC)

Method: 8081A
Preparation: 3550B
Dilution: 1.0
Date Analyzed: 04/27/2010 2158
Date Prepared: 04/26/2010 2000

Analysis Batch: 720-70292
Prep Batch: 720-70276

Instrument ID: CHPEST3
Initial Weight/Volume: 30.33 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Result Type: PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Aldrin		ND		2.0
Dieldrin		6.4		2.0
Endrin aldehyde		ND		2.0
Endrin		ND		2.0
Endrin ketone		ND		2.0
Heptachlor		ND		2.0
Heptachlor epoxide		ND		2.0
4,4'-DDT		94		2.0
4,4'-DDE		13		2.0
4,4'-DDD		16		2.0
Endosulfan I		ND		2.0
Endosulfan II		ND		2.0
alpha-BHC		6.7		2.0
beta-BHC		ND		2.0
gamma-BHC (Lindane)		ND		2.0
delta-BHC		ND		2.0
Endosulfan sulfate		ND		2.0
Methoxychlor		ND		2.0
Toxaphene		ND		40
Chlordane (technical)		ND		40
alpha-Chlordane		ND		2.0
gamma-Chlordane		ND		2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	103		54 - 109
DCB Decachlorobiphenyl	114		27 - 136

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-6

Lab Sample ID: 720-27633-6
Client Matrix: Solid

Date Sampled: 04/23/2010 1300
Date Received: 04/23/2010 1530

8081A Organochlorine Pesticides (GC)

Method: 8081A
Preparation: 3550B
Dilution: 1.0
Date Analyzed: 04/27/2010 2214
Date Prepared: 04/26/2010 2000

Analysis Batch: 720-70292
Prep Batch: 720-70276

Instrument ID: CHPEST3
Initial Weight/Volume: 30.21 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Result Type: PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Aldrin		ND		2.0
Dieldrin		6.2		2.0
Endrin aldehyde		ND		2.0
Endrin		ND		2.0
Endrin ketone		ND		2.0
Heptachlor		ND		2.0
Heptachlor epoxide		ND		2.0
4,4'-DDT		140		2.0
4,4'-DDE		19		2.0
4,4'-DDD		46		2.0
Endosulfan I		3.4		2.0
Endosulfan II		ND		2.0
alpha-BHC		ND		2.0
beta-BHC		ND		2.0
gamma-BHC (Lindane)		ND		2.0
delta-BHC		ND		2.0
Endosulfan sulfate		3.4		2.0
Methoxychlor		ND		2.0
Toxaphene		ND		40
Chlordane (technical)		290		40
alpha-Chlordane		26		2.0
gamma-Chlordane		16		2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	108		54 - 109
DCB Decachlorobiphenyl	99		27 - 136

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-7

Lab Sample ID: 720-27633-7
Client Matrix: Solid

Date Sampled: 04/23/2010 1315
Date Received: 04/23/2010 1530

8081A Organochlorine Pesticides (GC)

Method:	8081A	Analysis Batch: 720-70292	Instrument ID:	CHPEST3
Preparation:	3550B	Prep Batch: 720-70276	Initial Weight/Volume:	30.35 g
Dilution:	1.0		Final Weight/Volume:	10 mL
Date Analyzed:	04/27/2010 2230		Injection Volume:	1 uL
Date Prepared:	04/26/2010 2000		Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Aldrin		ND		2.0
Dieldrin		ND		2.0
Endrin aldehyde		ND		2.0
Endrin		ND		2.0
Endrin ketone		ND		2.0
Heptachlor		ND		2.0
Heptachlor epoxide		ND		2.0
4,4'-DDT		20		2.0
4,4'-DDE		42		2.0
4,4'-DDD		3.6		2.0
Endosulfan I		ND		2.0
Endosulfan II		ND		2.0
alpha-BHC		ND		2.0
beta-BHC		ND		2.0
gamma-BHC (Lindane)		ND		2.0
delta-BHC		ND		2.0
Endosulfan sulfate		ND		2.0
Methoxychlor		ND		2.0
Toxaphene		ND		40
Chlordane (technical)		ND		40
alpha-Chlordane		5.9		2.0
gamma-Chlordane		3.8		2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	79		54 - 109
DCB Decachlorobiphenyl	82		27 - 136

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-8

Lab Sample ID: 720-27633-8
Client Matrix: Solid

Date Sampled: 04/23/2010 1315
Date Received: 04/23/2010 1530

8081A Organochlorine Pesticides (GC)

Method:	8081A	Analysis Batch: 720-70293	Instrument ID:	Pest # 4
Preparation:	3550B	Prep Batch: 720-70305	Initial Weight/Volume:	30.34 g
Dilution:	1.0		Final Weight/Volume:	10 mL
Date Analyzed:	04/28/2010 0322		Injection Volume:	1 uL
Date Prepared:	04/27/2010 1124		Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Aldrin		ND		2.0
Dieldrin		ND		2.0
Endrin aldehyde		ND		2.0
Endrin		ND		2.0
Endrin ketone		ND		2.0
Heptachlor		ND		2.0
Heptachlor epoxide		ND		2.0
4,4'-DDT		4.5		2.0
4,4'-DDE		ND		2.0
4,4'-DDD		ND		2.0
Endosulfan I		ND		2.0
Endosulfan II		ND		2.0
alpha-BHC		ND		2.0
beta-BHC		ND		2.0
gamma-BHC (Lindane)		ND		2.0
delta-BHC		ND		2.0
Endosulfan sulfate		ND		2.0
Methoxychlor		ND		2.0
Toxaphene		ND		40
Chlordane (technical)		ND		40
alpha-Chlordane		ND		2.0
gamma-Chlordane		ND		2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	87		54 - 109
DCB Decachlorobiphenyl	98		27 - 136

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-9

Lab Sample ID: 720-27633-9
Client Matrix: Solid

Date Sampled: 04/23/2010 1330
Date Received: 04/23/2010 1530

8081A Organochlorine Pesticides (GC)

Method: 8081A
Preparation: 3550B
Dilution: 1.0
Date Analyzed: 04/27/2010 2246
Date Prepared: 04/26/2010 2000

Analysis Batch: 720-70292
Prep Batch: 720-70276

Instrument ID: CHPEST3
Initial Weight/Volume: 30.00 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Result Type: PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Aldrin		ND		2.0
Dieldrin		ND		2.0
Endrin aldehyde		ND		2.0
Endrin		ND		2.0
Endrin ketone		ND		2.0
Heptachlor		ND		2.0
Heptachlor epoxide		ND		2.0
4,4'-DDT		9.4		2.0
4,4'-DDE		37		2.0
4,4'-DDD		2.4		2.0
Endosulfan I		ND		2.0
Endosulfan II		3.9		2.0
alpha-BHC		ND		2.0
beta-BHC		ND		2.0
gamma-BHC (Lindane)		ND		2.0
delta-BHC		ND		2.0
Endosulfan sulfate		21		2.0
Methoxychlor		ND		2.0
Toxaphene		ND		40
Chlordane (technical)		ND		40
alpha-Chlordane		5.4		2.0
gamma-Chlordane		3.0		2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	83		54 - 109
DCB Decachlorobiphenyl	74		27 - 136

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-10

Lab Sample ID: 720-27633-10
Client Matrix: Solid

Date Sampled: 04/23/2010 1330
Date Received: 04/23/2010 1530

8081A Organochlorine Pesticides (GC)

Method: 8081A
Preparation: 3550B
Dilution: 1.0
Date Analyzed: 04/27/2010 2302
Date Prepared: 04/26/2010 2000

Analysis Batch: 720-70292
Prep Batch: 720-70276

Instrument ID: CHPEST3
Initial Weight/Volume: 30.48 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Result Type: PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Aldrin		ND		2.0
Dieldrin		2.1		2.0
Endrin aldehyde		ND		2.0
Endrin		ND		2.0
Endrin ketone		ND		2.0
Heptachlor		ND		2.0
Heptachlor epoxide		ND		2.0
4,4'-DDT		47		2.0
4,4'-DDE		58		2.0
4,4'-DDD		13		2.0
Endosulfan I		ND		2.0
Endosulfan II		ND		2.0
alpha-BHC		ND		2.0
beta-BHC		ND		2.0
gamma-BHC (Lindane)		ND		2.0
delta-BHC		ND		2.0
Endosulfan sulfate		ND		2.0
Methoxychlor		ND		2.0
Toxaphene		ND		39
Chlordane (technical)		53		39
alpha-Chlordane		14		2.0
gamma-Chlordane		9.6		2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	78		54 - 109
DCB Decachlorobiphenyl	78		27 - 136

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-11

Lab Sample ID: 720-27633-11
Client Matrix: Solid

Date Sampled: 04/23/2010 1345
Date Received: 04/23/2010 1530

8081A Organochlorine Pesticides (GC)

Method:	8081A	Analysis Batch: 720-70292		Instrument ID:	CHPEST3
Preparation:	3550B	Prep Batch: 720-70276		Initial Weight/Volume:	30.05 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Date Analyzed:	04/27/2010 2317			Injection Volume:	1 uL
Date Prepared:	04/26/2010 2000			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Aldrin		ND		2.0
Dieldrin		ND		2.0
Endrin aldehyde		ND		2.0
Endrin		ND		2.0
Endrin ketone		ND		2.0
Heptachlor		ND		2.0
Heptachlor epoxide		ND		2.0
4,4'-DDT		2.8		2.0
4,4'-DDE		2.4		2.0
4,4'-DDD		ND		2.0
Endosulfan I		ND		2.0
Endosulfan II		ND		2.0
alpha-BHC		ND		2.0
beta-BHC		ND		2.0
gamma-BHC (Lindane)		ND		2.0
delta-BHC		ND		2.0
Endosulfan sulfate		3.6		2.0
Methoxychlor		ND		2.0
Toxaphene		ND		40
Chlordane (technical)		ND		40
alpha-Chlordane		ND		2.0
gamma-Chlordane		ND		2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	78		54 - 109
DCB Decachlorobiphenyl	72		27 - 136

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-12

Lab Sample ID: 720-27633-12
Client Matrix: Solid

Date Sampled: 04/23/2010 1345
Date Received: 04/23/2010 1530

8081A Organochlorine Pesticides (GC)

Method:	8081A	Analysis Batch: 720-70292		Instrument ID:	CHPEST3
Preparation:	3550B	Prep Batch: 720-70276		Initial Weight/Volume:	30.28 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Date Analyzed:	04/27/2010 2333			Injection Volume:	1 uL
Date Prepared:	04/26/2010 2000			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Aldrin		ND		2.0
Dieldrin		5.3		2.0
Endrin aldehyde		ND		2.0
Endrin		ND		2.0
Endrin ketone		ND		2.0
Heptachlor		ND		2.0
Heptachlor epoxide		8.2		2.0
4,4'-DDT		96		2.0
4,4'-DDE		130		2.0
4,4'-DDD		18		2.0
Endosulfan I		ND		2.0
Endosulfan II		3.1		2.0
alpha-BHC		ND		2.0
beta-BHC		ND		2.0
gamma-BHC (Lindane)		ND		2.0
delta-BHC		ND		2.0
Endosulfan sulfate		3.5		2.0
Methoxychlor		ND		2.0
Toxaphene		ND		40
Chlordane (technical)		300		40
alpha-Chlordane		58		2.0
gamma-Chlordane		37		2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	82		54 - 109
DCB Decachlorobiphenyl	88		27 - 136

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-13

Lab Sample ID: 720-27633-13
Client Matrix: Solid

Date Sampled: 04/23/2010 1315
Date Received: 04/23/2010 1530

8081A Organochlorine Pesticides (GC)

Method: 8081A
Preparation: 3550B
Dilution: 1.0
Date Analyzed: 04/27/2010 2349
Date Prepared: 04/26/2010 2000

Analysis Batch: 720-70292
Prep Batch: 720-70276

Instrument ID: CHPEST3
Initial Weight/Volume: 30.10 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Result Type: PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Aldrin		ND		2.0
Dieldrin		ND		2.0
Endrin aldehyde		ND		2.0
Endrin		ND		2.0
Endrin ketone		ND		2.0
Heptachlor		ND		2.0
Heptachlor epoxide		ND		2.0
4,4'-DDT		8.2		2.0
4,4'-DDE		3.0		2.0
4,4'-DDD		ND		2.0
Endosulfan I		ND		2.0
Endosulfan II		2.2		2.0
alpha-BHC		ND		2.0
beta-BHC		ND		2.0
gamma-BHC (Lindane)		ND		2.0
delta-BHC		ND		2.0
Endosulfan sulfate		2.9		2.0
Methoxychlor		ND		2.0
Toxaphene		ND		40
Chlordane (technical)		76		40
alpha-Chlordane		9.0		2.0
gamma-Chlordane		3.7		2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	68		54 - 109
DCB Decachlorobiphenyl	98		27 - 136

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-14

Lab Sample ID: 720-27633-14
Client Matrix: Solid

Date Sampled: 04/23/2010 1315
Date Received: 04/23/2010 1530

8081A Organochlorine Pesticides (GC)

Method: 8081A
Preparation: 3550B
Dilution: 1.0
Date Analyzed: 04/28/2010 0005
Date Prepared: 04/26/2010 2000

Analysis Batch: 720-70292
Prep Batch: 720-70276

Instrument ID: CHPEST3
Initial Weight/Volume: 30.00 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Result Type: PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Aldrin		ND		2.0
Dieldrin		ND		2.0
Endrin aldehyde		ND		2.0
Endrin		ND		2.0
Endrin ketone		ND		2.0
Heptachlor		ND		2.0
Heptachlor epoxide		ND		2.0
4,4'-DDT		18		2.0
4,4'-DDE		61		2.0
4,4'-DDD		4.2		2.0
Endosulfan I		ND		2.0
Endosulfan II		ND		2.0
alpha-BHC		ND		2.0
beta-BHC		ND		2.0
gamma-BHC (Lindane)		ND		2.0
delta-BHC		ND		2.0
Endosulfan sulfate		ND		2.0
Methoxychlor		ND		2.0
Toxaphene		ND		40
Chlordane (technical)		ND		40
alpha-Chlordane		ND		2.0
gamma-Chlordane		ND		2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	94		54 - 109
DCB Decachlorobiphenyl	80		27 - 136

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-15

Lab Sample ID: 720-27633-15
Client Matrix: Solid

Date Sampled: 04/23/2010 1315
Date Received: 04/23/2010 1530

8081A Organochlorine Pesticides (GC)

Method:	8081A	Analysis Batch: 720-70292	Instrument ID:	CHPEST3
Preparation:	3550B	Prep Batch: 720-70276	Initial Weight/Volume:	30.23 g
Dilution:	1.0		Final Weight/Volume:	10 mL
Date Analyzed:	04/28/2010 0021		Injection Volume:	1 uL
Date Prepared:	04/26/2010 2000		Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Aldrin		ND		2.0
Dieldrin		ND		2.0
Endrin aldehyde		ND		2.0
Endrin		ND		2.0
Endrin ketone		ND		2.0
Heptachlor		ND		2.0
Heptachlor epoxide		ND		2.0
4,4'-DDT		6.8		2.0
4,4'-DDE		37		2.0
4,4'-DDD		3.3		2.0
Endosulfan I		ND		2.0
Endosulfan II		ND		2.0
alpha-BHC		ND		2.0
beta-BHC		ND		2.0
gamma-BHC (Lindane)		ND		2.0
delta-BHC		ND		2.0
Endosulfan sulfate		ND		2.0
Methoxychlor		ND		2.0
Toxaphene		ND		40
Chlordane (technical)		ND		40
alpha-Chlordane		ND		2.0
gamma-Chlordane		ND		2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	85		54 - 109
DCB Decachlorobiphenyl	81		27 - 136

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-16

Lab Sample ID: 720-27633-16
Client Matrix: Solid

Date Sampled: 04/23/2010 1315
Date Received: 04/23/2010 1530

8081A Organochlorine Pesticides (GC)

Method:	8081A	Analysis Batch: 720-70292	Instrument ID:	CHPEST3
Preparation:	3550B	Prep Batch: 720-70276	Initial Weight/Volume:	30.27 g
Dilution:	1.0		Final Weight/Volume:	10 mL
Date Analyzed:	04/28/2010 0037		Injection Volume:	1 uL
Date Prepared:	04/26/2010 2000		Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Aldrin		ND		2.0
Dieldrin		ND		2.0
Endrin aldehyde		ND		2.0
Endrin		ND		2.0
Endrin ketone		ND		2.0
Heptachlor		ND		2.0
Heptachlor epoxide		ND		2.0
4,4'-DDT		11		2.0
4,4'-DDE		58		2.0
4,4'-DDD		4.3		2.0
Endosulfan I		ND		2.0
Endosulfan II		ND		2.0
alpha-BHC		ND		2.0
beta-BHC		ND		2.0
gamma-BHC (Lindane)		ND		2.0
delta-BHC		ND		2.0
Endosulfan sulfate		ND		2.0
Methoxychlor		ND		2.0
Toxaphene		ND		40
Chlordane (technical)		ND		40
alpha-Chlordane		ND		2.0
gamma-Chlordane		ND		2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	84		54 - 109
DCB Decachlorobiphenyl	82		27 - 136

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-17

Lab Sample ID: 720-27633-17
Client Matrix: Solid

Date Sampled: 04/23/2010 1315
Date Received: 04/23/2010 1530

8081A Organochlorine Pesticides (GC)

Method: 8081A
Preparation: 3550B
Dilution: 1.0
Date Analyzed: 04/28/2010 1849
Date Prepared: 04/26/2010 2000

Analysis Batch: 720-70405
Prep Batch: 720-70276

Instrument ID: Pest # 4
Initial Weight/Volume: 30.25 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Result Type: PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Aldrin		ND		2.0
Dieldrin		ND		2.0
Endrin aldehyde		ND		2.0
Endrin		ND		2.0
Endrin ketone		ND		2.0
Heptachlor		ND		2.0
Heptachlor epoxide		ND		2.0
4,4'-DDT		84		2.0
4,4'-DDE		28		2.0
4,4'-DDD		19		2.0
Endosulfan I		ND		2.0
Endosulfan II		ND		2.0
alpha-BHC		ND		2.0
beta-BHC		ND		2.0
gamma-BHC (Lindane)		ND		2.0
delta-BHC		ND		2.0
Endosulfan sulfate		ND		2.0
Methoxychlor		ND		2.0
Toxaphene		ND		40
Chlordane (technical)		ND		40
alpha-Chlordane		ND		2.0
gamma-Chlordane		ND		2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	78		54 - 109
DCB Decachlorobiphenyl	125		27 - 136

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-18

Lab Sample ID: 720-27633-18
Client Matrix: Solid

Date Sampled: 04/23/2010 1330
Date Received: 04/23/2010 1530

8081A Organochlorine Pesticides (GC)

Method: 8081A
Preparation: 3550B
Dilution: 1.0
Date Analyzed: 04/28/2010 0108
Date Prepared: 04/26/2010 2000

Analysis Batch: 720-70292
Prep Batch: 720-70276

Instrument ID: CHPEST3
Initial Weight/Volume: 30.02 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Result Type: PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Aldrin		ND		2.0
Dieldrin		ND		2.0
Endrin aldehyde		ND		2.0
Endrin		ND		2.0
Endrin ketone		ND		2.0
Heptachlor		ND		2.0
Heptachlor epoxide		ND		2.0
4,4'-DDT		44		2.0
4,4'-DDE		36		2.0
4,4'-DDD		11		2.0
Endosulfan I		ND		2.0
Endosulfan II		ND		2.0
alpha-BHC		ND		2.0
beta-BHC		ND		2.0
gamma-BHC (Lindane)		ND		2.0
delta-BHC		ND		2.0
Endosulfan sulfate		ND		2.0
Methoxychlor		ND		2.0
Toxaphene		ND		40
Chlordane (technical)		ND		40
alpha-Chlordane		ND		2.0
gamma-Chlordane		ND		2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	85		54 - 109
DCB Decachlorobiphenyl	80		27 - 136

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-19

Lab Sample ID: 720-27633-19
Client Matrix: Solid

Date Sampled: 04/23/2010 1330
Date Received: 04/23/2010 1530

8081A Organochlorine Pesticides (GC)

Method:	8081A	Analysis Batch: 720-70292		Instrument ID:	CHPEST3
Preparation:	3550B	Prep Batch: 720-70322		Initial Weight/Volume:	30.18 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Date Analyzed:	04/28/2010 0257			Injection Volume:	1 uL
Date Prepared:	04/27/2010 1348			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Aldrin		ND		2.0
Dieldrin		ND		2.0
Endrin aldehyde		ND		2.0
Endrin		ND		2.0
Endrin ketone		4.2		2.0
Heptachlor		ND		2.0
Heptachlor epoxide		ND		2.0
4,4'-DDT		65		2.0
4,4'-DDE		98		2.0
4,4'-DDD		21		2.0
Endosulfan I		ND		2.0
Endosulfan II		ND		2.0
alpha-BHC		ND		2.0
beta-BHC		ND		2.0
gamma-BHC (Lindane)		ND		2.0
delta-BHC		ND		2.0
Endosulfan sulfate		ND		2.0
Methoxychlor		ND		2.0
Toxaphene		ND		40
Chlordane (technical)		ND		40
alpha-Chlordane		2.8		2.0
gamma-Chlordane		4.9		2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	95		54 - 109
DCB Decachlorobiphenyl	82		27 - 136

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-20

Lab Sample ID: 720-27633-20
Client Matrix: Solid

Date Sampled: 04/23/2010 1330
Date Received: 04/23/2010 1530

8081A Organochlorine Pesticides (GC)

Method:	8081A	Analysis Batch: 720-70292		Instrument ID:	CHPEST3
Preparation:	3550B	Prep Batch: 720-70276		Initial Weight/Volume:	30.24 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Date Analyzed:	04/28/2010 0154			Injection Volume:	1 uL
Date Prepared:	04/26/2010 2000			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Aldrin		ND		2.0
Dieldrin		ND		2.0
Endrin aldehyde		ND		2.0
Endrin		ND		2.0
Endrin ketone		ND		2.0
Heptachlor		ND		2.0
Heptachlor epoxide		ND		2.0
4,4'-DDT		9.2		2.0
4,4'-DDE		65		2.0
4,4'-DDD		5.6		2.0
Endosulfan I		ND		2.0
Endosulfan II		ND		2.0
alpha-BHC		ND		2.0
beta-BHC		ND		2.0
gamma-BHC (Lindane)		ND		2.0
delta-BHC		ND		2.0
Endosulfan sulfate		ND		2.0
Methoxychlor		ND		2.0
Toxaphene		ND		40
Chlordane (technical)		ND		40
alpha-Chlordane		ND		2.0
gamma-Chlordane		ND		2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	97		54 - 109
DCB Decachlorobiphenyl	80		27 - 136

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-21

Lab Sample ID: 720-27633-21
Client Matrix: Solid

Date Sampled: 04/23/2010 1330
Date Received: 04/23/2010 1530

8081A Organochlorine Pesticides (GC)

Method:	8081A	Analysis Batch: 720-70292		Instrument ID:	CHPEST3
Preparation:	3550B	Prep Batch: 720-70276		Initial Weight/Volume:	30.13 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Date Analyzed:	04/28/2010 0210			Injection Volume:	1 uL
Date Prepared:	04/26/2010 2000			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Aldrin		ND		2.0
Dieldrin		ND		2.0
Endrin aldehyde		ND		2.0
Endrin		ND		2.0
Endrin ketone		ND		2.0
Heptachlor		ND		2.0
Heptachlor epoxide		ND		2.0
4,4'-DDT		13		2.0
4,4'-DDE		79		2.0
4,4'-DDD		7.2		2.0
Endosulfan I		ND		2.0
Endosulfan II		ND		2.0
alpha-BHC		ND		2.0
beta-BHC		ND		2.0
gamma-BHC (Lindane)		ND		2.0
delta-BHC		ND		2.0
Endosulfan sulfate		ND		2.0
Methoxychlor		ND		2.0
Toxaphene		ND		40
Chlordane (technical)		ND		40
alpha-Chlordane		ND		2.0
gamma-Chlordane		ND		2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	87		54 - 109
DCB Decachlorobiphenyl	90		27 - 136

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-22

Lab Sample ID: 720-27633-22
Client Matrix: Solid

Date Sampled: 04/23/2010 1345
Date Received: 04/23/2010 1530

8081A Organochlorine Pesticides (GC)

Method:	8081A	Analysis Batch: 720-70292		Instrument ID:	CHPEST3
Preparation:	3550B	Prep Batch: 720-70322		Initial Weight/Volume:	30.06 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Date Analyzed:	04/28/2010 0312			Injection Volume:	1 uL
Date Prepared:	04/27/2010 1348			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Aldrin		ND		2.0
Dieldrin		ND		2.0
Endrin aldehyde		ND		2.0
Endrin		ND		2.0
Endrin ketone		ND		2.0
Heptachlor		ND		2.0
Heptachlor epoxide		ND		2.0
4,4'-DDT		20		2.0
4,4'-DDE		130		2.0
4,4'-DDD		11		2.0
Endosulfan I		ND		2.0
Endosulfan II		ND		2.0
alpha-BHC		ND		2.0
beta-BHC		ND		2.0
gamma-BHC (Lindane)		ND		2.0
delta-BHC		ND		2.0
Endosulfan sulfate		ND		2.0
Methoxychlor		ND		2.0
Toxaphene		ND		40
Chlordane (technical)		ND		40
alpha-Chlordane		ND		2.0
gamma-Chlordane		ND		2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	93		54 - 109
DCB Decachlorobiphenyl	87		27 - 136

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: **SS-23**

Lab Sample ID: 720-27633-23
Client Matrix: Solid

Date Sampled: 04/23/2010 1345
Date Received: 04/23/2010 1530

8081A Organochlorine Pesticides (GC)

Method: 8081A
Preparation: 3550B
Dilution: 1.0
Date Analyzed: 04/28/2010 0226
Date Prepared: 04/26/2010 2000

Analysis Batch: 720-70292
Prep Batch: 720-70276

Instrument ID: CHPEST3
Initial Weight/Volume: 30.25 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Result Type: PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Aldrin		ND		2.0
Dieldrin		ND		2.0
Endrin aldehyde		ND		2.0
Endrin		ND		2.0
Endrin ketone		ND		2.0
Heptachlor		ND		2.0
Heptachlor epoxide		ND		2.0
4,4'-DDT		13		2.0
4,4'-DDE		71		2.0
4,4'-DDD		6.8		2.0
Endosulfan I		ND		2.0
Endosulfan II		ND		2.0
alpha-BHC		ND		2.0
beta-BHC		ND		2.0
gamma-BHC (Lindane)		ND		2.0
delta-BHC		ND		2.0
Endosulfan sulfate		ND		2.0
Methoxychlor		ND		2.0
Toxaphene		ND		40
Chlordane (technical)		ND		40
alpha-Chlordane		ND		2.0
gamma-Chlordane		ND		2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	88		54 - 109
DCB Decachlorobiphenyl	91		27 - 136

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: **SS-24**

Lab Sample ID: 720-27633-24
Client Matrix: Solid

Date Sampled: 04/23/2010 1345
Date Received: 04/23/2010 1530

8081A Organochlorine Pesticides (GC)

Method: 8081A
Preparation: 3550B
Dilution: 1.0
Date Analyzed: 04/28/2010 0328
Date Prepared: 04/27/2010 1348

Analysis Batch: 720-70292
Prep Batch: 720-70322

Instrument ID: CHPEST3
Initial Weight/Volume: 30.03 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Result Type: PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Aldrin		ND		2.0
Dieldrin		ND		2.0
Endrin aldehyde		ND		2.0
Endrin		ND		2.0
Endrin ketone		ND		2.0
Heptachlor		ND		2.0
Heptachlor epoxide		ND		2.0
4,4'-DDT		5.1		2.0
4,4'-DDE		5.8		2.0
4,4'-DDD		ND		2.0
Endosulfan I		ND		2.0
Endosulfan II		ND		2.0
alpha-BHC		ND		2.0
beta-BHC		ND		2.0
gamma-BHC (Lindane)		ND		2.0
delta-BHC		ND		2.0
Endosulfan sulfate		ND		2.0
Methoxychlor		18		2.0
Toxaphene		ND		40
Chlordane (technical)		ND		40
alpha-Chlordane		ND		2.0
gamma-Chlordane		ND		2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	92		54 - 109
DCB Decachlorobiphenyl	76		27 - 136

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-25

Lab Sample ID: 720-27633-25
Client Matrix: Solid

Date Sampled: 04/23/2010 1400
Date Received: 04/23/2010 1530

8081A Organochlorine Pesticides (GC)

Method:	8081A	Analysis Batch: 720-70292	Instrument ID:	CHPEST3
Preparation:	3550B	Prep Batch: 720-70276	Initial Weight/Volume:	30.21 g
Dilution:	1.0		Final Weight/Volume:	10 mL
Date Analyzed:	04/28/2010 0241		Injection Volume:	1 uL
Date Prepared:	04/26/2010 2000		Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Aldrin		ND		2.0
Dieldrin		ND		2.0
Endrin aldehyde		ND		2.0
Endrin		ND		2.0
Endrin ketone		ND		2.0
Heptachlor		ND		2.0
Heptachlor epoxide		ND		2.0
4,4'-DDT		33		2.0
4,4'-DDE		200		2.0
4,4'-DDD		18		2.0
Endosulfan I		ND		2.0
Endosulfan II		ND		2.0
alpha-BHC		ND		2.0
beta-BHC		ND		2.0
gamma-BHC (Lindane)		ND		2.0
delta-BHC		ND		2.0
Endosulfan sulfate		ND		2.0
Methoxychlor		ND		2.0
Toxaphene		ND		40
Chlordane (technical)		ND		40
alpha-Chlordane		ND		2.0
gamma-Chlordane		ND		2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	94		54 - 109
DCB Decachlorobiphenyl	87		27 - 136

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-26

Lab Sample ID: 720-27633-26
Client Matrix: Solid

Date Sampled: 04/23/2010 1415
Date Received: 04/23/2010 1530

8081A Organochlorine Pesticides (GC)

Method:	8081A	Analysis Batch: 720-70292	Instrument ID:	CHPEST3
Preparation:	3550B	Prep Batch: 720-70322	Initial Weight/Volume:	30.23 g
Dilution:	1.0		Final Weight/Volume:	10 mL
Date Analyzed:	04/28/2010 0344		Injection Volume:	1 uL
Date Prepared:	04/27/2010 1348		Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Aldrin		ND		2.0
Dieldrin		ND		2.0
Endrin aldehyde		ND		2.0
Endrin		ND		2.0
Endrin ketone		ND		2.0
Heptachlor		ND		2.0
Heptachlor epoxide		ND		2.0
4,4'-DDT		53		2.0
4,4'-DDE		200		2.0
4,4'-DDD		22		2.0
Endosulfan I		ND		2.0
Endosulfan II		ND		2.0
alpha-BHC		ND		2.0
beta-BHC		ND		2.0
gamma-BHC (Lindane)		ND		2.0
delta-BHC		ND		2.0
Endosulfan sulfate		ND		2.0
Methoxychlor		ND		2.0
Toxaphene		ND		40
Chlordane (technical)		100		40
alpha-Chlordane		14		2.0
gamma-Chlordane		8.5		2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	96		54 - 109
DCB Decachlorobiphenyl	85		27 - 136

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: **SS-27**

Lab Sample ID: 720-27633-27
Client Matrix: Solid

Date Sampled: 04/23/2010 1415
Date Received: 04/23/2010 1530

8081A Organochlorine Pesticides (GC)

Method:	8081A	Analysis Batch: 720-70292	Instrument ID:	CHPEST3
Preparation:	3550B	Prep Batch: 720-70322	Initial Weight/Volume:	30.10 g
Dilution:	1.0		Final Weight/Volume:	10 mL
Date Analyzed:	04/28/2010 0400		Injection Volume:	1 uL
Date Prepared:	04/27/2010 1348		Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Aldrin		ND		2.0
Dieldrin		ND		2.0
Endrin aldehyde		ND		2.0
Endrin		ND		2.0
Endrin ketone		ND		2.0
Heptachlor		ND		2.0
Heptachlor epoxide		ND		2.0
4,4'-DDT		8.5		2.0
4,4'-DDE		33		2.0
4,4'-DDD		4.6		2.0
Endosulfan I		ND		2.0
Endosulfan II		ND		2.0
alpha-BHC		ND		2.0
beta-BHC		ND		2.0
gamma-BHC (Lindane)		ND		2.0
delta-BHC		ND		2.0
Endosulfan sulfate		ND		2.0
Methoxychlor		ND		2.0
Toxaphene		ND		40
Chlordane (technical)		ND		40
alpha-Chlordane		4.6		2.0
gamma-Chlordane		2.2		2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	87		54 - 109
DCB Decachlorobiphenyl	87		27 - 136

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: **SS-28**

Lab Sample ID: 720-27633-28
Client Matrix: Solid

Date Sampled: 04/23/2010 1430
Date Received: 04/23/2010 1530

8081A Organochlorine Pesticides (GC)

Method:	8081A	Analysis Batch: 720-70292	Instrument ID:	CHPEST3
Preparation:	3550B	Prep Batch: 720-70322	Initial Weight/Volume:	30.19 g
Dilution:	1.0		Final Weight/Volume:	10 mL
Date Analyzed:	04/28/2010 0415		Injection Volume:	1 uL
Date Prepared:	04/27/2010 1348		Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Aldrin		ND		2.0
Dieldrin		ND		2.0
Endrin aldehyde		ND		2.0
Endrin		ND		2.0
Endrin ketone		ND		2.0
Heptachlor		ND		2.0
Heptachlor epoxide		ND		2.0
4,4'-DDT		2.1		2.0
4,4'-DDE		13		2.0
4,4'-DDD		2.1		2.0
Endosulfan I		ND		2.0
Endosulfan II		ND		2.0
alpha-BHC		ND		2.0
beta-BHC		ND		2.0
gamma-BHC (Lindane)		ND		2.0
delta-BHC		ND		2.0
Endosulfan sulfate		ND		2.0
Methoxychlor		ND		2.0
Toxaphene		ND		40
Chlordane (technical)		ND		40
alpha-Chlordane		ND		2.0
gamma-Chlordane		ND		2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	91		54 - 109
DCB Decachlorobiphenyl	92		27 - 136

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-29

Lab Sample ID: 720-27633-29
Client Matrix: Solid

Date Sampled: 04/23/2010 1430
Date Received: 04/23/2010 1530

8081A Organochlorine Pesticides (GC)

Method: 8081A
Preparation: 3550B
Dilution: 1.0
Date Analyzed: 04/28/2010 0431
Date Prepared: 04/27/2010 1348

Analysis Batch: 720-70292
Prep Batch: 720-70322

Instrument ID: CHPEST3
Initial Weight/Volume: 30.32 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Result Type: PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Aldrin		ND		2.0
Dieldrin		ND		2.0
Endrin aldehyde		ND		2.0
Endrin		ND		2.0
Endrin ketone		ND		2.0
Heptachlor		ND		2.0
Heptachlor epoxide		ND		2.0
4,4'-DDT		ND		2.0
4,4'-DDE		ND		2.0
4,4'-DDD		ND		2.0
Endosulfan I		ND		2.0
Endosulfan II		ND		2.0
alpha-BHC		ND		2.0
beta-BHC		ND		2.0
gamma-BHC (Lindane)		ND		2.0
delta-BHC		ND		2.0
Endosulfan sulfate		ND		2.0
Methoxychlor		ND		2.0
Toxaphene		ND		40
Chlordane (technical)		ND		40
alpha-Chlordane		ND		2.0
gamma-Chlordane		ND		2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	85		54 - 109
DCB Decachlorobiphenyl	82		27 - 136

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-1

Lab Sample ID: 720-27633-1
Client Matrix: Solid

Date Sampled: 04/23/2010 1230
Date Received: 04/23/2010 1530

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method: 8082
Preparation: 3550B
Dilution: 1.0
Date Analyzed: 04/28/2010 0605
Date Prepared: 04/27/2010 1128

Analysis Batch: 720-70284
Prep Batch: 720-70306

Instrument ID: CHPCB # 2
Initial Weight/Volume: 30.24 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Result Type: PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
PCB-1016		ND		50
PCB-1221		ND		50
PCB-1232		ND		50
PCB-1242		ND		50
PCB-1248		ND		50
PCB-1254		ND		50
PCB-1260		ND		50

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	93		32 - 112
DCB Decachlorobiphenyl	71		2 - 122

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: **SS-3**

Lab Sample ID: 720-27633-3
Client Matrix: Solid

Date Sampled: 04/23/2010 1245
Date Received: 04/23/2010 1530

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 720-70284		Instrument ID:	CHPCB # 2
Preparation:	3550B	Prep Batch: 720-70306		Initial Weight/Volume:	30.19 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Date Analyzed:	04/28/2010 0627			Injection Volume:	1 uL
Date Prepared:	04/27/2010 1128			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
PCB-1016		ND		50
PCB-1221		ND		50
PCB-1232		ND		50
PCB-1242		ND		50
PCB-1248		ND		50
PCB-1254		ND		50
PCB-1260		ND		50

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	92		32 - 112
DCB Decachlorobiphenyl	81		2 - 122

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: **SS-8**

Lab Sample ID: 720-27633-8
Client Matrix: Solid

Date Sampled: 04/23/2010 1315
Date Received: 04/23/2010 1530

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 720-70284		Instrument ID:	CHPCB # 2
Preparation:	3550B	Prep Batch: 720-70306		Initial Weight/Volume:	30.34 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Date Analyzed:	04/28/2010 0650			Injection Volume:	1 uL
Date Prepared:	04/27/2010 1128			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
PCB-1016		ND		49
PCB-1221		ND		49
PCB-1232		ND		49
PCB-1242		ND		49
PCB-1248		ND		49
PCB-1254		ND		49
PCB-1260		ND		49

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	96		32 - 112
DCB Decachlorobiphenyl	82		2 - 122

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-24

Lab Sample ID: 720-27633-24
Client Matrix: Solid

Date Sampled: 04/23/2010 1345
Date Received: 04/23/2010 1530

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 720-70284	Instrument ID:	CHPCB # 2
Preparation:	3550B	Prep Batch: 720-70306	Initial Weight/Volume:	30.03 g
Dilution:	1.0		Final Weight/Volume:	10 mL
Date Analyzed:	04/28/2010 0712		Injection Volume:	1 uL
Date Prepared:	04/27/2010 1128		Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
PCB-1016		ND		50
PCB-1221		ND		50
PCB-1232		ND		50
PCB-1242		ND		50
PCB-1248		ND		50
PCB-1254		ND		50
PCB-1260		ND		50

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	80		32 - 112
DCB Decachlorobiphenyl	69		2 - 122

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-26

Lab Sample ID: 720-27633-26
Client Matrix: Solid

Date Sampled: 04/23/2010 1415
Date Received: 04/23/2010 1530

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 720-70284	Instrument ID:	CHPCB # 2
Preparation:	3550B	Prep Batch: 720-70306	Initial Weight/Volume:	30.23 g
Dilution:	1.0		Final Weight/Volume:	10 mL
Date Analyzed:	04/28/2010 0734		Injection Volume:	1 uL
Date Prepared:	04/27/2010 1128		Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
PCB-1016		ND		50
PCB-1221		ND		50
PCB-1232		ND		50
PCB-1242		ND		50
PCB-1248		ND		50
PCB-1254		ND		50
PCB-1260		ND		50

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	90		32 - 112
DCB Decachlorobiphenyl	80		2 - 122

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: **SS-1**

Lab Sample ID: 720-27633-1
Client Matrix: Solid

Date Sampled: 04/23/2010 1230
Date Received: 04/23/2010 1530

6010B Metals (ICP)

Method: 6010B
Preparation: 3050B
Dilution: 1.0
Date Analyzed: 04/30/2010 0328
Date Prepared: 04/27/2010 1154

Analysis Batch: 720-70536
Prep Batch: 720-70307

Instrument ID: Thermo ICP
Lab File ID: N/A
Initial Weight/Volume: 0.95 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		ND		0.53
Arsenic		4.8		1.1
Barium		84		0.53
Beryllium		0.38		0.11
Cadmium		0.52		0.13
Chromium		110		0.53
Cobalt		12		0.21
Copper		48		1.6
Lead		20		0.53
Molybdenum		ND		0.53
Nickel		33		0.53
Selenium		ND		1.1
Silver		ND		0.26
Thallium		0.62		0.53
Vanadium		76		0.53
Zinc		77		1.6

7471A Mercury (CVAA)

Method: 7471A
Preparation: 7471A
Dilution: 1.0
Date Analyzed: 04/30/2010 1448
Date Prepared: 04/27/2010 1531

Analysis Batch: 720-70594
Prep Batch: 720-70330

Instrument ID: LL_HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.61 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.27		0.020

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: **SS-2**

Lab Sample ID: 720-27633-2
Client Matrix: Solid

Date Sampled: 04/23/2010 1230
Date Received: 04/23/2010 1530

6010B Metals (ICP)

Method: 6010B
Preparation: 3050B
Dilution: 1.0
Date Analyzed: 04/30/2010 0333
Date Prepared: 04/27/2010 1154

Analysis Batch: 720-70536
Prep Batch: 720-70307

Instrument ID: Thermo ICP
Lab File ID: N/A
Initial Weight/Volume: 0.96 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		ND		0.52
Arsenic		8.4		1.0
Barium		260		0.52
Beryllium		0.26		0.10
Cadmium		0.65		0.13
Chromium		40		0.52
Cobalt		9.7		0.21
Copper		46		1.6
Lead		71		0.52
Molybdenum		0.61		0.52
Nickel		50		0.52
Selenium		ND		1.0
Silver		ND		0.26
Thallium		ND		0.52
Vanadium		37		0.52
Zinc		120		1.6

7471A Mercury (CVAA)

Method: 7471A
Preparation: 7471A
Dilution: 1.0
Date Analyzed: 04/30/2010 1450
Date Prepared: 04/27/2010 1531

Analysis Batch: 720-70594
Prep Batch: 720-70330

Instrument ID: LL_HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.60 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.18		0.020

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-3

Lab Sample ID: 720-27633-3
Client Matrix: Solid

Date Sampled: 04/23/2010 1245
Date Received: 04/23/2010 1530

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-70536	Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-70307	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	0.95 g
Date Analyzed:	04/30/2010 0338		Final Weight/Volume:	50 mL
Date Prepared:	04/27/2010 1154			

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		ND		0.53
Arsenic		3.8		1.1
Barium		110		0.53
Beryllium		0.17		0.11
Cadmium		0.84		0.13
Chromium		18		0.53
Cobalt		3.3		0.21
Copper		32		1.6
Lead		31		0.53
Molybdenum		4.6		0.53
Nickel		20		0.53
Selenium		ND		1.1
Silver		ND		0.26
Thallium		ND		0.53
Vanadium		20		0.53
Zinc		340		1.6

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-70594	Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-70330	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	0.61 g
Date Analyzed:	04/30/2010 1452		Final Weight/Volume:	50 mL
Date Prepared:	04/27/2010 1531			

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.15		0.020

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-4

Lab Sample ID: 720-27633-4
Client Matrix: Solid

Date Sampled: 04/23/2010 1245
Date Received: 04/23/2010 1530

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-70536	Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-70307	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	0.98 g
Date Analyzed:	04/30/2010 0343		Final Weight/Volume:	50 mL
Date Prepared:	04/27/2010 1154			

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		ND		0.51
Arsenic		6.6		1.0
Barium		140		0.51
Beryllium		0.15		0.10
Cadmium		0.80		0.13
Chromium		32		0.51
Cobalt		7.5		0.20
Copper		41		1.5
Lead		24		0.51
Molybdenum		ND		0.51
Nickel		41		0.51
Selenium		ND		1.0
Silver		ND		0.26
Thallium		ND		0.51
Vanadium		26		0.51
Zinc		61		1.5

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-70594	Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-70330	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	0.61 g
Date Analyzed:	04/30/2010 1454		Final Weight/Volume:	50 mL
Date Prepared:	04/27/2010 1531			

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.084		0.020

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-5

Lab Sample ID: 720-27633-5
Client Matrix: Solid

Date Sampled: 04/23/2010 1300
Date Received: 04/23/2010 1530

6010B Metals (ICP)

Method: 6010B
Preparation: 3050B
Dilution: 1.0
Date Analyzed: 04/30/2010 0348
Date Prepared: 04/27/2010 1154

Analysis Batch: 720-70536
Prep Batch: 720-70307

Instrument ID: Thermo ICP
Lab File ID: N/A
Initial Weight/Volume: 0.98 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		0.71		0.51
Arsenic		4.6		1.0
Barium		160		0.51
Beryllium		ND		0.10
Cadmium		18		0.13
Chromium		62		0.51
Cobalt		8.2		0.20
Copper		110		1.5
Lead		130		0.51
Molybdenum		2.7		0.51
Nickel		43		0.51
Selenium		4.6		1.0
Silver		1.9		0.26
Thallium		ND		0.51
Vanadium		28		0.51
Zinc		210		1.5

7471A Mercury (CVAA)

Method: 7471A
Preparation: 7471A
Dilution: 1.0
Date Analyzed: 04/30/2010 1457
Date Prepared: 04/27/2010 1531

Analysis Batch: 720-70594
Prep Batch: 720-70330

Instrument ID: LL_HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.58 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.16		0.021

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-6

Lab Sample ID: 720-27633-6
Client Matrix: Solid

Date Sampled: 04/23/2010 1300
Date Received: 04/23/2010 1530

6010B Metals (ICP)

Method: 6010B
Preparation: 3050B
Dilution: 1.0
Date Analyzed: 04/30/2010 0354
Date Prepared: 04/27/2010 1154

Analysis Batch: 720-70536
Prep Batch: 720-70307

Instrument ID: Thermo ICP
Lab File ID: N/A
Initial Weight/Volume: 0.98 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		ND		0.51
Arsenic		5.1		1.0
Barium		95		0.51
Beryllium		0.11		0.10
Cadmium		2.5		0.13
Chromium		41		0.51
Cobalt		6.9		0.20
Copper		130		1.5
Lead		25		0.51
Molybdenum		1.0		0.51
Nickel		58		0.51
Selenium		ND		1.0
Silver		2.3		0.26
Thallium		ND		0.51
Vanadium		23		0.51
Zinc		210		1.5

7471A Mercury (CVAA)

Method: 7471A
Preparation: 7471A
Dilution: 1.0
Date Analyzed: 04/30/2010 1504
Date Prepared: 04/27/2010 1531

Analysis Batch: 720-70594
Prep Batch: 720-70330

Instrument ID: LL_HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.59 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.33		0.020

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-7

Lab Sample ID: 720-27633-7
Client Matrix: Solid

Date Sampled: 04/23/2010 1315
Date Received: 04/23/2010 1530

6010B Metals (ICP)

Method: 6010B
Preparation: 3050B
Dilution: 1.0
Date Analyzed: 04/30/2010 0408
Date Prepared: 04/27/2010 1154

Analysis Batch: 720-70536
Prep Batch: 720-70307

Instrument ID: Thermo ICP
Lab File ID: N/A
Initial Weight/Volume: 0.97 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		ND		0.52
Arsenic		6.8		1.0
Barium		120		0.52
Beryllium		0.25		0.10
Cadmium		0.75		0.13
Chromium		39		0.52
Cobalt		8.2		0.21
Copper		43		1.5
Lead		20		0.52
Molybdenum		1.4		0.52
Nickel		52		0.52
Selenium		ND		1.0
Silver		ND		0.26
Thallium		ND		0.52
Vanadium		28		0.52
Zinc		68		1.5

7471A Mercury (CVAA)

Method: 7471A
Preparation: 7471A
Dilution: 1.0
Date Analyzed: 04/30/2010 1507
Date Prepared: 04/27/2010 1531

Analysis Batch: 720-70594
Prep Batch: 720-70330

Instrument ID: LL_HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.62 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.085		0.019

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-8

Lab Sample ID: 720-27633-8
Client Matrix: Solid

Date Sampled: 04/23/2010 1315
Date Received: 04/23/2010 1530

6010B Metals (ICP)

Method: 6010B
Preparation: 3050B
Dilution: 1.0
Date Analyzed: 04/30/2010 0413
Date Prepared: 04/27/2010 1154

Analysis Batch: 720-70536
Prep Batch: 720-70307

Instrument ID: Thermo ICP
Lab File ID: N/A
Initial Weight/Volume: 0.95 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		ND		0.53
Arsenic		2.2		1.1
Barium		45		0.53
Beryllium		0.25		0.11
Cadmium		3.4		0.13
Chromium		8.3		0.53
Cobalt		1.9		0.21
Copper		8.9		1.6
Lead		4.8		0.53
Molybdenum		1.9		0.53
Nickel		18		0.53
Selenium		1.7		1.1
Silver		ND		0.26
Thallium		ND		0.53
Vanadium		14		0.53
Zinc		93		1.6

7471A Mercury (CVAA)

Method: 7471A
Preparation: 7471A
Dilution: 1.0
Date Analyzed: 04/30/2010 1510
Date Prepared: 04/27/2010 1531

Analysis Batch: 720-70594
Prep Batch: 720-70330

Instrument ID: LL_HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.57 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.75		0.021

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-9

Lab Sample ID: 720-27633-9
Client Matrix: Solid

Date Sampled: 04/23/2010 1330
Date Received: 04/23/2010 1530

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-70536	Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-70307	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	1.00 g
Date Analyzed:	04/30/2010 0418		Final Weight/Volume:	50 mL
Date Prepared:	04/27/2010 1154			

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Lead		26		0.50
Arsenic		5.7		1.0

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-70594	Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-70330	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	0.63 g
Date Analyzed:	04/30/2010 1512		Final Weight/Volume:	50 mL
Date Prepared:	04/27/2010 1531			

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.094		0.019

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-10

Lab Sample ID: 720-27633-10
Client Matrix: Solid

Date Sampled: 04/23/2010 1330
Date Received: 04/23/2010 1530

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-70536	Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-70307	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	1.00 g
Date Analyzed:	04/30/2010 0423		Final Weight/Volume:	50 mL
Date Prepared:	04/27/2010 1154			

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		ND		0.50
Arsenic		5.6		1.0
Barium		110		0.50
Beryllium		0.19		0.10
Cadmium		1.4		0.12
Chromium		27		0.50
Cobalt		6.1		0.20
Copper		33		1.5
Lead		120		0.50
Molybdenum		1.5		0.50
Nickel		36		0.50
Selenium		ND		1.0
Silver		ND		0.25
Thallium		ND		0.50
Vanadium		21		0.50
Zinc		1500		1.5

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-70594	Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-70330	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	0.59 g
Date Analyzed:	04/30/2010 1514		Final Weight/Volume:	50 mL
Date Prepared:	04/27/2010 1531			

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.16		0.020

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-11

Lab Sample ID: 720-27633-11
Client Matrix: Solid

Date Sampled: 04/23/2010 1345
Date Received: 04/23/2010 1530

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-70536		Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-70307		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	1.02 g
Date Analyzed:	04/30/2010 0428			Final Weight/Volume:	50 mL
Date Prepared:	04/27/2010 1154				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Lead		30		0.49
Arsenic		3.0		0.98

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-70594		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-70330		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.58 g
Date Analyzed:	04/30/2010 1517			Final Weight/Volume:	50 mL
Date Prepared:	04/27/2010 1531				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.10		0.021

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-12

Lab Sample ID: 720-27633-12
Client Matrix: Solid

Date Sampled: 04/23/2010 1345
Date Received: 04/23/2010 1530

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-70535		Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-70308		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.97 g
Date Analyzed:	04/29/2010 2351			Final Weight/Volume:	50 mL
Date Prepared:	04/27/2010 1157				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		1.9		0.52
Arsenic		18		1.0
Barium		170		0.52
Beryllium		0.23		0.10
Cadmium		2.1		0.13
Chromium		37		0.52
Cobalt		8.0		0.21
Copper		33		1.5
Lead		57		0.52
Molybdenum		0.62		0.52
Nickel		50		0.52
Selenium		ND		1.0
Silver		ND		0.26
Thallium		ND		0.52
Vanadium		28		0.52
Zinc		290		1.5

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-70594		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-70330		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.62 g
Date Analyzed:	04/30/2010 1519			Final Weight/Volume:	50 mL
Date Prepared:	04/27/2010 1531				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.10		0.019

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: **SS-13**

Lab Sample ID: 720-27633-13
Client Matrix: Solid

Date Sampled: 04/23/2010 1315
Date Received: 04/23/2010 1530

6010B Metals (ICP)

Method: 6010B
Preparation: 3050B
Dilution: 1.0
Date Analyzed: 04/30/2010 0006
Date Prepared: 04/27/2010 1157

Analysis Batch: 720-70535
Prep Batch: 720-70308

Instrument ID: Thermo ICP
Lab File ID: N/A
Initial Weight/Volume: 0.98 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		13		0.51
Arsenic		2.6		1.0
Barium		130		0.51
Beryllium		ND		0.10
Cadmium		4.6		0.13
Chromium		56		0.51
Cobalt		6.0		0.20
Copper		25		1.5
Lead		83		0.51
Molybdenum		1.7		0.51
Nickel		76		0.51
Selenium		ND		1.0
Silver		ND		0.26
Thallium		ND		0.51
Vanadium		16		0.51
Zinc		190		1.5

7471A Mercury (CVAA)

Method: 7471A
Preparation: 7471A
Dilution: 1.0
Date Analyzed: 04/30/2010 1521
Date Prepared: 04/27/2010 1531

Analysis Batch: 720-70594
Prep Batch: 720-70330

Instrument ID: LL_HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.58 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.10		0.021

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: **SS-14**

Lab Sample ID: 720-27633-14
Client Matrix: Solid

Date Sampled: 04/23/2010 1315
Date Received: 04/23/2010 1530

6010B Metals (ICP)

Method: 6010B
Preparation: 3050B
Dilution: 1.0
Date Analyzed: 04/30/2010 0011
Date Prepared: 04/27/2010 1157

Analysis Batch: 720-70535
Prep Batch: 720-70308

Instrument ID: Thermo ICP
Lab File ID: N/A
Initial Weight/Volume: 0.97 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Lead		31		0.52
Arsenic		8.6		1.0

7471A Mercury (CVAA)

Method: 7471A
Preparation: 7471A
Dilution: 1.0
Date Analyzed: 04/30/2010 1524
Date Prepared: 04/27/2010 1531

Analysis Batch: 720-70594
Prep Batch: 720-70330

Instrument ID: LL_HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.62 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.075		0.019

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-15

Lab Sample ID: 720-27633-15
Client Matrix: Solid

Date Sampled: 04/23/2010 1315
Date Received: 04/23/2010 1530

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-70535		Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-70308		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	1.00 g
Date Analyzed:	04/30/2010 0016			Final Weight/Volume:	50 mL
Date Prepared:	04/27/2010 1157				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Lead		21		0.50
Arsenic		8.5		1.0

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-70594		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-70330		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.62 g
Date Analyzed:	04/30/2010 1526			Final Weight/Volume:	50 mL
Date Prepared:	04/27/2010 1531				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.072		0.019

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-16

Lab Sample ID: 720-27633-16
Client Matrix: Solid

Date Sampled: 04/23/2010 1315
Date Received: 04/23/2010 1530

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-70535		Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-70308		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	1.00 g
Date Analyzed:	04/30/2010 0021			Final Weight/Volume:	50 mL
Date Prepared:	04/27/2010 1157				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Lead		20		0.50
Arsenic		8.1		1.0

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-70594		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-70330		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.63 g
Date Analyzed:	04/30/2010 1534			Final Weight/Volume:	50 mL
Date Prepared:	04/27/2010 1531				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.068		0.019

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: **SS-17**

Lab Sample ID: 720-27633-17
Client Matrix: Solid

Date Sampled: 04/23/2010 1315
Date Received: 04/23/2010 1530

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-70535		Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-70308		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.97 g
Date Analyzed:	04/30/2010 0026			Final Weight/Volume:	50 mL
Date Prepared:	04/27/2010 1157				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Lead		21		0.52
Arsenic		7.9		1.0

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-70594		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-70330		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.62 g
Date Analyzed:	04/30/2010 1536			Final Weight/Volume:	50 mL
Date Prepared:	04/27/2010 1531				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.060		0.019

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: **SS-18**

Lab Sample ID: 720-27633-18
Client Matrix: Solid

Date Sampled: 04/23/2010 1330
Date Received: 04/23/2010 1530

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-70535		Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-70308		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.96 g
Date Analyzed:	04/30/2010 0031			Final Weight/Volume:	50 mL
Date Prepared:	04/27/2010 1157				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Lead		31		0.52
Arsenic		9.1		1.0

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-70594		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-70330		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	0.58 g
Date Analyzed:	04/30/2010 1539			Final Weight/Volume:	50 mL
Date Prepared:	04/27/2010 1531				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.072		0.021

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-19

Lab Sample ID: 720-27633-19
Client Matrix: Solid

Date Sampled: 04/23/2010 1330
Date Received: 04/23/2010 1530

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-70535	Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-70308	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	0.98 g
Date Analyzed:	04/30/2010 0037		Final Weight/Volume:	50 mL
Date Prepared:	04/27/2010 1157			

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Lead		44		0.51
Arsenic		8.7		1.0

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-70594	Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-70330	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	0.59 g
Date Analyzed:	04/30/2010 1541		Final Weight/Volume:	50 mL
Date Prepared:	04/27/2010 1531			

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.093		0.020

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-20

Lab Sample ID: 720-27633-20
Client Matrix: Solid

Date Sampled: 04/23/2010 1330
Date Received: 04/23/2010 1530

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-70535	Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-70308	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	0.98 g
Date Analyzed:	04/30/2010 0042		Final Weight/Volume:	50 mL
Date Prepared:	04/27/2010 1157			

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Lead		24		0.51
Arsenic		9.5		1.0

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-70594	Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-70330	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	0.58 g
Date Analyzed:	04/30/2010 1544		Final Weight/Volume:	50 mL
Date Prepared:	04/27/2010 1531			

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.053		0.021

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-21

Lab Sample ID: 720-27633-21
Client Matrix: Solid

Date Sampled: 04/23/2010 1330
Date Received: 04/23/2010 1530

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-70535	Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-70308	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	0.98 g
Date Analyzed:	04/30/2010 0047		Final Weight/Volume:	50 mL
Date Prepared:	04/27/2010 1157			

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Lead		21		0.51
Arsenic		9.9		1.0

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-70605	Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-70473	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	0.62 g
Date Analyzed:	04/30/2010 1620		Final Weight/Volume:	50 mL
Date Prepared:	04/29/2010 1328			

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.067		0.019

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-22

Lab Sample ID: 720-27633-22
Client Matrix: Solid

Date Sampled: 04/23/2010 1345
Date Received: 04/23/2010 1530

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-70535	Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-70308	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	1.02 g
Date Analyzed:	04/30/2010 0052		Final Weight/Volume:	50 mL
Date Prepared:	04/27/2010 1157			

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Lead		19		0.49
Arsenic		8.6		0.98

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-70605	Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-70473	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	0.63 g
Date Analyzed:	04/30/2010 1623		Final Weight/Volume:	50 mL
Date Prepared:	04/29/2010 1328			

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.071		0.019

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-23

Lab Sample ID: 720-27633-23
Client Matrix: Solid

Date Sampled: 04/23/2010 1345
Date Received: 04/23/2010 1530

6010B Metals (ICP)

Method: 6010B
Preparation: 3050B
Dilution: 1.0
Date Analyzed: 04/30/2010 0106
Date Prepared: 04/27/2010 1157

Analysis Batch: 720-70535
Prep Batch: 720-70308

Instrument ID: Thermo ICP
Lab File ID: N/A
Initial Weight/Volume: 0.99 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		ND		0.51
Arsenic		10		1.0
Barium		160		0.51
Beryllium		0.25		0.10
Cadmium		0.47		0.13
Chromium		36		0.51
Cobalt		8.4		0.20
Copper		65		1.5
Lead		24		0.51
Molybdenum		0.56		0.51
Nickel		49		0.51
Selenium		ND		1.0
Silver		ND		0.25
Thallium		ND		0.51
Vanadium		30		0.51
Zinc		59		1.5

7471A Mercury (CVAA)

Method: 7471A
Preparation: 7471A
Dilution: 1.0
Date Analyzed: 04/30/2010 1625
Date Prepared: 04/29/2010 1328

Analysis Batch: 720-70605
Prep Batch: 720-70473

Instrument ID: LL_HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.61 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.048		0.020

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-24

Lab Sample ID: 720-27633-24
Client Matrix: Solid

Date Sampled: 04/23/2010 1345
Date Received: 04/23/2010 1530

6010B Metals (ICP)

Method: 6010B
Preparation: 3050B
Dilution: 1.0
Date Analyzed: 04/30/2010 0111
Date Prepared: 04/27/2010 1157

Analysis Batch: 720-70535
Prep Batch: 720-70308

Instrument ID: Thermo ICP
Lab File ID: N/A
Initial Weight/Volume: 1.04 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		4.4		0.48
Arsenic		20		0.96
Barium		400		0.48
Beryllium		ND		0.096
Cadmium		3.3		0.12
Chromium		31		0.48
Cobalt		4.3		0.19
Copper		110		1.4
Lead		150		0.48
Molybdenum		3.7		0.48
Nickel		34		0.48
Selenium		ND		0.96
Silver		0.29		0.24
Thallium		ND		0.48
Vanadium		13		0.48
Zinc		1700		1.4

7471A Mercury (CVAA)

Method: 7471A
Preparation: 7471A
Dilution: 1.0
Date Analyzed: 04/30/2010 1627
Date Prepared: 04/29/2010 1328

Analysis Batch: 720-70605
Prep Batch: 720-70473

Instrument ID: LL_HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.58 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.058		0.021

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-25

Lab Sample ID: 720-27633-25
Client Matrix: Solid

Date Sampled: 04/23/2010 1400
Date Received: 04/23/2010 1530

6010B Metals (ICP)

Method: 6010B
Preparation: 3050B
Dilution: 1.0
Date Analyzed: 04/30/2010 0117
Date Prepared: 04/27/2010 1157

Analysis Batch: 720-70535
Prep Batch: 720-70308

Instrument ID: Thermo ICP
Lab File ID: N/A
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		ND		0.50
Arsenic		9.5		1.0
Barium		190		0.50
Beryllium		0.27		0.10
Cadmium		0.66		0.12
Chromium		57		0.50
Cobalt		10		0.20
Copper		73		1.5
Lead		31		0.50
Molybdenum		0.61		0.50
Nickel		70		0.50
Selenium		ND		1.0
Silver		ND		0.25
Thallium		ND		0.50
Vanadium		31		0.50
Zinc		73		1.5

7471A Mercury (CVAA)

Method: 7471A
Preparation: 7471A
Dilution: 1.0
Date Analyzed: 04/30/2010 1634
Date Prepared: 04/29/2010 1328

Analysis Batch: 720-70605
Prep Batch: 720-70473

Instrument ID: LL_HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.60 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.083		0.020

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: SS-26

Lab Sample ID: 720-27633-26
Client Matrix: Solid

Date Sampled: 04/23/2010 1415
Date Received: 04/23/2010 1530

6010B Metals (ICP)

Method: 6010B
Preparation: 3050B
Dilution: 1.0
Date Analyzed: 04/30/2010 0122
Date Prepared: 04/27/2010 1157

Analysis Batch: 720-70535
Prep Batch: 720-70308

Instrument ID: Thermo ICP
Lab File ID: N/A
Initial Weight/Volume: 1.02 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		ND		0.49
Arsenic		13		0.98
Barium		160		0.49
Beryllium		0.24		0.098
Cadmium		0.70		0.12
Chromium		37		0.49
Cobalt		8.6		0.20
Copper		47		1.5
Lead		21		0.49
Molybdenum		0.61		0.49
Nickel		65		0.49
Selenium		ND		0.98
Silver		ND		0.25
Thallium		ND		0.49
Vanadium		29		0.49
Zinc		160		1.5

7471A Mercury (CVAA)

Method: 7471A
Preparation: 7471A
Dilution: 1.0
Date Analyzed: 04/30/2010 1637
Date Prepared: 04/29/2010 1328

Analysis Batch: 720-70605
Prep Batch: 720-70473

Instrument ID: LL_HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.58 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.065		0.021

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: **SS-27**

Lab Sample ID: 720-27633-27
Client Matrix: Solid

Date Sampled: 04/23/2010 1415
Date Received: 04/23/2010 1530

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-70535	Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-70308	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	0.98 g
Date Analyzed:	04/30/2010 0127		Final Weight/Volume:	50 mL
Date Prepared:	04/27/2010 1157			

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Lead		13		0.51
Arsenic		4.4		1.0

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-70605	Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-70473	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	0.63 g
Date Analyzed:	04/30/2010 1639		Final Weight/Volume:	50 mL
Date Prepared:	04/29/2010 1328			

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.056		0.019

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: **SS-28**

Lab Sample ID: 720-27633-28
Client Matrix: Solid

Date Sampled: 04/23/2010 1430
Date Received: 04/23/2010 1530

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-70535	Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-70308	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	0.97 g
Date Analyzed:	04/30/2010 0133		Final Weight/Volume:	50 mL
Date Prepared:	04/27/2010 1157			

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Lead		10		0.52
Arsenic		3.9		1.0

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-70605	Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-70473	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	0.63 g
Date Analyzed:	04/30/2010 1641		Final Weight/Volume:	50 mL
Date Prepared:	04/29/2010 1328			

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.049		0.019

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Client Sample ID: **SS-29**

Lab Sample ID: 720-27633-29
Client Matrix: Solid

Date Sampled: 04/23/2010 1430
Date Received: 04/23/2010 1530

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-70535	Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-70308	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	1.00 g
Date Analyzed:	04/30/2010 0138		Final Weight/Volume:	50 mL
Date Prepared:	04/27/2010 1157			

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Lead		4.3		0.50
Arsenic		2.0		1.0

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-70580	Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-70509	Lab File ID:	N/A
Dilution:	1.0		Initial Weight/Volume:	0.62 g
Date Analyzed:	04/30/2010 1327		Final Weight/Volume:	50 mL
Date Prepared:	04/29/2010 1652			

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.085		0.019

DATA REPORTING QUALIFIERS

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Lab Section	Qualifier	Description
GC Semi VOA		
	F	MS or MSD exceeds the control limits
	F	RPD of the MS and MSD exceeds the control limits
	D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
Metals		
	F	MS or MSD exceeds the control limits
	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.

Client: Cornerstone Earth Group

Job Number: 720-27633-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 720-70254					
LCS 720-70254/2-A	Lab Control Sample	T	Solid	3550B	
LCSD 720-70254/3-A	Lab Control Sample Duplicate	T	Solid	3550B	
MB 720-70254/1-A	Method Blank	T	Solid	3550B	
720-27633-1	SS-1	T	Solid	3550B	
720-27633-3	SS-3	T	Solid	3550B	
720-27633-20	SS-20	T	Solid	3550B	
720-27633-20MS	Matrix Spike	T	Solid	3550B	
720-27633-20MSD	Matrix Spike Duplicate	T	Solid	3550B	
720-27633-21	SS-21	T	Solid	3550B	
720-27633-24	SS-24	T	Solid	3550B	
Analysis Batch:720-70368					
LCS 720-70254/2-A	Lab Control Sample	T	Solid	8270C	720-70254
LCSD 720-70254/3-A	Lab Control Sample Duplicate	T	Solid	8270C	720-70254
MB 720-70254/1-A	Method Blank	T	Solid	8270C	720-70254
720-27633-1	SS-1	T	Solid	8270C	720-70254
720-27633-3	SS-3	T	Solid	8270C	720-70254
720-27633-20	SS-20	T	Solid	8270C	720-70254
720-27633-20MS	Matrix Spike	T	Solid	8270C	720-70254
720-27633-20MSD	Matrix Spike Duplicate	T	Solid	8270C	720-70254
720-27633-21	SS-21	T	Solid	8270C	720-70254
720-27633-24	SS-24	T	Solid	8270C	720-70254

Report Basis
T = Total

Client: Cornerstone Earth Group

Job Number: 720-27633-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 720-70244					
LCS 720-70244/2-A	Lab Control Sample	A	Solid	3550B	
LCSD 720-70244/3-A	Lab Control Sample Duplicate	A	Solid	3550B	
MB 720-70244/1-A	Method Blank	A	Solid	3550B	
720-27633-1	SS-1	A	Solid	3550B	
720-27633-2	SS-2	A	Solid	3550B	
720-27633-3	SS-3	A	Solid	3550B	
720-27633-4	SS-4	A	Solid	3550B	
720-27633-5	SS-5	A	Solid	3550B	
720-27633-6	SS-6	A	Solid	3550B	
720-27633-7	SS-7	A	Solid	3550B	
720-27633-8	SS-8	A	Solid	3550B	
720-27633-10	SS-10	A	Solid	3550B	
720-27633-12	SS-12	A	Solid	3550B	
720-27633-13	SS-13	A	Solid	3550B	
720-27633-23	SS-23	A	Solid	3550B	
720-27633-24	SS-24	A	Solid	3550B	
720-27633-25	SS-25	A	Solid	3550B	
720-27633-26	SS-26	A	Solid	3550B	
720-27652-A-1-B MS	Matrix Spike	A	Solid	3550B	
720-27652-A-1-C MSD	Matrix Spike Duplicate	A	Solid	3550B	

Client: Cornerstone Earth Group

Job Number: 720-27633-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 720-70276					
LCS 720-70276/2-A	Lab Control Sample	T	Solid	3550B	
LCSD 720-70276/3-A	Lab Control Sample Duplicate	T	Solid	3550B	
MB 720-70276/1-A	Method Blank	T	Solid	3550B	
720-27633-2	SS-2	T	Solid	3550B	
720-27633-4	SS-4	T	Solid	3550B	
720-27633-5	SS-5	T	Solid	3550B	
720-27633-6	SS-6	T	Solid	3550B	
720-27633-7	SS-7	T	Solid	3550B	
720-27633-9	SS-9	T	Solid	3550B	
720-27633-10	SS-10	T	Solid	3550B	
720-27633-11	SS-11	T	Solid	3550B	
720-27633-12	SS-12	T	Solid	3550B	
720-27633-13	SS-13	T	Solid	3550B	
720-27633-14	SS-14	T	Solid	3550B	
720-27633-15	SS-15	T	Solid	3550B	
720-27633-16	SS-16	T	Solid	3550B	
720-27633-17	SS-17	T	Solid	3550B	
720-27633-18	SS-18	T	Solid	3550B	
720-27633-18MS	Matrix Spike	T	Solid	3550B	
720-27633-18MSD	Matrix Spike Duplicate	T	Solid	3550B	
720-27633-20	SS-20	T	Solid	3550B	
720-27633-21	SS-21	T	Solid	3550B	
720-27633-23	SS-23	T	Solid	3550B	
720-27633-25	SS-25	T	Solid	3550B	
Analysis Batch:720-70278					
720-27633-1	SS-1	A	Solid	8015B	720-70244
720-27633-2	SS-2	A	Solid	8015B	720-70244
720-27633-4	SS-4	A	Solid	8015B	720-70244
720-27633-5	SS-5	A	Solid	8015B	720-70244
720-27633-6	SS-6	A	Solid	8015B	720-70244
720-27633-8	SS-8	A	Solid	8015B	720-70244
720-27633-10	SS-10	A	Solid	8015B	720-70244
720-27633-12	SS-12	A	Solid	8015B	720-70244
720-27633-13	SS-13	A	Solid	8015B	720-70244
720-27633-24	SS-24	A	Solid	8015B	720-70244
720-27633-25	SS-25	A	Solid	8015B	720-70244
720-27633-26	SS-26	A	Solid	8015B	720-70244

Client: Cornerstone Earth Group

Job Number: 720-27633-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Analysis Batch:720-70284					
LCS 720-70306/2-A	Lab Control Sample	T	Solid	8082	720-70306
LCSD 720-70306/3-A	Lab Control Sample Duplicate	T	Solid	8082	720-70306
MB 720-70306/1-A	Method Blank	T	Solid	8082	720-70306
720-27633-1	SS-1	T	Solid	8082	720-70306
720-27633-3	SS-3	T	Solid	8082	720-70306
720-27633-8	SS-8	T	Solid	8082	720-70306
720-27633-24	SS-24	T	Solid	8082	720-70306
720-27633-26	SS-26	T	Solid	8082	720-70306
Analysis Batch:720-70286					
LCS 720-70244/2-A	Lab Control Sample	A	Solid	8015B	720-70244
LCSD 720-70244/3-A	Lab Control Sample Duplicate	A	Solid	8015B	720-70244
MB 720-70244/1-A	Method Blank	A	Solid	8015B	720-70244
Analysis Batch:720-70287					
720-27652-A-1-B MS	Matrix Spike	A	Solid	8015B	720-70244
720-27652-A-1-C MSD	Matrix Spike Duplicate	A	Solid	8015B	720-70244

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Analysis Batch:720-70292					
LCS 720-70276/2-A	Lab Control Sample	T	Solid	8081A	720-70276
LCSD 720-70276/3-A	Lab Control Sample Duplicate	T	Solid	8081A	720-70276
MB 720-70276/1-A	Method Blank	T	Solid	8081A	720-70276
720-27633-4	SS-4	T	Solid	8081A	720-70276
720-27633-5	SS-5	T	Solid	8081A	720-70276
720-27633-6	SS-6	T	Solid	8081A	720-70276
720-27633-7	SS-7	T	Solid	8081A	720-70276
720-27633-9	SS-9	T	Solid	8081A	720-70276
720-27633-10	SS-10	T	Solid	8081A	720-70276
720-27633-11	SS-11	T	Solid	8081A	720-70276
720-27633-12	SS-12	T	Solid	8081A	720-70276
720-27633-13	SS-13	T	Solid	8081A	720-70276
720-27633-14	SS-14	T	Solid	8081A	720-70276
720-27633-15	SS-15	T	Solid	8081A	720-70276
720-27633-16	SS-16	T	Solid	8081A	720-70276
720-27633-18	SS-18	T	Solid	8081A	720-70276
720-27633-18MS	Matrix Spike	T	Solid	8081A	720-70276
720-27633-18MSD	Matrix Spike Duplicate	T	Solid	8081A	720-70276
720-27633-19	SS-19	T	Solid	8081A	720-70322
720-27633-20	SS-20	T	Solid	8081A	720-70276
720-27633-21	SS-21	T	Solid	8081A	720-70276
720-27633-22	SS-22	T	Solid	8081A	720-70322
720-27633-23	SS-23	T	Solid	8081A	720-70276
720-27633-24	SS-24	T	Solid	8081A	720-70322
720-27633-25	SS-25	T	Solid	8081A	720-70276
720-27633-26	SS-26	T	Solid	8081A	720-70322
720-27633-27	SS-27	T	Solid	8081A	720-70322
720-27633-28	SS-28	T	Solid	8081A	720-70322
720-27633-29	SS-29	T	Solid	8081A	720-70322
Analysis Batch:720-70293					
LCS 720-70305/2-A	Lab Control Sample	T	Solid	8081A	720-70305
LCSD 720-70305/3-A	Lab Control Sample Duplicate	T	Solid	8081A	720-70305
MB 720-70305/1-A	Method Blank	T	Solid	8081A	720-70305
720-27633-1	SS-1	T	Solid	8081A	720-70305
720-27633-3	SS-3	T	Solid	8081A	720-70305
720-27633-8	SS-8	T	Solid	8081A	720-70305
720-27655-A-1-E MS	Matrix Spike	T	Solid	8081A	720-70305
720-27655-A-1-F MSD	Matrix Spike Duplicate	T	Solid	8081A	720-70305

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 720-70305					
LCS 720-70305/2-A	Lab Control Sample	T	Solid	3550B	
LCSD 720-70305/3-A	Lab Control Sample Duplicate	T	Solid	3550B	
MB 720-70305/1-A	Method Blank	T	Solid	3550B	
720-27633-1	SS-1	T	Solid	3550B	
720-27633-3	SS-3	T	Solid	3550B	
720-27633-8	SS-8	T	Solid	3550B	
720-27655-A-1-E MS	Matrix Spike	T	Solid	3550B	
720-27655-A-1-F MSD	Matrix Spike Duplicate	T	Solid	3550B	
Prep Batch: 720-70306					
LCS 720-70306/2-A	Lab Control Sample	T	Solid	3550B	
LCSD 720-70306/3-A	Lab Control Sample Duplicate	T	Solid	3550B	
MB 720-70306/1-A	Method Blank	T	Solid	3550B	
720-27633-1	SS-1	T	Solid	3550B	
720-27633-3	SS-3	T	Solid	3550B	
720-27633-8	SS-8	T	Solid	3550B	
720-27633-24	SS-24	T	Solid	3550B	
720-27633-26	SS-26	T	Solid	3550B	
Prep Batch: 720-70322					
LCS 720-70322/2-A	Lab Control Sample	T	Solid	3550B	
LCSD 720-70322/3-A	Lab Control Sample Duplicate	T	Solid	3550B	
MB 720-70322/1-A	Method Blank	T	Solid	3550B	
720-27633-19	SS-19	T	Solid	3550B	
720-27633-22	SS-22	T	Solid	3550B	
720-27633-24	SS-24	T	Solid	3550B	
720-27633-26	SS-26	T	Solid	3550B	
720-27633-27	SS-27	T	Solid	3550B	
720-27633-28	SS-28	T	Solid	3550B	
720-27633-29	SS-29	T	Solid	3550B	
720-27669-A-16-C MS	Matrix Spike	T	Solid	3550B	
720-27669-A-16-D MSD	Matrix Spike Duplicate	T	Solid	3550B	
Analysis Batch:720-70359					
720-27633-3	SS-3	A	Solid	8015B	720-70244
720-27633-7	SS-7	A	Solid	8015B	720-70244
720-27633-23	SS-23	A	Solid	8015B	720-70244

Client: Cornerstone Earth Group

Job Number: 720-27633-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Analysis Batch:720-70405					
LCS 720-70322/2-A	Lab Control Sample	T	Solid	8081A	720-70322
LCSD 720-70322/3-A	Lab Control Sample Duplicate	T	Solid	8081A	720-70322
MB 720-70322/1-A	Method Blank	T	Solid	8081A	720-70322
720-27633-2	SS-2	T	Solid	8081A	720-70276
720-27633-17	SS-17	T	Solid	8081A	720-70276
720-27669-A-16-C MS	Matrix Spike	T	Solid	8081A	720-70322
720-27669-A-16-D MSD	Matrix Spike Duplicate	T	Solid	8081A	720-70322

Report Basis
A = Silica Gel Cleanup
T = Total

Client: Cornerstone Earth Group

Job Number: 720-27633-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 720-70307					
LCS 720-70307/2-A	Lab Control Sample	T	Solid	3050B	
LCSD 720-70307/3-A	Lab Control Sample Duplicate	T	Solid	3050B	
LCSSRM 720-70307/26-A	LCS-Standard Reference Material	T	Solid	3050B	
MB 720-70307/1-A	Method Blank	T	Solid	3050B	
720-27633-1	SS-1	T	Solid	3050B	
720-27633-2	SS-2	T	Solid	3050B	
720-27633-3	SS-3	T	Solid	3050B	
720-27633-4	SS-4	T	Solid	3050B	
720-27633-5	SS-5	T	Solid	3050B	
720-27633-6	SS-6	T	Solid	3050B	
720-27633-7	SS-7	T	Solid	3050B	
720-27633-8	SS-8	T	Solid	3050B	
720-27633-9	SS-9	T	Solid	3050B	
720-27633-10	SS-10	T	Solid	3050B	
720-27633-11	SS-11	T	Solid	3050B	
720-27655-A-1-H MS	Matrix Spike	T	Solid	3050B	
720-27655-A-1-I MSD	Matrix Spike Duplicate	T	Solid	3050B	
Prep Batch: 720-70308					
LCS 720-70308/2-A	Lab Control Sample	T	Solid	3050B	
LCSD 720-70308/3-A	Lab Control Sample Duplicate	T	Solid	3050B	
LCSSRM 720-70308/26-A	LCS-Standard Reference Material	T	Solid	3050B	
MB 720-70308/1-A	Method Blank	T	Solid	3050B	
720-27633-12	SS-12	T	Solid	3050B	
720-27633-12MS	Matrix Spike	T	Solid	3050B	
720-27633-12MSD	Matrix Spike Duplicate	T	Solid	3050B	
720-27633-13	SS-13	T	Solid	3050B	
720-27633-14	SS-14	T	Solid	3050B	
720-27633-15	SS-15	T	Solid	3050B	
720-27633-16	SS-16	T	Solid	3050B	
720-27633-17	SS-17	T	Solid	3050B	
720-27633-18	SS-18	T	Solid	3050B	
720-27633-19	SS-19	T	Solid	3050B	
720-27633-20	SS-20	T	Solid	3050B	
720-27633-21	SS-21	T	Solid	3050B	
720-27633-22	SS-22	T	Solid	3050B	
720-27633-23	SS-23	T	Solid	3050B	
720-27633-24	SS-24	T	Solid	3050B	
720-27633-25	SS-25	T	Solid	3050B	
720-27633-26	SS-26	T	Solid	3050B	
720-27633-27	SS-27	T	Solid	3050B	
720-27633-28	SS-28	T	Solid	3050B	
720-27633-29	SS-29	T	Solid	3050B	

Client: Cornerstone Earth Group

Job Number: 720-27633-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 720-70330					
LCS 720-70330/2-A	Lab Control Sample	T	Solid	7471A	
LCSD 720-70330/3-A	Lab Control Sample Duplicate	T	Solid	7471A	
MB 720-70330/1-A	Method Blank	T	Solid	7471A	
720-27633-1	SS-1	T	Solid	7471A	
720-27633-1MS	Matrix Spike	T	Solid	7471A	
720-27633-1MSD	Matrix Spike Duplicate	T	Solid	7471A	
720-27633-2	SS-2	T	Solid	7471A	
720-27633-3	SS-3	T	Solid	7471A	
720-27633-4	SS-4	T	Solid	7471A	
720-27633-5	SS-5	T	Solid	7471A	
720-27633-6	SS-6	T	Solid	7471A	
720-27633-7	SS-7	T	Solid	7471A	
720-27633-8	SS-8	T	Solid	7471A	
720-27633-9	SS-9	T	Solid	7471A	
720-27633-10	SS-10	T	Solid	7471A	
720-27633-11	SS-11	T	Solid	7471A	
720-27633-12	SS-12	T	Solid	7471A	
720-27633-13	SS-13	T	Solid	7471A	
720-27633-14	SS-14	T	Solid	7471A	
720-27633-15	SS-15	T	Solid	7471A	
720-27633-16	SS-16	T	Solid	7471A	
720-27633-17	SS-17	T	Solid	7471A	
720-27633-18	SS-18	T	Solid	7471A	
720-27633-19	SS-19	T	Solid	7471A	
720-27633-20	SS-20	T	Solid	7471A	
Prep Batch: 720-70473					
LCS 720-70473/2-A	Lab Control Sample	T	Solid	7471A	
LCSD 720-70473/3-A	Lab Control Sample Duplicate	T	Solid	7471A	
MB 720-70473/1-A	Method Blank	T	Solid	7471A	
720-27633-21	SS-21	T	Solid	7471A	
720-27633-22	SS-22	T	Solid	7471A	
720-27633-23	SS-23	T	Solid	7471A	
720-27633-24	SS-24	T	Solid	7471A	
720-27633-25	SS-25	T	Solid	7471A	
720-27633-26	SS-26	T	Solid	7471A	
720-27633-27	SS-27	T	Solid	7471A	
720-27633-28	SS-28	T	Solid	7471A	
720-27655-A-1-L MS	Matrix Spike	T	Solid	7471A	
720-27655-A-1-M MSD	Matrix Spike Duplicate	T	Solid	7471A	

Client: Cornerstone Earth Group

Job Number: 720-27633-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 720-70509					
LCS 720-70509/2-A	Lab Control Sample	T	Solid	7471A	
LCSD 720-70509/3-A	Lab Control Sample Duplicate	T	Solid	7471A	
MB 720-70509/1-A	Method Blank	T	Solid	7471A	
720-27633-29	SS-29	T	Solid	7471A	
720-27652-A-1-G MS	Matrix Spike	T	Solid	7471A	
720-27652-A-1-H MSD	Matrix Spike Duplicate	T	Solid	7471A	
Analysis Batch:720-70535					
LCS 720-70308/2-A	Lab Control Sample	T	Solid	6010B	720-70308
LCSD 720-70308/3-A	Lab Control Sample Duplicate	T	Solid	6010B	720-70308
LCSSRM 720-70308/26-A	LCS-Standard Reference Material	T	Solid	6010B	720-70308
MB 720-70308/1-A	Method Blank	T	Solid	6010B	720-70308
720-27633-12	SS-12	T	Solid	6010B	720-70308
720-27633-12MS	Matrix Spike	T	Solid	6010B	720-70308
720-27633-12MSD	Matrix Spike Duplicate	T	Solid	6010B	720-70308
720-27633-13	SS-13	T	Solid	6010B	720-70308
720-27633-14	SS-14	T	Solid	6010B	720-70308
720-27633-15	SS-15	T	Solid	6010B	720-70308
720-27633-16	SS-16	T	Solid	6010B	720-70308
720-27633-17	SS-17	T	Solid	6010B	720-70308
720-27633-18	SS-18	T	Solid	6010B	720-70308
720-27633-19	SS-19	T	Solid	6010B	720-70308
720-27633-20	SS-20	T	Solid	6010B	720-70308
720-27633-21	SS-21	T	Solid	6010B	720-70308
720-27633-22	SS-22	T	Solid	6010B	720-70308
720-27633-23	SS-23	T	Solid	6010B	720-70308
720-27633-24	SS-24	T	Solid	6010B	720-70308
720-27633-25	SS-25	T	Solid	6010B	720-70308
720-27633-26	SS-26	T	Solid	6010B	720-70308
720-27633-27	SS-27	T	Solid	6010B	720-70308
720-27633-28	SS-28	T	Solid	6010B	720-70308
720-27633-29	SS-29	T	Solid	6010B	720-70308

Client: Cornerstone Earth Group

Job Number: 720-27633-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:720-70536					
LCS 720-70307/2-A	Lab Control Sample	T	Solid	6010B	720-70307
LCSD 720-70307/3-A	Lab Control Sample Duplicate	T	Solid	6010B	720-70307
LCSSRM 720-70307/26-A	LCS-Standard Reference Material	T	Solid	6010B	720-70307
MB 720-70307/1-A	Method Blank	T	Solid	6010B	720-70307
720-27633-1	SS-1	T	Solid	6010B	720-70307
720-27633-2	SS-2	T	Solid	6010B	720-70307
720-27633-3	SS-3	T	Solid	6010B	720-70307
720-27633-4	SS-4	T	Solid	6010B	720-70307
720-27633-5	SS-5	T	Solid	6010B	720-70307
720-27633-6	SS-6	T	Solid	6010B	720-70307
720-27633-7	SS-7	T	Solid	6010B	720-70307
720-27633-8	SS-8	T	Solid	6010B	720-70307
720-27633-9	SS-9	T	Solid	6010B	720-70307
720-27633-10	SS-10	T	Solid	6010B	720-70307
720-27633-11	SS-11	T	Solid	6010B	720-70307
720-27655-A-1-H MS	Matrix Spike	T	Solid	6010B	720-70307
720-27655-A-1-I MSD	Matrix Spike Duplicate	T	Solid	6010B	720-70307
Analysis Batch:720-70580					
LCS 720-70509/2-A	Lab Control Sample	T	Solid	7471A	720-70509
LCSD 720-70509/3-A	Lab Control Sample Duplicate	T	Solid	7471A	720-70509
MB 720-70509/1-A	Method Blank	T	Solid	7471A	720-70509
720-27633-29	SS-29	T	Solid	7471A	720-70509
720-27652-A-1-G MS	Matrix Spike	T	Solid	7471A	720-70509
720-27652-A-1-H MSD	Matrix Spike Duplicate	T	Solid	7471A	720-70509

Client: Cornerstone Earth Group

Job Number: 720-27633-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:720-70594					
LCS 720-70330/2-A	Lab Control Sample	T	Solid	7471A	720-70330
LCSD 720-70330/3-A	Lab Control Sample Duplicate	T	Solid	7471A	720-70330
MB 720-70330/1-A	Method Blank	T	Solid	7471A	720-70330
720-27633-1	SS-1	T	Solid	7471A	720-70330
720-27633-1MS	Matrix Spike	T	Solid	7471A	720-70330
720-27633-1MSD	Matrix Spike Duplicate	T	Solid	7471A	720-70330
720-27633-2	SS-2	T	Solid	7471A	720-70330
720-27633-3	SS-3	T	Solid	7471A	720-70330
720-27633-4	SS-4	T	Solid	7471A	720-70330
720-27633-5	SS-5	T	Solid	7471A	720-70330
720-27633-6	SS-6	T	Solid	7471A	720-70330
720-27633-7	SS-7	T	Solid	7471A	720-70330
720-27633-8	SS-8	T	Solid	7471A	720-70330
720-27633-9	SS-9	T	Solid	7471A	720-70330
720-27633-10	SS-10	T	Solid	7471A	720-70330
720-27633-11	SS-11	T	Solid	7471A	720-70330
720-27633-12	SS-12	T	Solid	7471A	720-70330
720-27633-13	SS-13	T	Solid	7471A	720-70330
720-27633-14	SS-14	T	Solid	7471A	720-70330
720-27633-15	SS-15	T	Solid	7471A	720-70330
720-27633-16	SS-16	T	Solid	7471A	720-70330
720-27633-17	SS-17	T	Solid	7471A	720-70330
720-27633-18	SS-18	T	Solid	7471A	720-70330
720-27633-19	SS-19	T	Solid	7471A	720-70330
720-27633-20	SS-20	T	Solid	7471A	720-70330
Analysis Batch:720-70605					
LCS 720-70473/2-A	Lab Control Sample	T	Solid	7471A	720-70473
LCSD 720-70473/3-A	Lab Control Sample Duplicate	T	Solid	7471A	720-70473
MB 720-70473/1-A	Method Blank	T	Solid	7471A	720-70473
720-27633-21	SS-21	T	Solid	7471A	720-70473
720-27633-22	SS-22	T	Solid	7471A	720-70473
720-27633-23	SS-23	T	Solid	7471A	720-70473
720-27633-24	SS-24	T	Solid	7471A	720-70473
720-27633-25	SS-25	T	Solid	7471A	720-70473
720-27633-26	SS-26	T	Solid	7471A	720-70473
720-27633-27	SS-27	T	Solid	7471A	720-70473
720-27633-28	SS-28	T	Solid	7471A	720-70473
720-27655-A-1-L MS	Matrix Spike	T	Solid	7471A	720-70473
720-27655-A-1-M MSD	Matrix Spike Duplicate	T	Solid	7471A	720-70473

Report Basis
T = Total

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Method Blank - Batch: 720-70254

Method: 8270C
Preparation: 3550B

Lab Sample ID: MB 720-70254/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/28/2010 1925
Date Prepared: 04/26/2010 1513

Analysis Batch: 720-70368
Prep Batch: 720-70254
Units: ug/Kg

Instrument ID: SVOA HP 4
Lab File ID: 04281025.D
Initial Weight/Volume: 30.22 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Result	Qual	RL
Naphthalene	ND		5.0
Acenaphthene	ND		5.0
Acenaphthylene	ND		5.0
Fluorene	ND		5.0
Phenanthrene	ND		5.0
Anthracene	ND		5.0
Benzo[a]anthracene	ND		5.0
Chrysene	ND		5.0
Benzo[a]pyrene	ND		5.0
Benzo[b]fluoranthene	ND		5.0
Benzo[k]fluoranthene	ND		5.0
Benzo[g,h,i]perylene	ND		5.0
Indeno[1,2,3-cd]pyrene	ND		5.0
Fluoranthene	ND		5.0
Pyrene	ND		5.0
Dibenz(a,h)anthracene	ND		5.0

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	76	33 - 120
Terphenyl-d14	96	35 - 120

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-70254

Method: 8270C
Preparation: 3550B

LCS Lab Sample ID: LCS 720-70254/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/28/2010 1837
Date Prepared: 04/26/2010 1513

Analysis Batch: 720-70368
Prep Batch: 720-70254
Units: ug/Kg

Instrument ID: SVOA HP 4
Lab File ID: 04281023.D
Initial Weight/Volume: 30.20 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

LCSD Lab Sample ID: LCSD 720-70254/3-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/28/2010 1901
Date Prepared: 04/26/2010 1513

Analysis Batch: 720-70368
Prep Batch: 720-70254
Units: ug/Kg

Instrument ID: SVOA HP 4
Lab File ID: 04281024.D
Initial Weight/Volume: 30.12 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Naphthalene	80	80	46 - 120	0	20		
Acenaphthene	87	85	49 - 120	2	20		
Acenaphthylene	84	81	52 - 120	4	20		
Fluorene	102	100	52 - 120	2	20		
Phenanthrene	88	85	48 - 120	3	20		
Anthracene	85	84	52 - 120	1	20		
Benzo[a]anthracene	83	80	52 - 120	4	20		
Chrysene	90	87	54 - 120	3	20		
Benzo[a]pyrene	79	76	54 - 120	4	20		
Benzo[b]fluoranthene	89	90	51 - 120	2	20		
Benzo[k]fluoranthene	89	82	56 - 120	8	20		
Benzo[g,h,i]perylene	94	91	48 - 120	2	20		
Indeno[1,2,3-cd]pyrene	97	95	48 - 120	3	20		
Fluoranthene	90	88	57 - 120	2	20		
Pyrene	86	83	53 - 120	4	20		
Dibenz(a,h)anthracene	90	87	50 - 120	3	20		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
2-Fluorobiphenyl	78	77	33 - 120
Terphenyl-d14	96	93	35 - 120

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-70254

Method: 8270C
Preparation: 3550B

MS Lab Sample ID: 720-27633-20
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/28/2010 2101
Date Prepared: 04/26/2010 1513

Analysis Batch: 720-70368
Prep Batch: 720-70254

Instrument ID: SVOA HP 4
Lab File ID: 04281029.D
Initial Weight/Volume: 30.17 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

MSD Lab Sample ID: 720-27633-20
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/28/2010 2125
Date Prepared: 04/26/2010 1513

Analysis Batch: 720-70368
Prep Batch: 720-70254

Instrument ID: SVOA HP 4
Lab File ID: 04281030.D
Initial Weight/Volume: 30.20 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Naphthalene	74	64	32 - 120	14	20		
Acenaphthene	80	74	33 - 120	8	20		
Acenaphthylene	80	74	28 - 120	8	20		
Fluorene	94	91	35 - 120	3	20		
Phenanthrene	83	82	28 - 120	1	20		
Anthracene	82	83	36 - 120	2	20		
Benzo[a]anthracene	79	80	29 - 120	1	20		
Chrysene	83	85	29 - 120	2	20		
Benzo[a]pyrene	80	81	24 - 120	1	20		
Benzo[b]fluoranthene	86	81	17 - 132	5	20		
Benzo[k]fluoranthene	76	82	35 - 120	8	20		
Benzo[g,h,i]perylene	86	87	21 - 120	1	20		
Indeno[1,2,3-cd]pyrene	89	91	20 - 126	2	20		
Fluoranthene	88	86	24 - 120	3	20		
Pyrene	84	83	24 - 123	2	20		
Dibenz(a,h)anthracene	81	83	36 - 120	2	20		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
2-Fluorobiphenyl	72	65	33 - 120
Terphenyl-d14	88	92	35 - 120

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Method Blank - Batch: 720-70244

Method: 8015B
Preparation: 3550B
Silica Gel Cleanup

Lab Sample ID: MB 720-70244/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/27/2010 1116
Date Prepared: 04/26/2010 1351

Analysis Batch: 720-70286
Prep Batch: 720-70244
Units: mg/Kg

Instrument ID: CHDRO5
Lab File ID: 5a0427009.d
Initial Weight/Volume: 30.37 g
Final Weight/Volume: 2 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
Diesel Range Organics [C10-C28]	ND		0.99
Motor Oil Range Organics [C24-C36]	ND		49

Surrogate	% Rec	Acceptance Limits
Capric Acid (Surr)	0	0 - 5
p-Terphenyl	97	46 - 115

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-70244

Method: 8015B
Preparation: 3550B
Silica Gel Cleanup

LCS Lab Sample ID: LCS 720-70244/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/27/2010 1026
Date Prepared: 04/26/2010 1351

Analysis Batch: 720-70286
Prep Batch: 720-70244
Units: mg/Kg

Instrument ID: CHDRO5
Lab File ID: 5a0427007.d
Initial Weight/Volume: 30.03 g
Final Weight/Volume: 2 mL
Injection Volume: 1 uL
Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 720-70244/3-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/27/2010 1051
Date Prepared: 04/26/2010 1351

Analysis Batch: 720-70286
Prep Batch: 720-70244
Units: mg/Kg

Instrument ID: CHDRO5
Lab File ID: 5a0427008.d
Initial Weight/Volume: 30.36 g
Final Weight/Volume: 2 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Diesel Range Organics [C10-C28]	105	104	45 - 115	3	35		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
p-Terphenyl	115	114	46 - 115

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-70244

Method: 8015B
Preparation: 3550B
Silica Gel Cleanup

MS Lab Sample ID: 720-27652-A-1-B MS
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/27/2010 1744
Date Prepared: 04/26/2010 1351

Analysis Batch: 720-70287
Prep Batch: 720-70244

Instrument ID: CHDRO5
Lab File ID: 5b0427022.d
Initial Weight/Volume: 30.34 g
Final Weight/Volume: 2 mL
Injection Volume: 1 uL
Column ID: PRIMARY

MSD Lab Sample ID: 720-27652-A-1-C MSD
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/27/2010 1809
Date Prepared: 04/26/2010 1358

Analysis Batch: 720-70287
Prep Batch: 720-70244

Instrument ID: CHDRO5
Lab File ID: 5b0427023.d
Initial Weight/Volume: 29.99 g
Final Weight/Volume: 2 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Diesel Range Organics [C10-C28]	78	78	50 - 130	1	30		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
p-Terphenyl	64	71	46 - 115

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Method Blank - Batch: 720-70276

Method: 8081A
Preparation: 3550B

Lab Sample ID: MB 720-70276/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/27/2010 1908
Date Prepared: 04/26/2010 2000

Analysis Batch: 720-70292
Prep Batch: 720-70276
Units: ug/Kg

Instrument ID: CHPEST3
Lab File ID: SIG10024.D
Initial Weight/Volume: 30.30 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
Aldrin	ND		2.0
Dieldrin	ND		2.0
Endrin aldehyde	ND		2.0
Endrin	ND		2.0
Endrin ketone	ND		2.0
Heptachlor	ND		2.0
Heptachlor epoxide	ND		2.0
4,4'-DDT	ND		2.0
4,4'-DDE	ND		2.0
4,4'-DDD	ND		2.0
Endosulfan I	ND		2.0
Endosulfan II	ND		2.0
alpha-BHC	ND		2.0
beta-BHC	ND		2.0
gamma-BHC (Lindane)	ND		2.0
delta-BHC	ND		2.0
Endosulfan sulfate	ND		2.0
Methoxychlor	ND		2.0
Toxaphene	ND		40
Chlordane (technical)	ND		40
alpha-Chlordane	ND		2.0
gamma-Chlordane	ND		2.0

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	85	54 - 109
DCB Decachlorobiphenyl	90	27 - 136

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-70276

Method: 8081A
Preparation: 3550B

LCS Lab Sample ID: LCS 720-70276/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/27/2010 1924
Date Prepared: 04/26/2010 2000

Analysis Batch: 720-70292
Prep Batch: 720-70276
Units: ug/Kg

Instrument ID: CHPEST3
Lab File ID: SIG10025.D
Initial Weight/Volume: 30.14 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 720-70276/3-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/27/2010 1939
Date Prepared: 04/26/2010 2000

Analysis Batch: 720-70292
Prep Batch: 720-70276
Units: ug/Kg

Instrument ID: CHPEST3
Lab File ID: SIG10026.D
Initial Weight/Volume: 30.22 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Aldrin	93	93	54 - 120	0	20		
Dieldrin	94	93	59 - 120	1	20		
Endrin	96	94	53 - 120	2	20		
Heptachlor	98	95	54 - 120	4	20		
4,4'-DDT	104	101	51 - 120	3	20		
gamma-BHC (Lindane)	89	89	58 - 120	1	20		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
Tetrachloro-m-xylene	86	87	54 - 109
DCB Decachlorobiphenyl	104	104	27 - 136

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-70276

Method: 8081A
Preparation: 3550B

MS Lab Sample ID: 720-27633-18
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/28/2010 0123
Date Prepared: 04/26/2010 2000

Analysis Batch: 720-70292
Prep Batch: 720-70276

Instrument ID: CHPEST3
Lab File ID: SIG10048.D
Initial Weight/Volume: 30.40 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: PRIMARY

MSD Lab Sample ID: 720-27633-18
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/28/2010 0139
Date Prepared: 04/26/2010 2000

Analysis Batch: 720-70292
Prep Batch: 720-70276

Instrument ID: CHPEST3
Lab File ID: SIG10049.D
Initial Weight/Volume: 29.99 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Aldrin	65	102	53 - 120	45	20		F
Dieldrin	103	99	46 - 130	2	20		
Endrin	105	96	32 - 143	7	20		
Heptachlor	143	121	52 - 120	15	20	F	F
4,4'-DDT	70	12	17 - 144	19	20		F
gamma-BHC (Lindane)	141	118	58 - 120	16	20	F	

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Tetrachloro-m-xylene	93	102	54 - 109
DCB Decachlorobiphenyl	91	103	27 - 136

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Method Blank - Batch: 720-70305

Method: 8081A
Preparation: 3550B

Lab Sample ID: MB 720-70305/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/27/2010 2154
Date Prepared: 04/27/2010 1124

Analysis Batch: 720-70293
Prep Batch: 720-70305
Units: ug/Kg

Instrument ID: Pest # 4
Lab File ID: SIG10026.D
Initial Weight/Volume: 30.16 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
Aldrin	ND		2.0
Dieldrin	ND		2.0
Endrin aldehyde	ND		2.0
Endrin	ND		2.0
Endrin ketone	ND		2.0
Heptachlor	ND		2.0
Heptachlor epoxide	ND		2.0
4,4'-DDT	ND		2.0
4,4'-DDE	ND		2.0
4,4'-DDD	ND		2.0
Endosulfan I	ND		2.0
Endosulfan II	ND		2.0
alpha-BHC	ND		2.0
beta-BHC	ND		2.0
gamma-BHC (Lindane)	ND		2.0
delta-BHC	ND		2.0
Endosulfan sulfate	ND		2.0
Methoxychlor	ND		2.0
Toxaphene	ND		40
Chlordane (technical)	ND		40
alpha-Chlordane	ND		2.0
gamma-Chlordane	ND		2.0

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	56	54 - 109
DCB Decachlorobiphenyl	59	27 - 136

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-70305

Method: 8081A
Preparation: 3550B

LCS Lab Sample ID: LCS 720-70305/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/27/2010 2211
Date Prepared: 04/27/2010 1124

Analysis Batch: 720-70293
Prep Batch: 720-70305
Units: ug/Kg

Instrument ID: Pest # 4
Lab File ID: SIG10027.D
Initial Weight/Volume: 30.08 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 720-70305/3-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/27/2010 2228
Date Prepared: 04/27/2010 1124

Analysis Batch: 720-70293
Prep Batch: 720-70305
Units: ug/Kg

Instrument ID: Pest # 4
Lab File ID: SIG10028.D
Initial Weight/Volume: 30.21 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Aldrin	80	83	54 - 120	3	20		
Dieldrin	81	86	59 - 120	5	20		
Endrin	82	86	53 - 120	5	20		
Heptachlor	79	84	54 - 120	5	20		
4,4'-DDT	84	89	51 - 120	6	20		
gamma-BHC (Lindane)	81	83	58 - 120	3	20		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
Tetrachloro-m-xylene	78	84	54 - 109
DCB Decachlorobiphenyl	84	91	27 - 136

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-70305

Method: 8081A
Preparation: 3550B

MS Lab Sample ID: 720-27655-A-1-E MS
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/27/2010 2303
Date Prepared: 04/27/2010 1124

Analysis Batch: 720-70293
Prep Batch: 720-70305

Instrument ID: Pest # 4
Lab File ID: SIG10030.D
Initial Weight/Volume: 30.26 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: PRIMARY

MSD Lab Sample ID: 720-27655-A-1-F MSD
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/27/2010 2320
Date Prepared: 04/27/2010 1124

Analysis Batch: 720-70293
Prep Batch: 720-70305

Instrument ID: Pest # 4
Lab File ID: SIG10031.D
Initial Weight/Volume: 30.31 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Aldrin	77	78	53 - 120	0	20		
Dieldrin	76	75	46 - 130	1	20		
Endrin	76	74	32 - 143	3	20		
Heptachlor	69	70	52 - 120	1	20		
4,4'-DDT	77	72	17 - 144	7	20		
gamma-BHC (Lindane)	79	80	58 - 120	0	20		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Tetrachloro-m-xylene	83	82	54 - 109
DCB Decachlorobiphenyl	80	67	27 - 136

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Method Blank - Batch: 720-70322

Method: 8081A
Preparation: 3550B

Lab Sample ID: MB 720-70322/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/28/2010 1647
Date Prepared: 04/27/2010 1348

Analysis Batch: 720-70405
Prep Batch: 720-70322
Units: ug/Kg

Instrument ID: Pest # 4
Lab File ID: SIG10008.D
Initial Weight/Volume: 30.01 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
Aldrin	ND		2.0
Dieldrin	ND		2.0
Endrin aldehyde	ND		2.0
Endrin	ND		2.0
Endrin ketone	ND		2.0
Heptachlor	ND		2.0
Heptachlor epoxide	ND		2.0
4,4'-DDT	ND		2.0
4,4'-DDE	ND		2.0
4,4'-DDD	ND		2.0
Endosulfan I	ND		2.0
Endosulfan II	ND		2.0
alpha-BHC	ND		2.0
beta-BHC	ND		2.0
gamma-BHC (Lindane)	ND		2.0
delta-BHC	ND		2.0
Endosulfan sulfate	ND		2.0
Methoxychlor	ND		2.0
Toxaphene	ND		40
Chlordane (technical)	ND		40
alpha-Chlordane	ND		2.0
gamma-Chlordane	ND		2.0

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	77	54 - 109
DCB Decachlorobiphenyl	103	27 - 136

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-70322

Method: 8081A
Preparation: 3550B

LCS Lab Sample ID: LCS 720-70322/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/28/2010 1705
Date Prepared: 04/27/2010 1348

Analysis Batch: 720-70405
Prep Batch: 720-70322
Units: ug/Kg

Instrument ID: Pest # 4
Lab File ID: SIG10009.D
Initial Weight/Volume: 30.18 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 720-70322/3-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/28/2010 1722
Date Prepared: 04/27/2010 1348

Analysis Batch: 720-70405
Prep Batch: 720-70322
Units: ug/Kg

Instrument ID: Pest # 4
Lab File ID: SIG10010.D
Initial Weight/Volume: 30.20 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Aldrin	87	87	54 - 120	0	20		
Dieldrin	92	90	59 - 120	2	20		
Endrin	91	89	53 - 120	3	20		
Heptachlor	90	87	54 - 120	3	20		
4,4'-DDT	96	90	51 - 120	7	20		
gamma-BHC (Lindane)	91	88	58 - 120	4	20		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
Tetrachloro-m-xylene	89	87	54 - 109
DCB Decachlorobiphenyl	98	91	27 - 136

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-70322

Method: 8081A
Preparation: 3550B

MS Lab Sample ID: 720-27669-A-16-C MS
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/28/2010 1757
Date Prepared: 04/27/2010 1348

Analysis Batch: 720-70405
Prep Batch: 720-70322

Instrument ID: Pest # 4
Lab File ID: SIG10012.D
Initial Weight/Volume: 30.06 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: PRIMARY

MSD Lab Sample ID: 720-27669-A-16-D MSD
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/28/2010 1814
Date Prepared: 04/27/2010 1348

Analysis Batch: 720-70405
Prep Batch: 720-70322

Instrument ID: Pest # 4
Lab File ID: SIG10013.D
Initial Weight/Volume: 30.37 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Aldrin	84	87	53 - 120	3	20		
Dieldrin	91	93	46 - 130	2	20		
Endrin	92	90	32 - 143	3	20		
Heptachlor	87	90	52 - 120	2	20		
4,4'-DDT	100	107	17 - 144	6	20		
gamma-BHC (Lindane)	85	89	58 - 120	3	20		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Tetrachloro-m-xylene	82	87	54 - 109
DCB Decachlorobiphenyl	90	96	27 - 136

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Method Blank - Batch: 720-70306

Method: 8082
Preparation: 3550B

Lab Sample ID: MB 720-70306/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/27/2010 2241
Date Prepared: 04/27/2010 1128

Analysis Batch: 720-70284
Prep Batch: 720-70306
Units: ug/Kg

Instrument ID: CHPCB # 2
Lab File ID: m0427038.d
Initial Weight/Volume: 30.04 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
PCB-1016	ND		50
PCB-1221	ND		50
PCB-1232	ND		50
PCB-1242	ND		50
PCB-1248	ND		50
PCB-1254	ND		50
PCB-1260	ND		50

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	90	32 - 112
DCB Decachlorobiphenyl	86	2 - 122

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-70306

Method: 8082
Preparation: 3550B

LCS Lab Sample ID: LCS 720-70306/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/27/2010 2304
Date Prepared: 04/27/2010 1128

Analysis Batch: 720-70284
Prep Batch: 720-70306
Units: ug/Kg

Instrument ID: CHPCB # 2
Lab File ID: m0427039.d
Initial Weight/Volume: 30.29 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 720-70306/3-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/27/2010 2326
Date Prepared: 04/27/2010 1128

Analysis Batch: 720-70284
Prep Batch: 720-70306
Units: ug/Kg

Instrument ID: CHPCB # 2
Lab File ID: m0427040.d
Initial Weight/Volume: 30.27 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
PCB-1016	95	94	69 - 120	1	20		
PCB-1260	96	94	73 - 114	2	20		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
Tetrachloro-m-xylene	89	91	32 - 112
DCB Decachlorobiphenyl	85	83	2 - 122

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Method Blank - Batch: 720-70307

Method: 6010B
Preparation: 3050B

Lab Sample ID: MB 720-70307/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/30/2010 0208
Date Prepared: 04/27/2010 1154

Analysis Batch: 720-70536
Prep Batch: 720-70307
Units: mg/Kg

Instrument ID: Thermo ICP
Lab File ID: N/A
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Antimony	ND		0.50
Arsenic	ND		1.0
Barium	ND		0.50
Beryllium	ND		0.10
Cadmium	ND		0.12
Chromium	ND		0.50
Cobalt	ND		0.20
Copper	ND		1.5
Lead	ND		0.50
Molybdenum	ND		0.50
Nickel	ND		0.50
Selenium	ND		1.0
Silver	ND		0.25
Thallium	ND		0.50
Vanadium	ND		0.50
Zinc	ND		1.5

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-27633-1

LCS-Standard Reference Material - Batch: 720-70307

Method: 6010B
Preparation: 3050B

Lab Sample ID: LCSSRM 720-70307/26-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/30/2010 0434
Date Prepared: 04/27/2010 1154

Analysis Batch: 720-70536
Prep Batch: 720-70307
Units: mg/Kg

Instrument ID: Thermo ICP
Lab File ID: N/A
Initial Weight/Volume: 0.98 g
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	27.4	13.5	49	11 - 101	
Arsenic	22.7	19.7	87	69 - 119	
Barium	145	126	87	61 - 117	
Beryllium	1.09	0.885	81	56 - 102	
Cadmium	42.2	36.0	85	67 - 118	
Chromium	246	212	86	67 - 121	
Cobalt	65.1	58.1	89	64 - 133	
Copper	58.5	52.0	89	68 - 126	
Lead	44.1	35.5	81	62 - 113	
Molybdenum	61.0	53.2	87	62 - 128	
Nickel	96.8	82.3	85	65 - 117	
Selenium	165	137	83	63 - 126	
Silver	79.5	70.8	89	51 - 130	
Thallium	55.9	47.2	84	64 - 124	
Vanadium	56.7	50.0	88	67 - 123	
Zinc	44.0	35.0	79	62 - 110	

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-70307

Method: 6010B
Preparation: 3050B

LCS Lab Sample ID: LCS 720-70307/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/30/2010 0212
Date Prepared: 04/27/2010 1154

Analysis Batch: 720-70536
Prep Batch: 720-70307
Units: mg/Kg

Instrument ID: Thermo ICP
Lab File ID: N/A
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 720-70307/3-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/30/2010 0217
Date Prepared: 04/27/2010 1154

Analysis Batch: 720-70536
Prep Batch: 720-70307
Units: mg/Kg

Instrument ID: Thermo ICP
Lab File ID: N/A
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 50 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Antimony	94	95	80 - 120	1	20		
Arsenic	94	95	80 - 120	1	20		
Barium	100	100	80 - 120	0	20		
Beryllium	100	101	80 - 120	1	20		
Cadmium	96	97	80 - 120	1	20		
Chromium	99	100	80 - 120	1	20		
Cobalt	99	100	80 - 120	1	20		
Copper	99	101	80 - 120	2	20		
Lead	98	99	80 - 120	1	20		
Molybdenum	99	101	80 - 120	1	20		
Nickel	99	100	80 - 120	1	20		
Selenium	92	92	80 - 120	1	20		
Silver	97	98	80 - 120	1	20		
Thallium	99	100	80 - 120	1	20		
Vanadium	99	99	80 - 120	1	20		
Zinc	96	97	80 - 120	1	20		

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-70307

Method: 6010B
Preparation: 3050B

MS Lab Sample ID: 720-27655-A-1-H MS
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/30/2010 0221
Date Prepared: 04/27/2010 1154

Analysis Batch: 720-70536
Prep Batch: 720-70307

Instrument ID: Thermo ICP
Lab File ID: N/A
Initial Weight/Volume: 0.99 g
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 720-27655-A-1-I MSD
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/30/2010 0227
Date Prepared: 04/27/2010 1154

Analysis Batch: 720-70536
Prep Batch: 720-70307

Instrument ID: Thermo ICP
Lab File ID: N/A
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 50 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Antimony	17	15	75 - 125	14	20	F	F
Arsenic	60	56	75 - 125	7	20	F	F
Barium	68	46	75 - 125	10	20	F	F
Beryllium	64	62	75 - 125	5	20	F	F
Cadmium	59	56	75 - 125	5	20	F	F
Chromium	63	60	75 - 125	4	20	F	F
Cobalt	58	56	75 - 125	5	20	F	F
Copper	62	54	75 - 125	7	20	F	F
Lead	58	50	75 - 125	10	20	F	F
Molybdenum	54	50	75 - 125	8	20	F	F
Nickel	58	60	75 - 125	1	20	F	F
Selenium	56	54	75 - 125	5	20	F	F
Silver	64	62	75 - 125	5	20	F	F
Thallium	56	53	75 - 125	5	20	F	F
Vanadium	67	59	75 - 125	8	20	F	F
Zinc	64	48	75 - 125	10	20	F	F

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Method Blank - Batch: 720-70308

Method: 6010B
Preparation: 3050B

Lab Sample ID: MB 720-70308/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/29/2010 2327
Date Prepared: 04/27/2010 1157

Analysis Batch: 720-70535
Prep Batch: 720-70308
Units: mg/Kg

Instrument ID: Thermo ICP
Lab File ID: N/A
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Antimony	ND		0.50
Arsenic	ND		1.0
Barium	ND		0.50
Beryllium	ND		0.10
Cadmium	ND		0.12
Chromium	ND		0.50
Cobalt	ND		0.20
Copper	ND		1.5
Lead	ND		0.50
Molybdenum	ND		0.50
Nickel	ND		0.50
Selenium	ND		1.0
Silver	ND		0.25
Thallium	ND		0.50
Vanadium	ND		0.50
Zinc	ND		1.5

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-27633-1

LCS-Standard Reference Material - Batch: 720-70308

Method: 6010B
Preparation: 3050B

Lab Sample ID: LCSSRM 720-70308/26-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/30/2010 0153
Date Prepared: 04/27/2010 1157

Analysis Batch: 720-70535
Prep Batch: 720-70308
Units: mg/Kg

Instrument ID: Thermo ICP
Lab File ID: N/A
Initial Weight/Volume: 0.98 g
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	27.4	15.8	58	11 - 101	
Arsenic	22.7	21.0	93	69 - 119	
Barium	145	135	93	61 - 117	
Beryllium	1.09	0.928	85	56 - 102	
Cadmium	42.2	38.1	90	67 - 118	
Chromium	246	221	90	67 - 121	
Cobalt	65.1	65.3	100	64 - 133	
Copper	58.5	53.5	91	68 - 126	
Lead	44.1	37.0	84	62 - 113	
Molybdenum	61.0	55.0	90	62 - 128	
Nickel	96.8	85.3	88	65 - 117	
Selenium	165	145	88	63 - 126	
Silver	79.5	72.8	92	51 - 130	
Thallium	55.9	49.1	88	64 - 124	
Vanadium	56.7	52.6	93	67 - 123	
Zinc	44.0	36.9	84	62 - 110	

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-70308

Method: 6010B
Preparation: 3050B

LCS Lab Sample ID: LCS 720-70308/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/29/2010 2332
Date Prepared: 04/27/2010 1157

Analysis Batch: 720-70535
Prep Batch: 720-70308
Units: mg/Kg

Instrument ID: Thermo ICP
Lab File ID: N/A
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 720-70308/3-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/29/2010 2336
Date Prepared: 04/27/2010 1157

Analysis Batch: 720-70535
Prep Batch: 720-70308
Units: mg/Kg

Instrument ID: Thermo ICP
Lab File ID: N/A
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 50 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Antimony	95	95	80 - 120	0	20		
Arsenic	95	95	80 - 120	0	20		
Barium	100	101	80 - 120	1	20		
Beryllium	100	102	80 - 120	1	20		
Cadmium	96	96	80 - 120	0	20		
Chromium	99	99	80 - 120	0	20		
Cobalt	99	99	80 - 120	0	20		
Copper	99	99	80 - 120	0	20		
Lead	98	98	80 - 120	0	20		
Molybdenum	99	99	80 - 120	0	20		
Nickel	99	98	80 - 120	0	20		
Selenium	91	91	80 - 120	0	20		
Silver	96	96	80 - 120	0	20		
Thallium	99	98	80 - 120	0	20		
Vanadium	99	100	80 - 120	0	20		
Zinc	96	96	80 - 120	0	20		

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-70308

Method: 6010B
Preparation: 3050B

MS Lab Sample ID: 720-27633-12
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/29/2010 2341
Date Prepared: 04/27/2010 1157

Analysis Batch: 720-70535
Prep Batch: 720-70308

Instrument ID: Thermo ICP
Lab File ID: N/A
Initial Weight/Volume: 0.96 g
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 720-27633-12
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/29/2010 2346
Date Prepared: 04/27/2010 1157

Analysis Batch: 720-70535
Prep Batch: 720-70308

Instrument ID: Thermo ICP
Lab File ID: N/A
Initial Weight/Volume: 0.98 g
Final Weight/Volume: 50 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Antimony	27	27	75 - 125	1	20	F	F
Arsenic	106	85	75 - 125	17	20		
Barium	95	64	75 - 125	8	20		F
Beryllium	91	89	75 - 125	4	20		
Cadmium	84	81	75 - 125	5	20		
Chromium	108	93	75 - 125	9	20		
Cobalt	85	83	75 - 125	3	20		
Copper	88	88	75 - 125	1	20		
Lead	84	79	75 - 125	4	20		
Molybdenum	81	80	75 - 125	4	20		
Nickel	107	89	75 - 125	10	20		
Selenium	82	80	75 - 125	4	20		
Silver	90	92	75 - 125	1	20		
Thallium	79	78	75 - 125	4	20		
Vanadium	93	105	75 - 125	7	20		
Zinc	148	119	75 - 125	4	20	4	4

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Method Blank - Batch: 720-70330

Method: 7471A
Preparation: 7471A

Lab Sample ID: MB 720-70330/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/30/2010 1436
Date Prepared: 04/27/2010 1531

Analysis Batch: 720-70594
Prep Batch: 720-70330
Units: mg/Kg

Instrument ID: LL_HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.60 g
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Mercury	ND		0.020

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-70330

Method: 7471A
Preparation: 7471A

LCS Lab Sample ID: LCS 720-70330/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/30/2010 1439
Date Prepared: 04/27/2010 1531

Analysis Batch: 720-70594
Prep Batch: 720-70330
Units: mg/Kg

Instrument ID: LL_HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.60 g
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 720-70330/3-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/30/2010 1441
Date Prepared: 04/27/2010 1531

Analysis Batch: 720-70594
Prep Batch: 720-70330
Units: mg/Kg

Instrument ID: LL_HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.60 g
Final Weight/Volume: 50 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Mercury	100	100	80 - 120	1	20		

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-70330

Method: 7471A
Preparation: 7471A

MS Lab Sample ID: 720-27633-1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/30/2010 1443
Date Prepared: 04/27/2010 1531

Analysis Batch: 720-70594
Prep Batch: 720-70330

Instrument ID: LL_HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.62 g
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 720-27633-1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/30/2010 1445
Date Prepared: 04/27/2010 1531

Analysis Batch: 720-70594
Prep Batch: 720-70330

Instrument ID: LL_HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.62 g
Final Weight/Volume: 50 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Mercury	94	89	75 - 125	4	20		

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Method Blank - Batch: 720-70473

Method: 7471A
Preparation: 7471A

Lab Sample ID: MB 720-70473/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/30/2010 1607
Date Prepared: 04/29/2010 1328

Analysis Batch: 720-70605
Prep Batch: 720-70473
Units: mg/Kg

Instrument ID: LL_HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.60 g
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Mercury	ND		0.020

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-70473

Method: 7471A
Preparation: 7471A

LCS Lab Sample ID: LCS 720-70473/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/30/2010 1609
Date Prepared: 04/29/2010 1328

Analysis Batch: 720-70605
Prep Batch: 720-70473
Units: mg/Kg

Instrument ID: LL_HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.60 g
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 720-70473/3-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/30/2010 1611
Date Prepared: 04/29/2010 1328

Analysis Batch: 720-70605
Prep Batch: 720-70473
Units: mg/Kg

Instrument ID: LL_HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.60 g
Final Weight/Volume: 50 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Mercury	99	92	80 - 120	7	20		

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-70473

Method: 7471A
Preparation: 7471A

MS Lab Sample ID: 720-27655-A-1-L MS
Client Matrix: Solid
Dilution: 20
Date Analyzed: 04/30/2010 1613
Date Prepared: 04/29/2010 1328

Analysis Batch: 720-70605
Prep Batch: 720-70473

Instrument ID: LL_HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.62 g
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 720-27655-A-1-M MSD
Client Matrix: Solid
Dilution: 20
Date Analyzed: 04/30/2010 1616
Date Prepared: 04/29/2010 1328

Analysis Batch: 720-70605
Prep Batch: 720-70473

Instrument ID: LL_HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.60 g
Final Weight/Volume: 50 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Mercury	97	103	75 - 125	8	20		

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Method Blank - Batch: 720-70509

Method: 7471A
Preparation: 7471A

Lab Sample ID: MB 720-70509/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/30/2010 1314
Date Prepared: 04/29/2010 1652

Analysis Batch: 720-70580
Prep Batch: 720-70509
Units: mg/Kg

Instrument ID: LL_HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.60 g
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Mercury	ND		0.020

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-70509

Method: 7471A
Preparation: 7471A

LCS Lab Sample ID: LCS 720-70509/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/30/2010 1316
Date Prepared: 04/29/2010 1652

Analysis Batch: 720-70580
Prep Batch: 720-70509
Units: mg/Kg

Instrument ID: LL_HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.60 g
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 720-70509/3-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/30/2010 1318
Date Prepared: 04/29/2010 1652

Analysis Batch: 720-70580
Prep Batch: 720-70509
Units: mg/Kg

Instrument ID: LL_HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.60 g
Final Weight/Volume: 50 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Mercury	98	98	80 - 120	0	20		

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-70509

Method: 7471A
Preparation: 7471A

MS Lab Sample ID: 720-27652-A-1-G MS
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/30/2010 1320
Date Prepared: 04/29/2010 1652

Analysis Batch: 720-70580
Prep Batch: 720-70509

Instrument ID: LL_HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.63 g
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 720-27652-A-1-H MSD
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 04/30/2010 1323
Date Prepared: 04/29/2010 1652

Analysis Batch: 720-70580
Prep Batch: 720-70509

Instrument ID: LL_HG Analyzer
Lab File ID: N/A
Initial Weight/Volume: 0.59 g
Final Weight/Volume: 50 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Mercury	114	101	75 - 125	5	20		

124023

CORNERSTONE EARTH GROUP

720-27633
Chain of Custody Record

Cornerstone Earth Group, Inc.
2737 North Main Street, Unit 10
Walnut Creek, California 94597
925-988-9500, Ext. 106 Phone
925-988-9501 FAX
Project Name: Capitol Avenue
Site: San Jose
Project Number: 21619

Project Manager: Peter Langtry
Tel/Fax:
Analysis Turnaround Time
TAT if different from Below
1 week
3 days
2 days
1 day

Site Contact: Peter Langtry
Lab Contact:
Carrier:

Date: 4/23/10
COC No: 1 of 3 COCs

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	PESTICIDES (EPA 8081)	ARSENIC (EPA 6010/7060)	LEAD	MERCURY	TPH-d (EPA 8015)	TPH-mo	TCAM (EPA 6000)	PAHs (EPA 8270SM)	PCBs (EPA 8082)
SS-1	4/23	1230	Liquid	Soil	1		X				X		X	X	
SS-2		1230					X				X		X		X
SS-3		1245					X				X		X		X
SS-4		1245					X				X		X		
SS-5		1300					X				X		X		
SS-6		1300					X				X		X		
SS-7		1305					X				X		X		
SS-8		1305					X				X		X		X
SS-9		1315					X	X	X						
SS-10		1315					X		X		X		X		
SS-11		1315					X		X				X		
SS-12		1330					X		X		X		X		

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months

Special Instructions/QC Requirements & Comments:

Laboratory's Job No.
5.9°C
Laboratory's Sample Specific Notes:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Cornerstone	4/23/10 15:30	[signature]	TestAmerica	4/23/10 1530
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

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CORNERSTONE EARTH GROUP

720-27633

Chain of Custody Record

Cornerstone Earth Group, Inc.	Project Manager: Peter Langtry	Site Contact: Peter Langtry	Date: 4/23/10
2737 North Main Street, Unit 10	Tel/Fax:	Lab Contact:	Carrier:
Walnut Creek, California 94597	Analysis Turnaround Time		COC No: 2 of 3 COCs
925-988-9500, Ext. 106 Phone	TAT if different from Below _____		Laboratory's Job No.
925-988-9501 FAX	☒ 1 week		
Project Name:	☐ 3 days		
Site:	☐ 2 days		
Project Number: P1619	☐ 1 day		5.9°C

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	PESTICIDES	ARSENIC	LEAD	MERCURY	TPHd	TPHmo	CAM17	PAHs	PCBs	Laboratory's Sample Specific Notes:
SS-13	4/23	1315	LINER	SOIL	1		X				X	X	X			
SS-14							X	X	X	X						
SS-15							X	X	X	X						
SS-16							X	X	X	X						
SS-17							X	X	X	X						
SS-18		1330					X	X	X	X						
SS-19							X	X	X	X						
SS-20							X	X	X	X				X		
SS-21							X	X	X	X				X		
SS-22		1345					X	X	X	X						
SS-23							X				X	X	X			
SS-24							X				X	X	X	X	X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	CORNERSTONE	4-23/15:30	[signature]	TestAmerica	4/23/10 1530
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

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CORNERSTONE EARTH GROUP

720-27633

Chain of Custody Record

Cornerstone Earth Group, Inc.	Project Manager: Peter Langtry	Site Contact: Peter Langtry	Date: 4/23/10
2737 North Main Street, Unit 10	Tel/Fax:	Lab Contact:	Carrier:
Walnut Creek, California 94597	Analysis Turnaround Time		COC No: 3 of 3 COCs
925-988-9500, Ext. 106 Phone	TAT if different from Below _____		Laboratory's Job No.
925-988-9501 FAX	☒ 1 week		
Project Name:	☐ 3 days		
Site:	☐ 2 days		
Project Number: P1619	☐ 1 day		5.9°C

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	PESTICIDES	ARSENIC	LEAD	MERCURY	TPHd	TPHmo	CAM17	PAHs	PCBs	Laboratory's Sample Specific Notes:
SS-25	4/23	1400	LINER	SOIL	1		X				X	X	X			
SS-26		1415					X				X	X	X		X	
SS-27		1415					X	X	X	X						
SS-28		1430					X	X	X	X						
SS-29		1430					X	X	X	X						

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	CORNERSTONE	4-23/15:30	[signature]	TestAmerica	4/23/10 1530
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Login Sample Receipt Check List

Client: Cornerstone Earth Group

Job Number: 720-27633-1

Login Number: 27633
Creator: Thomas, Bryan
List Number: 1

List Source: TestAmerica San Francisco

Question	T / F/ NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Page 1 of 1

Project Manager: Peter Longtry
Collected by: (Print and Sign) Ross Tinline
Company: Cornerstone Earth Group Email: plongtry@cornerstoneearth.com
Address: 2737 N Main St City: Walnut Creek State: CA Zip: 94597
Phone: 925 988-9500 Fax: 925 988 9501

Project Info:
P.O. #: 206-J-1
Project #: North Capitol
Project Name: 1328 N Capitol, SJ

Turn Around Time: ☒ Normal ☐ Rush specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)	FC #
01A	SB-1 D10	34118	5/24/10	1002-1007	TPHg (T03) AND	29.58	4.78			00255
02A	SB-1D 5	31781	5/24/10	1052-1058	BTEX T015 (5&20)	29.27	4.73			00532
03A	SB-2D 10.5	37317	5/24/10	1144-1149	include 2-propanol	29.44	4.50			00727
04A	SB-2D 5	11897	5/24/10	1239-1245		28.96	4.88			00398
05A	SB-2D 5 (IPA)	Tedlar bag	5/24/10	1242-1244	2 Propanol only (T015 5&20)	—	—			—
06A	Trip Blank	37330	5/24/10	—	TPHg (T03) + BTEX by T015 5&20)	—	—			—

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
[signature]	5/24/10 3:40pm	→ Fedex	
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
		Monica Gregsen AIL	5/25/10 905
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes: 2 propanol used as leak detection compound.

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Fed Ex		NA	Good	Yes No None	1005588

Form 1253 rev.11

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
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FOLSOM, CA 95630-4719
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Page 1 of 1

Project Manager: Peter Longtry
Collected by: (Print and Sign) Ross Tinline
Company: Cornerstone Earth Gr Email: plongtry@cornerstoneearthgroup.com
Address: 2737 N Main St City: Walnut Creek State: CA Zip: 94597
Phone: 925 288-8300 Fax: 925 938 9501

Project Info:
P.O. #: 206-3-1
Project #: North Capitol
Project Name: 1328 N Capitol, SJ

Turn Around Time:
☒ Normal
☐ Rush
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
01A	SB-1 D10	34118	5/24/10	1002-1007	TPHg (TO3) & NID	29.58	4.78		
02A	SB-1D 5	31781	5/24/10	1052-1058	BTEX TO15 (5820)	29.27	4.73		
03A	SB-2D 10 5	37317	5/24/10	1144-1149	include 2-propanol	29.44	4.50		
04A	SB-2D 5	11897	5/24/10	1238-1245		28.96	4.88		
	SB-2D 5 (IPA)	Tedlar bag	5/24/10	1242-1244	2 Propanol only (TO15 5820)	—	—		
06A	Trip Blank	37330	5/24/10	—	TPHg (TO3) + BTEX by TO15 5820)	—	—		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
[signature]	5/24/10 3:40	[signature]	
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
		Monica Green AZ	5/25/10 705
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes: 2 propanol used as leak detection compound.

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	FedEx		NA	Good	Yes No None	1005589

Form 1293 rev.11

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 720-28266-1

Job Description: Capitol Ave/San Jose

For:
Cornerstone Earth Group
2737 North Main Street, Unit 10
Walnut Creek, CA 94597

Attention: Peter Langtry

Approved for release.
Afsaneh Salimpour
Project Manager I
6/1/2010 1:39 PM

Afsaneh Salimpour
Project Manager I
afsaneh.salimpour@testamericainc.com
06/01/2010

CA ELAP Certification # 2496
The Chain(s) of Custody are included and are an integral part of this report.
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A trip blank is required to be provided for volatile analyses. If trip blank results are not included in the report, either the trip blank was not submitted or requested to be analyzed.

TestAmerica Laboratories, Inc.
TestAmerica San Francisco 1220 Quarry Lane, Pleasanton, CA 94566
Tel (925) 484-1919 Fax (925) 600-3002 www.testamericainc.com

Job Narrative
720-28266-1

Comments
No additional comments.

Receipt
All samples were received in good condition within temperature requirements.

GC/MS VOA
No analytical or quality issues were noted.

GC VOA
No analytical or quality issues were noted.

GC Semi VOA
Method(s) 8015B: Capric acid surrogate recovery for the following sample(s) was outside control limits: C1-A-D (720-28281-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No other analytical or quality issues were noted.

Metals
Method(s) 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 72164 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method(s) 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 72337 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

EXECUTIVE SUMMARY - Detections

Client: Cornerstone Earth Group

Job Number: 720-28266-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-28266-1	**SB-1(2-2.5)**				
Arsenic		14	4.0	mg/Kg	6010B
Barium		330	2.0	mg/Kg	6010B
Beryllium		0.52	0.40	mg/Kg	6010B
Chromium		59	2.0	mg/Kg	6010B
Cobalt		16	0.80	mg/Kg	6010B
Copper		42	6.0	mg/Kg	6010B
Lead		12	2.0	mg/Kg	6010B
Nickel		86	2.0	mg/Kg	6010B
Vanadium		49	2.0	mg/Kg	6010B
Zinc		77	6.0	mg/Kg	6010B
Mercury		0.056	0.0095	mg/Kg	7471A
Silica Gel Cleanup					
Diesel Range Organics [C10-C28]		1.1	0.99	mg/Kg	8015B
720-28266-2	**SB-1(6-6.5)**				
Silica Gel Cleanup					
Diesel Range Organics [C10-C28]		1.2	0.99	mg/Kg	8015B
720-28266-3	**SB-2(2-2.5)**				
4,4'-DDE		3.3	2.0	ug/Kg	8081A
Arsenic		17	4.0	mg/Kg	6010B
Barium		340	2.0	mg/Kg	6010B
Beryllium		0.63	0.40	mg/Kg	6010B
Chromium		71	2.0	mg/Kg	6010B
Cobalt		17	0.79	mg/Kg	6010B
Copper		56	5.9	mg/Kg	6010B
Lead		15	2.0	mg/Kg	6010B
Nickel		93	2.0	mg/Kg	6010B
Vanadium		58	2.0	mg/Kg	6010B
Zinc		89	5.9	mg/Kg	6010B
Mercury		0.068	0.0098	mg/Kg	7471A
Silica Gel Cleanup					
Diesel Range Organics [C10-C28]		1.2	0.99	mg/Kg	8015B

METHOD SUMMARY

Client: Cornerstone Earth Group

Job Number: 720-28266-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
8260B / CA LUFT MS	TAL SF	SW846 8260B/CA_LUFTMS	
Purge and Trap	TAL SF		SW846 5030B
Diesel Range Organics (DRO) (GC)	TAL SF	SW846 8015B	
Ultrasonic Extraction	TAL SF		SW846 3550B
Organochlorine Pesticides (GC)	TAL SF	SW846 8081A	
Ultrasonic Extraction	TAL SF		SW846 3550B
Metals (ICP)	TAL SF	SW846 6010B	
Preparation, Metals	TAL SF		SW846 3050B
Mercury (CVAA)	TAL SF	SW846 7471A	
Preparation, Mercury	TAL SF		SW846 7471A

Lab References:

TAL SF = TestAmerica San Francisco

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Cornerstone Earth Group

Job Number: 720-28266-1

Method	Analyst	Analyst ID
SW846 8260B/CA_LUFTMS	Ali, Badri	BA
SW846 8015B	Hayashi, Derek	DH
SW846 8081A	Vincent, Richard	RV
SW846 6010B	Vega, Anthony	AV
SW846 7471A	Vega, Anthony	AV

SAMPLE SUMMARY

Client: Cornerstone Earth Group

Job Number: 720-28266-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-28266-1	SB-1(2-2.5)	Solid	05/21/2010 0825	05/21/2010 1020
720-28266-2	SB-1(6-6.5)	Solid	05/21/2010 0803	05/21/2010 1020
720-28266-3	SB-2(2-2.5)	Solid	05/21/2010 0845	05/21/2010 1020
720-28266-4	SB-2(7.5-8)	Solid	05/21/2010 0850	05/21/2010 1020

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-28266-1

Client Sample ID: SB-1(2-2.5)

Lab Sample ID: 720-28266-1
Client Matrix: Solid

Date Sampled: 05/21/2010 0825
Date Received: 05/21/2010 1020

8260B/CA_LUFTMS 8260B / CA LUFT MS

Method:	8260B/CA_LUFTMS	Analysis Batch: 720-71963	Instrument ID:	SAT 3900A
Preparation:	5030B	Prep Batch: 720-71990	Lab File ID:	28266-A-1 5-24-2010
Dilution:	1.0		Initial Weight/Volume:	5.26 g
Date Analyzed:	05/24/2010 2114		Final Weight/Volume:	10 mL
Date Prepared:	05/24/2010 1400			

Analyte DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Methyl tert-butyl ether	ND		4.8
Benzene	ND		4.8
Ethylbenzene	ND		4.8
Toluene	ND		4.8
Xylenes, Total	ND		9.5
Gasoline Range Organics (GRO)-C5-C12	ND		240

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	78		52 - 140
1,2-Dichloroethane-d4 (Surr)	118		60 - 140
Toluene-d8 (Surr)	91		58 - 140

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-28266-1

Client Sample ID: SB-1(6-6.5)

Lab Sample ID: 720-28266-2
Client Matrix: Solid

Date Sampled: 05/21/2010 0803
Date Received: 05/21/2010 1020

8260B/CA_LUFTMS 8260B / CA LUFT MS

Method:	8260B/CA_LUFTMS	Analysis Batch: 720-71963	Instrument ID:	SAT 3900A
Preparation:	5030B	Prep Batch: 720-71990	Lab File ID:	28266-A-2 5-24-2010
Dilution:	1.0		Initial Weight/Volume:	5.03 g
Date Analyzed:	05/24/2010 2230		Final Weight/Volume:	10 mL
Date Prepared:	05/24/2010 1400			

Analyte DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Methyl tert-butyl ether	ND		5.0
Benzene	ND		5.0
Ethylbenzene	ND		5.0
Toluene	ND		5.0
Xylenes, Total	ND		9.9
Gasoline Range Organics (GRO)-C5-C12	ND		250

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	94		52 - 140
1,2-Dichloroethane-d4 (Surr)	105		60 - 140
Toluene-d8 (Surr)	93		58 - 140

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-28266-1

Client Sample ID: SB-2(2-2.5)

Lab Sample ID: 720-28266-3
Client Matrix: Solid

Date Sampled: 05/21/2010 0845
Date Received: 05/21/2010 1020

8260B/CA_LUFTMS 8260B / CA LUFT MS

Method:	8260B/CA_LUFTMS	Analysis Batch: 720-71963	Instrument ID:	SAT 3900A
Preparation:	5030B	Prep Batch: 720-71990	Lab File ID:	28266-A-3 5-24-2010
Dilution:	1.0		Initial Weight/Volume:	5.68 g
Date Analyzed:	05/24/2010 2256		Final Weight/Volume:	10 mL
Date Prepared:	05/24/2010 1400			

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Methyl tert-butyl ether		ND		4.4
Benzene		ND		4.4
Ethylbenzene		ND		4.4
Toluene		ND		4.4
Xylenes, Total		ND		8.8
Gasoline Range Organics (GRO)-C5-C12		ND		220

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	77		52 - 140
1,2-Dichloroethane-d4 (Surr)	110		60 - 140
Toluene-d8 (Surr)	86		58 - 140

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-28266-1

Client Sample ID: SB-2(7.5-8)

Lab Sample ID: 720-28266-4
Client Matrix: Solid

Date Sampled: 05/21/2010 0850
Date Received: 05/21/2010 1020

8260B/CA_LUFTMS 8260B / CA LUFT MS

Method:	8260B/CA_LUFTMS	Analysis Batch: 720-71963	Instrument ID:	SAT 3900A
Preparation:	5030B	Prep Batch: 720-71990	Lab File ID:	28266-A-4 5-24-2010
Dilution:	1.0		Initial Weight/Volume:	5.07 g
Date Analyzed:	05/24/2010 2321		Final Weight/Volume:	10 mL
Date Prepared:	05/24/2010 1400			

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Methyl tert-butyl ether		ND		4.9
Benzene		ND		4.9
Ethylbenzene		ND		4.9
Toluene		ND		4.9
Xylenes, Total		ND		9.9
Gasoline Range Organics (GRO)-C5-C12		ND		250

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	86		52 - 140
1,2-Dichloroethane-d4 (Surr)	112		60 - 140
Toluene-d8 (Surr)	92		58 - 140

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-28266-1

Client Sample ID: SB-1(2-2.5)

Lab Sample ID: 720-28266-1
Client Matrix: Solid

Date Sampled: 05/21/2010 0825
Date Received: 05/21/2010 1020

8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch: 720-72096	Instrument ID:	CHDRO5
Preparation:	3550B	Prep Batch: 720-72054	Initial Weight/Volume:	30.42 g
Dilution:	1.0		Final Weight/Volume:	2 mL
Date Analyzed:	05/26/2010 1703		Injection Volume:	1 uL
Date Prepared:	05/25/2010 1515		Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		1.1		0.99

Surrogate	%Rec	Qualifier	Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	89		46 - 115

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-28266-1

Client Sample ID: SB-1(6-6.5)

Lab Sample ID: 720-28266-2
Client Matrix: Solid

Date Sampled: 05/21/2010 0803
Date Received: 05/21/2010 1020

8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch: 720-72096	Instrument ID:	CHDRO5
Preparation:	3550B	Prep Batch: 720-72054	Initial Weight/Volume:	30.16 g
Dilution:	1.0		Final Weight/Volume:	2 mL
Date Analyzed:	05/26/2010 1728		Injection Volume:	1 uL
Date Prepared:	05/25/2010 1515		Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		1.2		0.99

Surrogate	%Rec	Qualifier	Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	95		46 - 115

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-28266-1

Client Sample ID: SB-2(2-2.5)

Lab Sample ID: 720-28266-3
Client Matrix: Solid

Date Sampled: 05/21/2010 0845
Date Received: 05/21/2010 1020

8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch: 720-72096		Instrument ID:	CHDRO5
Preparation:	3550B	Prep Batch: 720-72054		Initial Weight/Volume:	30.19 g
Dilution:	1.0			Final Weight/Volume:	2 mL
Date Analyzed:	05/26/2010 1753			Injection Volume:	1 uL
Date Prepared:	05/25/2010 1515			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		1.2		0.99

Surrogate	%Rec	Qualifier	Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	103		46 - 115

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-28266-1

Client Sample ID: SB-2(7.5-8)

Lab Sample ID: 720-28266-4
Client Matrix: Solid

Date Sampled: 05/21/2010 0850
Date Received: 05/21/2010 1020

8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch: 720-72096		Instrument ID:	CHDRO5
Preparation:	3550B	Prep Batch: 720-72054		Initial Weight/Volume:	30.24 g
Dilution:	1.0			Final Weight/Volume:	2 mL
Date Analyzed:	05/26/2010 1818			Injection Volume:	1 uL
Date Prepared:	05/25/2010 1515			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		ND		0.99

Surrogate	%Rec	Qualifier	Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	93		46 - 115

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-28266-1

Client Sample ID: SB-1(2-2.5)

Lab Sample ID: 720-28266-1
Client Matrix: Solid

Date Sampled: 05/21/2010 0825
Date Received: 05/21/2010 1020

8081A Organochlorine Pesticides (GC)

Method:	8081A	Analysis Batch: 720-72042	Instrument ID:	Pest # 4
Preparation:	3550B	Prep Batch: 720-71985	Initial Weight/Volume:	30.01 g
Dilution:	1.0		Final Weight/Volume:	10 mL
Date Analyzed:	05/25/2010 1825		Injection Volume:	1 uL
Date Prepared:	05/24/2010 1829		Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Aldrin		ND		2.0
Dieldrin		ND		2.0
Endrin aldehyde		ND		2.0
Endrin		ND		2.0
Endrin ketone		ND		2.0
Heptachlor		ND		2.0
Heptachlor epoxide		ND		2.0
4,4'-DDT		ND		2.0
4,4'-DDE		ND		2.0
4,4'-DDD		ND		2.0
Endosulfan I		ND		2.0
Endosulfan II		ND		2.0
alpha-BHC		ND		2.0
beta-BHC		ND		2.0
gamma-BHC (Lindane)		ND		2.0
delta-BHC		ND		2.0
Endosulfan sulfate		ND		2.0
Methoxychlor		ND		2.0
Toxaphene		ND		40
Chlordane (technical)		ND		40
alpha-Chlordane		ND		2.0
gamma-Chlordane		ND		2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	75		54 - 109
DCB Decachlorobiphenyl	94		27 - 136

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-28266-1

Client Sample ID: SB-2(2-2.5)

Lab Sample ID: 720-28266-3
Client Matrix: Solid

Date Sampled: 05/21/2010 0845
Date Received: 05/21/2010 1020

8081A Organochlorine Pesticides (GC)

Method:	8081A	Analysis Batch: 720-72042	Instrument ID:	Pest # 4
Preparation:	3550B	Prep Batch: 720-71985	Initial Weight/Volume:	30.08 g
Dilution:	1.0		Final Weight/Volume:	10 mL
Date Analyzed:	05/25/2010 1843		Injection Volume:	1 uL
Date Prepared:	05/24/2010 1829		Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
Aldrin		ND		2.0
Dieldrin		ND		2.0
Endrin aldehyde		ND		2.0
Endrin		ND		2.0
Endrin ketone		ND		2.0
Heptachlor		ND		2.0
Heptachlor epoxide		ND		2.0
4,4'-DDT		ND		2.0
4,4'-DDE		3.3		2.0
4,4'-DDD		ND		2.0
Endosulfan I		ND		2.0
Endosulfan II		ND		2.0
alpha-BHC		ND		2.0
beta-BHC		ND		2.0
gamma-BHC (Lindane)		ND		2.0
delta-BHC		ND		2.0
Endosulfan sulfate		ND		2.0
Methoxychlor		ND		2.0
Toxaphene		ND		40
Chlordane (technical)		ND		40
alpha-Chlordane		ND		2.0
gamma-Chlordane		ND		2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	76		54 - 109
DCB Decachlorobiphenyl	98		27 - 136

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-28266-1

Client Sample ID: SB-1(2-2.5)

Lab Sample ID: 720-28266-1
Client Matrix: Solid

Date Sampled: 05/21/2010 0825
Date Received: 05/21/2010 1020

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-72164		Instrument ID:	Thermo ICP2
Preparation:	3050B	Prep Batch: 720-72108		Lab File ID:	05261003.txt
Dilution:	4.0			Initial Weight/Volume:	1.00 g
Date Analyzed:	05/26/2010 1620			Final Weight/Volume:	50 mL
Date Prepared:	05/26/2010 0907				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		ND		2.0
Arsenic		14		4.0
Barium		330		2.0
Beryllium		0.52		0.40
Cadmium		ND		0.50
Chromium		59		2.0
Cobalt		16		0.80
Copper		42		6.0
Lead		12		2.0
Molybdenum		ND		2.0
Nickel		86		2.0
Selenium		ND		4.0
Silver		ND		1.0
Thallium		ND		2.0
Vanadium		49		2.0
Zinc		77		6.0

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-72159		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-72049		Lab File ID:	S052610A.PRN
Dilution:	1.0			Initial Weight/Volume:	.63 g
Date Analyzed:	05/26/2010 1533			Final Weight/Volume:	50 mL
Date Prepared:	05/25/2010 1456				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.056		0.0095

Analytical Data

Client: Cornerstone Earth Group

Job Number: 720-28266-1

Client Sample ID: SB-2(2-2.5)

Lab Sample ID: 720-28266-3
Client Matrix: Solid

Date Sampled: 05/21/2010 0845
Date Received: 05/21/2010 1020

6010B Metals (ICP)

Method:	6010B	Analysis Batch: 720-72337		Instrument ID:	Thermo ICP
Preparation:	3050B	Prep Batch: 720-72306		Lab File ID:	05291001.txt
Dilution:	4.0			Initial Weight/Volume:	1.01 g
Date Analyzed:	05/29/2010 2112			Final Weight/Volume:	50 mL
Date Prepared:	05/28/2010 1742				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Antimony		ND		2.0
Arsenic		17		4.0
Barium		340		2.0
Beryllium		0.63		0.40
Cadmium		ND		0.50
Chromium		71		2.0
Cobalt		17		0.79
Copper		56		5.9
Lead		15		2.0
Molybdenum		ND		2.0
Nickel		93		2.0
Selenium		ND		4.0
Silver		ND		0.99
Thallium		ND		2.0
Vanadium		58		2.0
Zinc		89		5.9

7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 720-72159		Instrument ID:	LL_HG Analyzer
Preparation:	7471A	Prep Batch: 720-72049		Lab File ID:	S052610A.PRN
Dilution:	1.0			Initial Weight/Volume:	.61 g
Date Analyzed:	05/26/2010 1535			Final Weight/Volume:	50 mL
Date Prepared:	05/25/2010 1456				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		0.068		0.0098

DATA REPORTING QUALIFIERS

Client: Cornerstone Earth Group

Job Number: 720-28266-1

Lab Section	Qualifier	Description
GC Semi VOA		
	F	RPD of the MS and MSD exceeds the control limits
Metals		
	F	MS or MSD exceeds the control limits
	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
	F	RPD of the MS and MSD exceeds the control limits

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-28266-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:720-71963					
LCS 720-71990/2-A	Lab Control Sample	T	Solid	8260B/CA_LUFT	720-71990
LCS 720-71990/4-A	Lab Control Sample	T	Solid	8260B/CA_LUFT	720-71990
LCSD 720-71990/3-A	Lab Control Sample Duplicate	T	Solid	8260B/CA_LUFT	720-71990
LCSD 720-71990/5-A	Lab Control Sample Duplicate	T	Solid	8260B/CA_LUFT	720-71990
MB 720-71990/1-A	Method Blank	T	Solid	8260B/CA_LUFT	720-71990
720-28266-1	SB-1(2-2.5)	T	Solid	8260B/CA_LUFT	720-71990
720-28266-1MS	Matrix Spike	T	Solid	8260B/CA_LUFT	720-71990
720-28266-1MSD	Matrix Spike Duplicate	T	Solid	8260B/CA_LUFT	720-71990
720-28266-2	SB-1(6-6.5)	T	Solid	8260B/CA_LUFT	720-71990
720-28266-3	SB-2(2-2.5)	T	Solid	8260B/CA_LUFT	720-71990
720-28266-4	SB-2(7.5-8)	T	Solid	8260B/CA_LUFT	720-71990
Prep Batch: 720-71990					
LCS 720-71990/2-A	Lab Control Sample	T	Solid	5030B	
LCS 720-71990/4-A	Lab Control Sample	T	Solid	5030B	
LCSD 720-71990/3-A	Lab Control Sample Duplicate	T	Solid	5030B	
LCSD 720-71990/5-A	Lab Control Sample Duplicate	T	Solid	5030B	
MB 720-71990/1-A	Method Blank	T	Solid	5030B	
720-28266-1	SB-1(2-2.5)	T	Solid	5030B	
720-28266-1MS	Matrix Spike	T	Solid	5030B	
720-28266-1MSD	Matrix Spike Duplicate	T	Solid	5030B	
720-28266-2	SB-1(6-6.5)	T	Solid	5030B	
720-28266-3	SB-2(2-2.5)	T	Solid	5030B	
720-28266-4	SB-2(7.5-8)	T	Solid	5030B	

Report Basis
T = Total

Client: Cornerstone Earth Group

Job Number: 720-28266-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Analysis Batch:720-71977					
LCS 720-71985/2-A	Lab Control Sample	T	Solid	8081A	720-71985
LCSD 720-71985/3-A	Lab Control Sample Duplicate	T	Solid	8081A	720-71985
MB 720-71985/1-A	Method Blank	T	Solid	8081A	720-71985
Prep Batch: 720-71985					
LCS 720-71985/2-A	Lab Control Sample	T	Solid	3550B	
LCSD 720-71985/3-A	Lab Control Sample Duplicate	T	Solid	3550B	
MB 720-71985/1-A	Method Blank	T	Solid	3550B	
720-28266-1	SB-1(2-2.5)	T	Solid	3550B	
720-28266-3	SB-2(2-2.5)	T	Solid	3550B	
720-28280-A-1-B MS	Matrix Spike	T	Solid	3550B	
720-28280-A-1-C MSD	Matrix Spike Duplicate	T	Solid	3550B	
Analysis Batch:720-72042					
720-28266-1	SB-1(2-2.5)	T	Solid	8081A	720-71985
720-28266-3	SB-2(2-2.5)	T	Solid	8081A	720-71985
720-28280-A-1-B MS	Matrix Spike	T	Solid	8081A	720-71985
720-28280-A-1-C MSD	Matrix Spike Duplicate	T	Solid	8081A	720-71985
Prep Batch: 720-72054					
LCS 720-72054/2-A	Lab Control Sample	A	Solid	3550B	
LCSD 720-72054/3-A	Lab Control Sample Duplicate	A	Solid	3550B	
MB 720-72054/1-A	Method Blank	A	Solid	3550B	
720-28266-1	SB-1(2-2.5)	A	Solid	3550B	
720-28266-2	SB-1(6-6.5)	A	Solid	3550B	
720-28266-3	SB-2(2-2.5)	A	Solid	3550B	
720-28266-4	SB-2(7.5-8)	A	Solid	3550B	
720-28281-A-1-D MS	Matrix Spike	A	Solid	3550B	
720-28281-A-1-E MSD	Matrix Spike Duplicate	A	Solid	3550B	
Analysis Batch:720-72096					
LCS 720-72054/2-A	Lab Control Sample	A	Solid	8015B	720-72054
LCSD 720-72054/3-A	Lab Control Sample Duplicate	A	Solid	8015B	720-72054
MB 720-72054/1-A	Method Blank	A	Solid	8015B	720-72054
720-28266-1	SB-1(2-2.5)	A	Solid	8015B	720-72054
720-28266-2	SB-1(6-6.5)	A	Solid	8015B	720-72054
720-28266-3	SB-2(2-2.5)	A	Solid	8015B	720-72054
720-28266-4	SB-2(7.5-8)	A	Solid	8015B	720-72054
720-28281-A-1-D MS	Matrix Spike	A	Solid	8015B	720-72054
720-28281-A-1-E MSD	Matrix Spike Duplicate	A	Solid	8015B	720-72054

Report Basis
A = Silica Gel Cleanup
T = Total

Client: Cornerstone Earth Group

Job Number: 720-28266-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 720-72049					
LCS 720-72049/2-A	Lab Control Sample	T	Solid	7471A	
LCSD 720-72049/3-A	Lab Control Sample Duplicate	T	Solid	7471A	
MB 720-72049/1-A	Method Blank	T	Solid	7471A	
720-28257-A-6-D MS	Matrix Spike	T	Solid	7471A	
720-28257-A-6-E MSD	Matrix Spike Duplicate	T	Solid	7471A	
720-28266-1	SB-1(2-2.5)	T	Solid	7471A	
720-28266-3	SB-2(2-2.5)	T	Solid	7471A	
Prep Batch: 720-72108					
LCS 720-72108/2-A	Lab Control Sample	T	Solid	3050B	
LCSD 720-72108/3-A	Lab Control Sample Duplicate	T	Solid	3050B	
LCSSRM 720-72108/23-A	LCS-Standard Reference Material	T	Solid	3050B	
MB 720-72108/1-A	Method Blank	T	Solid	3050B	
720-28264-A-1-F MS	Matrix Spike	T	Solid	3050B	
720-28264-A-1-G MSD	Matrix Spike Duplicate	T	Solid	3050B	
720-28266-1	SB-1(2-2.5)	T	Solid	3050B	
Analysis Batch:720-72159					
LCS 720-72049/2-A	Lab Control Sample	T	Solid	7471A	720-72049
LCSD 720-72049/3-A	Lab Control Sample Duplicate	T	Solid	7471A	720-72049
MB 720-72049/1-A	Method Blank	T	Solid	7471A	720-72049
720-28257-A-6-D MS	Matrix Spike	T	Solid	7471A	720-72049
720-28257-A-6-E MSD	Matrix Spike Duplicate	T	Solid	7471A	720-72049
720-28266-1	SB-1(2-2.5)	T	Solid	7471A	720-72049
720-28266-3	SB-2(2-2.5)	T	Solid	7471A	720-72049
Analysis Batch:720-72164					
LCS 720-72108/2-A	Lab Control Sample	T	Solid	6010B	720-72108
LCSD 720-72108/3-A	Lab Control Sample Duplicate	T	Solid	6010B	720-72108
LCSSRM 720-72108/23-A	LCS-Standard Reference Material	T	Solid	6010B	720-72108
MB 720-72108/1-A	Method Blank	T	Solid	6010B	720-72108
720-28264-A-1-F MS	Matrix Spike	T	Solid	6010B	720-72108
720-28264-A-1-G MSD	Matrix Spike Duplicate	T	Solid	6010B	720-72108
720-28266-1	SB-1(2-2.5)	T	Solid	6010B	720-72108
Prep Batch: 720-72306					
LCS 720-72306/2-A	Lab Control Sample	T	Solid	3050B	
LCSD 720-72306/3-A	Lab Control Sample Duplicate	T	Solid	3050B	
LCSSRM 720-72306/25-A	LCS-Standard Reference Material	T	Solid	3050B	
MB 720-72306/1-A	Method Blank	T	Solid	3050B	
720-28266-3	SB-2(2-2.5)	T	Solid	3050B	
720-28350-A-6-B MS	Matrix Spike	T	Solid	3050B	
720-28350-A-6-C MSD	Matrix Spike Duplicate	T	Solid	3050B	

Client: Cornerstone Earth Group

Job Number: 720-28266-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:720-72337					
LCS 720-72306/2-A	Lab Control Sample	T	Solid	6010B	720-72306
LCSD 720-72306/3-A	Lab Control Sample Duplicate	T	Solid	6010B	720-72306
LCSSRM 720-72306/25-A	LCS-Standard Reference Material	T	Solid	6010B	720-72306
MB 720-72306/1-A	Method Blank	T	Solid	6010B	720-72306
720-28266-3	SB-2(2-2.5)	T	Solid	6010B	720-72306
720-28350-A-6-B MS	Matrix Spike	T	Solid	6010B	720-72306
720-28350-A-6-C MSD	Matrix Spike Duplicate	T	Solid	6010B	720-72306

Report Basis
T = Total

Client: Cornerstone Earth Group

Job Number: 720-28266-1

Method Blank - Batch: 720-71990

Method: 8260B/CA_LUFTMS
Preparation: 5030B

Lab Sample ID: MB 720-71990/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/24/2010 1543
Date Prepared: 05/24/2010 1400

Analysis Batch: 720-71963
Prep Batch: 720-71990
Units: ug/Kg

Instrument ID: SAT 3900A
Lab File ID: MB 5-24-2010 3;43;09 PM.
Initial Weight/Volume: 5 g
Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
Methyl tert-butyl ether	ND		5.0
Benzene	ND		5.0
Ethylbenzene	ND		5.0
Toluene	ND		5.0
m-Xylene & p-Xylene	ND		5.0
o-Xylene	ND		5.0
Xylenes, Total	ND		10
Gasoline Range Organics (GRO)-C5-C12	ND		250

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene	97	52 - 140
1,2-Dichloroethane-d4 (Surr)	107	60 - 140
Toluene-d8 (Surr)	95	58 - 140

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-28266-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-71990

Method: 8260B/CA_LUFTMS
Preparation: 5030B

LCS Lab Sample ID: LCS 720-71990/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/24/2010 1608
Date Prepared: 05/24/2010 1400

Analysis Batch: 720-71963
Prep Batch: 720-71990
Units: ug/Kg

Instrument ID: SAT 3900A
Lab File ID: LCS 5-24-2010 4;08;36 PM
Initial Weight/Volume: 5 g
Final Weight/Volume: 10 mL

LCSD Lab Sample ID: LCSD 720-71990/3-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/24/2010 1634
Date Prepared: 05/24/2010 1400

Analysis Batch: 720-71963
Prep Batch: 720-71990
Units: ug/Kg

Instrument ID: SAT 3900A
Lab File ID: LCSD 5-24-2010 4;34;06 PM
Initial Weight/Volume: 5 g
Final Weight/Volume: 10 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Methyl tert-butyl ether	107	104	71 - 144	3	20		
Benzene	91	87	82 - 124	5	20		
Ethylbenzene	104	100	80 - 137	4	20		
Toluene	99	96	83 - 128	3	20		
m-Xylene & p-Xylene	98	97	79 - 146	1	20		
o-Xylene	98	92	84 - 140	7	20		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
4-Bromofluorobenzene	93	91	52 - 140
1,2-Dichloroethane-d4 (Surr)	105	97	60 - 140
Toluene-d8 (Surr)	100	98	58 - 140

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-28266-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-71990

Method: 8260B/CA_LUFTMS
Preparation: 5030B

LCS Lab Sample ID: LCS 720-71990/4-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/24/2010 1659
Date Prepared: 05/24/2010 1400

Analysis Batch: 720-71963
Prep Batch: 720-71990
Units: ug/Kg

Instrument ID: SAT 3900A
Lab File ID: LCS GRO 5-24-2010 4;59;
Initial Weight/Volume: 5 g
Final Weight/Volume: 10 mL

LCSD Lab Sample ID: LCSD 720-71990/5-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/24/2010 1725
Date Prepared: 05/24/2010 1400

Analysis Batch: 720-71963
Prep Batch: 720-71990
Units: ug/Kg

Instrument ID: SAT 3900A
Lab File ID: LCSD GRO 5-24-2010 5;25;
Initial Weight/Volume: 5 g
Final Weight/Volume: 10 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Gasoline Range Organics (GRO)-C5-C12	97	82	61 - 128	17	20		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
4-Bromofluorobenzene	98	97	52 - 140
1,2-Dichloroethane-d4 (Surr)	105	105	60 - 140
Toluene-d8 (Surr)	95	96	58 - 140

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-28266-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-71990

Method: 8260B/CA_LUFTMS
Preparation: 5030B

MS Lab Sample ID: 720-28266-1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/24/2010 2140
Date Prepared: 05/24/2010 1400

Analysis Batch: 720-71963
Prep Batch: 720-71990

Instrument ID: SAT 3900A
Lab File ID: 28266-A-1MS 5-24-2010
Initial Weight/Volume: 5.11 g
Final Weight/Volume: 10 mL

MSD Lab Sample ID: 720-28266-1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/24/2010 2205
Date Prepared: 05/24/2010 1400

Analysis Batch: 720-71963
Prep Batch: 720-71990

Instrument ID: SAT 3900A
Lab File ID: 28266-A-1MSD 5-24-2010
Initial Weight/Volume: 5.08 g
Final Weight/Volume: 10 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Methyl tert-butyl ether	119	113	69 - 130	5	20		
Benzene	91	90	70 - 130	1	20		
Ethylbenzene	99	94	65 - 130	5	20		
Toluene	106	99	70 - 130	6	20		
m-Xylene & p-Xylene	93	91	70 - 130	2	20		
o-Xylene	92	95	68 - 130	4	20		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
4-Bromofluorobenzene	74	81	52 - 140
1,2-Dichloroethane-d4 (Surr)	104	108	60 - 140
Toluene-d8 (Surr)	91	93	58 - 140

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-28266-1

Method Blank - Batch: 720-72054

Method: 8015B
Preparation: 3550B
Silica Gel Cleanup

Lab Sample ID: MB 720-72054/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/26/2010 1047
Date Prepared: 05/25/2010 1515

Analysis Batch: 720-72096
Prep Batch: 720-72054
Units: mg/Kg

Instrument ID: CHDRO5
Lab File ID: 0526105a_009.d
Initial Weight/Volume: 30.36 g
Final Weight/Volume: 2 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
Diesel Range Organics [C10-C28]	ND		0.99

Surrogate	% Rec	Acceptance Limits
Capric Acid (Surr)	0	0 - 5
p-Terphenyl	99	46 - 115

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-72054

Method: 8015B
Preparation: 3550B
Silica Gel Cleanup

LCS Lab Sample ID: LCS 720-72054/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/26/2010 1112
Date Prepared: 05/25/2010 1515

Analysis Batch: 720-72096
Prep Batch: 720-72054
Units: mg/Kg

Instrument ID: CHDRO5
Lab File ID: 0526105a_010.d
Initial Weight/Volume: 30.45 g
Final Weight/Volume: 2 mL
Injection Volume: 1 uL
Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 720-72054/3-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/26/2010 1137
Date Prepared: 05/25/2010 1515

Analysis Batch: 720-72096
Prep Batch: 720-72054
Units: mg/Kg

Instrument ID: CHDRO5
Lab File ID: 0526105a_011.d
Initial Weight/Volume: 30.07 g
Final Weight/Volume: 2 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Diesel Range Organics [C10-C28]	77	83	45 - 115	9	35		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
p-Terphenyl	97	93	46 - 115

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-28266-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-72054

Method: 8015B
Preparation: 3550B
Silica Gel Cleanup

MS Lab Sample ID: 720-28281-A-1-D MS
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/26/2010 1317
Date Prepared: 05/25/2010 1515

Analysis Batch: 720-72096
Prep Batch: 720-72054

Instrument ID: CHDRO5
Lab File ID: 0526105a_015.d
Initial Weight/Volume: 30.26 g
Final Weight/Volume: 2 mL
Injection Volume: 1 uL
Column ID: PRIMARY

MSD Lab Sample ID: 720-28281-A-1-E MSD
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/26/2010 1408
Date Prepared: 05/25/2010 1515

Analysis Batch: 720-72096
Prep Batch: 720-72054

Instrument ID: CHDRO5
Lab File ID: 0526105a_016.d
Initial Weight/Volume: 30.26 g
Final Weight/Volume: 2 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Diesel Range Organics [C10-C28]	91	70	50 - 130	21	30		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
p-Terphenyl	67	64	46 - 115

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-28266-1

Method Blank - Batch: 720-71985

Method: 8081A
Preparation: 3550B

Lab Sample ID: MB 720-71985/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/25/2010 0949
Date Prepared: 05/24/2010 1829

Analysis Batch: 720-71977
Prep Batch: 720-71985
Units: ug/Kg

Instrument ID: CHPEST3
Lab File ID: SIG10065.D
Initial Weight/Volume: 30.21 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
Aldrin	ND		2.0
Dieldrin	ND		2.0
Endrin aldehyde	ND		2.0
Endrin	ND		2.0
Endrin ketone	ND		2.0
Heptachlor	ND		2.0
Heptachlor epoxide	ND		2.0
4,4'-DDT	ND		2.0
4,4'-DDE	ND		2.0
4,4'-DDD	ND		2.0
Endosulfan I	ND		2.0
Endosulfan II	ND		2.0
alpha-BHC	ND		2.0
beta-BHC	ND		2.0
gamma-BHC (Lindane)	ND		2.0
delta-BHC	ND		2.0
Endosulfan sulfate	ND		2.0
Methoxychlor	ND		2.0
Toxaphene	ND		40
Chlordane (technical)	ND		40
alpha-Chlordane	ND		2.0
gamma-Chlordane	ND		2.0

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	83	54 - 109
DCB Decachlorobiphenyl	69	27 - 136

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-28266-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-71985

Method: 8081A
Preparation: 3550B

LCS Lab Sample ID: LCS 720-71985/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/25/2010 1005
Date Prepared: 05/24/2010 1829

Analysis Batch: 720-71977
Prep Batch: 720-71985
Units: ug/Kg

Instrument ID: CHPEST3
Lab File ID: SIG10066.D
Initial Weight/Volume: 30.28 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 720-71985/3-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/25/2010 1020
Date Prepared: 05/24/2010 1829

Analysis Batch: 720-71977
Prep Batch: 720-71985
Units: ug/Kg

Instrument ID: CHPEST3
Lab File ID: SIG10067.D
Initial Weight/Volume: 30.04 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Aldrin	87	92	54 - 120	4	20		
Dieldrin	87	91	59 - 120	5	20		
Endrin	89	92	53 - 120	5	20		
Heptachlor	93	97	54 - 120	5	20		
4,4'-DDT	99	104	51 - 120	6	20		
gamma-BHC (Lindane)	88	92	58 - 120	6	20		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
Tetrachloro-m-xylene	82	86	54 - 109
DCB Decachlorobiphenyl	81	84	27 - 136

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-28266-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-71985

Method: 8081A
Preparation: 3550B

MS Lab Sample ID: 720-28280-A-1-B MS
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/25/2010 1918
Date Prepared: 05/24/2010 1829

Analysis Batch: 720-72042
Prep Batch: 720-71985

Instrument ID: Pest # 4
Lab File ID: SIG10019.D
Initial Weight/Volume: 30.30 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: PRIMARY

MSD Lab Sample ID: 720-28280-A-1-C MSD
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/25/2010 1935
Date Prepared: 05/24/2010 1829

Analysis Batch: 720-72042
Prep Batch: 720-71985

Instrument ID: Pest # 4
Lab File ID: SIG10020.D
Initial Weight/Volume: 30.28 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Aldrin	66	70	53 - 120	5	20		
Dieldrin	81	77	46 - 130	5	20		
Endrin	70	74	32 - 143	5	20		
Heptachlor	67	70	52 - 120	4	20		
4,4'-DDT	74	76	17 - 144	3	20		
gamma-BHC (Lindane)	69	72	58 - 120	3	20		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Tetrachloro-m-xylene	77	77	54 - 109
DCB Decachlorobiphenyl	104	106	27 - 136

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-28266-1

Method Blank - Batch: 720-72108

Method: 6010B
Preparation: 3050B

Lab Sample ID: MB 720-72108/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/26/2010 1524
Date Prepared: 05/26/2010 0907

Analysis Batch: 720-72164
Prep Batch: 720-72108
Units: mg/Kg

Instrument ID: Thermo ICP2
Lab File ID: 05261003.txt
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Antimony	ND		0.50
Arsenic	ND		1.0
Barium	ND		0.50
Beryllium	ND		0.10
Cadmium	ND		0.12
Chromium	ND		0.50
Cobalt	ND		0.20
Copper	ND		1.5
Lead	ND		0.50
Molybdenum	ND		0.50
Nickel	ND		0.50
Selenium	ND		1.0
Silver	ND		0.25
Thallium	ND		0.50
Vanadium	ND		0.50
Zinc	ND		1.5

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-28266-1

LCS-Standard Reference Material - Batch: 720-72108

Method: 6010B
Preparation: 3050B

Lab Sample ID: LCSSRM 720-72108/23-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/26/2010 1701
Date Prepared: 05/26/2010 0907

Analysis Batch: 720-72164
Prep Batch: 720-72108
Units: mg/Kg

Instrument ID: Thermo ICP2
Lab File ID: 05261003.txt
Initial Weight/Volume: 1.03 g
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	27.4	15.9	58	11 - 101	
Arsenic	22.7	21.3	94	69 - 119	
Barium	145	138	95	61 - 117	
Beryllium	1.09	0.966	89	56 - 102	
Cadmium	42.2	39.0	92	67 - 118	
Chromium	246	221	90	67 - 121	
Cobalt	65.1	67.4	103	64 - 133	
Copper	58.5	56.4	96	68 - 126	
Lead	44.1	36.7	83	62 - 113	
Molybdenum	61.0	59.1	97	62 - 128	
Nickel	96.8	85.6	88	65 - 117	
Selenium	165	148	90	63 - 126	
Silver	79.5	77.1	97	51 - 130	
Thallium	55.9	48.0	86	64 - 124	
Vanadium	56.7	54.3	96	67 - 123	
Zinc	44.0	37.7	86	62 - 110	

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-28266-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-72108

Method: 6010B
Preparation: 3050B

LCS Lab Sample ID: LCS 720-72108/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/26/2010 1528
Date Prepared: 05/26/2010 0907

Analysis Batch: 720-72164
Prep Batch: 720-72108
Units: mg/Kg

Instrument ID: Thermo ICP2
Lab File ID: 05261003.txt
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 720-72108/3-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/26/2010 1531
Date Prepared: 05/26/2010 0907

Analysis Batch: 720-72164
Prep Batch: 720-72108
Units: mg/Kg

Instrument ID: Thermo ICP2
Lab File ID: 05261003.txt
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 50 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Antimony	100	102	80 - 120	2	20		
Arsenic	100	100	80 - 120	0	20		
Barium	108	107	80 - 120	1	20		
Beryllium	102	102	80 - 120	0	20		
Cadmium	102	102	80 - 120	0	20		
Chromium	99	99	80 - 120	0	20		
Cobalt	105	106	80 - 120	0	20		
Copper	102	102	80 - 120	0	20		
Lead	103	103	80 - 120	0	20		
Molybdenum	106	107	80 - 120	1	20		
Nickel	102	102	80 - 120	0	20		
Selenium	96	95	80 - 120	1	20		
Silver	101	100	80 - 120	1	20		
Thallium	102	101	80 - 120	0	20		
Vanadium	102	103	80 - 120	0	20		
Zinc	98	98	80 - 120	0	20		

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-28266-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-72108

Method: 6010B
Preparation: 3050B

MS Lab Sample ID: 720-28264-A-1-F MS
Client Matrix: Solid
Dilution: 4.0
Date Analyzed: 05/26/2010 1535
Date Prepared: 05/26/2010 0907

Analysis Batch: 720-72164
Prep Batch: 720-72108

Instrument ID: Thermo ICP2
Lab File ID: 05261003.txt
Initial Weight/Volume: 1.03 g
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 720-28264-A-1-G MSD
Client Matrix: Solid
Dilution: 4.0
Date Analyzed: 05/26/2010 1539
Date Prepared: 05/26/2010 0907

Analysis Batch: 720-72164
Prep Batch: 720-72108

Instrument ID: Thermo ICP2
Lab File ID: 05261003.txt
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 50 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Antimony	42	46	75 - 125	11	20	F	F
Arsenic	107	129	75 - 125	18	20		F
Barium	104	210	75 - 125	19	20	4	4
Beryllium	136	158	75 - 125	18	20	F	F
Cadmium	107	126	75 - 125	19	20		F
Chromium	104	159	75 - 125	24	20		F
Cobalt	108	129	75 - 125	17	20		F
Copper	130	156	75 - 125	14	20	F	F
Lead	140	128	75 - 125	4	20	F	F
Molybdenum	103	120	75 - 125	18	20		
Nickel	94	132	75 - 125	21	20		F
Selenium	106	123	75 - 125	17	20		
Silver	127	155	75 - 125	22	20	F	F
Thallium	106	122	75 - 125	17	20		
Vanadium	144	161	75 - 125	8	20	F	F
Zinc	91	156	75 - 125	18	20		F

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-28266-1

Method Blank - Batch: 720-72306

Method: 6010B
Preparation: 3050B

Lab Sample ID: MB 720-72306/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/29/2010 2000
Date Prepared: 05/28/2010 1742

Analysis Batch: 720-72337
Prep Batch: 720-72306
Units: mg/Kg

Instrument ID: Thermo ICP
Lab File ID: 05291001.txt
Initial Weight/Volume: 1.04 g
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Antimony	ND		0.48
Arsenic	ND		0.96
Barium	ND		0.48
Beryllium	ND		0.096
Cadmium	ND		0.12
Chromium	ND		0.48
Cobalt	ND		0.19
Copper	ND		1.4
Lead	ND		0.48
Molybdenum	ND		0.48
Nickel	ND		0.48
Selenium	ND		0.96
Silver	ND		0.24
Thallium	ND		0.48
Vanadium	ND		0.48
Zinc	ND		1.4

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-28266-1

LCS-Standard Reference Material - Batch: 720-72306

Method: 6010B
Preparation: 3050B

Lab Sample ID: LCSSRM 720-72306/25-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/29/2010 2158
Date Prepared: 05/28/2010 1742

Analysis Batch: 720-72337
Prep Batch: 720-72306
Units: mg/Kg

Instrument ID: Thermo ICP
Lab File ID: 05291001.txt
Initial Weight/Volume: 1.04 g
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	27.4	22.6	82	11 - 101	
Arsenic	22.7	20.0	88	69 - 119	
Barium	145	125	86	61 - 117	
Beryllium	1.09	0.874	80	56 - 102	
Cadmium	42.2	37.9	90	67 - 118	
Chromium	246	210	85	67 - 121	
Cobalt	65.1	61.1	94	64 - 133	
Copper	58.5	50.4	86	68 - 126	
Lead	44.1	38.1	86	62 - 113	
Molybdenum	61.0	57.9	95	62 - 128	
Nickel	96.8	86.8	90	65 - 117	
Selenium	165	149	91	63 - 126	
Silver	79.5	70.7	89	51 - 130	
Thallium	55.9	50.4	90	64 - 124	
Vanadium	56.7	52.6	93	67 - 123	
Zinc	44.0	36.8	84	62 - 110	

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-28266-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-72306

Method: 6010B
Preparation: 3050B

LCS Lab Sample ID: LCS 720-72306/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/29/2010 2004
Date Prepared: 05/28/2010 1742

Analysis Batch: 720-72337
Prep Batch: 720-72306
Units: mg/Kg

Instrument ID: Thermo ICP
Lab File ID: 05291001.txt
Initial Weight/Volume: 1.01 g
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 720-72306/3-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/29/2010 2008
Date Prepared: 05/28/2010 1742

Analysis Batch: 720-72337
Prep Batch: 720-72306
Units: mg/Kg

Instrument ID: Thermo ICP
Lab File ID: 05291001.txt
Initial Weight/Volume: 1.04 g
Final Weight/Volume: 50 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Antimony	97	98	80 - 120	2	20		
Arsenic	98	97	80 - 120	4	20		
Barium	100	100	80 - 120	4	20		
Beryllium	100	99	80 - 120	4	20		
Cadmium	99	98	80 - 120	4	20		
Chromium	100	99	80 - 120	3	20		
Cobalt	101	100	80 - 120	4	20		
Copper	100	100	80 - 120	3	20		
Lead	102	101	80 - 120	4	20		
Molybdenum	102	102	80 - 120	4	20		
Nickel	102	101	80 - 120	4	20		
Selenium	96	95	80 - 120	3	20		
Silver	99	98	80 - 120	3	20		
Thallium	102	101	80 - 120	4	20		
Vanadium	101	100	80 - 120	4	20		
Zinc	99	98	80 - 120	4	20		

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-28266-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-72306

Method: 6010B
Preparation: 3050B

MS Lab Sample ID: 720-28350-A-6-B MS
Client Matrix: Solid
Dilution: 4.0
Date Analyzed: 05/29/2010 2016
Date Prepared: 05/28/2010 1742

Analysis Batch: 720-72337
Prep Batch: 720-72306

Instrument ID: Thermo ICP
Lab File ID: 05291001.txt
Initial Weight/Volume: .99 g
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 720-28350-A-6-C MSD
Client Matrix: Solid
Dilution: 4.0
Date Analyzed: 05/29/2010 2021
Date Prepared: 05/28/2010 1742

Analysis Batch: 720-72337
Prep Batch: 720-72306

Instrument ID: Thermo ICP
Lab File ID: 05291001.txt
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 50 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Antimony	29	25	75 - 125	9	20	F	F
Arsenic	117	114	75 - 125	2	20		
Barium	106	197	75 - 125	9	20	4	4
Beryllium	114	148	75 - 125	24	20		F
Cadmium	108	108	75 - 125	2	20		
Chromium	449	336	75 - 125	5	20	4	4
Cobalt	131	116	75 - 125	8	20	F	
Copper	272	231	75 - 125	2	20	4	4
Lead	85	70	75 - 125	6	20		F
Molybdenum	118	116	75 - 125	2	20		
Nickel	1360	1100	75 - 125	14	20	4	4
Selenium	113	110	75 - 125	4	20		
Silver	125	140	75 - 125	10	20		F
Thallium	106	109	75 - 125	2	20		
Vanadium	124	137	75 - 125	4	20		F
Zinc	364	204	75 - 125	6	20	4	4

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-28266-1

Method Blank - Batch: 720-72049

Method: 7471A
Preparation: 7471A

Lab Sample ID: MB 720-72049/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/26/2010 1507
Date Prepared: 05/25/2010 1456

Analysis Batch: 720-72159
Prep Batch: 720-72049
Units: mg/Kg

Instrument ID: LL_HG Analyzer
Lab File ID: S052610A.PRN
Initial Weight/Volume: .60 g
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Mercury	ND		0.010

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-72049

Method: 7471A
Preparation: 7471A

LCS Lab Sample ID: LCS 720-72049/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/26/2010 1510
Date Prepared: 05/25/2010 1456

Analysis Batch: 720-72159
Prep Batch: 720-72049
Units: mg/Kg

Instrument ID: LL_HG Analyzer
Lab File ID: S052610A.PRN
Initial Weight/Volume: .60 g
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 720-72049/3-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/26/2010 1512
Date Prepared: 05/25/2010 1456

Analysis Batch: 720-72159
Prep Batch: 720-72049
Units: mg/Kg

Instrument ID: LL_HG Analyzer
Lab File ID: S052610A.PRN
Initial Weight/Volume: .60 g
Final Weight/Volume: 50 mL

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Mercury	101	101	80 - 120	0	20		

Quality Control Results

Client: Cornerstone Earth Group

Job Number: 720-28266-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-72049

Method: 7471A
Preparation: 7471A

MS Lab Sample ID: 720-28257-A-6-D MS
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/26/2010 1514
Date Prepared: 05/25/2010 1456

Analysis Batch: 720-72159
Prep Batch: 720-72049

Instrument ID: LL_HG Analyzer
Lab File ID: S052610A.PRN
Initial Weight/Volume: .61 g
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 720-28257-A-6-E MSD
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 05/26/2010 1517
Date Prepared: 05/25/2010 1456

Analysis Batch: 720-72159
Prep Batch: 720-72049

Instrument ID: LL_HG Analyzer
Lab File ID: S052610A.PRN
Initial Weight/Volume: .60 g
Final Weight/Volume: 50 mL

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Mercury	100	96	75 - 125	2	20		

06/01/2010 Page 44 of 46

720-28266

Salimpour, Afsaneh

From: Jacob L. Fink [jfink@cornerstoneearth.com]
Sent: Friday, May 21, 2010 11:15 AM
To: Salimpour, Afsaneh
Cc: Peter Langtry
Subject: Revised COC

Afsaneh,

Attached is the revised Chain of Custody for the samples from Capitol Ave. I dropped off earlier this morning. Note the change from the original that we are NOT analyzing for pesticides and CAM 17 metals on the two deeper samples, SB-1 (6-6.5) and SB-2 (7.5-8). All samples are being analyzed for TPHg, TPHd w/silica gel, BTEX, MTBE,

Sincerely,

Jacob Lee Fink
Staff Geologist

[x] cornerstone logo 3

2737 North Main St., Suite 10
Walnut Creek, CA 94597
office 925-988-9500
cell 408-890-1217

720-28266 Revised

124626

CORNERSTONE EARTH GROUP

Chain of Custody Record

Cornerstone Earth Group, Inc.
2737 North Main Street, Unit 10
Walnut Creek, California 94597
925-988-9500, Ext. 106 Phone
925-988-9501 Fax
Project Name: 1329 N. Capitol Ave
Site: San Jose, CA
Project Number: 206-3-1

Project Manager: Peter Langtry
Tel/Fax:
Analysis Turnaround Time
Full Address Run Below
1 week
3 days
2 days
1 day

Site Contact: Jacob L. Fink
Lab Contact:
Date: 5/21/10
Carrier:
COC No.
Laboratory's Job No.

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	TPHg (EPA Test Method 8015/8260)	BTEX (EPA Test Method 8015/8260)	MTBE (EPA Test Method 8015/8260)	TPHd (EPA Test Method 8015)	silica gel cleanup	organochlorine pesticides (EPA Test Method	CAM 17 metals (EPA Test Method 6010)	Laboratory's Sample Specific Notes
SB-1 (2-2.5)	5/21/2010	8:25	Liner	Soil	1		X	X	X	X	X	X	X	
SB-1 (6-6.5)	5/21/2010	8:30	Liner	Soil	1		X	X	X	X	X	X	X	No CAM17 or Pesticide
SB-2 (2-2.5)	5/21/2010	8:45	Liner	Soil	1		X	X	X	X	X	X	X	
SB-2 (7.5-8)	5/21/2010	8:50	Liner	Soil	1		X	X	X	X	X	X	X	No CAM17 or Pesticide

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4= HNO3, 5= NaOH, 6= Other

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:	Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Cornerstone	5/21/10	[signature]	TA-SF	5/21/10 10:20						

16.5°C Sr. UHRC Ln

Login Sample Receipt Check List

Client: Cornerstone Earth Group

Job Number: 720-28266-1

List Source: TestAmerica San Francisco

Login Number: 28266
Creator: Caparas, Criselda
List Number: 1

Question	T / F/ NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

CORNERSTONE EARTH GROUP

Chain of Custody Record

720-28266 | 3 4 6 3 6

Cornerstone Earth Group, Inc.
2727 North Main Street, Unit 10
Walnut Creek, California 94597
925-988-9500 Ext. 106 Phone
925-988-9501 FAX
Project Name: 1328 N Capitol Ave
Site: San Jose CA
Project Number: 206.3-1

Project Manager: Peter Lamtry
Telephone:
Analysis Turnaround Time
TAT if different from below
☐ 1 week
☐ 3 days
☐ 2 days
☐ 1 day

COC No: 1 of 1 COCs
Date: 5/21/10
Carrier:
Site Contact: Jacob L. Fink
Lab Contact:
Laboratory's Job No:

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample											Laboratory's Sample Specific Notes
SB-1 (2-2.5)	5/21/2010	8:25	Liner	Soil	1	X	X	X	X	X	X	X	X				
SB-1 (6-6.5)	5/21/2010	8:30	Liner	Soil	1	X	X	X	X	X	X	X	X				
SB-2 (2-2.5)	5/21/2010	8:45	Liner	Soil	1	X	X	X	X	X	X	X	X				
SB-2 (7.5-8)	5/21/2010	8:50	Liner	Soil	1	X	X	X	X	X	X	X	X				

Filtered Sample

TPHg (EPA Test Method 8015/8260)
BTEX (EPA Test Method 8015/8260)
MTBE (EPA Test Method 8015/8260)
TPHd (EPA Test Method 8015)
silica gel cleanup
organochlorine pesticides (EPA Test Method 8081)
CAM 17 metals (EPA Test Method 6010)

Preservation Used: 1= Ice, 2= HCL, 3= H2SO4, 4=HNO3, 5=NaOH, 6= Other

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For Months

Special Instructions/QC Requirements & Comments:

Relinquished by	Company	Date/Time	Received by	Company	Date/Time
[signature]	CORNERSTONE	5-21-10	[signature]	TA-SF	5/21/10 10:30
Relinquished by	Company	Date/Time	Received by	Company	Date/Time
Relinquished by	Company	Date/Time	Received by	Company	Date/Time

16.3°C / 4HRS Shipping

Appendix G

Subsurface Investigation Protocol and Boring Logs

PROTOCOL

Subsurface Exploration Method

Ground water exploratory borings SB-1 and SB-2 were drilled using direct push technology (2-inch diameter single walled sampler driven by a truck-mounted Geoprobe 6600 rig). Soils observed in the borings were logged in general accordance with the Unified Soil Classification System (ASTM D-2487). Soil samples were collected continuously.

Soil Sample Collection Method

Soil samples for laboratory analyses were collected in an acetate liner from within the sample core barrel. The desired sample depth interval was cut from the liner using a cleaned saw. The ends of soil samples for laboratory analyses were covered in a Teflon film, fitted with plastic end caps, taped, and labeled with a unique sample identification number.

Equipment Decontamination

All sampling equipment was cleaned in a solution of laboratory grade detergent and rinsed with distilled water or pressure prior to use at each sample point.

Management of Investigation Derived Waste

Soil cuttings and cleaning rinsate were stored on-Site in sealed and labeled 5-gallon buckets.

BORING NUMBER SB-1

CORNERSTONE EARTH GROUP

PROJECT NAME 1328 North Capitol Avenue
PROJECT NUMBER 206-3-1
PROJECT LOCATION San Jose, CA

DATE STARTED 5/21/10 **DATE COMPLETED** 5/21/10
GROUND ELEVATION _____ **BORING DEPTH** 10 ft.
DRILLING CONTRACTOR _____
LATITUDE _____ **LONGITUDE** _____
DRILLING METHOD _____
GROUND WATER LEVELS:
LOGGED BY JLF
AT TIME OF DRILLING Not Encountered
NOTES _____
AT END OF DRILLING Not Encountered

This log is a part of a report by Cornerstone Earth Group, and should not be used as a stand-alone document. This description applies only to the location of the exploration at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with time. The description presented is a simplification of actual conditions encountered. Transitions between soil types may be gradual.

ELEVATION (ft)	DEPTH (ft)	SYMBOL	DESCRIPTION	N-Value (uncorrected) blows per foot	Sample Submitted for Laboatory Analysis	Percent Recovery (%)	OVM Reading (ppm)	Odors or Discoloration	Notes
	0.0		**Clay (CL) [Fill]** soft to medium stiff, moist, dark brown, some gravel						
	2.5		**Clay (CL)** medium stiff to stiff, moist, dark brown, some gravel			80	0		
	5.0								
			Clay with Sand (CL) moist, light brown						
	7.5					90	0		
	10.0		Bottom of Boring at 10.0 feet.						
	12.5								
	15.0								

CORNERSTONE GE LOG DEC192007 - CORNERSTONE.GDT - 5/28/10 10:46 - P:\DRAFTING\GINT FILES\206-3-1 CAPITOL AVE GE.GPJ

BORING NUMBER SB-2

CORNERSTONE EARTH GROUP

PROJECT NAME 1328 North Capitol Avenue
PROJECT NUMBER 206-3-1
PROJECT LOCATION San Jose, CA
GROUND ELEVATION _____ **BORING DEPTH** 15 ft.
LATITUDE _____ **LONGITUDE** _____
GROUND WATER LEVELS:
AT TIME OF DRILLING Not Encountered
AT END OF DRILLING Not Encountered

DATE STARTED 5/21/10 **DATE COMPLETED** 5/21/10
DRILLING CONTRACTOR _____
DRILLING METHOD _____
LOGGED BY JLF
NOTES _____

This log is a part of a report by Cornerstone Earth Group, and should not be used as a stand-alone document. This description applies only to the location of the exploration at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with time. The description presented is a simplification of actual conditions encountered. Transitions between soil types may be gradual.

ELEVATION (ft)	DEPTH (ft)	SYMBOL	DESCRIPTION	N-Value (uncorrected) blows per foot	Sample Submitted for Laboatory Analysis	Percent Recovery (%)	OVM Reading (ppm)	Odors or Discoloration	Notes
	0.0		**Clay (CL) [Fill]** moist, dark brown, some gravel						
	2.5					80	0		
	5.0								
	7.5		**Clay with Sand (CL)** moist, light brown, some gravel			90	0		
	10.0								
	12.5					100	0		
	15.0		Bottom of Boring at 15.0 feet.						

CORNERSTONE GE LOG DEC192007 - CORNERSTONE.GDT - 5/28/10 10:46 - P:\DRAFTING\GINT FILES\206-3-1 CAPITOL AVE GE.GPJ

NORTH CAPITOL VILLAS
ENVIRONMENTAL NOISE ASSESSMENT
SAN JOSE, CALIFORNIA

13 October 2010

Prepared for:

CURRENT PROPERTY OWNERS

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CSA Project No. 10-0356

INTRODUCTION

This report summarizes our environmental noise assessment for the North Capitol Villas residential project in San Jose, California. The purpose of this study is to quantify the noise environment, compare it with City and State goals for environmental noise, and propose conceptual noise mitigation measures as needed based on the current site plan. For readers not familiar with the fundamental concepts of environmental noise, please refer to Appendix A.

Following is a summary of our findings.

1. Incorporating properly selected sound-rated windows and doors into selected exterior building facades will reduce interior noise levels to City and State standards.
2. Due to the proximity of the site to major roadways, it will not be feasible to meet the City's outdoor noise goal of DNL 60 dBA.
   a. The estimated future noise level in the common park is approximately DNL 65 dBA. While incorporating a noise barrier along the park's southwest edge would reduce noise levels, transportation noise would still exceed the City's goal.
   b. Incorporating partial-height noise barriers at elevated decks along North Capitol Avenue and Sierra Road will reduce traffic noise to DNL 70 dBA or lower for seated persons on these elevated decks.
3. Noise from mechanical equipment, such as air-conditioning units, must meet the Zoning Ordinance requirements. This should be evaluated in detail when equipment types, locations, and sizes are selected.

DESCRIPTION

The project consists of 98 attached homes in twelve three-story buildings (see Figure 1, attached). Housing setbacks will be approximately 18 feet and farther from the edge of North Capitol Avenue. Outdoor use space will include a park near the center of the site and individual porches and decks. Mechanical equipment may include residential air conditioning units.

The 4.3-acre site is located in the northeast corner of the intersection of North Capitol Avenue and Sierra Road. Existing residences and Havenwood Drive border the site on the north and east. Two active VTA Light Rail tracks, serving the Santa Teresa to Alum Rock route, are located in the center of North Capitol Avenue with 123 to 134 scheduled trains passing the site daily. Interstate 680 (I-680) is located over 1,000 feet west of the site, beyond North Capitol Avenue. Cherrywood Elementary School is located beyond Havenwood Drive and a row of single-family homes to the northeast.

ACOUSTICAL CRITERIA

City of San Jose General Plan

The Noise Element of the San Jose General Plan 2020 contains land use compatibility guidelines for environmental noise in the community. Table 1, below, summarizes these guidelines for residential land uses.

Table 1 – Summary of Figure 16: Land Use Compatibility Guidelines for Community Noise

DNL Value in Decibels	Residential Compatibility
60 dB or less	Satisfactory
60 to 70 dB	When new development requires a full EIR, an acoustical analysis should be made indicating amount of attenuation necessary to maintain an indoor level of DNL <=45. Onsite outdoor activity limited to acoustically protected areas. Existing uses should receive remedial treatment.
Greater than 70 dB	New development permitted only if uses are entirely indoors and building design limits interior levels to <=45 DNL. Onsite activity areas should be permitted if site planning and noise barriers can achieve levels of 60 DNL or less. Existing uses have top priority for remedial treatment.

- The Noise Element defines short and long-range noise quality level goals for outdoor use areas as DNL 60 and 55 dB, respectively. However, the City acknowledges that it may not be possible to attain these levels in "special noise impact areas", such as areas adjacent to major roadways, without eliminating the beneficial attributes of the exterior space.
- In addition, Policy 1 of the Noise Element defines DNL 45 dB as the interior noise quality level goal, and DNL 76 dB as the maximum exterior noise levels to "… avoid significant adverse health effects."

City of San Jose Municipal Code

The Zoning Ordinance of the San Jose Municipal Code contains performance standards for the generation of noise at adjacent properties. In summary, noise from air-conditioning units and other mechanical equipment is limited to 55 dB at residential property lines.

California Building Code (CBC)

The California Building Code includes acoustical requirements for interior noise levels in habitable rooms of attached housing[1]. In summary, the CBC limits interior noise levels to DNL 45 dB or lower due to exterior noise sources. Projects exposed to an exterior DNL greater than 60 dB require an acoustical analysis during the design phase showing that the proposed design will limit exterior noise to the prescribed allowable interior level. Additionally, if windows must be closed to meet the interior standard, "the design for the structure must also specify a ventilation or air-conditioning system to provide a habitable interior environment."

[1] 2007 California Building Code, California Code of Regulations, Title 24, Part 2, Volume 1 of 2, Section 1207: Sound Transmission.

Federal Transit Administration (FTA)

The document entitled "Transit Noise and Vibration Impact Assessment", published by the Federal Transit Administration (FTA) of the United States Department of Transportation in May of 2006, provides guidelines for levels of ground-borne vibration due to rail lines adjacent to various land uses. In summary, the guidelines identify 72 VdB as the upper limit for ground-borne vibration from frequent train events (more than 70 per day) at residences.

While the guidelines are generally intended to help assess the potential impact of new rail projects adjacent to existing land uses, they are frequently used to help assess the compatibility of new projects adjacent to existing rail lines. For reference, the document identifies the threshold of perception for humans to be around 65 VdB.

ENVIRONMENTAL NOISE AND GROUND-BORNE VIBRATION

Existing Noise Environment

To quantify the existing noise environment, three long-term monitors continuously measured noise levels at the site between the 15th and 17th of September 2010. In addition, short-term "spot" measurements were conducted and compared with corresponding time periods of the long-term monitors to determine how noise levels vary across the site and at different elevations. Table 2 summarizes existing noise levels at the site. Approximate measurement locations are shown in Figure 1, attached.

Table 2: Existing Noise Environment

Site	Location	Date / Time	DNL[2]
LT-1	North Capitol Avenue Monitor Approximately 70' northeast of roadway centerline	15 to 17 September 2010	71 dBA
LT-2	Sierra Road Monitor Approximately 45' northwest of roadway centerline		68 dBA
LT-3	Havenwood Drive Monitor Approximately 35' south of roadway centerline		62 dBA
ST-1	North Capitol Avenue Spot Measurement Approximately 70' northeast of roadway centerline	15:30 – 15:45 17 Sept 2010	70 dBA
ST-2	Corner of North Capitol and Sierra Spot Measurement Approximately 75' northeast of N. Capitol centerline	17:00 – 17:15 17 Sept 2010	69 dBA
ST-3	Sierra Drive Spot Measurement Approximately 55' west of roadway centerline	17:05 – 17:20 17 Sept 2010	67 dBA

The loudest noise levels measured at the long-term monitor locations were generated by vehicles and sirens passing the site. Typical maximum noise levels from vehicles were

[2] During the measurement period, long-term monitors LT-1 and LT-3 were influenced by noise from dogs barking on-site. Since the proposed project will not include this noise source, the levels shown in Table 2 have been adjusted to omit this noise.

approximately 87 dBA at LT-1, 89 dBA at LT-2, and 81 dBA at LT-3.[3] During the measurement period, intermittent noise from children's voices and school bells (from Cherrywood Elementary School) was audible in the northeast portion of the site, and is included in the levels shown in Table 2 above.

Future Noise Environment

The San Jose Department of Transportation forecasts that peak-hour traffic volumes on North Capitol Avenue will increase by 50-percent by 2020.[4] This corresponds with approximately a 2-decibel increase in environmental noise. Along Sierra Road, the City forecasts no change in traffic volumes. Estimated future noise levels, in terms of DNL, are summarized in Figure 1, attached.

Ground-Borne Vibration due to Rail

On 17 September 2010, ground-borne vibration was measured at the existing site grade, at distances of approximately 60 and 120 feet (V-1 and V-2 in Figure 1, attached) from the near VTA Light Rail track in the center of North Capitol Avenue. Measurements consisted of two northbound and two southbound trains at the near location, and three northbound and five southbound trains at the far location. Measured vibration levels were all below the 72 VdB guideline for frequent train events at residences. Therefore, no mitigation is needed to comply with the FTA Guidelines. However, vibration may still be perceptible in some homes. Therefore, the developer should include noise and vibration from VTA Light Rail trains in it disclosures to buyers.

ANALYSIS AND RECOMMENDATIONS

Environmental Noise

As shown in Figure 1 attached, estimated future environmental noise levels at the site range from DNL 62 dBA along Havenwood Drive to DNL 73 dBA along North Capitol Avenue. The project should incorporate mitigation measures to reduce traffic noise indoors, and to address noise in outdoor use spaces. Specific details must be determined during the design phase, when the site plan, floor plans and elevations have been finalized. Preliminary estimates suggest the following:

1. Use sound-rated windows, doors and exterior wall assemblies to reduce interior noise from outdoor sources to DNL 45 dBA.
    a. Based on the 21 July 2010 floor plans, window and door sound insulation ratings in the range of STC 30 to 33 in homes along North Capitol Avenue, and STC 26 to 28 along Sierra Road and in other portions of the site, will be needed.[5] This

[3] Greene, Rob, "Max Level Intrusive Noise Limit", 1982 National Conference on Environmental and Occupational Noise. Typical maximum is the L_{max30}, obtained by logarithmically averaging the loudest 30-percent of maximum sound levels for 1-hour intervals. For reference, the maximum noise levels from vehicles and sirens measured were 103 dBA at LT-1, 96 dBA at LT-2, and 91 dBA at LT-3.
[4] Fax Transmittal from the City of San Jose Department of Transportation, 20 September 2010.
[5] For reference, typical dual-pane construction-grade windows and sliding glass doors have sound insulation ratings in the range of STC 26 to 28.

assumes exterior walls will be similar to insulated single-stud assemblies with 1-layer of gypsum board on the interior and 3-coat stucco over wood sheeting on the exterior.

b. Dual pane windows and doors with equal glass thicknesses may have resonances that result in audible tones indoors. To help alleviate this potential issue, consider using at least one pane of laminated glass in homes along North Capitol Avenue and Sierra Road. Acoustical test reports for all sound-rated windows and doors should be reviewed by an acoustical consultant, and compared with traffic noise spectrums, prior to installation.

2. Since windows will have to be closed to meet the interior noise criteria, the design must include "a ventilation or air conditioning system to provide a habitable interior environment." This should be discussed with the project mechanical engineer and must not compromise sound insulation.

3. Outdoor noise levels will vary, depending on location and orientation on-site. The City acknowledges that it may not be feasible to achieve the DNL 60 dBA exterior noise goal in areas near major roadways. Due to the proximity of local roadways, VTA Light Rail tracks, and infiltration of ambient noise from I-680, estimated future noise levels exceed DNL 60 dBA across the site. Consider the following:

   a. The common park is partially shielded from North Capitol Avenue by the proposed residences on-site. The estimated future noise level in the park is approximately DNL 65 dBA. Incorporating a 6-foot or taller noise barrier along the park's southwest edge would reduce transportation noise by a few decibels; however it is unlikely to achieve the DNL 60 dBA goal.

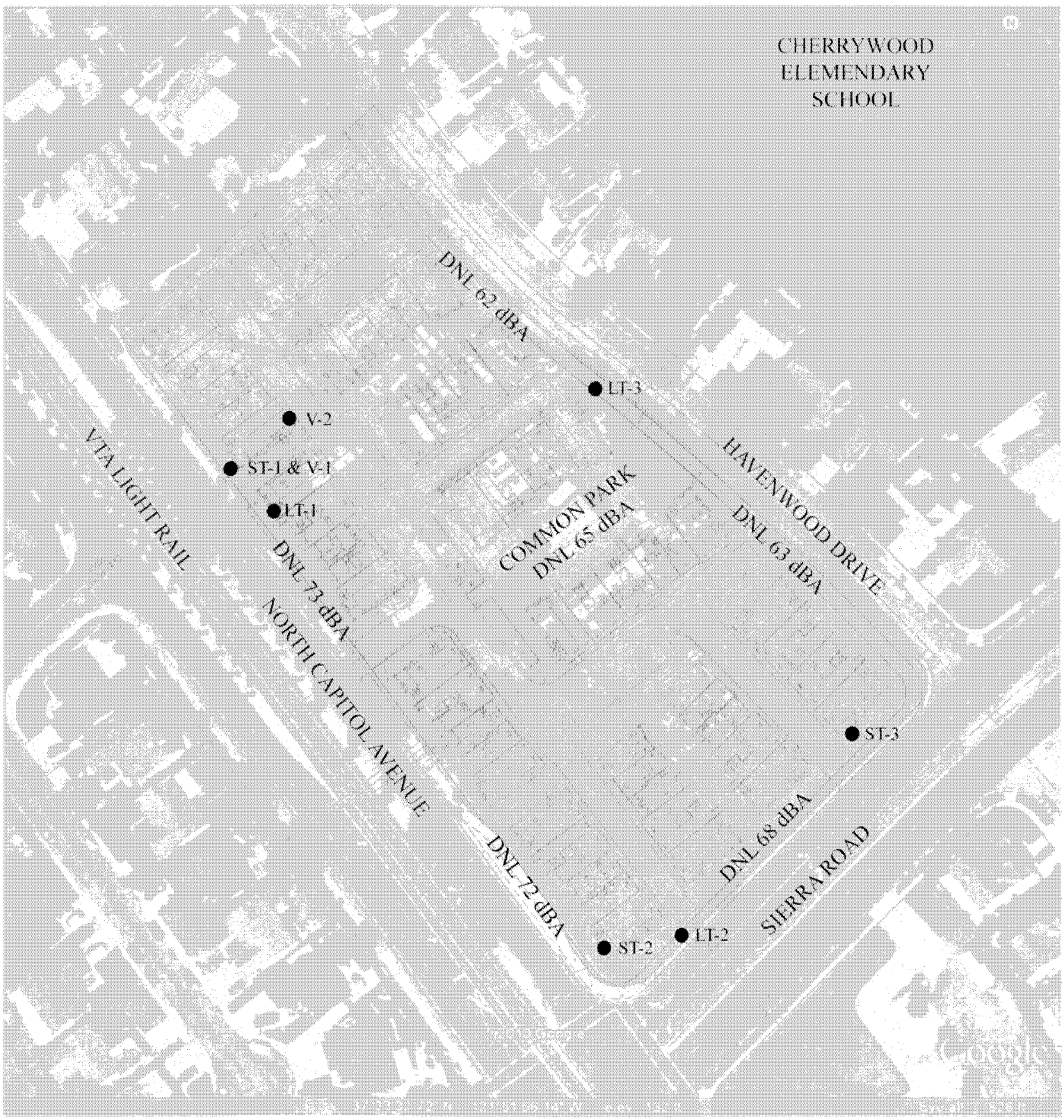
   b. Incorporating 42-inch noise barriers at elevated decks along North Capitol Avenue and Sierra Road would reduce traffic noise to DNL 70 dBA or lower for seated persons on decks. Taller barriers would further reduce noise, but may detract from other benefits of the outdoor space.

   c. Effective barriers should be solid from the bottom to top with no cracks or gaps, and should have a minimum surface density of approximately three pounds per square foot.

Stationary Noise Sources

Stationary noise sources associated with the project may consist of residential air-conditioning units. Units should be selected and located to meet the City's Zoning Ordinance limit of 55 dBA at residential property lines. If needed, additional mitigation measures may consist of equipment barriers and/or enclosures. Details should be determined during the design phase.

* * *



NOTES: DRAWING PROVIDED BY OTHERS
AERIAL PHOTO DOWNLOADED FROM GOOGLE EARTH
NOT TO SCALE
● INDICATES APPROXIMATE NOISE OR VIBRATION MEASUREMENT LOCATION

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NORTH CAPITOL VILLAS
1328 NORTH CAPITOL AVENUE - SAN JOSE, CA
ESTIMATED FUTURE NOISE ENVIRONMENTAL

FIGURE 1

Project No. 10-0356
JMR

Charles M Salter Associates Inc 2033 Gateway Place Suite 500 San Jose California 95110 Tel: 408 295 4944 Fax: 408 295 4949

APPENDIX A

FUNDAMENTAL CONCEPTS OF ENVIRONMENTAL NOISE

This section provides background information to aid in understanding the technical aspects of this report.

Three dimensions of environmental noise are important in determining subjective response. These are:

a) The intensity or level of the sound;
b) The frequency spectrum of the sound; and
c) The time-varying character of the sound.

Airborne sound is a rapid fluctuation of air pressure above and below atmospheric pressure. Sound levels are usually measured and expressed in decibels (dB), with 0 dB corresponding roughly to the threshold of hearing.

The "frequency" of a sound refers to the number of complete pressure fluctuations per second in the sound. The unit of measurement is the cycle per second (cps) or hertz (Hz). Most of the sounds which we hear in the environment do not consist of a single frequency, but of a broad band of frequencies, differing in level. The name of the frequency and level content of a sound is its sound spectrum. A sound spectrum for engineering purposes is typically described in terms of octave bands, which separate the audible frequency range (for human beings, from about 20 to 20,000 Hz) into ten segments.

Many rating methods have been devised to permit comparisons of sounds having quite different spectra. Surprisingly, the simplest method correlates with human response practically as well as the more complex methods. This method consists of evaluating all of the frequencies of a sound in accordance with a weighting that progressively de-emphasizes the importance of frequency components below 1000 Hz and above 5000 Hz. This frequency weighting reflects the fact that human hearing is less sensitive at low frequencies and at extreme high frequencies relative to the mid-range.

The weighting system described above is called "A"-weighting, and the level so measured is called the "A-weighted sound level" or "A-weighted noise level." The unit of A-weighted sound level is sometimes abbreviated "dBA." In practice, the sound level is conveniently measured using a sound level meter that includes an electrical filter corresponding to the A-weighting characteristic. All U.S. and international standard sound level meters include such a filter.

Although a single sound level value may adequately describe environmental noise at any instant in time, community noise levels vary continuously. Most environmental noise is a conglomeration of distant noise sources, which results in a relatively steady background noise having no identifiable source. These distant sources may include traffic, wind in trees, industrial activities, etc. and are relatively constant from moment to moment. As natural forces change or as human activity follows its daily cycle, the sound level may vary slowly from hour to hour. Superimposed on this slowly varying background is a succession of identifiable noisy events of brief duration. These may include nearby activities such as single vehicle passbys, aircraft flyovers, etc. which cause the environmental noise level to vary from instant to instant.

To describe the time-varying character of environmental noise, statistical noise descriptors were developed. "L_{10}" is the A-weighted sound level equaled or exceeded during 10 percent of a stated time period. The L_{10} is considered a good measure of the maximum sound levels caused by discrete noise events. "L_{50}" is the A-weighted sound level that is equaled or exceeded 50 percent of a stated time period; it represents the median sound level. The "L_{90}" is the A-weighted sound level equaled or exceeded during 90 percent of a stated time period and is used to describe the background noise.

As it is often cumbersome to quantify the noise environment with a set of statistical descriptors, a single number called the average sound level or "L_{eq}" is now widely used. The term "L_{eq}" originated from the concept of a so-called equivalent sound level which contains the same acoustical energy as a varying sound level during the same time period. In simple but accurate technical language, the L_{eq} is the average A-weighted sound level in a stated time period. The L_{eq} is particularly useful in describing the subjective change in an environment where the source of noise remains the same but there is change in the level of activity. Widening roads and/or increasing traffic are examples of this kind of situation.

In determining the daily measure of environmental noise, it is important to account for the different response of people to daytime and nighttime noise. During the nighttime, exterior background noise levels are generally lower than in the daytime; however, most household noise also decreases at night, thus exterior noise intrusions again become noticeable. Further, most people trying to sleep at night are more sensitive to noise.

To account for human sensitivity to nighttime noise levels, a special descriptor was developed. The descriptor is called the DNL (Day/Night Average Sound Level), which represents the 24-hour average sound level with a penalty for noise occurring at night.

The DNL computation divides the 24-hour day into two periods: daytime (7:00 am to 10:00 pm); and nighttime (10:00 pm to 7:00 am). The nighttime sound levels are assigned a 10 dB penalty prior to averaging with daytime hourly sound levels. For highway noise environments, the average noise level during the peak hour traffic volume is approximately equal to the DNL.

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

a) Subjective effects of annoyance, nuisance, dissatisfaction;
b) Interference with activities such as speech, sleep, and learning; and
c) Physiological effects such as startle, hearing loss.

The sound levels associated with environmental noise usually produce effects only in the first two categories. Unfortunately, there has never been a completely predictable measure for the subjective effects of noise nor of the corresponding reactions of annoyance and dissatisfaction. This is primarily because of the wide variation in individual thresholds of annoyance and habituation to noise over time.

Thus, an important factor in assessing a person's subjective reaction is to compare the new noise environment to the existing noise environment. In general, the more a new noise exceeds the existing, the less acceptable the new noise will be judged.

With regard to increases in noise level, knowledge of the following relationships will be helpful in understanding the quantitative sections of this report:

a) Except in carefully controlled laboratory experiments, a change of only 1 dB in sound level cannot be perceived.

b) Outside of the laboratory, a 3 dB change is considered a just-noticeable difference.

c) A change in level of at least 5 dB is required before any noticeable change in community response would be expected.

d) A 10 dB change is subjectively heard as approximately a doubling in loudness, and would almost certainly cause an adverse community response.

A-WEIGHTED
SOUND PRESSURE LEVEL,
IN DECIBELS

	140	
	130	THRESHOLD OF PAIN
CIVIL DEFENSE SIREN (100')		
JET TAKEOFF (200')	120	
RIVETING MACHINE	110	
		ROCK MUSIC BAND
DIESEL BUS (15')	100	PILEDRIVER (50')
		AMBULANCE SIREN (100')
BAY AREA RAPID TRANSIT TRAIN PASSBY (10')	90	BOILER ROOM
OFF HIGHWAY VEHICLE (50')	80	PRINTING PRESS PLANT
PNEUMATIC DRILL (50')		GARBAGE DISPOSAL IN THE HOME
SF MUNI LIGHT-RAIL VEHICLE (35')	70	INSIDE SPORTS CAR, 50 MPH
FREIGHT CARS (100')		
VACUUM CLEANER (10')	60	
SPEECH (1')		DATA PROCESSING CENTER
	50	DEPARTMENT STORE
		PRIVATE BUSINESS OFFICE
LARGE TRANSFORMER (200')	40	LIGHT TRAFFIC (100')
AVERAGE RESIDENCE		
	30	TYPICAL MINIMUM NIGHTTIME LEVELS--RESIDENTIAL AREAS
SOFT WHISPER (5')		
	20	
RUSTLING LEAVES		RECORDING STUDIO
	10	
THRESHOLD OF HEARING		MOSQUITO (3')
	0	

(100') = DISTANCE IN FEET BETWEEN SOURCE AND LISTENER

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TYPICAL SOUND LEVELS MEASURED IN THE ENVIRONMENT AND INDUSTRY

FIGURE 2

11.07 11.25.03

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HEXAGON TRANSPORTATION CONSULTANTS, INC.

North Capitol Villas

Transportation Impact Analysis

Prepared for:

Trumark Companies

April 7, 2011

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Report Author: Brian Jackson
Job Number: 10BJ15
Client Name: Trumark Companies
Document Name: NCapitolVillas_TIA_7Apr2011.docx

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Arterial Circulation Plans Corridor Studies Pavement Delineation Plans Traffic Handling Plans Impact Fees Interchange Analysis Parking Studies Transportation Planning Neighborhood Traffic Calming Traffic Operations Traffic Impact Analysis Traffic Signal Design Travel Demand Forecasting

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Executive Summary

This report presents the results of the Traffic Impact Analysis (TIA) for a proposed residential development on North Capitol Avenue in San Jose, California. The project site is located on the northeast corner of North Capitol Avenue and Sierra Road. The project as proposed would replace a former searchlight rental and sales company and one existing single-family home with 96 townhomes. The site currently is underutilized and generates a very small number of trips from the sale of firewood, as well as seasonal pumpkin and Christmas tree sales. For that reason, no trip credits for the existing uses were applied. One driveway on North Capitol Avenue and one on Sierra Road would provide right-turn only access to and from the project site. Havenwood Drive would not provide access to the site.

The potential impacts of the project were evaluated in accordance with the standards set forth by the City of San Jose. The study included the analysis of AM and PM peak hour traffic conditions for 4 signalized intersections. Project impacts on other transportation facilities, such as bicycle facilities and transit services, were determined on the basis of engineering judgment.

Project Trip Generation

The standard City of San Jose rates detailed in the *San Jose Traffic Impact Analysis Handbook, August 2008*, were applied to the project. Based on the residential rates recommended by the City of San Jose, the project would generate 720 gross daily vehicle trips, with 72 gross trips occurring during both the AM and PM peak hours. Since the project site is located within walking distance (less than 2,000 feet) of a Light Rail Transit (LRT) station, the total number of trips generated by the project can be reduced by 9 percent, according to the *Congestion Management Program TIA Analysis Guidelines, March 2009*. Thus, the project would generate 655 net daily trips, with 66 net trips occurring during both the AM and PM peak hours. Using the inbound/outbound splits recommended by the City of San Jose, the project would produce 23 net inbound and 43 net outbound trips during the AM peak hour, and 43 net inbound and 23 net outbound trips during the PM peak hour.

Intersection Level of Service Analysis

Table ES-1 summarizes the results of the signalized intersection level of service analysis. The results of the analysis show that, measured against the City of San Jose level of service impact criteria, none of the study intersections would be significantly impacted by the project.

Other Transportation Issues

The project would not have an adverse effect on existing transit, bicycle or pedestrian facilities in the study area.

Table ES-1
Intersection Level of Service Summary

Study Number	Intersection	Peak Hour	Existing Avg Delay	Existing LOS	Existing + Project Avg Delay	Existing + Project LOS	Background Avg Delay	Background LOS	Background + Project Avg Delay	Background + Project LOS	Incr. In Crit. Delay	Incr. In Crit. V/C
1	N Capitol Av / Hostetter Rd	AM	51.3	D	51.6	D	52.3	D	52.6	D	0.2	0.003
		PM	47.0	D	47.3	D	47.5	D	47.7	D	0.2	0.006
2	N Capitol Av / Sierra Rd	AM	15.8	B	16.2	B	15.7	B	16.1	B	0.6	0.017
		PM	13.4	B	16.8	B	13.4	B	16.7	B	7.1	0.029
3	N Capitol Av / Berryessa Rd	AM	64.4	E	65.6	E	74.3	E	75.8	E	2.5	0.008
		PM	43.2	D	43.3	D	45.1	D	45.2	D	0.0	0.001
4	I-680 NB Off-Ramp / Berryessa Rc	AM	12.7	B	12.8	B	12.3	B	12.4	B	0.1	0.002
		PM	17.7	B	17.8	B	18.0	B	18.0	B	0.1	0.004

Site Access and Circulation Recommendations

- The project applicant should work closely with City staff to determine the appropriate drive aisle widths throughout the site.
- The on-site parking stall lengths should meet the City of San Jose off-street parking design standards.

1. Introduction

This report presents the results of the Traffic Impact Analysis (TIA) for a proposed residential development on North Capitol Avenue in San Jose, California. The project site is located on the northeast corner of North Capitol Avenue and Sierra Road. The project as proposed would replace a former searchlight rental and sales company and one existing single-family home with 96 townhomes. The site currently is underutilized and generates a very small number of trips from the sale of firewood, as well as seasonal pumpkin and Christmas tree sales. For that reason, no trip credits for the existing uses were applied. One driveway on North Capitol Avenue and one on Sierra Road would provide right-turn only access to and from the project site. Havenwood Drive would not provide access to the site. The project site and surrounding study area are shown on Figure 1. The conceptual site plan is shown on Figure 2.

Scope of Study

This study was conducted for the purpose of identifying potential traffic impacts related to the proposed development. The impacts of the project were evaluated following the standards and methodologies set forth by the City of San Jose. Since the project would generate fewer than 100 peak hour vehicle trips, an analysis in accordance with the VTA's Congestion Management Program (CMP) guidelines are not required. The study determined the short-term traffic impacts of the proposed development on the following four signalized intersections in the vicinity of the project site during the weekday AM and PM peak periods of traffic:

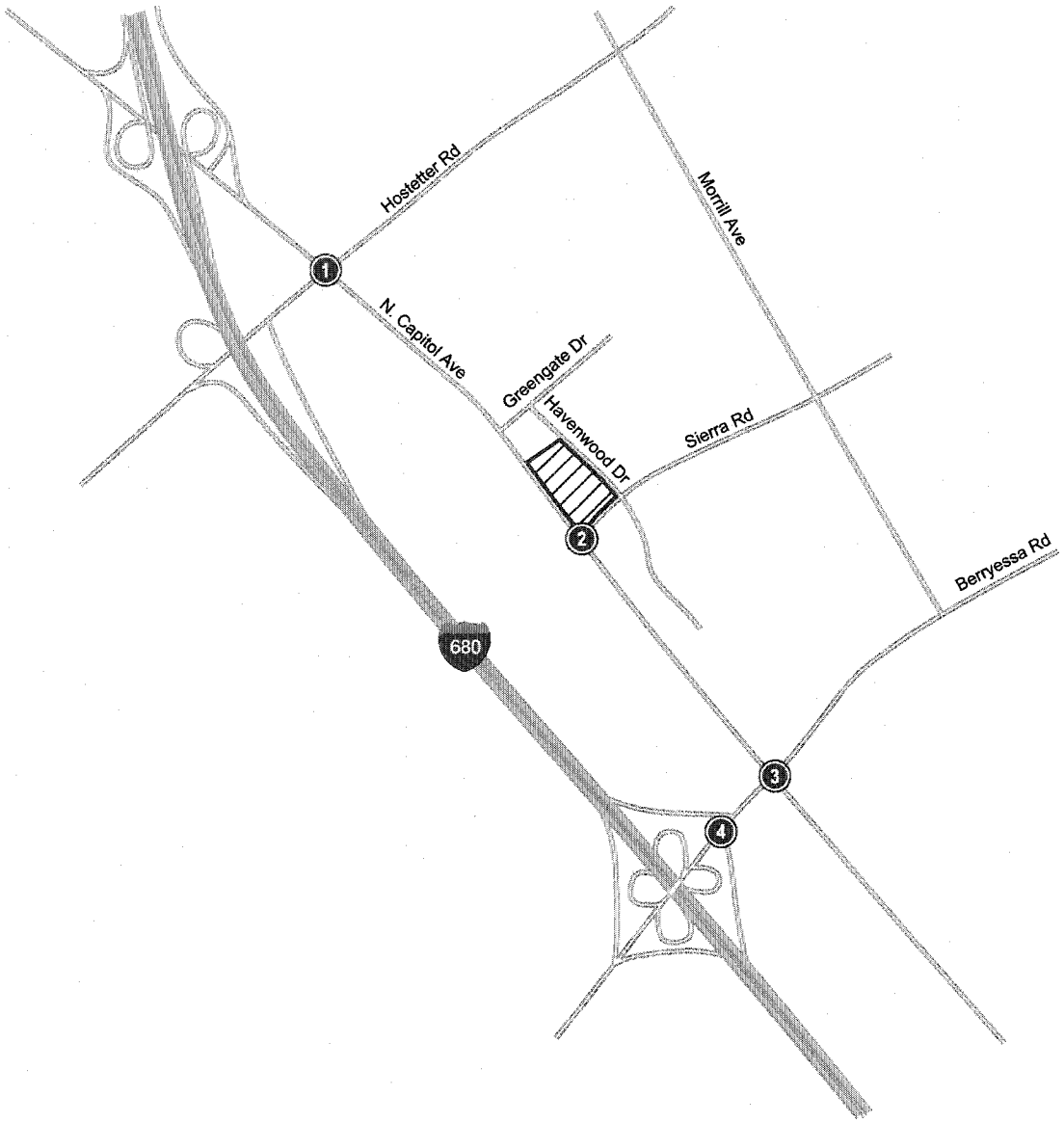
1. North Capitol Avenue and Hostetter Road
2. North Capitol Avenue and Sierra Road
3. North Capitol Avenue and Berryessa Road
4. I-680 Northbound Off-Ramp and Berryessa Road

Traffic conditions at the study intersections were analyzed for the weekday AM and PM peak hours of traffic. The AM peak hour of traffic is generally between 7:00 and 9:00 AM, and the PM peak hour is typically between 4:00 and 6:00 PM. It is during these periods on an average day that the most congested traffic conditions occur.

Traffic conditions were evaluated for the following scenarios:

Scenario 1: *Existing Conditions.* Existing traffic volumes were obtained from the City of San Jose and supplemented with new turning-movement counts conducted in October 2010.

Scenario 2: *Existing Plus Project Conditions.* Existing plus project peak hour traffic volumes were estimated by adding to existing traffic volumes the additional traffic generated by the project. Existing plus project conditions were evaluated relative to existing conditions in order to determine potential project impacts.



LEGEND

= Site Location

= Study Intersection

Figure 1
Project Site Location

NORTH
Not to Scale

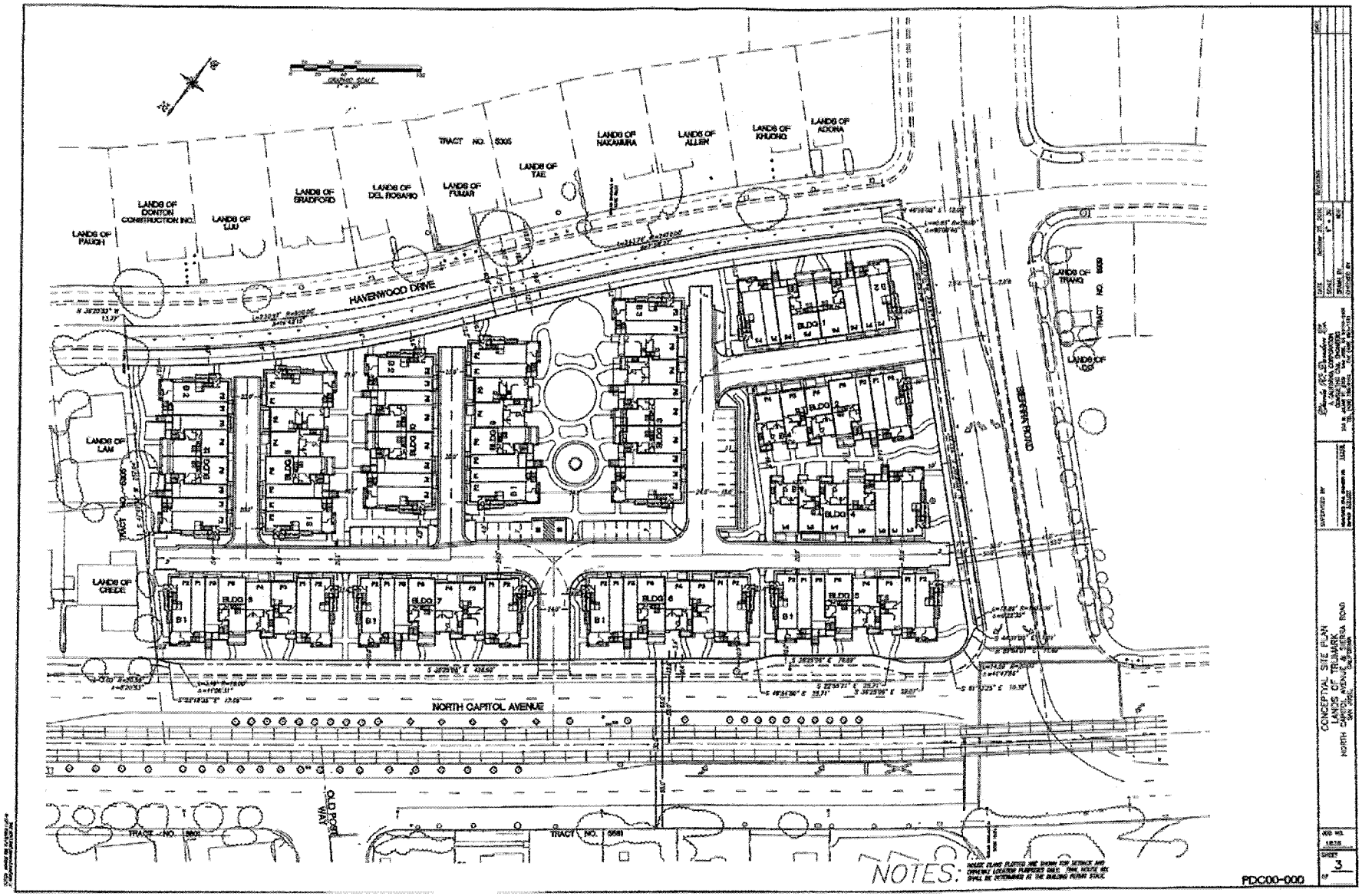


Figure 2
Conceptual Site Plan

Scenario 3: *Background Conditions.* Background traffic volumes were estimated by adding to existing peak hour volumes the projected volumes from approved but not yet completed developments. The added traffic from approved but not yet completed developments was provided by the City of San Jose in the form of the Approved Trips Inventory (ATI).

Scenario 4: *Background Plus Project Conditions.* Projected peak hour traffic volumes with the project were estimated by adding to background traffic volumes the additional traffic generated by the project. Background plus project conditions were evaluated relative to background conditions in order to determine potential project impacts.

Methodology

This section describes the methods used to determine the traffic conditions for each scenario described above. It includes descriptions of the data requirements, the analysis methodologies, and the applicable level of service standards.

Data Requirements

The data required for the analysis were obtained from new traffic counts, the City of San Jose, and field observations. The following data were collected from these sources:

- existing traffic volumes
- approved project trips
- intersection lane configurations
- signal timing and phasing

Analysis Methodologies and Level of Service Standards

Traffic conditions at the study intersections were evaluated using level of service (LOS). *Level of Service* is a qualitative description of operating conditions ranging from LOS A, or free-flow conditions with little or no delay, to LOS F, or jammed conditions with excessive delays. The various analysis methods are described below.

City of San Jose Intersections

The City of San Jose level of service methodology for signalized intersections is the 2000 *Highway Capacity Manual* (HCM) method. This method is applied using the TRAFFIX software. The 2000 HCM operations method evaluates signalized intersection operations on the basis of average control delay time for all vehicles at the intersection. Since TRAFFIX is also the CMP-designated intersection level of service methodology, the City of San Jose methodology employs the CMP default values for the analysis parameters. The City of San Jose level of service standard for signalized intersections is LOS D or better. The correlation between average control delay and level of service is shown in Table 1.

Intersection Operations

The operations analysis is based on vehicle queuing for high-demand turn movements at intersections. Vehicle queues are estimated using a Poisson probability distribution, which estimates the probability of "n" vehicles for a vehicle movement using the following formula:

$$P(x=n) = \frac{\lambda^n e^{-(\lambda)}}{n!}$$

where:

P (x=n) = probability of "n" vehicles in queue per lane
n = number of vehicles in the queue per lane
λ = Avg. # of vehicles in the queue per lane (vehicles per hr per lane/signal cycles per hr)

The basis of the analysis is as follows: (1) the Poisson probability distribution is used to estimate the 95th percentile maximum number of queued vehicles per signal cycle for a particular movement; (2) the

estimated maximum number of vehicles in the queue is translated into a queue length, assuming 25 feet per vehicle; and (3) the estimated maximum queue length is compared to the existing or planned available storage capacity for the movement. This analysis thus provides a basis for estimating future left-turn storage requirements at signalized intersections.

Table 1
Intersection Level of Service Definitions Based on Average Delay

Level of Service	Description	Average Control Delay Per Vehicle (sec.)
A	Signal progression is extremely favorable. Most vehicles arrive during the green phase and do not stop at all. Short cycle lengths may also contribute to the very low vehicle delay.	10.0 or less
B	Operations characterized by good signal progression and/or short cycle lengths. More vehicles stop than with LOS A, causing higher levels of average vehicle delay.	10.1 to 20.0
C	Higher delays may result from fair signal progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant, though may still pass through the intersection without stopping.	20.1 to 35.0
D	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable signal progression, long cycle lenghts, or high volume-to-capacity (V/C) ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 55.0
E	This is considered to be the limit of acceptable delay. These high delay values generally indicate poor signal progression, long cycle lengths, and high volume-to-capacity (V/C) ratios. Individual cycle failures occur frequently.	55.1 to 80.0
F	This level of delay is considered unacceptable by most drivers. This condition often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. Poor progression and long cycle lengths may also be major contributing causes of such delay levels.	greater than 80.0

Source: Transportation Research Board, *2000 Highway Capacity Manual* (Washington, D.C., 2000) p10-16.

The 95th percentile queue length value indicates that during the peak hour, a queue of this length or <u>less</u> would occur on 95 percent of the signal cycles. Or, a queue length larger than the 95th percentile queue would only occur on 5 percent of the signal cycles (about 3 cycles during the peak hour for a signal with a 60-second cycle length). Therefore, left-turn storage pocket designs based on the 95th percentile queue length would ensure that storage space would be exceeded only 5 percent of the time. The 95th percentile queue length is also known as the "design queue length."

Freeways

According to CMP guidelines, an analysis of freeway segment levels of service is required if a project is estimated to add trips to a freeway segment equal to or greater than one percent of the capacity of that segment. Since the number of peak hour project trips added to the freeways in the study area is estimated to be well below the one-percent threshold (see Table 2), a detailed analysis of freeway segment levels of service was not performed.

Table 2
Freeway Segment Capacity Evaluation

Freeway	Segment	Direction	# of Mixed Flow Lanes	Capacity[1] (vphpl)	1% of Capacity	Peak Hour	Project Trips
I-680	McKee Rd to Berryessa Rd	NB	4	9200	92	AM	5
						PM	9
I-680	Capitol Av to Montague Expwy	NB	4	9200	92	AM	11
						PM	6
I-680	Montague Expwy to Capitol Av	SB	4	9200	92	AM	6
						PM	11
I-680	Berryessa Rd to McKee Rd	SB	4	9200	92	AM	9
						PM	5

Notes:
[1] Capacity was based on the ideal capacity cited in the *2000 Highway Capacity Manual.*

Report Organization

The remainder of this report is divided into five chapters. Chapter 2 describes existing conditions including the existing roadway network, transit service, and existing bicycle and pedestrian facilities. Chapter 3 presents the intersection operations under existing plus project conditions and describes the method used to estimate project traffic. Chapter 4 presents the intersection operations under background conditions. Chapter 5 presents the intersection operations under background plus project conditions and describes the project's impact on the near-term transportation system when the project is expected to be fully occupied. Chapter 6 describes non-level-of-service operational issues associated with the proposed project. Chapter 7 presents the conclusions of the traffic impact analysis.

2. Existing Conditions

This chapter describes the existing conditions for all of the major transportation facilities in the vicinity of the site, including the roadway network, transit service, and bicycle and pedestrian facilities. Also included are the existing levels of service of the key intersections in the study area.

Existing Roadway Network

Regional access to the project site is provided by I-680. Local access to the project site is provided via North Capitol Avenue, Berryessa Road, Sierra Road and Hostetter Road. These facilities are described below.

I-680 is a north/south freeway that extends from Contra Costa County south to Santa Clara County, where it connects to I-280 at its interchange with US 101. I-680 has six lanes north of SR 237 and eight lanes south of SR 237. I-680 does not contain HOV lanes in the project study area. I-680 provides access to the site via interchanges at Berryessa Road, Hostetter Road and North Capitol Avenue.

North Capitol Avenue is a north-south four-lane divided arterial with a LRT line within the center median in the study area. North Capitol Avenue has sidewalks and bike lanes on both sides of the street, and has a posted speed limit of 40 mph. North Capitol Avenue provides direct access to the project site. To the north, North Capitol Avenue transitions into Great Mall Parkway north of Montague Expressway in the City of Milpitas. To the south, North Capitol Avenue becomes South Capitol Avenue south of Alum Rock Avenue and then terminates at Capitol Expressway.

Berryessa Road is an east-west arterial that begins where it transitions from Suncrest Avenue at its intersection with Piedmont Road. Berryessa Road is a six lane roadway in the vicinity of the project site, and narrows to four lanes west of King Road where it becomes Hedding Street after crossing over US 101. Berryessa Road has a posted speed limit of 40 mph, and contains bike lanes on both sides of the street. There are sidewalks on both sides of the street, except for the segment between Jackson Avenue and I-680 where there are no sidewalks on the south side of the street. Berryessa Road provides access to the project site via North Capitol Avenue.

Sierra Road is an east-west oriented roadway with sidewalks on both sides and a posted speed limit of 35 mph. Sierra Road is a four-lane divided roadway that provides direct access to the site. Sierra Road begins at North Capitol Avenue and extends eastward into the east foothills north of Alum Rock Park.

Hostetter Road is an east-west oriented arterial with sidewalks on both sides of the road. Hostetter Road is a four-lane divided roadway with a posted speed limit of 35 mph on the east side of North Capitol Avenue. West of North Capitol Avenue, Hostetter Road is a six-lane divided roadway with bike lanes and a posted speed limit of 40 mph. Hostetter Road provides access to the project site via North Capitol Avenue.

Existing Bicycle and Pedestrian Facilities

Class II bicycle facilities (bike lanes) are provided along the following roadways in the study area:

- Capitol Avenue from Capitol Expressway to Milpitas via Great Mall Parkway
- Berryessa Road between North Capitol Avenue and North 17th Street
- Hostetter Road between Sierra Creek Way and Ridder Park Drive, except for the segment of Hostetter between Morrill Avenue and North Capitol Avenue

South of Berryessa Road is the Penitencia Creek Trail (Santa Clara County Class I bikeway), a four mile multi-use trail providing access to Penitencia Creek Park and Alum Rock Park. Between Alum Rock Park and Noble Avenue, trail users must use the road shoulder. This is also the case between Noble Avenue and White Road/Piedmont Road; however, sidewalks and bike paths fill in the trail gaps. The trail from White Road/Piedmont Road to Jackson Avenue/Mabury Road is continuous, except for the on street crossings at North Capitol Avenue and Jackson Avenue.

The existing bicycle facilities are shown graphically on Figure 3.

Pedestrian facilities in the study area consist of sidewalks along the surrounding streets, as well as the previously mentioned multi-use off-street path. Currently, there are no sidewalks adjacent to the project site on Havenwood Drive. Crosswalks with pedestrian signal heads are located at all signalized intersections in the study area.

Existing Transit Services

Existing transit services to the study area are provided by the VTA (see Figure 4).

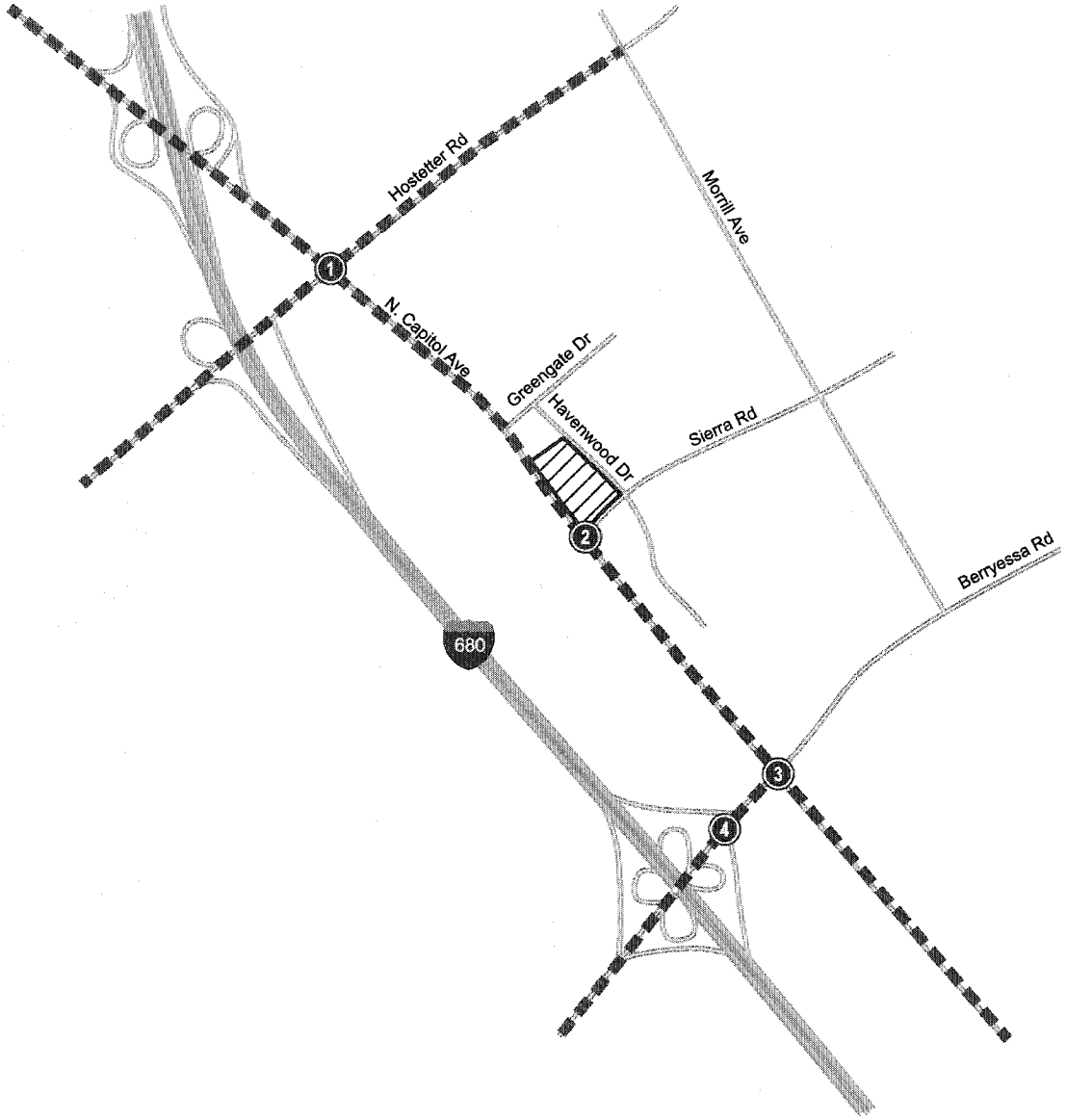
VTA Bus Service

Local Route 61 provides service between Good Samaritan Hospital and Piedmont Avenue. Route 61 operates along North Capitol Avenue and Sierra Road in the project study area, with 30-minute headways during the weekday peak commute hours and 60-minute headways during most of the day on weekends. A bus stop for Route 61 is located on Sierra Road approximately 600 feet east of the project site near Lodestone Drive. Additional Route 61 bus stops are located approximately 500 feet and 1,500 feet south of the site on North Capitol Avenue for the southbound and northbound directions, respectively. Route 61 also stops at the Penitencia Creek Transit Center.

Local Route 62 provides service between Good Samaritan Hospital and Piedmont Avenue. Route 62 operates along Berryessa Road in the project study area, with 30-minute headways during the weekday peak commute hours and 60-minute headways during most of the day on weekends. Route 62 stops at the North Capitol Avenue/Berryessa Road intersection. An additional bus stop for Route 62 is located approximately 1,500 feet south of the site on North Capitol Avenue near the Berryessa LRT station.

Local Route 70 provides service between the Capitol LRT station and the Great Mall/Main Transit Center. Route 70 operates along Hostetter Road and Morrill Avenue in the project study area, with 15-minute headways during the weekday peak commute hours and 20- to 30-minute headways during most of the day on weekends. Route 70 provides service to the Hostetter Transit Center, located approximately 1,500 feet north of the project site.

Express Route 104 provides service between the Penitencia Creek Transit Center and Palo Alto, with a stop located approximately 2,000 feet from the project site at the intersection of Morrill Avenue and Ione Drive. Express Route 104 operates on weekdays only between the hours of 6:00 AM and 8:00 AM in the westbound direction, and again between the hours of 3:00 PM and 6:00 PM in the eastbound direction. Express Route 104 stops twice at each bus stop during the weekday hours of operation.



LEGEND

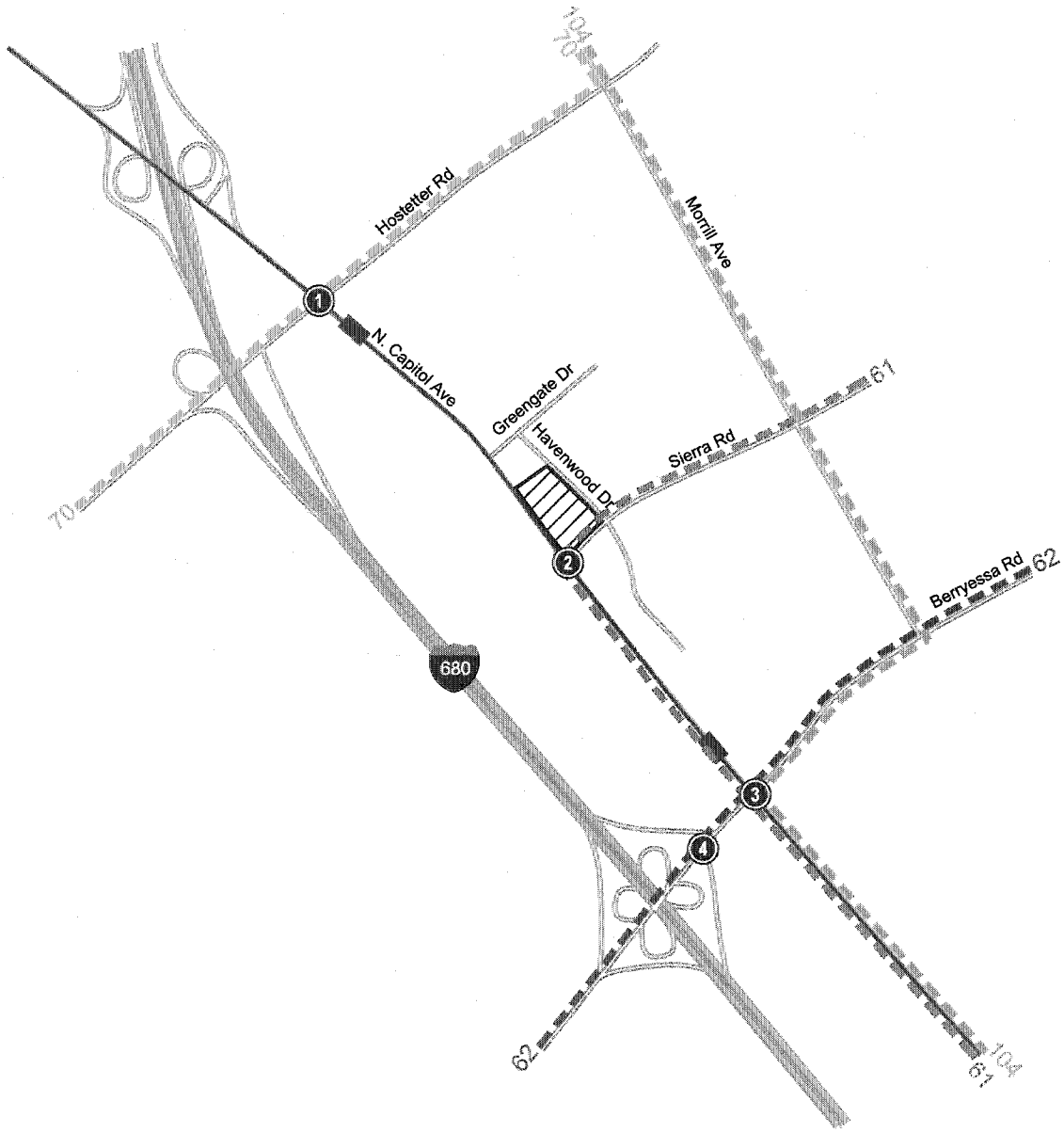
= Site Location

= Study Intersection

= Bike Lanes (Class II)

Figure 3
Existing Bicycle Facilities

NORTH
Not to Scale



LEGEND

= Site Location

= Study Intersection

= Alum Rock-Santa Teresa LRT Line

= Bus Route

Figure 4
Existing Transit Service

NORTH
Not to Scale

VTA Light Rail Transit (LRT) Service

The Alum Rock-Santa Teresa LRT line operates along North Capitol Avenue (Capitol Corridor) in the study area. The VTA provides LRT service nearly 24 hours a day (4:00 AM to 2:00 AM) with 15-minute headways during peak commute and midday hours. The Alum Rock-Santa Teresa LRT line provides service from the Santa Teresa station in south San Jose, through downtown San Jose to north San Jose, where it curves east and operates along the Tasman Corridor, bends south and runs along the Capitol Corridor, and ultimately terminates in east San Jose just south of Alum Rock Avenue.

The Hostetter LRT station is located approximately 1,500 feet north of the project site and the Berryessa LRT station is located about 1,500 feet south of the site. The Hostetter LRT station offers bicycle lockers while the Berryessa LRT station does not.

Existing Intersection Lane Configurations

The existing lane configurations at the study intersections were confirmed by observations in the field and are shown on Figure 5.

Existing Traffic Volumes

Existing peak hour traffic volumes were obtained from the City of San Jose and supplemented with new 2010 manual turning-movement counts at intersections where counts were more than approximately two years old. The existing peak hour intersection volumes are shown on Figure 6.

New intersection count data are contained in Appendix A.

Existing Intersection Levels of Service

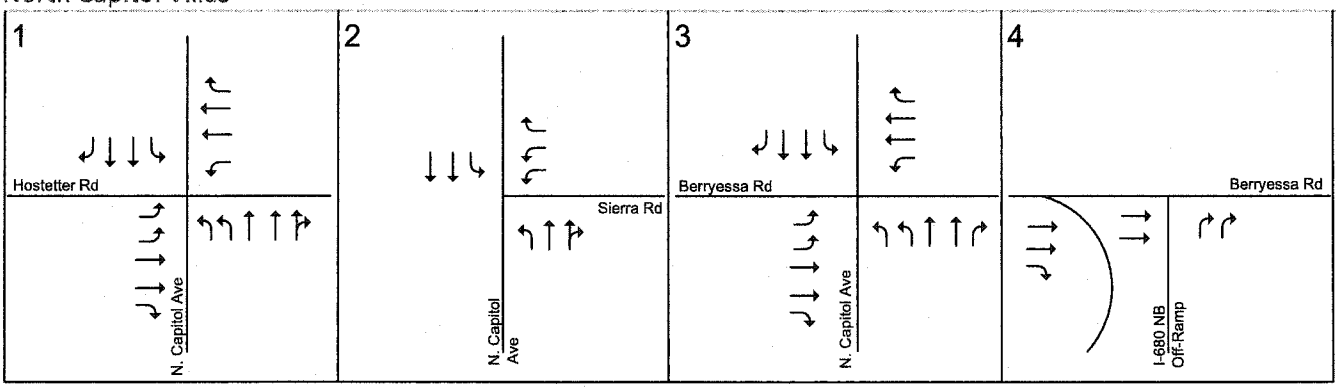
The results of the intersection level of service analysis under existing conditions are summarized below in Table 3. The results show that, based on the City of San Jose standards, the intersection of North Capitol Avenue and Berryessa Road currently operates at an unacceptable LOS E during the AM peak hour of traffic. The remaining study intersections currently operate at acceptable levels of service (LOS D or better) during both the AM and PM peak hours of traffic.

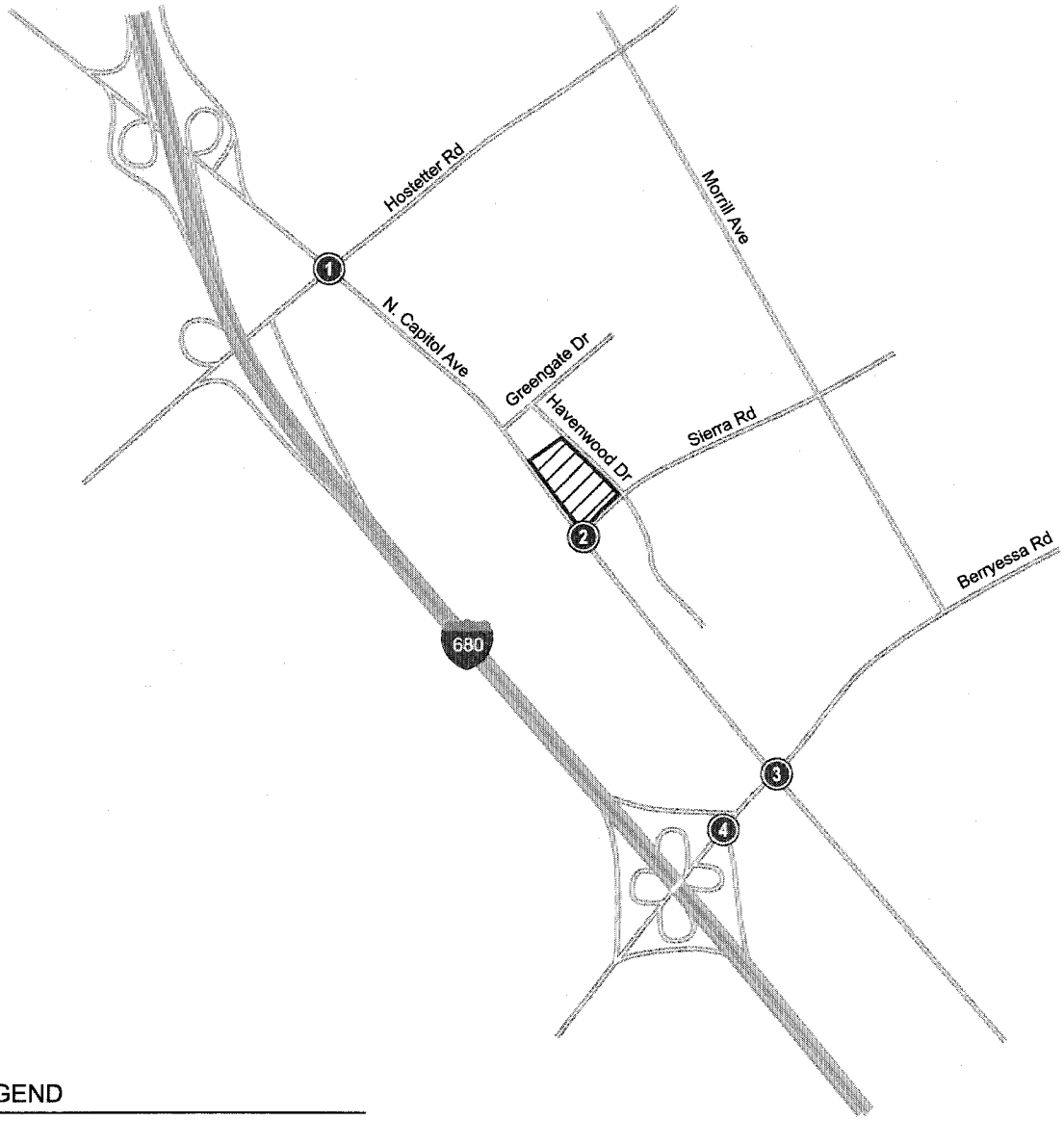
The intersection level of service calculation sheets are included in Appendix D.

Table 3
Existing Intersection Levels of Service

Study Number	Intersection	Peak Hour	Count Date	Avg Delay	LOS
1	N Capitol Av / Hostetter Rd	AM	04/02/09	51.3	D
		PM	04/02/09	47.0	D
2	N Capitol Av / Sierra Rd	AM	10/13/10	15.8	B
		PM	10/13/10	13.4	B
3	N Capitol Av / Berryessa Rd	AM	03/17/09	64.4	E
		PM	03/17/09	43.2	D
4	I-680 NB Off-Ramp / Berryessa Rd	AM	10/13/10	12.7	B
		PM	10/13/10	17.7	B

North Capitol Villas





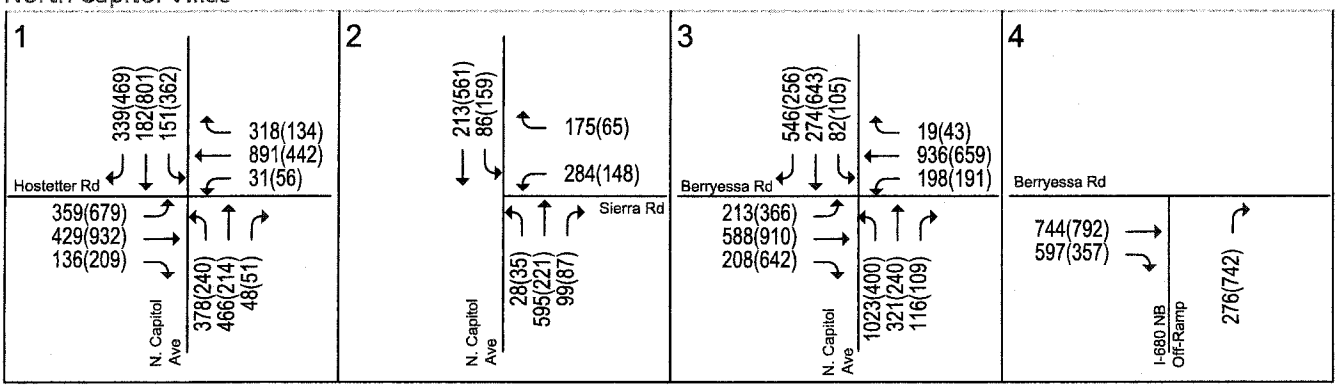
LEGEND

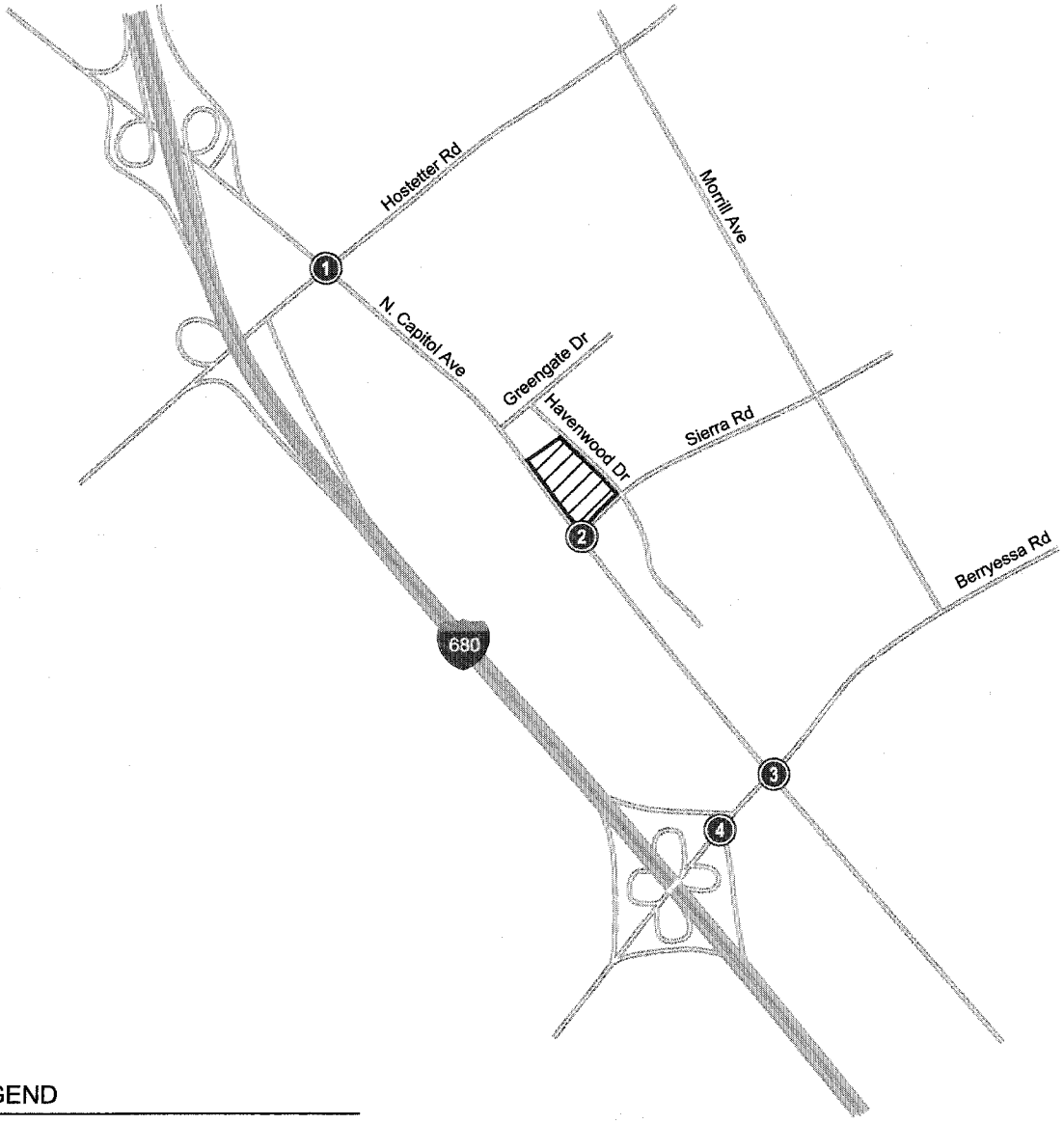
= Site Location

= Study Intersection

Figure 5
Existing Lane Configurations

North Capitol Villas





LEGEND

= Site Location

= Study Intersection

XX(XX) = AM(PM) Peak-Hour Traffic Volumes

Figure 6
Existing Traffic Volumes

Hexagon Transportation Consultants, Inc.

NORTH
Not to Scale

Observed Existing Traffic Conditions

Traffic conditions were observed in the field between 7:30 – 9:00 AM and between 4:30 – 6:00 PM to identify existing operational deficiencies and to confirm the accuracy of calculated levels of service. The purpose of this effort was (1) to identify any existing traffic problems that may not be directly related to level of service, and (2) to identify any locations where the level of service analysis does not accurately reflect actual existing traffic conditions.

Field observations revealed that overall the study intersections operate well, and the AM and PM peak hour level of service calculations accurately reflect existing conditions. However, field operations did reveal the following operational issues:

North Capitol Avenue and Berryessa Road

During the AM peak hour, the long northbound left-turn vehicle queues on North Capitol Avenue regularly spill out of the dual left-turn pocket. Although the maximum green time provided for the northbound left-turn movement is quite long, it usually takes two signal cycles for all of the queued vehicles to clear the intersection. The main reason this occurs is due to the imbalance in lane usage. The majority of vehicles turning left onto westbound Berryessa Road intend to enter northbound I-680. Since the freeway on-ramp is so close to the North Capitol Avenue/Berryessa Road intersection, vehicles are forced to use the outside left-turn lane so they can access the I-680 on-ramp. The inside northbound left-turn lane is underutilized.

During the PM peak hour, the eastbound through-movement vehicle queues on Berryessa Road frequently extend past the I-680 off-ramp. As a result, it occasionally takes two signal cycles for all of the queued vehicles to clear the North Capitol Avenue/Berryessa Road intersection. Vehicles on the I-680 off-ramp are not affected.

North Capitol Avenue and Hostetter Road

During the PM peak hour, the long southbound left-turn vehicle queues on North Capitol Avenue regularly spill out of the single left-turn pocket. Although the maximum green time provided for the southbound left-turn movement is extensive, it usually takes two signal cycles for all of the queued vehicles to clear the intersection. The southbound through movement on North Capitol Avenue is not affected when vehicles spill out of the left-turn pocket.

No noteworthy operational problems were observed at the remaining study intersections during either the AM or PM peak commute periods.

3. Existing Plus Project Conditions

This chapter describes existing plus project traffic conditions, including the method by which project traffic is estimated. Existing plus project traffic conditions could potentially exist if the project was constructed and occupied prior to the other approved projects in the area. It is unlikely that this traffic condition would occur, since other approved projects expected to add traffic to the study area would likely be built and occupied during the time the project is going through the development review and construction process. This scenario describes a less congested traffic condition, since it ignores any potential traffic from prior approvals. Existing plus project conditions also does not include any planned and funded roadway improvements that have not been constructed.

This traffic analysis assumes the project would include the construction of 96 townhomes on the northeast corner of North Capitol Avenue and Sierra Road. One driveway on North Capitol Avenue and one on Sierra Road would provide right-turn only access to and from the project site. The site currently is underutilized and generates a very small number of trips from the sale of firewood, as well as seasonal pumpkin and Christmas tree sales. For that reason, no trip credits for the existing uses were applied.

Transportation Network Under Existing Plus Project Conditions

It is assumed in this analysis that the transportation network under existing plus project conditions would be the same as the existing transportation network.

Project Trip Estimates

The magnitude of traffic produced by a new development and the locations where that traffic would appear are estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. In determining project trip generation, the magnitude of traffic entering and exiting the site is estimated for the AM and PM peak hours. As part of the project trip distribution, an estimate is made of the directions to and from which the project trips would travel. In the project trip assignment, the project trips are assigned to specific streets and intersections. These procedures are described below.

Trip Generation

Trips generated by any new development can be estimated based on counts of existing development of the same land use type. The City of San Jose has used count data of existing development that has been collected over the years to derive a list of trip generation rates for the most common land uses. The trip generation rates that have been developed can be applied to new development within the City to help predict future traffic increases that would result from the new development. These recommended rates are detailed in the *San Jose Traffic Impact Analysis Handbook*, August 2008. Therefore, trip generation resulting from new development proposed within the City of San Jose typically is estimated by multiplying the City's established trip generation rates by the size of the development.

Based on the residential rates recommended by the City of San Jose, the project would generate 720 gross daily vehicle trips, with 72 gross trips occurring during both the AM and PM peak hours. Since the project site is located within walking distance (2,000 feet) of an LRT station, the total number of trips generated by the project can be reduced by 9 percent, according to the *Congestion Management Program TIA Analysis Guidelines, March 2009*. Thus, the project would generate 655 net daily trips, with 66 net trips occurring during both the AM and PM peak hours. Using the inbound/outbound splits recommended by the City of San Jose, the project would produce 23 net inbound and 43 net outbound trips during the AM peak hour, and 43 net inbound and 23 net outbound trips during the PM peak hour. The project trip generation estimates are presented in Table 4.

Table 4
Project Trip Generation Estimates

				AM Peak Hour				PM Peak Hour			
Land Use	Size	Daily Rate /a/	Daily Trips	Pk-Hr Rate /a/	In	Out	Total	Pk-Hr Rate /a/	In	Out	Total
Townhomes	96 units	7.50	720	0.75	25	47	72	0.75	47	25	72
9% Transit Reduction /b/			-65		-2	-4	-6		-4	-2	-6
Net Project Trips:			**655**		**23**	**43**	**66**		**43**	**23**	**66**

Notes:
/a/ Rates based on the *San Jose Traffic Impact Analysis Handbook, August 2008*.
/b/ Based on the *Congestion Management Program TIA Analysis Guidelines,* a 9% transit reduction was applied since the residential development would be located within 2,000 feet (walking distance) of an LRT station.

Trip Distribution

The trip distribution pattern for the proposed residential development was estimated based on existing travel patterns on the surrounding roadway system and the relative locations of complementary land uses. The project trip distribution pattern, which has been reviewed by City of San Jose staff, is shown graphically on Figure 7.

Trip Assignment

The peak hour trips generated by the proposed project were assigned to the roadway system in accordance with the trip distribution pattern. The project trips are shown graphically on Figure 8.

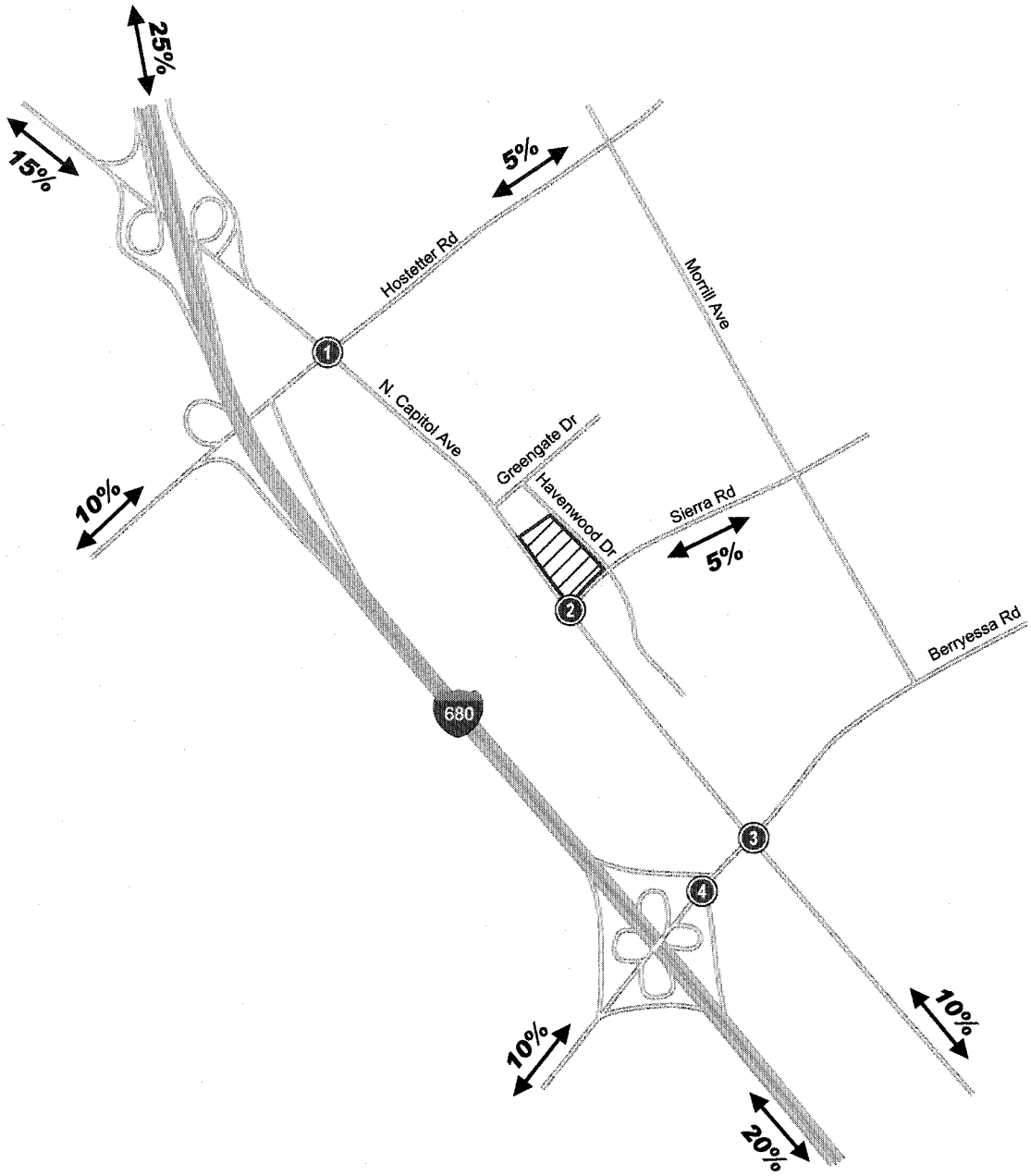
Existing Plus Project Traffic Volumes

The project trips were added to existing traffic volumes to obtain project traffic volumes. The existing plus project traffic volumes at the study intersections are shown graphically on Figure 9.

Traffic volumes for all components of traffic are tabulated in Appendix C.

Intersection Levels of Service Under Existing Plus Project Conditions

The results of the intersection level of service analysis under existing plus project conditions are summarized in Table 5. The results show that the intersection of North Capitol Avenue and Berryessa Road would continue to operate at an unacceptable LOS E during the AM peak hour of traffic with very little change in average vehicle delay. The remaining study intersections would operate at acceptable levels of service (LOS D or better) during both the AM and PM peak hours of traffic. Thus, the project would have very little effect on intersection operations when compared to existing conditions. The level of service calculation sheets are included in Appendix D.



LEGEND

= Site Location

= Study Intersection

Figure 7
Project Trip Distribution Pattern

NORTH
Not to Scale

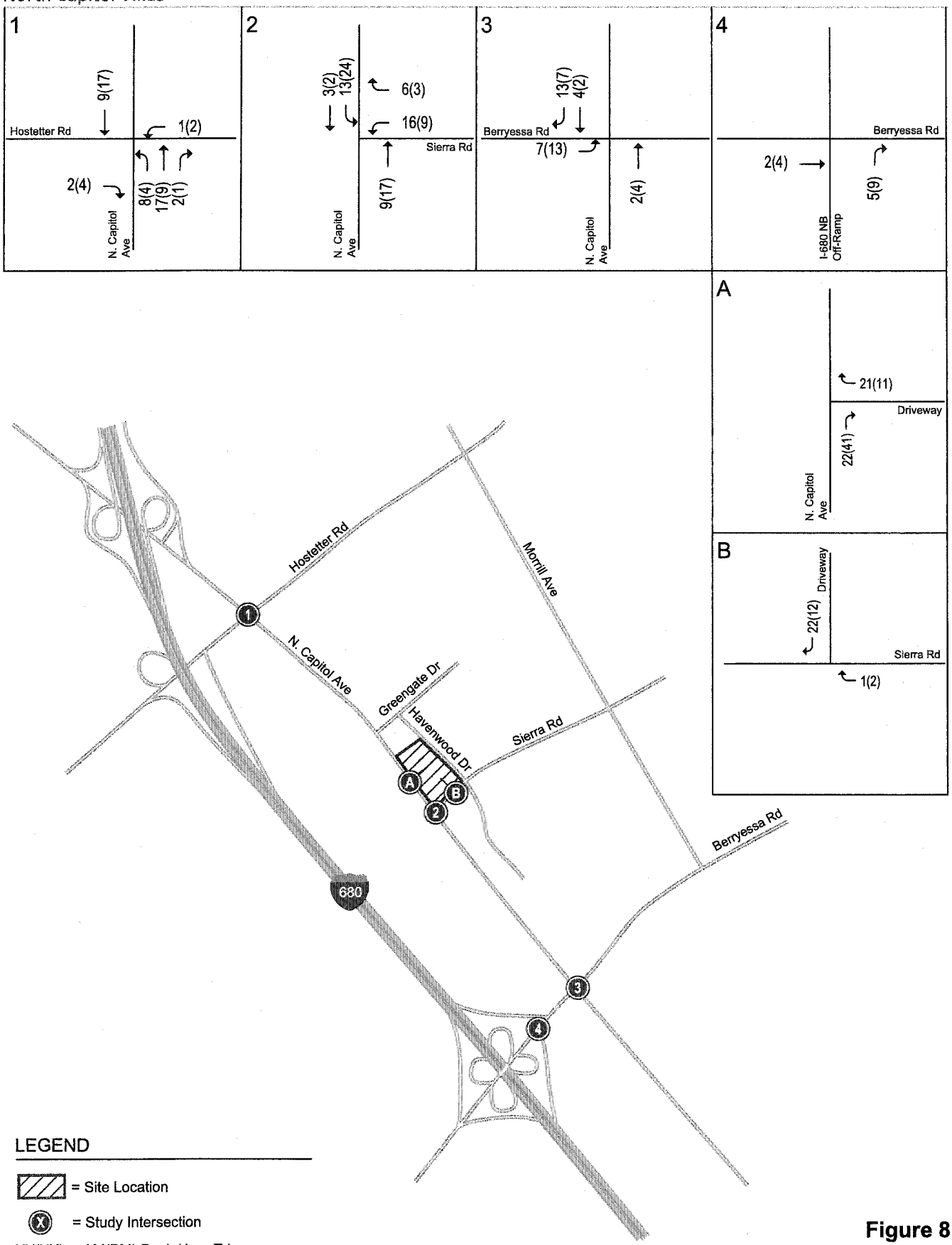
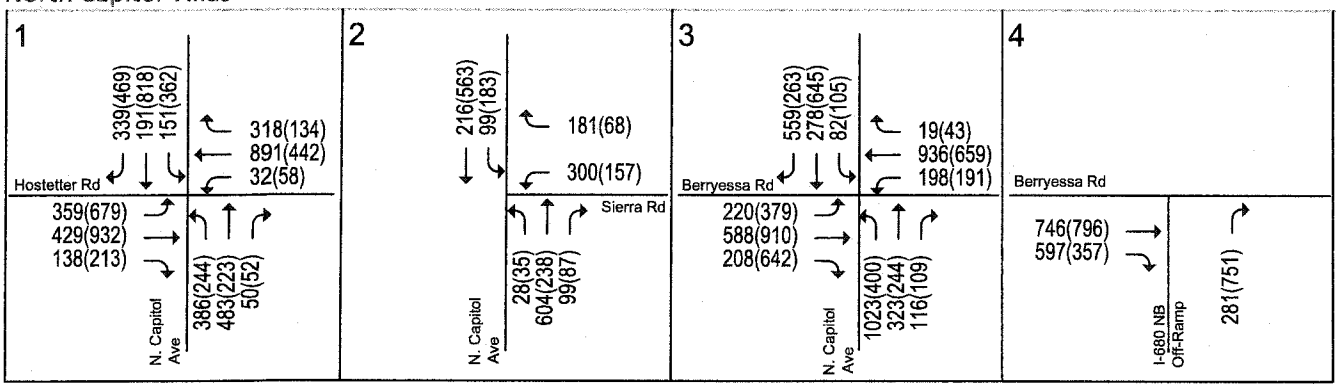
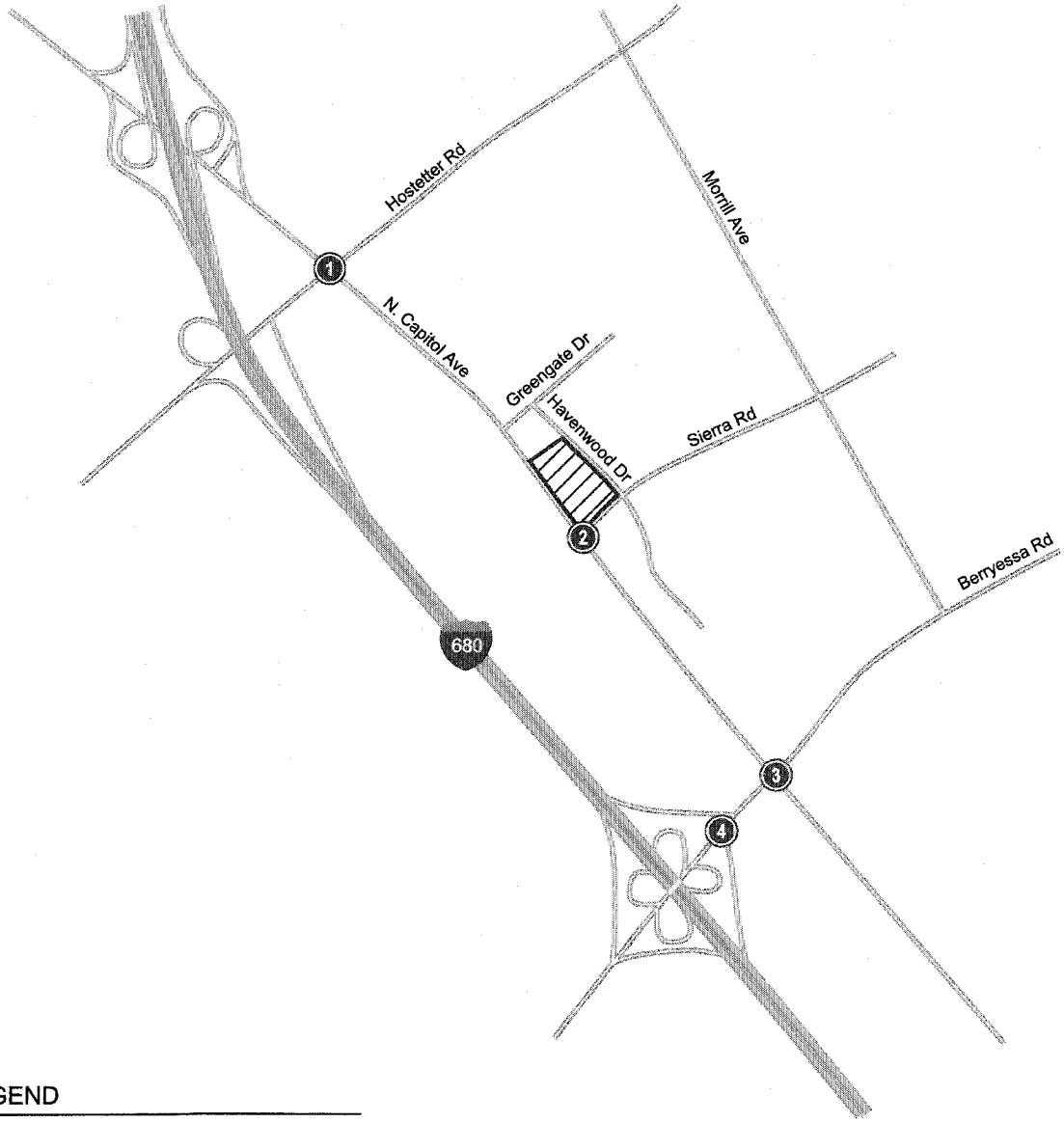


Figure 8
Project Trip Assignment

North Capitol Villas





LEGEND

= Site Location

= Study Intersection

XX(XX) = AM(PM) Peak-Hour Traffic Volumes

Figure 9
Existing Plus Project Traffic Volumes

Table 5
Existing Plus Project Intersection Levels of Service

Study Number	Intersection	Peak Hour	Existing Avg Delay	Existing LOS	Existing + Project Avg Delay	Existing + Project LOS
1	N Capitol Av / Hostetter Rd	AM	51.3	D	51.6	D
		PM	47.0	D	47.3	D
2	N Capitol Av / Sierra Rd	AM	15.8	B	16.2	B
		PM	13.4	B	16.8	B
3	N Capitol Av / Berryessa Rd	AM	64.4	E	65.6	E
		PM	43.2	D	43.3	D
4	I-680 NB Off-Ramp / Berryessa Rd	AM	12.7	B	12.8	B
		PM	17.7	B	17.8	B

4. Background Conditions

This chapter presents background traffic conditions, which are defined as conditions just prior to completion of the proposed development. It describes the planned transportation system, the procedure used to determine background traffic volumes, and the resulting traffic conditions.

Background Transportation Network

At the direction of the City of San Jose, it was assumed in this analysis that the transportation network under background conditions would be the same as the existing transportation network.

Background Traffic Volumes

Background peak hour traffic volumes were estimated by adding to existing volumes the estimated traffic from approved but not yet constructed developments in the study area. The added traffic from approved but not yet completed developments was provided by the City of San Jose in the form of the Approved Trips Inventory (ATI). The ATI sheets list the projects that have been approved in the study area and the trips associated with those projects (see Appendix B).

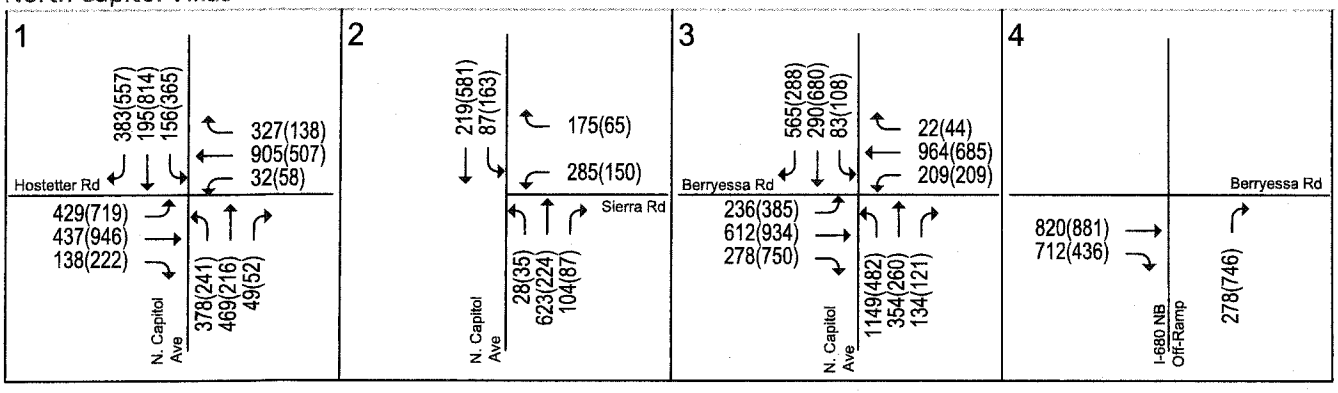
Background peak hour traffic volumes are shown on Figure 10. Traffic volumes for all components of traffic are tabulated in Appendix C.

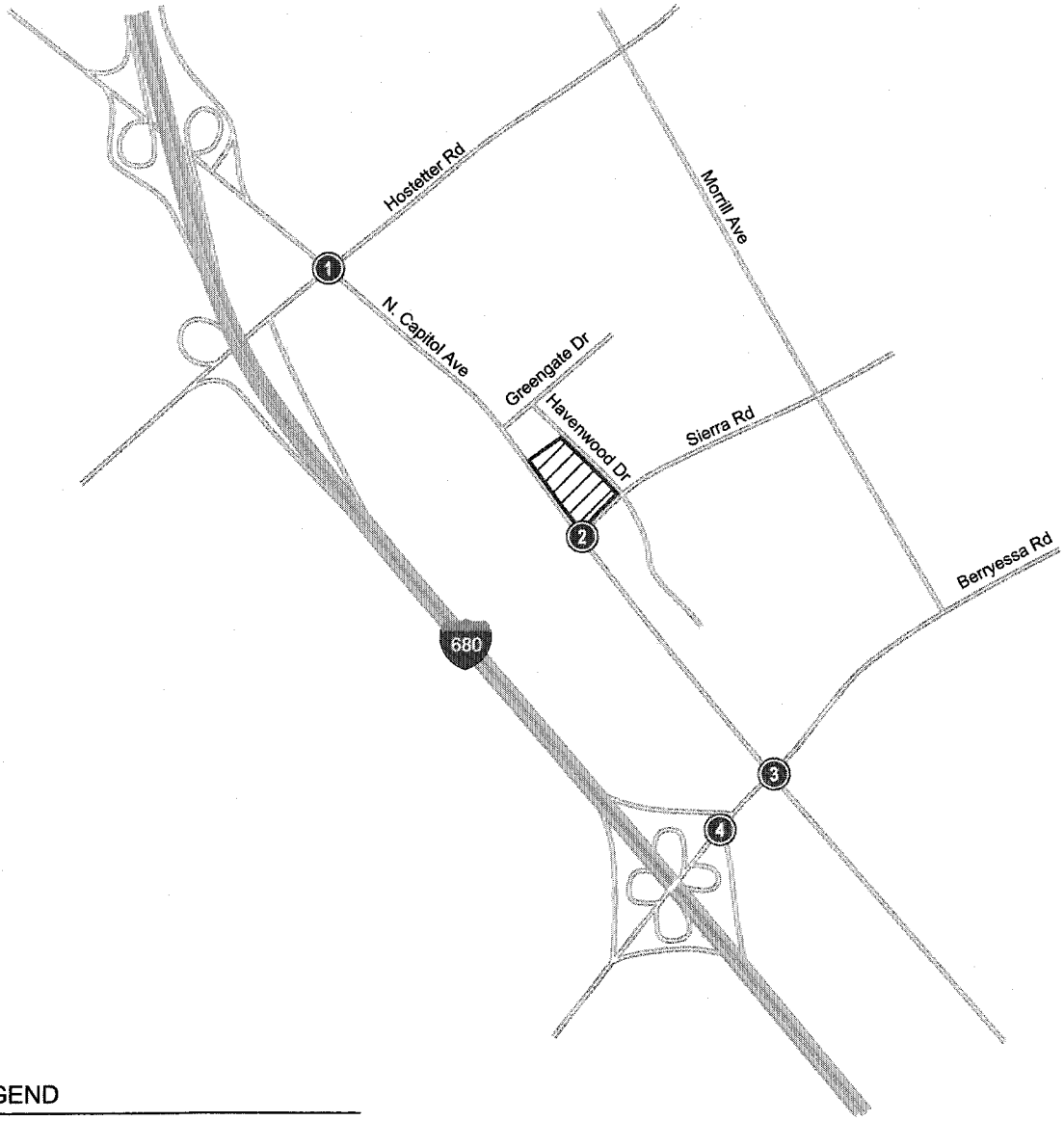
Intersection Levels of Service Under Background Conditions

The results of the intersection level of service analysis under background conditions are summarized in Table 6. The results show that, based on the City of San Jose standards, the study intersection of North Capitol Avenue and Berryessa Road would continue to operate at an unacceptable LOS E during the AM peak hour of traffic under background conditions. The remaining study intersections would operate at acceptable levels of service (LOS D or better) under background conditions during both the AM and PM peak hours of traffic.

The level of service calculation sheets are included in Appendix D.

North Capitol Villas





LEGEND

= Site Location

= Study Intersection

XX(XX) = AM(PM) Peak-Hour Traffic Volumes

Figure 10
Background Traffic Volumes

Hexagon Transportation Consultants, Inc.

NORTH
Not to Scale

Table 6
Background Intersection Levels of Service

Study Number	Intersection	Peak Hour	Existing Avg Delay	Existing LOS	Background Avg Delay	Background LOS
1	N Capitol Av / Hostetter Rd	AM	51.3	D	52.3	D
		PM	47.0	D	47.5	D
2	N Capitol Av / Sierra Rd	AM	15.8	B	15.7	B
		PM	13.4	B	13.4	B
3	N Capitol Av / Berryessa Rd	AM	64.4	E	74.3	E
		PM	43.2	D	45.1	D
4	I-680 NB Off-Ramp / Berryessa Rd	AM	12.7	B	12.3	B
		PM	17.7	B	18.0	B

5. Background Plus Project Conditions

This chapter describes near-term traffic conditions that most likely would occur when the project is complete. It includes a description of the City of San Jose significance criteria used to establish what constitutes a project impact, a description of the transportation system under background plus project conditions, the method by which project traffic is estimated, and any impacts caused by the project. Background plus project conditions were evaluated relative to background conditions in order to determine potential project impacts. This traffic scenario represents a more congested traffic condition than the existing plus project scenario, since it includes traffic from approved projects.

This traffic analysis assumes the project would include the construction of 96 townhomes on the northeast corner of North Capitol Avenue and Sierra Road. Right-turn only access to and from the project site would be provided via one driveway on North Capitol Avenue and one driveway on Sierra Road. The site currently is underutilized and generates a very small number of trips from the sale of firewood, as well as seasonal pumpkin and Christmas tree sales. For that reason, no trip credits for the existing uses were applied.

Significant Impact Criteria

Significance criteria are used to establish what constitutes an impact. For this analysis, the criteria used to determine significant impacts on signalized intersections are based on City of San Jose Level of Service standards. The City of San Jose LOS Policy is the adopted established threshold for CEQA.

City of San Jose Definition of Significant Intersection Impacts

The project is said to create a significant adverse impact on traffic conditions at a signalized intersection in the City of San Jose if for either peak hour:

1. The level of service at the intersection degrades from an acceptable LOS D or better under background conditions to an unacceptable LOS E or F under background plus project conditions, <u>or</u>
2. The level of service at the intersection is an unacceptable LOS E or F under background conditions and the addition of project trips causes both the critical-movement delay at the intersection to increase by four (4) or more seconds *and* the volume-to-capacity ratio (V/C) to increase by one percent (.01) or more.

An exception to this rule applies when the addition of project traffic reduces the amount of average stopped delay for critical movements (i.e., the change in average stopped delay for critical movements is negative). In this case, the threshold of significance is an increase in the critical V/C value by .01 or more.

A significant impact by City of San Jose standards is said to be satisfactorily mitigated when measures are implemented that would restore intersection level of service to background conditions or better.

Transportation Network Under Background Plus Project Conditions

It is assumed in this analysis that the transportation network under background plus project conditions, including roadways and intersection lane configurations, would be the same as that described under background conditions.

Project Trip Estimates

Based on the trip generation estimates presented in Chapter 3, the project would generate 655 net daily trips, with 66 net trips occurring during both the AM and PM peak hours. Using the inbound/outbound splits recommended by the City of San Jose, the project would produce 23 net inbound and 43 net outbound trips during the AM peak hour, and 43 net inbound and 23 net outbound trips during the PM peak hour.

Background Plus Project Traffic Volumes

The project trips were added to background traffic volumes to obtain background plus project traffic volumes. The background plus project traffic volumes at the study intersections are shown graphically on Figure 11.

Traffic volumes for all components of traffic are tabulated in Appendix C.

Intersection LOS Under Background Plus Project Conditions

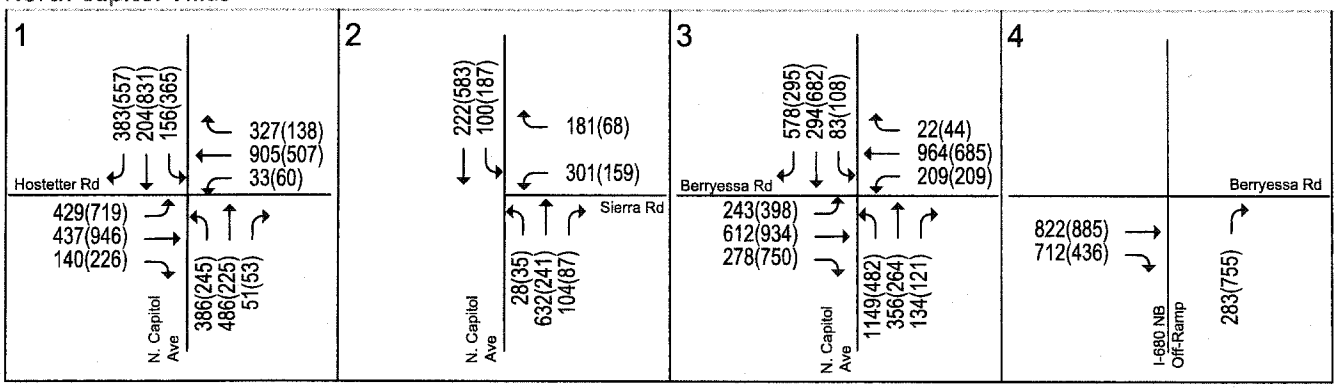
The results of the intersection level of service analysis under background plus project conditions are summarized in Table 7. The results show that, measured against the City of San Jose impact criteria, none of the study intersections would be significantly impacted by the project.

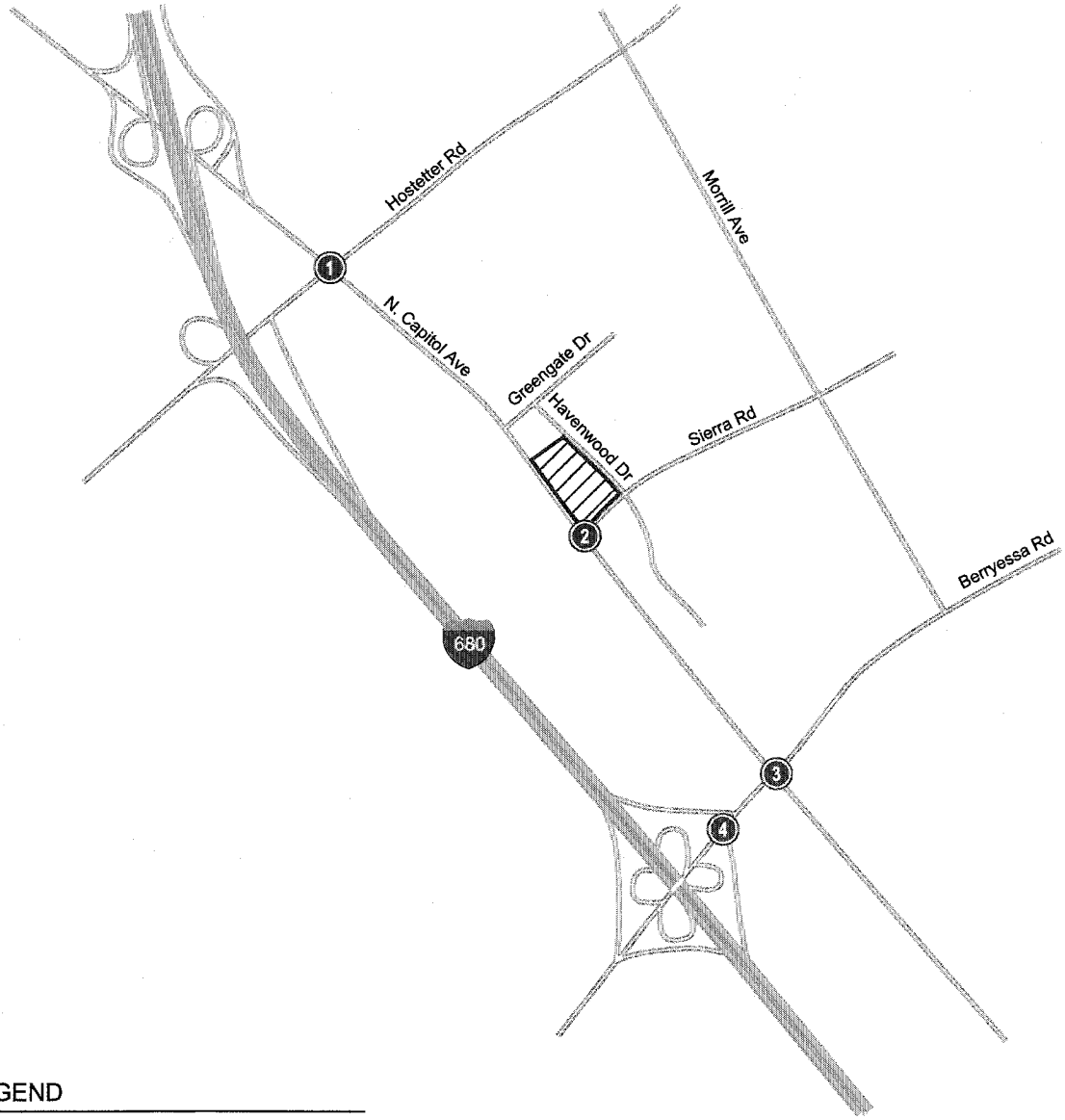
The level of service calculation sheets are included in Appendix D.

Table 7
Intersection Levels of Service Under Backgroud Plus Project Conditions

			Existing		Background		Background + Project			
Study Number	Intersection	Peak Hour	Avg Delay	LOS	Avg Delay	LOS	Avg Delay	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C
1	N Capitol Av / Hostetter Rd	AM	51.3	D	52.3	D	52.6	D	0.2	0.003
		PM	47.0	D	47.5	D	47.7	D	0.2	0.006
2	N Capitol Av / Sierra Rd	AM	15.8	B	15.7	B	16.1	B	0.6	0.017
		PM	13.4	B	13.4	B	16.7	B	7.1	0.029
3	N Capitol Av / Berryessa Rd	AM	64.4	E	74.3	E	75.8	E	2.5	0.008
		PM	43.2	D	45.1	D	45.2	D	0.0	0.001
4	I-680 NB Off-Ramp / Berryessa Rd	AM	12.7	B	12.3	B	12.4	B	0.1	0.002
		PM	17.7	B	18.0	B	18.0	B	0.1	0.004

North Capitol Villas





LEGEND

= Site Location

= Study Intersection

XX(XX) = AM(PM) Peak-Hour Traffic Volumes

Figure 11

Background Plus Project Traffic Volumes

Hexagon Transportation Consultants, Inc.

NORTH
Not to Scale

6. Other Transportation Issues

This chapter presents an analysis of other transportation issues associated with the project site, including:

- Intersection operations analysis – vehicle queuing and storage for selected intersection turn movements under background plus project traffic conditions
- Potential project impacts to transit, bicycle, and pedestrian facilities
- Site access and circulation under background plus project conditions

Unlike the level of service impact methodology, which is adopted by the City Council, the analyses in this chapter are based on professional judgment in accordance with the standards and methods employed by the traffic engineering community.

Intersection Operations Analysis

The analysis of intersection level of service was supplemented with an analysis of intersection operations for selected intersections. The operations analysis is based on vehicle queuing for high demand turning movements at intersections. Vehicle queues were estimated using a Poisson probability distribution, which estimates the probability of "n" vehicles for a vehicle movement using the following formula:

$$P(x=n) = \frac{\lambda^n e^{-(\lambda)}}{n!}$$

Where:

P (x=n) = probability of "n" vehicles in queue per lane
n = number of vehicles in the queue per lane
λ = Average # of vehicles in the queue per lane (vehicles per hr per lane/signal cycles per hr)

The basis of the analysis is as follows: (1) the Poisson probability distribution is used to estimate the 95th percentile maximum number of queued vehicles per signal cycle for a particular movement; (2) the estimated maximum number of vehicles in the queue is translated into a queue length, assuming 25 feet per vehicle; and (3) the estimated maximum queue length is compared to the existing or planned available storage capacity for the movement. This analysis thus provides a basis for estimating future left-turn storage requirements at signalized intersections. The 95th percentile queue length value indicates that during the peak hour, a queue of this length or less would occur on 95 percent of the signal cycles. Or, a queue length larger than the 95th percentile queue would only occur on 5 percent of the signal cycles (about 3 cycles during the peak hour for a signal with a 60-second cycle length). Therefore, left-turn storage pocket designs based on the 95th percentile queue length would ensure that storage space would be exceeded only 5 percent of the time. The 95th percentile queue length is also known as the "design queue length." The vehicle queue estimates and a tabulated summary of the findings are provided in Table 8.

Table 8
Vehicle Queuing and Left-Turn Pocket Storage Analysis

	Capitol Av & Hostetter Northbound Left-Turn		Capitol Av & Sierra Rd Southbound Left-Turn		Capitol Av & Berryessa Rd Eastbound Left-Turn	
	AM	PM	AM	PM	AM	PM
Existing						
Cycle[1] (sec)	184	170	67	67	147	139
Volume (vphpl)	189	120	86	159	107	183
Avg. Queue (veh/ln.)	9.7	5.7	1.6	3.0	4.4	7.1
Avg. Queue[2] (ft./ln)	242	142	40	74	109	177
95th %. Queue (veh/ln.)	15	10	4	6	8	12
95th %. Queue (ft./ln)	375	250	100	150	200	300
Storage (ft./ ln.)	450	450	250	250	350	350
Adequate (Y/N)	Y	Y	Y	Y	Y	Y
Background						
Cycle[1] (sec)	184	170	67	67	147	139
Volume (vphpl)	189	121	87	163	118	193
Avg. Queue (veh/ln.)	9.7	5.7	1.6	3.0	4.8	7.5
Avg. Queue[2] (ft./ln)	242	143	40	76	120	186
95th %. Queue (veh/ln.)	15	10	4	6	9	12
95th %. Queue (ft./ln)	375	250	100	150	225	300
Storage (ft./ ln.)	450	450	250	250	350	350
Adequate (Y/N)	Y	Y	Y	Y	Y	Y
Background + Project						
Cycle[1] (sec)	184	170	67	67	147	139
Volume (vphpl)	193	123	100	187	122	199
Avg. Queue (veh/ln.)	9.9	5.8	1.9	3.5	5.0	7.7
Avg. Queue[2] (ft./ln)	247	145	47	87	125	192
95th %. Queue (veh/ln.)	15	10	4	7	9	12
95th %. Queue (ft./ln)	375	250	100	175	225	300
Storage (ft./ ln.)	450	450	250	250	350	350
Adequate (Y/N)	Y	Y	Y	Y	Y	Y

[1] Vehicle queue calculations based on cycle length for signalized intersections.
[2] Assumes 25 Feet Per Vehicle Queued.

Operations Analysis Results

The vehicle queuing analysis indicates that the high demand left-turn pockets that were analyzed would provide sufficient storage for the estimated vehicle queues that would develop under background plus project traffic conditions. The addition of project traffic would, in fact, have very little effect on the vehicle queues.

Transit Services

Two LRT stations and 4 bus lines are located within walking distance of the project site. Due to the convenient locations of the transit stops, it is assumed that some residents of the new development would utilize the existing transit services. Applying a nine percent transit mode share, which is consistent with the *Congestion Management Program TIA Analysis Guidelines,* equates to approximately 6 new transit riders during both the AM and PM peak hours. Assuming the existing transit services would remain unchanged, the small number of new transit riders would have very little effect on LRT service and bus lines 61, 62, 70 and 104. The potential new riders could be accommodated by the current available ridership capacity of the transit services in the study area, and no improvements to the existing transit services would be necessary with the project.

Bicycle Facilities

Class II bicycle lanes exist on Capitol Avenue adjacent to the project site. These bike lanes connect to other bike lanes on Hostetter Road and Berryessa Road. The existing network of bike lanes in the study area has good connectivity and would provide bicyclists with a safe connection between the project site and other surrounding land uses.

A reasonable assumption for bicycle commute trip generation would be a one percent mode share. This calculates to about 1 bicycle trip during both the AM and PM peak commute periods. Thus, the project would be expected to add an insignificant amount of bicycle traffic to the roadways in the study area.

Pedestrian Facilities

Pedestrian traffic primarily would be generated by residents of the proposed development walking to and from the nearby transit stops, as well as Cherrywood Elementary School. Some residents also may walk to the nearby retail centers located north of Hostetter Road and south of Berryessa Road, both approximately one-half mile from the project site.

As described earlier in Chapter 2, Havenwood Drive currently has no sidewalk on the west side of the street along the project frontage. The site plan (Figure 2 in Chapter 1) shows that the project would add sidewalk along its frontage on Havenwood Drive.

All of the other roadways in close proximity to the project site have sidewalks on both sides of the street. Crosswalks with pedestrian signal heads are located at all signalized intersections in the study area. Overall, the existing network of sidewalks in the study area exhibits good connectivity and would provide pedestrians with a safe connection between the project site and other surrounding land uses. The existing pedestrian facilities would be adequate to serve the anticipated pedestrian demand.

Site Access and On-Site Circulation

The site plan prepared by Charles W. Davidson Co. (October 25, 2010) was reviewed for site access and circulation. The site plan is shown on Figure 2 in Chapter 1.

The site fronts approximately 600 feet of North Capitol Avenue and 300 feet of Sierra Road. The site plan shows two right-turn only driveways: one located on North Capitol Avenue and one on Sierra Road. Both driveways are shown to be 24 feet wide measured at the throat. According to the City of San Jose *Residential Design Guidelines*, standard driveways and entry drives with two-way traffic should be at least 20 feet wide for residential developments such as the proposed project. Therefore, the driveways would be adequate to serve project-generated traffic.

Drive Aisle and Off-Street Parking Design Standards

The drive aisles providing access to the residential units and 90-degree surface parking spaces located throughout the site would be 20 to 24 feet wide, depending on the location. Of the 32 surface parking

spaces on-site, 25 spaces are located along drive aisles that are 24 feet wide and 7 spaces are located along a 20-foot wide drive aisle. The City's standard width for two-way drive aisles is 26 feet where 90-degree parking is provided to allow sufficient room to back out. However, according to the San Jose Zoning Code the City may allow a reduction of certain 26-foot wide drive aisles on a site to not less than 20 feet, provided such a reduction in width would not impair the safe and convenient accessibility of the parking spaces. The City reviews each project's situation on a case-by-case basis. The project applicant should work closely with City staff to determine the appropriate drive aisle widths throughout the site.

According to the site plan, all of the surface parking spaces are shown to be 9 feet wide by 15 feet long. A length of 15 feet would not meet the City of San Jose off-street parking design standard for uniform car spaces (17 feet) or compact spaces (16 feet). A Development Permit may allow up to 40 percent of the off-street parking spaces to be small car spaces. The remainder shall be standard spaces. Accordingly, Hexagon recommends that 40 percent of the off-street parking spaces be lengthened by one foot and 60 percent of the spaces be lengthened by two feet so that the project meets the City's design standards.

The site plan shows five dead-end drive aisles. In general, dead-end aisles can be problematic if they contain unassigned parking spaces, since drivers can enter the aisle and upon discovering that there is no available parking must either back out or conduct three-point maneuvers. Dead-end aisles typically are less problematic when they do not contain parking or when they have only assigned parking spaces. According to the site plan, the dead-end drive aisles would provide access to the individual residential garages only and would not contain surface parking. Therefore, it can be concluded that the dead-end drive aisles would not create any on-site circulation issues.

Vehicle Queuing at the Project Driveways

Adequate storage must be provided at both project driveways to prevent exiting vehicles from queuing on-site and blocking parking stalls or drive aisles. A queuing analysis was conducted to estimate the projected maximum outbound vehicle queues at the driveways, which would occur when most vehicles are exiting the site during the AM peak hour. Based on the results of the analysis, the outbound vehicle queues at the North Capitol Avenue and Sierra Road driveways are estimated to be only one or two vehicles under the worst case 95th percentile queue condition during the AM peak hour. Based on the short vehicle queues that are estimated to occur at the driveways under background plus project conditions, it can be concluded that both driveways would operate adequately.

Sight Distance at the Project Driveways

The project driveways should be free and clear of any obstructions to optimize sight distance, thereby ensuring that exiting vehicles can see pedestrians on the sidewalk and vehicles traveling on the adjacent roadways. Landscaping and parking should not conflict with a driver's ability to locate a gap in traffic.

Adequate corner sight distance (sight distance triangles) should be provided at both site driveways in accordance with Caltrans standards. Sight distance triangles should be measured approximately 10 feet back from the traveled way. Sight distance requirements vary depending on the roadway speeds. For a driveway on North Capitol Avenue, which has a posted speed limit of 40 mph, the Caltrans standard corner sight distance is approximately 450 feet (i.e., a driver exiting the driveway must be able to see 450 feet down North Capitol Avenue in order to safely complete their turn). For driveways on Sierra Road (35 mph), the Caltrans standard corner sight distance is 400 feet. Based on the project site plan, it can be concluded that the driveways would meet the Caltrans sight distance standards.

Truck and Emergency Vehicle Access

The site plan was reviewed for truck access by the method of truck turning-movement templates. Access was reviewed for the truck types WB-40 and SU-30, which represent small semi-trailer trucks, emergency vehicles, garbage trucks, and small to medium delivery vehicles. Analysis using the appropriate truck turning templates shows that the project driveway and drive aisle dimensions would be adequate to accommodate these trucks. Some large trucks would require the use of the entire driveway and drive aisle widths while maneuvering; however, this is typical for residential developments such as this. Given the infrequency of truck trips, the proposed design would be adequate to handle the anticipated level of truck traffic.

6. Conclusions

The potential impacts of the project were evaluated in accordance with the standards set forth by the City of San Jose. The study included the analysis of AM and PM peak hour traffic conditions for 4 signalized intersections. Project impacts on other transportation facilities, such as bicycle facilities and transit services, were determined on the basis of engineering judgment.

Intersection Level of Sevice Analysis

The results of the intersection level of service analysis show that, measured against the City of San Jose level of service impact criteria, none of the study intersections would be significantly impacted by the project.

Other Transportation Issues

The project would not have an adverse effect on existing transit, bicycle or pedestrian facilities in the study area.

Site Access and Circulation Recommendations

- The project applicant should work closely with City staff to determine the appropriate drive aisle widths throughout the site.
- The on-site parking stall lengths should meet the City of San Jose off-street parking design standards.

Appendix A

New Traffic Counts

AM Peak-Hour Volume Count Worksheet

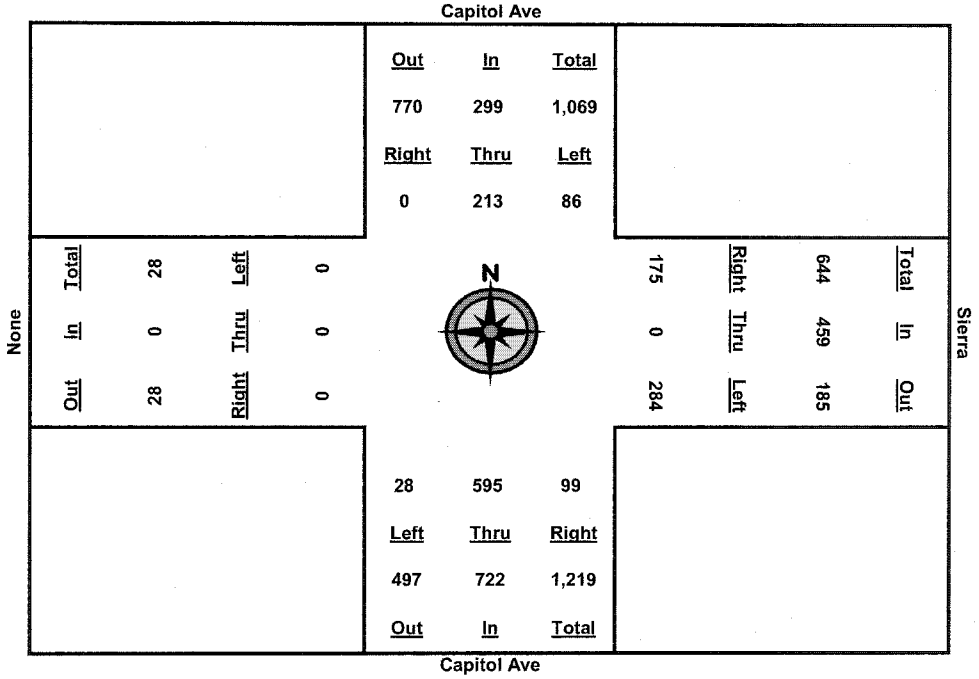
Date: 10/13/10
Counter: Patti and Ron
Intersection Name: Capitol and Sierra
Weather: Clear San Jose 10BJ15

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	Capitol Ave				Sierra				Capitol Ave				None			
	North Approach				East Approach				South Approach				West Approach			
Start Time	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	0	33	14	47	36	0	38	74	28	49	6	83	0	0	0	0
7:30	0	60	20	80	73	0	100	173	56	90	14	160	0	0	0	0
7:45	0	97	46	143	103	0	160	263	81	190	18	289	0	0	0	0
8:00	0	155	65	220	170	0	235	405	100	340	24	464	0	0	0	0
8:15	0	214	91	305	198	0	305	503	139	530	35	704	0	0	0	0
8:30	0	273	106	379	248	0	384	632	155	685	42	882	0	0	0	0
8:45	0	315	121	436	276	0	437	713	169	743	45	957	0	0	0	0
9:00	0	359	134	493	304	0	473	777	181	913	55	1,149	0	0	0	0

Peak Hour	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	PK Hour
7:00 - 8:00	0	155	65	220	170	0	235	405	100	340	24	464	0	0	0	0	1,089
7:15 - 8:15	0	181	77	258	162	0	267	429	111	481	29	621	0	0	0	0	1,308
7:30 - 8:30	0	213	86	299	175	0	284	459	99	595	28	722	0	0	0	0	1,480
7:45 - 8:45	0	218	75	293	173	0	277	450	88	553	27	668	0	0	0	0	1,411
8:00 - 9:00	0	204	69	273	134	0	238	372	81	573	31	685	0	0	0	0	1,330
Peak Volumes:	**0**	**213**	**86**	**299**	**175**	**0**	**284**	**459**	**99**	**595**	**28**	**722**	**0**	**0**	**0**	**0**	**1,480**

Cut and Paste	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
	28	595	99	86	213	0	0	0	0	284	0	175



PM Peak-Hour Volume Count Worksheet

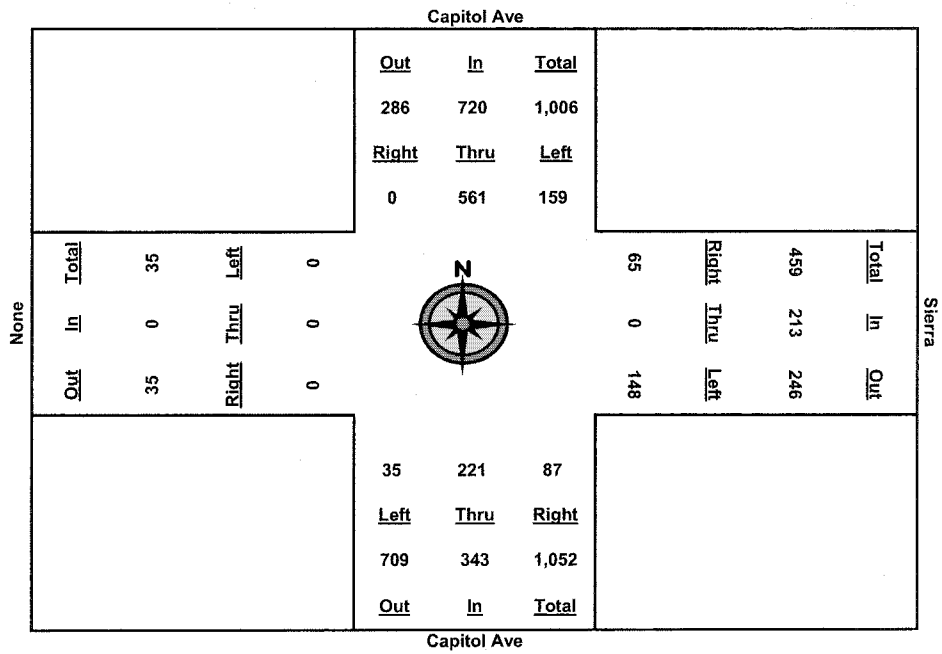
Date: 10/13/10
Counter: Patti and Ron
Intersection Name: Capitol and Sierra
Weather: Clear San Jose 10BJ15

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	Capitol Ave				Sierra				Capitol Ave				None			
	North Approach				East Approach				South Approach				West Approach			
Start Time	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15	0	59	26	85	16	0	22	38	7	33	8	48	0	0	0	0
4:30	0	146	51	197	28	0	45	73	24	82	13	119	0	0	0	0
4:45	0	249	83	332	47	0	79	126	48	140	19	207	0	0	0	0
5:00	0	400	132	532	61	0	108	169	65	201	24	290	0	0	0	0
5:15	0	534	166	700	84	0	153	237	92	262	30	384	0	0	0	0
5:30	0	679	194	873	97	0	186	283	114	311	42	467	0	0	0	0
5:45	0	810	242	1,052	112	0	227	339	135	361	54	550	0	0	0	0
6:00	0	943	287	1,230	131	0	265	396	158	400	65	623	0	0	0	0

Peak Hour	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	PK Hour
4:00 - 5:00	0	400	132	532	61	0	108	169	65	201	24	290	0	0	0	0	991
4:15 - 5:15	0	475	140	615	68	0	131	199	85	229	22	336	0	0	0	0	1,150
4:30 - 5:30	0	533	143	676	69	0	141	210	90	229	29	348	0	0	0	0	1,234
4:45 - 5:45	0	561	159	720	65	0	148	213	87	221	35	343	0	0	0	0	1,276
5:00 - 6:00	0	543	155	698	70	0	157	227	93	199	41	333	0	0	0	0	1,258
Peak Volumes:	**0**	**561**	**159**	**720**	**65**	**0**	**148**	**213**	**87**	**221**	**35**	**343**	**0**	**0**	**0**	**0**	**1,276**

Cut and Paste	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
	35	221	87	159	561	0	0	0	0	148	0	65



AM Peak-Hour Volume Count Worksheet

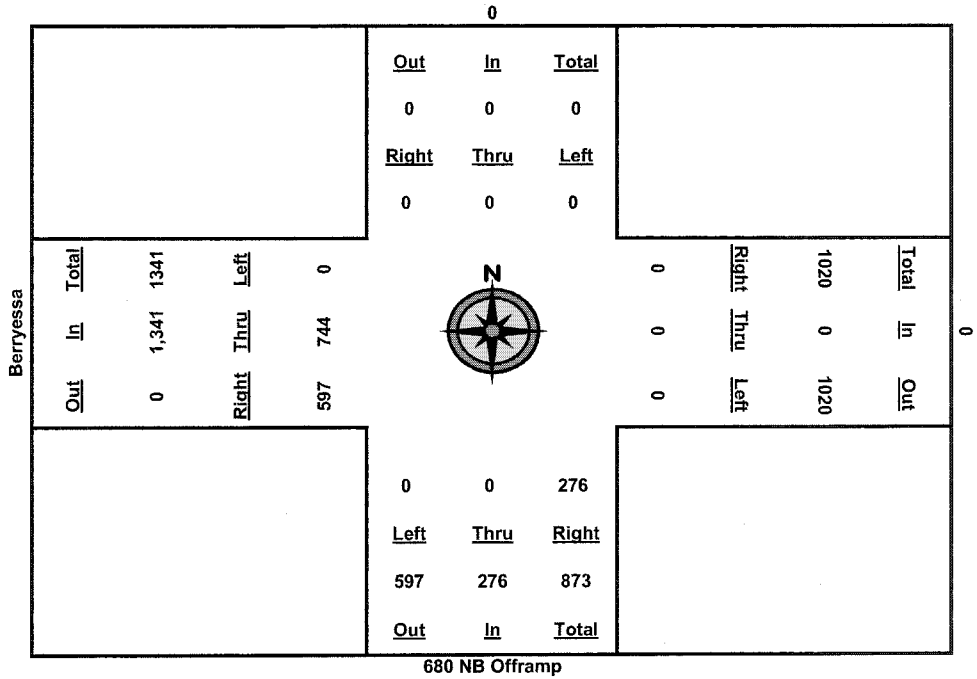
Date: 10/13/10
Counter: Stuart Sakai
Intersection Name: 680 NB Offramp and Berryessa
Weather: Clear San Jose 10BJ15

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	North Approach				East Approach				680 NB Offramp South Approach				Berryessa West Approach			
Start Time	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	0	0	0	0	0	0	0	0	95	0	0	95	88	127	0	215
7:30	0	0	0	0	0	0	0	0	171	0	0	171	239	257	0	496
7:45	0	0	0	0	0	0	0	0	233	0	0	233	384	444	0	828
8:00	0	0	0	0	0	0	0	0	286	0	0	286	563	632	0	1,195
8:15	0	0	0	0	0	0	0	0	359	0	0	359	712	833	0	1,545
8:30	0	0	0	0	0	0	0	0	447	0	0	447	836	1,001	0	1,837
8:45	0	0	0	0	0	0	0	0	538	0	0	538	911	1,140	0	2,051
9:00	0	0	0	0	0	0	0	0	624	0	0	624	1,004	1,261	0	2,265

Peak Hour	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	PK Hour
7:00 - 8:00	0	0	0	0	0	0	0	0	286	0	0	286	563	632	0	1,195	1,481
7:15 - 8:15	0	0	0	0	0	0	0	0	264	0	0	264	624	706	0	1,330	1,594
7:30 - 8:30	0	0	0	0	0	0	0	0	276	0	0	276	597	744	0	1,341	1,617
7:45 - 8:45	0	0	0	0	0	0	0	0	305	0	0	305	527	696	0	1,223	1,528
8:00 - 9:00	0	0	0	0	0	0	0	0	338	0	0	338	441	629	0	1,070	1,408
Peak Volumes:	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**276**	**0**	**0**	**276**	**597**	**744**	**0**	**1,341**	**1,617**

Cut and Paste	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
	0	0	276	0	0	0	0	744	597	0	0	0



PM Peak-Hour Volume Count Worksheet

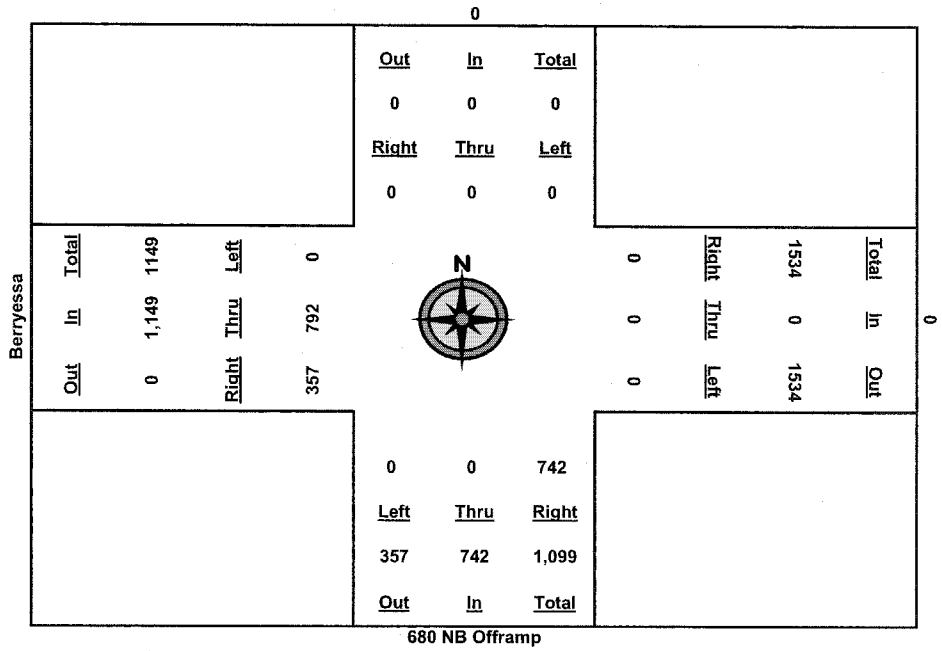
Date: 10/13/10
Counter: Huy
Intersection Name: 680 NB Offramp and Berryessa
Weather: Clear San Jose 10BJ15

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	North Approach				East Approach				680 NB Offramp South Approach				Berryessa West Approach			
Start Time	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15	0	0	0	0	0	0	0	0	178	0	0	178	43	159	0	202
4:30	0	0	0	0	0	0	0	0	362	0	0	362	125	328	0	453
4:45	0	0	0	0	0	0	0	0	546	0	0	546	211	529	0	740
5:00	0	0	0	0	0	0	0	0	741	0	0	741	299	744	0	1,043
5:15	0	0	0	0	0	0	0	0	920	0	0	920	400	951	0	1,351
5:30	0	0	0	0	0	0	0	0	1,091	0	0	1,091	493	1,111	0	1,604
5:45	0	0	0	0	0	0	0	0	1,277	0	0	1,277	569	1,284	0	1,853
6:00	0	0	0	0	0	0	0	0	1,421	0	0	1,421	641	1,429	0	2,070

Peak Hour	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	PK Hour
4:00 - 5:00	0	0	0	0	0	0	0	0	741	0	0	741	299	744	0	1,043	1,784
4:15 - 5:15	0	0	0	0	0	0	0	0	742	0	0	742	357	792	0	1,149	1,891
4:30 - 5:30	0	0	0	0	0	0	0	0	729	0	0	729	368	783	0	1,151	1,880
4:45 - 5:45	0	0	0	0	0	0	0	0	731	0	0	731	358	755	0	1,113	1,844
5:00 - 6:00	0	0	0	0	0	0	0	0	680	0	0	680	342	685	0	1,027	1,707
Peak Volumes:	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**742**	**0**	**0**	**742**	**357**	**792**	**0**	**1,149**	**1,891**

Cut and Paste	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
	0	0	742	0	0	0	0	792	357	0	0	0



Appendix B

City of San Jose Approved Trips Inventory

AM APPROVED TRIPS

11/30/2010

Intersection of: CAPITOL/HOSTETTER

Traffix Node Number: 3383

Permit No. / Description / Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
NSJ NORTH SAN JOSE	0	0	0	4	11	16	9	7	1	0	12	7
PDC03-038 BENTLEY PARK FLICKINGER RD (E/S), S/O HOSTETTER	0	0	0	0	0	0	0	0	0	0	0	0
PDC03-108 OFF BERRYESSA FLEA MKT (OFFICE) BOTH SIDES OF BERRYESSA RD WEST OF UNION PACIFIC	0	0	0	0	1	11	1	0	0	1	2	0
PDC03-108 RES BERRYESSA FLEA MKT (RESIDENTIAL) BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC RR	0	3	0	0	1	22	41	0	0	0	0	0
PDC03-108 RET BERRYESSA FLEA MKT (RETAIL) BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC RR	0	0	0	0	0	0	0	0	0	0	0	0
PDC04-001 LUNDY AVE AND MCKAY DR (SW/C)	0	0	0	0	0	-5	19	-1	0	0	-5	0
PDC88-08-097 BRANCATO - 39 UNITS CROPLEY & OLD PIEDMONT	0	0	1	1	0	0	0	2	1	0	5	2
TOTAL:	**0**	**3**	**1**	**5**	**13**	**44**	**70**	**8**	**2**	**1**	**14**	**9**

	LEFT	THRU	RIGHT
NORTH	5	13	44
EAST	1	14	9
SOUTH	0	3	1
WEST	70	8	2

PM APPROVED TRIPS

11/30/2010

Intersection of: CAPITOL/HOSTETTER

Traffix Node Number: 3383

Permit No. / Description / Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
CP05-046 COSTCO NW/C AUTOMATION PY & HOSTETTER RD	0	0	0	0	0	21	3	0	0	0	16	0
NSJ NORTH SAN JOSE	0	0	0	1	10	3	12	12	13	1	48	3
PDC03-038 BENTLEY PARK FLICKINGER RD (E/S), S/O HOSTETTER	0	0	0	0	0	0	0	0	0	0	0	0
PDC03-108 OFF BERRYESSA FLEA MKT (OFFICE) BOTH SIDES OF BERRYESSA RD WEST OF UNION PACIFIC	0	1	1	0	0	2	9	2	0	0	0	0
PDC03-108 RES BERRYESSA FLEA MKT (RESIDENTIAL) BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC RR	0	1	0	0	3	40	21	0	0	0	0	0
PDC03-108 RET BERRYESSA FLEA MKT (RETAIL) BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC RR	0	0	0	0	0	0	0	0	0	0	0	0
PDC04-001 LUNDY AVE AND MCKAY DR (SW/C)	0	0	0	0	0	22	-5	-5	0	0	-1	0
PDC88-08-097 BRANCATO - 39 UNITS CROPLEY & OLD PIEDMONT	1	0	0	2	0	0	0	5	0	1	2	1
TOTAL:	**1**	**2**	**1**	**3**	**13**	**88**	**40**	**14**	**13**	**2**	**65**	**4**

	LEFT	THRU	RIGHT
NORTH	3	13	88
EAST	2	65	4
SOUTH	1	2	1
WEST	40	14	13

AM APPROVED TRIPS

11/23/2010

Intersection of: CAPITOL/SIERRA

Traffix Node Number: 3390

Permit No. / Description / Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
NSJ NORTH SAN JOSE	0	26	5	1	3	0	0	0	0	1	0	0
PDC89-08-110 31 SFD DOREL(S/S & E/O), 200' N/O OTTO	0	2	0	0	3	0	0	0	0	0	0	0
TOTAL:	**0**	**28**	**5**	**1**	**6**	**0**	**0**	**0**	**0**	**1**	**0**	**0**

	LEFT	THRU	RIGHT
NORTH	1	6	0
EAST	1	0	0
SOUTH	0	28	5
WEST	0	0	0

PM APPROVED TRIPS

11/23/2010

Intersection of: CAPITOL/SIERRA

Traffix Node Number: 3390

Permit No. / Description / Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
NSJ NORTH SAN JOSE	0	0	0	4	18	0	0	0	0	2	0	0
PDC89-08-110 31 SFD DOREL(S/S & E/O), 200' N/O OTTO	0	3	0	0	2	0	0	0	0	0	0	0
TOTAL:	**0**	**3**	**0**	**4**	**20**	**0**	**0**	**0**	**0**	**2**	**0**	**0**

	LEFT	THRU	RIGHT
NORTH	4	20	0
EAST	2	0	0
SOUTH	0	3	0
WEST	0	0	0

AM APPROVED TRIPS

11/23/2010

Intersection of: BERRYESSA/CAPITOL

Traffix Node Number: 3293

Permit No. / Description / Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
NSJ NORTH SAN JOSE	22	10	3	0	1	3	2	5	1	1	11	2
PDC03-034 BATON ROUGE CAPITOL AV AND BATON ROUGE DR (SW/C)	0	0	0	0	0	0	0	0	0	0	0	0
PDC03-093 SJ REGIONAL MEDICAL CENTER MCKEE RD AND N JACKSON AV	0	0	1	0	1	1	1	1	0	2	2	0
PDC03-108 OFF BERRYESSA FLEA MKT (OFFICE) BOTH SIDES OF BERRYESSA RD WEST OF UNION PACIFIC	3	0	0	0	0	1	0	1	0	0	5	0
PDC03-108 RES BERRYESSA FLEA MKT (RESIDENTIAL) BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC RR	4	0	1	0	0	1	3	13	7	1	7	0
PDC03-108 RET BERRYESSA FLEA MKT (RETAIL) BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC RR	0	0	0	0	0	0	0	0	0	0	0	0
PDC04-017 CREEKSIDE STATION (YONEDA) CAPITOL AVE/PENITENCIA CRK	48	4	4	0	2	0	0	0	26	2	0	0
PDC05-060 LANDS OF MESSINA CAPITOL AV AND MABURY RD (SW/C)	32	16	8	0	9	0	0	0	17	4	0	0
PDC05-064 GRANDVIEW TOWNHOMES N CAPITOL AV AND GRANDVIEW DR (NE/C)	4	2	1	0	1	0	0	0	2	1	0	0
PDC89-08-110 31 SFD DOREL(S/S & E/O), 200' N/O OTTO	2	1	0	1	2	0	0	4	4	0	3	1

AM APPROVED TRIPS

11/23/2010

Intersection of: BERRYESSA/CAPITOL

Traffix Node Number: 3293

Permit No. / Description / Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
PRE05-430 COMM PEPPER LANE S/W CORNER BERRYESSA RD & JACKSON AVE	8	0	0	0	0	8	7	0	7	0	0	0
PRE05-430 RES PEPPER LANE SW/C OF BERRYESSA AND JACKSON	3	0	0	0	0	5	10	0	6	0	0	0
TOTAL:	**126**	**33**	**18**	**1**	**16**	**19**	**23**	**24**	**70**	**11**	**28**	**3**

	LEFT	THRU	RIGHT
NORTH	1	16	19
EAST	11	28	3
SOUTH	126	33	18
WEST	23	24	70

Intersection of: BERRYESSA/CAPITOL

Traffix Node Number: 3293

Permit No. / Description / Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
NSJ NORTH SAN JOSE	6	5	2	2	14	7	3	6	5	3	8	0
PDC03-034 BATON ROUGE CAPITOL AV AND BATON ROUGE DR (SW/C)	0	0	0	0	0	0	0	0	0	0	0	0
PDC03-093 SJ REGIONAL MEDICAL CENTER MCKEE RD AND N JACKSON AV	0	1	2	0	0	0	1	3	0	1	1	0
PDC03-108 OFF BERRYESSA FLEA MKT (OFFICE) BOTH SIDES OF BERRYESSA RD WEST OF UNION PACIFIC	1	0	0	0	0	0	1	5	3	0	1	0
PDC03-108 RES BERRYESSA FLEA MKT (RESIDENTIAL) BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC RR	7	0	1	0	0	3	1	7	3	1	12	0
PDC03-108 RET BERRYESSA FLEA MKT (RETAIL) BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC RR	0	0	0	0	0	0	0	0	0	0	0	0
PDC04-017 CREEKSIDE STATION (YONEDA) CAPITOL AVE/PENITENCIA CRK	26	2	2	0	4	0	0	0	48	4	0	0
PDC05-060 LANDS OF MESSINA CAPITOL AV AND MABURY RD (SW/C)	17	9	4	0	16	0	0	0	32	8	0	0
PDC05-064 GRANDVIEW TOWNHOMES N CAPITOL AV AND GRANDVIEW DR (NE/C)	2	1	1	0	2	0	0	0	4	1	0	0
PDC89-08-110 31 SFD DOREL(S/S & E/O), 200' N/O OTTO	4	2	0	1	1	0	0	3	2	0	4	1

PM APPROVED TRIPS

11/23/2010

Intersection of: BERRYESSA/CAPITOL

Traffix Node Number: 3293

Permit No. / Description / Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
PRE05-430 COMM PEPPER LANE S/W CORNER BERRYESSA RD & JACKSON AVE	13	0	0	0	0	13	8	0	8	0	0	0
PRE05-430 RES PEPPER LANE SW/C OF BERRYESSA AND JACKSON	6	0	0	0	0	9	5	0	3	0	0	0
TOTAL:	**82**	**20**	**12**	**3**	**37**	**32**	**19**	**24**	**108**	**18**	**26**	**1**

	LEFT	THRU	RIGHT
NORTH	3	37	32
EAST	18	26	1
SOUTH	82	20	12
WEST	19	24	108

AM APPROVED TRIPS

11/23/2010

Intersection of: 680/BERRYESSA

Traffix Node Number: 3948

Permit No. / Description / Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
NSJ NORTH SAN JOSE	0	0	0	0	0	0	0	0	0	0	0	0
PDC03-108 OFF BERRYESSA FLEA MKT (OFFICE) BOTH SIDES OF BERRYESSA RD WEST OF UNION PACIFIC	0	0	0	0	0	0	0	1	3	0	10	0
PDC03-108 RES BERRYESSA FLEA MKT (RESIDENTIAL) BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC RR	0	0	0	0	0	0	0	22	93	0	12	0
PDC03-108 RET BERRYESSA FLEA MKT (RETAIL) BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC RR	0	0	0	0	0	0	0	0	0	0	0	0
PDC04-017 CREEKSIDE STATION (YONEDA) CAPITOL AVE/PENITENCIA CRK	0	0	2	0	0	0	0	24	0	0	17	31
PRE05-430 COMM PEPPER LANE S/W CORNER BERRYESSA RD & JACKSON AVE	0	0	0	0	0	0	0	14	0	0	15	0
PRE05-430 RES PEPPER LANE SW/C OF BERRYESSA AND JACKSON	0	0	0	0	0	18	0	15	19	0	8	0
TOTAL:	**0**	**0**	**2**	**0**	**0**	**18**	**0**	**76**	**115**	**0**	**62**	**31**

	LEFT	THRU	RIGHT
NORTH	0	0	18
EAST	0	62	31
SOUTH	0	0	2
WEST	0	76	115

PM APPROVED TRIPS

11/23/2010

Intersection of: 680/BERRYESSA

Traffix Node Number: 3948

Permit No. / Description / Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
NSJ NORTH SAN JOSE	0	0	0	0	0	0	0	0	0	0	0	0
PDC03-108 OFF BERRYESSA FLEA MKT (OFFICE) BOTH SIDES OF BERRYESSA RD WEST OF UNION PACIFIC	0	0	0	0	0	0	0	9	21	0	2	0
PDC03-108 RES BERRYESSA FLEA MKT (RESIDENTIAL) BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC RR	0	0	0	0	0	0	0	11	48	0	22	0
PDC03-108 RET BERRYESSA FLEA MKT (RETAIL) BOTH SIDES OF BERRYESSA, WEST OF UNION PACIFIC RR	0	0	0	0	0	0	0	0	0	0	0	0
PDC04-017 CREEKSIDE STATION (YONEDA) CAPITOL AVE/PENITENCIA CRK	0	0	4	0	0	0	0	45	0	0	9	17
PRE05-430 COMM PEPPER LANE S/W CORNER BERRYESSA RD & JACKSON AVE	0	0	0	0	0	0	0	16	0	0	26	0
PRE05-430 RES PEPPER LANE SW/C OF BERRYESSA AND JACKSON	0	0	0	0	0	33	0	8	10	0	15	0
TOTAL:	**0**	**0**	**4**	**0**	**0**	**33**	**0**	**89**	**79**	**0**	**74**	**17**

	LEFT	THRU	RIGHT
NORTH	0	0	33
EAST	0	74	17
SOUTH	0	0	4
WEST	0	89	79

Appendix C

Volume Summary Tables

City of San Jose
North Capitol Villas

Intersection Number: 1
Traffix Node Number: 3383
Intersection Name: Capitol Av & Hostetter Rd
Peak Hour: AM
Count Date: 04/02/09
Scenario: 96 Townhomes

Date of Analysis: 04/05/11

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	339	182	151	318	891	31	48	466	378	136	429	359	3728
Approved Project Trips													
CSJ ATI	44	13	5	9	14	1	1	3	0	2	8	70	170
ATI 2	0	0	0	0	0	0	0	0	0	0	0	0	0
ATI 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	44	13	5	9	14	1	1	3	0	2	8	70	170
Background Conditions	383	195	156	327	905	32	49	469	378	138	437	429	3898
check	383	195	156	327	905	32	49	469	378	138	437	429	
Existing Plus Project	339	191	151	318	891	32	50	483	386	138	429	359	
Proposed Project Trips													
Residential Trips	0	9	0	0	0	1	2	17	8	2	0	0	39
Trips 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Trips 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Project Trips	0	9	0	0	0	1	2	17	8	2	0	0	39
Bkgrd + Proj Conditions	383	204	156	327	905	33	51	486	386	140	437	429	3937
check	383	204	156	327	905	33	51	486	386	140	437	429	

Intersection Number: 2
Traffix Node Number: 3390
Intersection Name: Capitol Av & Sierra Rd
Peak Hour: AM
Count Date: 10/13/10
Scenario: 96 Townhomes

Date of Analysis: 04/05/11

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	0	213	86	175	0	284	99	595	28	0	0	0	1480
Approved Project Trips													
CSJ ATI	0	6	1	0	0	1	5	28	0	0	0	0	41
ATI 2	0	0	0	0	0	0	0	0	0	0	0	0	0
ATI 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	6	1	0	0	1	5	28	0	0	0	0	41
Background Conditions	0	219	87	175	0	285	104	623	28	0	0	0	1521
check	0	219	87	175	0	285	104	623	28	0	0	0	
Existing Plus Project	0	216	99	181	0	300	99	604	28	0	0	0	
Proposed Project Trips													
Residential Trips	0	3	13	6	0	16	0	9	0	0	0	0	47
Trips 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Trips 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Project Trips	0	3	13	6	0	16	0	9	0	0	0	0	47
Bkgrd + Proj Conditions	0	222	100	181	0	301	104	632	28	0	0	0	1568
check	0	222	100	181	0	301	104	632	28	0	0	0	

Intersection Number: 3
Traffix Node Number: 3293
Intersection Name: Capitol Av & Berryessa Rd
Peak Hour: AM
Date of Analysis: 04/05/11
Count Date: 03/17/09
Scenario: 96 Townhomes

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	546	274	82	19	936	198	116	321	1023	208	588	213	4524
Approved Project Trips													
CSJ ATI	19	16	1	3	28	11	18	33	126	70	24	23	372
ATI 2	0	0	0	0	0	0	0	0	0	0	0	0	0
ATI 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	19	16	1	3	28	11	18	33	126	70	24	23	372
Background Conditions	565	290	83	22	964	209	134	354	1149	278	612	236	4896
check	565	290	83	22	964	209	134	354	1149	278	612	236	
Existing Plus Project	559	278	82	19	936	198	116	323	1023	208	588	220	
Proposed Project Trips													
Residential Trips	13	4	0	0	0	0	0	2	0	0	0	7	26
Trips 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Trips 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Project Trips	13	4	0	0	0	0	0	2	0	0	0	7	26
Bkgrd + Proj Conditions	578	294	83	22	964	209	134	356	1149	278	612	243	4922
check	578	294	83	22	964	209	134	356	1149	278	612	243	

Intersection Number: 4
Traffix Node Number: 3948
Intersection Name: I-680 NB Off-Ramp & Berryessa Rd
Peak Hour: AM
Date of Analysis: 04/05/11
Count Date: 10/13/10
Scenario: 96 Townhomes

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	0	0	0	0	0	0	276	0	0	597	744	0	1617
Approved Project Trips													
CSJ ATI	0	0	0	0	0	0	2	0	0	115	76	0	193
ATI 2	0	0	0	0	0	0	0	0	0	0	0	0	0
ATI 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	0	0	0	0	0	2	0	0	115	76	0	193
Background Conditions	0	0	0	0	0	0	278	0	0	712	820	0	1810
check	0	0	0	0	0	0	278	0	0	712	820	0	
Existing Plus Project	0	0	0	0	0	0	281	0	0	597	746	0	
Proposed Project Trips													
Residential Trips	0	0	0	0	0	0	5	0	0	0	2	0	7
Trips 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Trips 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Project Trips	0	0	0	0	0	0	5	0	0	0	2	0	7
Bkgrd + Proj Conditions	0	0	0	0	0	0	283	0	0	712	822	0	1817
check	0	0	0	0	0	0	283	0	0	712	822	0	

Intersection Number: 1
Traffix Node Number: 3383
Intersection Name: Capitol Av & Hostetter Rd
Peak Hour: PM
Date of Analysis: 04/05/11
Count Date: 04/02/09
Scenario: 96 Townhomes

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	469	801	362	134	442	56	51	214	240	209	932	679	4589
Approved Project Trips													
CSJ ATI	88	13	3	4	65	2	1	2	1	13	14	40	246
ATI 2	0	0	0	0	0	0	0	0	0	0	0	0	0
ATI 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	88	13	3	4	65	2	1	2	1	13	14	40	246
Background Conditions	557	814	365	138	507	58	52	216	241	222	946	719	4835
check	557	814	365	138	507	58	52	216	241	222	946	719	
Existing Plus Project	469	818	362	134	442	58	52	223	244	213	932	679	
Proposed Project Trips													
Residential Trips	0	17	0	0	0	2	1	9	4	4	0	0	37
Trips 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Trips 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Project Trips	0	17	0	0	0	2	1	9	4	4	0	0	37
Bkgrd + Proj Conditions	557	831	365	138	507	60	53	225	245	226	946	719	4872
check	557	831	365	138	507	60	53	225	245	226	946	719	

Intersection Number: 2
Traffix Node Number: 3390
Intersection Name: Capitol Av & Sierra Rd
Peak Hour: PM
Date of Analysis: 04/05/11
Count Date: 10/13/10
Scenario: 96 Townhomes

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	0	561	159	65	0	148	87	221	35	0	0	0	1276
Approved Project Trips													
CSJ ATI	0	20	4	0	0	2	0	3	0	0	0	0	29
ATI 2	0	0	0	0	0	0	0	0	0	0	0	0	0
ATI 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	20	4	0	0	2	0	3	0	0	0	0	29
Background Conditions	0	581	163	65	0	150	87	224	35	0	0	0	1305
check	0	581	163	65	0	150	87	224	35	0	0	0	
Existing Plus Project	0	563	183	68	0	157	87	238	35	0	0	0	
Proposed Project Trips													
Residential Trips	0	2	24	3	0	9	0	17	0	0	0	0	55
Trips 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Trips 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Project Trips	0	2	24	3	0	9	0	17	0	0	0	0	55
Bkgrd + Proj Conditions	0	583	187	68	0	159	87	241	35	0	0	0	1360
check	0	583	187	68	0	159	87	241	35	0	0	0	

Intersection Number: 3
Traffix Node Number: 3293
Intersection Name: Capitol Av & Berryessa Rd
Peak Hour: PM
Date of Analysis: 04/05/11
Count Date: 03/17/09
Scenario: 96 Townhomes

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	256	643	105	43	659	191	109	240	400	642	910	366	4564
Approved Project Trips													
CSJ ATI	32	37	3	1	26	18	12	20	82	108	24	19	382
ATI 2	0	0	0	0	0	0	0	0	0	0	0	0	0
ATI 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	32	37	3	1	26	18	12	20	82	108	24	19	382
Background Conditions	288	680	108	44	685	209	121	260	482	750	934	385	4946
check	288	680	108	44	685	209	121	260	482	750	934	385	
Existing Plus Project	263	645	105	43	659	191	109	244	400	642	910	379	
Proposed Project Trips													
Residential Trips	7	2	0	0	0	0	0	4	0	0	0	13	26
Trips 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Trips 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Project Trips	7	2	0	0	0	0	0	4	0	0	0	13	26
Bkgrd + Proj Conditions	295	682	108	44	685	209	121	264	482	750	934	398	4972
check	295	682	108	44	685	209	121	264	482	750	934	398	

Intersection Number: 4
Traffix Node Number: 3948
Intersection Name: I-680 NB Off-Ramp & Berryessa Rd
Peak Hour: PM
Date of Analysis: 04/05/11
Count Date: 10/13/10
Scenario: 96 Townhomes

	Movements												
	North Approach			East Approach			South Approach			West Approach			
Scenario:	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	0	0	0	0	0	0	742	0	0	357	792	0	1891
Approved Project Trips													
CSJ ATI	0	0	0	0	0	0	4	0	0	79	89	0	172
ATI 2	0	0	0	0	0	0	0	0	0	0	0	0	0
ATI 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	0	0	0	0	0	4	0	0	79	89	0	172
Background Conditions	0	0	0	0	0	0	746	0	0	436	881	0	2063
check	0	0	0	0	0	0	746	0	0	436	881	0	
Existing Plus Project	0	0	0	0	0	0	751	0	0	357	796	0	
Proposed Project Trips													
Residential Trips	0	0	0	0	0	0	9	0	0	0	4	0	13
Trips 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Trips 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Project Trips	0	0	0	0	0	0	9	0	0	0	4	0	13
Bkgrd + Proj Conditions	0	0	0	0	0	0	755	0	0	436	885	0	2076
check	0	0	0	0	0	0	755	0	0	436	885	0	

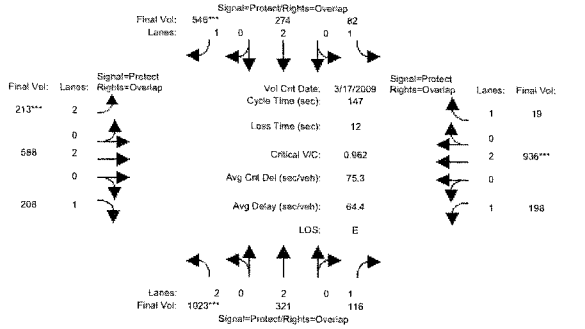
Appendix D

Intersection Level of Service Calculations

North Capitol Villas
96 Townhomes
San Jose, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #3293: Capitol Av / Berryessa Rd



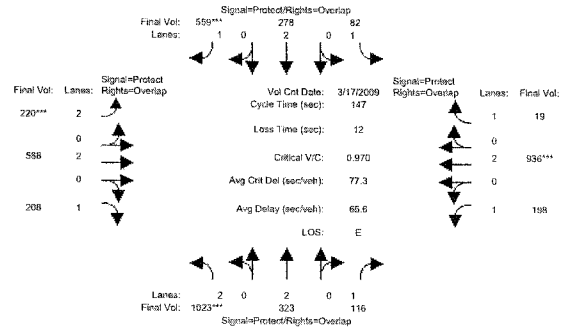
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 17 Mar 2009 << 7:30-8:30AM												
Base Vol:	1023	321	116	82	274	546	213	588	208	198	936	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1023	321	116	82	274	546	213	588	208	198	936	19
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1023	321	116	82	274	546	213	588	208	198	936	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1023	321	116	82	274	546	213	588	208	198	936	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1023	321	116	82	274	546	213	588	208	198	936	19
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1023	321	116	82	274	546	213	588	208	198	936	19
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	1750	3800	1750	3150	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.32	0.08	0.07	0.05	0.07	0.31	0.07	0.15	0.12	0.11	0.25	0.01
Crit Moves:	****					****	****				****	
Green Time:	49.6	55.6	75.9	31.4	37.4	47.7	10.3	27.7	77.4	20.3	37.7	69.0
Volume/Cap:	0.96	0.22	0.13	0.22	0.28	0.96	0.96	0.82	0.23	0.82	0.96	0.02
Delay/Veh:	66.7	31.1	18.5	48.0	44.2	77.0	117.6	64.7	18.8	81.2	74.0	20.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	66.7	31.1	18.5	48.0	44.2	77.0	117.6	64.7	18.8	81.2	74.0	20.9
LOS by Move:	E	C	B	D	D	E	F	E	B	F	E	C
HCM2k95thQ:	51	9	6	7	10	50	13	24	10	21	42	1

Note: Queue reported is the number of cars per lane.

North Capitol Villas
96 Townhomes
San Jose, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing + Project AM

Intersection #3293: Capitol Av / Berryessa Rd



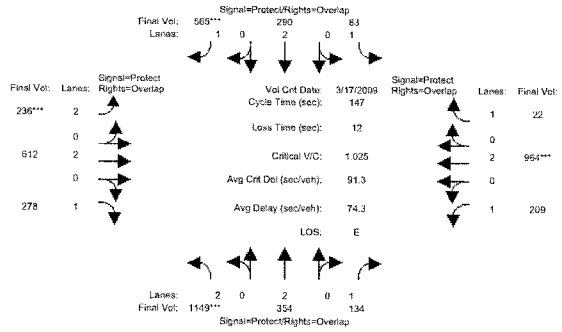
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 17 Mar 2009 << 7:30-8:30AM												
Base Vol:	1023	321	116	82	274	546	213	588	208	198	936	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1023	321	116	82	274	546	213	588	208	198	936	19
Added Vol:	0	2	0	0	4	13	7	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1023	323	116	82	278	559	220	588	208	198	936	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1023	323	116	82	278	559	220	588	208	198	936	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1023	323	116	82	278	559	220	588	208	198	936	19
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1023	323	116	82	278	559	220	588	208	198	936	19
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	1750	3800	1750	3150	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.32	0.09	0.07	0.05	0.07	0.32	0.07	0.15	0.12	0.11	0.25	0.01
Crit Moves:	****					****	****				****	
Green Time:	49.2	55.8	76.1	31.3	37.8	48.4	10.6	27.7	76.9	20.2	37.3	68.6
Volume/Cap:	0.97	0.22	0.13	0.22	0.28	0.97	0.97	0.82	0.23	0.82	0.97	0.02
Delay/Veh:	68.8	31.0	18.4	48.1	43.9	78.4	119.0	64.8	19.1	81.4	76.1	21.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	68.8	31.0	18.4	48.1	43.9	78.4	119.0	64.8	19.1	81.4	76.1	21.1
LOS by Move:	E	C	B	D	D	E	F	E	B	F	E	C
HCM2k95thQ:	52	9	6	7	10	51	14	24	10	21	42	1

Note: Queue reported is the number of cars per lane.

North Capitol Villas
96 Townhomes
San Jose, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background AM

Intersection #3293: Capitol Av / Berryessa Rd



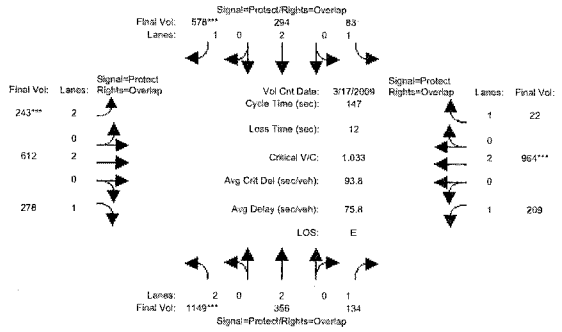
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 17 Mar 2009 << 7:30-8:30AM												
Base Vol:	1023	321	116	82	274	546	213	588	208	198	936	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1023	321	116	82	274	546	213	588	208	198	936	19
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	126	33	18	1	16	19	23	24	70	11	28	3
Initial Fut:	1149	354	134	83	290	565	236	612	278	209	964	22
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1149	354	134	83	290	565	236	612	278	209	964	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1149	354	134	83	290	565	236	612	278	209	964	22
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1149	354	134	83	290	565	236	612	278	209	964	22
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	1750	3800	1750	3150	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.36	0.09	0.08	0.05	0.08	0.32	0.07	0.16	0.16	0.12	0.25	0.01
Crit Moves:	****					****	****				****	
Green Time:	52.3	58.1	78.2	29.7	35.6	46.3	10.7	27.1	79.4	20.1	36.4	66.1
Volume/Cap:	1.02	0.24	0.14	0.23	0.32	1.02	1.02	0.87	0.29	0.87	1.02	0.03
Delay/Veh:	80.8	29.7	17.5	49.5	45.9	95.2	134.1	70.2	18.7	90.3	91.2	22.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	80.8	29.7	17.5	49.5	45.9	95.2	134.1	70.2	18.7	90.3	91.2	22.6
LOS by Move:	F	C	B	D	D	F	F	E	B	F	F	C
HCM2k95thQ:	61	10	6	7	10	55	15	26	14	23	46	1

Note: Queue reported is the number of cars per lane.

North Capitol Villas
96 Townhomes
San Jose, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background + Project AM

Intersection #3293: Capitol Av / Berryessa Rd



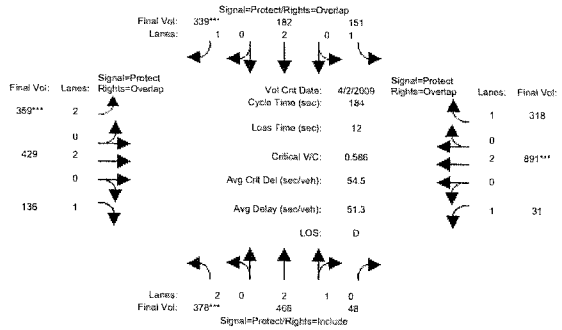
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 17 Mar 2009 << 7:30-8:30AM												
Base Vol:	1023	321	116	82	274	546	213	588	208	198	936	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1023	321	116	82	274	546	213	588	208	198	936	19
Added Vol:	0	2	0	0	4	13	7	0	0	0	0	0
ATI:	126	33	18	1	16	19	23	24	70	11	28	3
Initial Fut:	1149	356	134	83	294	578	243	612	278	209	964	22
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1149	356	134	83	294	578	243	612	278	209	964	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1149	356	134	83	294	578	243	612	278	209	964	22
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1149	356	134	83	294	578	243	612	278	209	964	22
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	1750	3800	1750	3150	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.36	0.09	0.08	0.05	0.08	0.33	0.08	0.16	0.16	0.12	0.25	0.01
Crit Moves:	****					****	****				****	
Green Time:	51.9	58.3	78.3	29.6	36.0	47.0	11.0	27.0	78.9	20.0	36.1	65.7
Volume/Cap:	1.03	0.24	0.14	0.24	0.32	1.03	1.03	0.88	0.30	0.88	1.03	0.03
Delay/Veh:	83.4	29.6	17.4	49.5	45.6	96.8	135.6	70.3	18.9	90.6	93.7	22.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	83.4	29.6	17.4	49.5	45.6	96.8	135.6	70.3	18.9	90.6	93.7	22.8
LOS by Move:	F	C	B	D	D	F	F	E	B	F	F	C
HCM2k95thQ:	61	10	6	7	10	57	16	26	14	23	46	1

Note: Queue reported is the number of cars per lane.

North Capitol Villas
96 Townhomes
San Jose, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #3383: Capitol Av / Hostetter Rd



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module: >> Count Date: 2 Apr 2009 << 7:45-8:45AM

Base Vol:	378	466	48	151	182	339	359	429	136	31	891	318
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	378	466	48	151	182	339	359	429	136	31	891	318
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	378	466	48	151	182	339	359	429	136	31	891	318
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	378	466	48	151	182	339	359	429	136	31	891	318
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	378	466	48	151	182	339	359	429	136	31	891	318
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	378	466	48	151	182	339	359	429	136	31	891	318

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.71	0.29	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	5076	523	1750	3800	1750	3150	3800	1750	1750	3800	1750

Capacity Analysis Module:

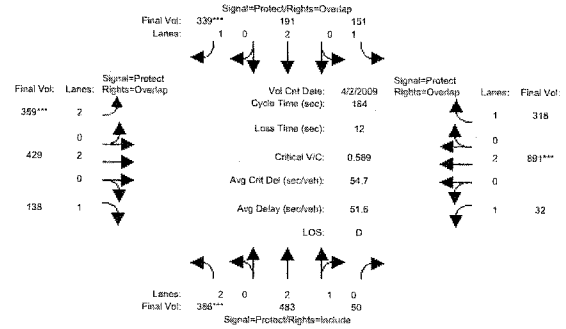
Vol/Sat:	0.12	0.09	0.09	0.09	0.05	0.19	0.11	0.11	0.08	0.02	0.23	0.18
Crit Moves:	****					****	****				****	
Green Time:	37.7	32.3	32.3	30.4	25.0	60.8	35.8	81.8	119.4	27.6	73.6	103.9
Volume/Cap:	0.59	0.52	0.52	0.52	0.35	0.59	0.59	0.25	0.12	0.12	0.59	0.32
Delay/Veh:	67.5	69.4	69.4	71.9	72.6	52.7	68.9	32.1	12.3	67.9	43.9	21.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	67.5	69.4	69.4	71.9	72.6	52.7	68.9	32.1	12.3	67.9	43.9	21.5
LOS by Move:	E	E	E	E	E	D	E	C	B	E	D	C
HCM2k95thQ:	21	17	17	16	9	29	21	14	6	3	33	18

Note: Queue reported is the number of cars per lane.

North Capitol Villas
96 Townhomes
San Jose, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing + Project AM

Intersection #3383: Capitol Av / Hostetter Rd



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0

Volume Module: >> Count Date: 2 Apr 2009 << 7:45-8:45AM

Base Vol:	378	466	48	151	182	339	359	429	136	31	891	318
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	378	466	48	151	182	339	359	429	136	31	891	318
Added Vol:	8	17	2	0	9	0	0	0	2	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	386	483	50	151	191	339	359	429	138	32	891	318
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	386	483	50	151	191	339	359	429	138	32	891	318
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	386	483	50	151	191	339	359	429	138	32	891	318
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	386	483	50	151	191	339	359	429	138	32	891	318

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.71	0.29	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	5074	525	1750	3800	1750	3150	3800	1750	1750	3800	1750

Capacity Analysis Module:

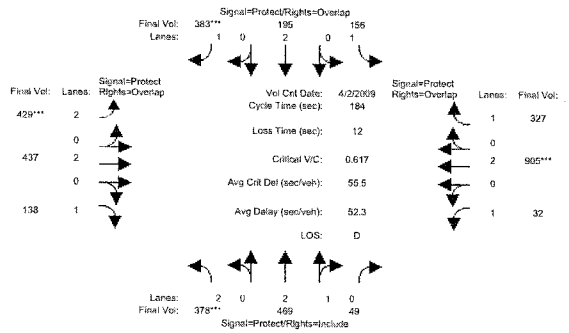
Vol/Sat:	0.12	0.10	0.10	0.09	0.05	0.19	0.11	0.11	0.08	0.02	0.23	0.18
Crit Moves:	****					****	****				****	
Green Time:	38.3	33.1	33.1	30.0	24.9	60.5	35.6	81.4	119.7	27.4	73.2	103.3
Volume/Cap:	0.59	0.53	0.53	0.53	0.37	0.59	0.59	0.26	0.12	0.12	0.59	0.32
Delay/Veh:	67.2	68.9	68.9	72.4	72.9	53.0	69.1	32.3	12.3	68.1	44.2	21.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	67.2	68.9	68.9	72.4	72.9	53.0	69.1	32.3	12.3	68.1	44.2	21.8
LOS by Move:	E	E	E	E	E	D	E	C	B	E	D	C
HCM2k95thQ:	22	18	18	16	10	30	21	14	6	3	33	18

Note: Queue reported is the number of cars per lane.

North Capitol Villas
96 Townhomes
San Jose, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background AM

Intersection #3383: Capitol Av / Hostetter Rd



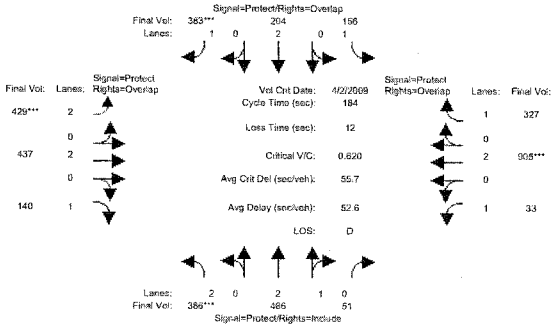
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 2 Apr 2009 << 7:45-8:45AM												
Base Vol:	378	466	48	151	182	339	359	429	136	31	891	318
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	378	466	48	151	182	339	359	429	136	31	891	318
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	3	1	5	13	44	70	8	2	1	14	9
Initial Fut:	378	469	49	156	195	383	429	437	138	32	905	327
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	378	469	49	156	195	383	429	437	138	32	905	327
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	378	469	49	156	195	383	429	437	138	32	905	327
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	378	469	49	156	195	383	429	437	138	32	905	327
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.71	0.29	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	5070	530	1750	3800	1750	3150	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.12	0.09	0.09	0.09	0.05	0.22	0.14	0.12	0.08	0.02	0.24	0.19
Crit Moves:	****					****	****				****	
Green Time:	35.8	30.8	30.8	29.6	24.6	65.2	40.6	83.8	119.6	27.7	71.0	100.6
Volume/Cap:	0.62	0.55	0.55	0.55	0.38	0.62	0.62	0.25	0.12	0.12	0.62	0.34
Delay/Veh:	69.8	71.0	71.0	73.5	73.2	51.0	66.4	30.9	12.3	67.8	46.4	23.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	69.8	71.0	71.0	73.5	73.2	51.0	66.4	30.9	12.3	67.8	46.4	23.4
LOS by Move:	E	E	E	E	E	D	E	C	B	E	D	C
HCM2k95thQ:	22	17	17	17	10	33	24	14	6	3	34	19

Note: Queue reported is the number of cars per lane.

North Capitol Villas
96 Townhomes
San Jose, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background + Project AM

Intersection #3383: Capitol Av / Hostetter Rd



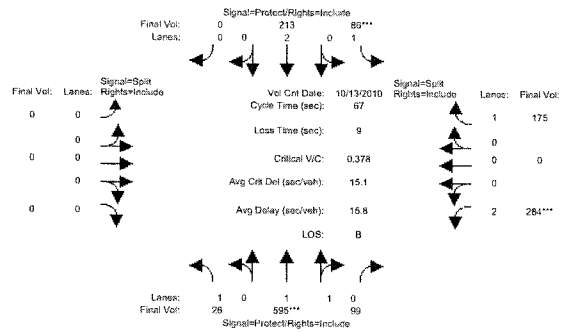
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 2 Apr 2009 << 7:45-8:45AM												
Base Vol:	378	466	48	151	182	339	359	429	136	31	891	318
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	378	466	48	151	182	339	359	429	136	31	891	318
Added Vol:	8	17	2	0	9	0	0	0	2	1	0	0
ATI:	0	3	1	5	13	44	70	8	2	1	14	9
Initial Fut:	386	486	51	156	204	383	429	437	140	33	905	327
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	386	486	51	156	204	383	429	437	140	33	905	327
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	386	486	51	156	204	383	429	437	140	33	905	327
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	386	486	51	156	204	383	429	437	140	33	905	327
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.70	0.30	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	5067	532	1750	3800	1750	3150	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.12	0.10	0.10	0.09	0.05	0.22	0.14	0.12	0.08	0.02	0.24	0.19
Crit Moves:	****					****	****				****	
Green Time:	36.4	31.6	31.6	29.3	24.5	65.0	40.4	83.5	119.8	27.6	70.7	100.0
Volume/Cap:	0.62	0.56	0.56	0.56	0.40	0.62	0.62	0.25	0.12	0.13	0.62	0.34
Delay/Veh:	69.4	70.6	70.6	73.9	73.5	51.2	66.6	31.1	12.2	67.9	46.6	23.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	69.4	70.6	70.6	73.9	73.5	51.2	66.6	31.1	12.2	67.9	46.6	23.8
LOS by Move:	E	E	E	E	E	D	E	C	B	E	D	C
HCM2k95thQ:	22	18	18	17	11	33	24	14	6	4	34	20

Note: Queue reported is the number of cars per lane.

North Capitol Villas
96 Townhomes
San Jose, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #3390: Capitol Av / Sierra Rd



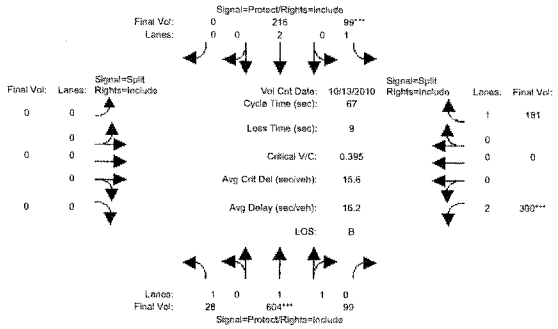
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	0	0	0	0	10	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 13 Oct 2010 << 7:30-8:30AM												
Base Vol:	28	595	99	86	213	0	0	0	0	284	0	175
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	28	595	99	86	213	0	0	0	0	284	0	175
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	28	595	99	86	213	0	0	0	0	284	0	175
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	28	595	99	86	213	0	0	0	0	284	0	175
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	28	595	99	86	213	0	0	0	0	284	0	175
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	28	595	99	86	213	0	0	0	0	284	0	175
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	1.00	1.71	0.29	1.00	2.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	1750	3172	528	1750	3800	0	0	0	0	3150	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.19	0.19	0.05	0.06	0.00	0.00	0.00	0.00	0.09	0.00	0.10
Crit Moves:		****		****						****		
Green Time:	16.8	32.3	32.3	8.5	24.0	0.0	0.0	0.0	0.0	17.2	0.0	17.2
Volume/Cap:	0.06	0.39	0.39	0.39	0.16	0.00	0.00	0.00	0.00	0.35	0.00	0.39
Delay/Veh:	19.2	11.2	11.2	28.0	14.7	0.0	0.0	0.0	0.0	20.6	0.0	21.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	19.2	11.2	11.2	28.0	14.7	0.0	0.0	0.0	0.0	20.6	0.0	21.1
LOS by Move:	B	B	B	C	B	A	A	A	A	C	A	C
HCM2k95thQ:	1	10	10	4	3	0	0	0	0	6	0	7

Note: Queue reported is the number of cars per lane.

North Capitol Villas
96 Townhomes
San Jose, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing + Project AM

Intersection #3390: Capitol Av / Sierra Rd



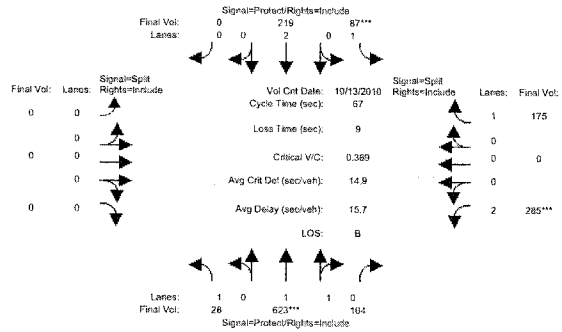
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	0	0	0	0	10	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 13 Oct 2010 << 7:30-8:30AM												
Base Vol:	28	595	99	86	213	0	0	0	0	284	0	175
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	28	595	99	86	213	0	0	0	0	284	0	175
Added Vol:	0	9	0	13	3	0	0	0	0	16	0	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	28	604	99	99	216	0	0	0	0	300	0	181
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	28	604	99	99	216	0	0	0	0	300	0	181
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	28	604	99	99	216	0	0	0	0	300	0	181
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	28	604	99	99	216	0	0	0	0	300	0	181
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	1.00	1.71	0.29	1.00	2.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	1750	3179	521	1750	3800	0	0	0	0	3150	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.19	0.19	0.06	0.06	0.00	0.00	0.00	0.00	0.10	0.00	0.10
Crit Moves:		****		****						****		
Green Time:	16.8	31.5	31.5	9.4	24.0	0.0	0.0	0.0	0.0	17.1	0.0	17.1
Volume/Cap:	0.06	0.40	0.40	0.40	0.16	0.00	0.00	0.00	0.00	0.37	0.00	0.40
Delay/Veh:	19.2	11.8	11.8	27.4	14.7	0.0	0.0	0.0	0.0	20.8	0.0	21.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	19.2	11.8	11.8	27.4	14.7	0.0	0.0	0.0	0.0	20.8	0.0	21.3
LOS by Move:	B	B	B	C	B	A	A	A	A	C	A	C
HCM2k95thQ:	1	10	10	5	3	0	0	0	0	7	0	7

Note: Queue reported is the number of cars per lane.

North Capitol Villas
96 Townhomes
San Jose, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background AM

Intersection #3390: Capitol Av / Sierra Rd



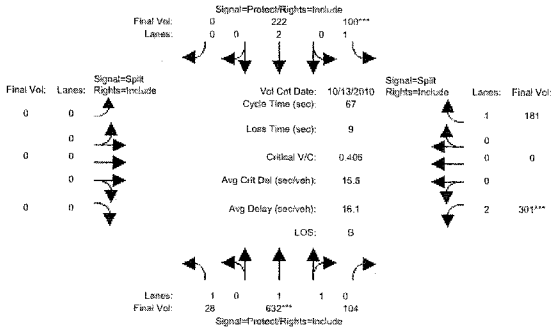
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	0	0	0	0	10	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 13 Oct 2010 << 7:30-8:30AM												
Base Vol:	28	595	99	86	213	0	0	0	0	284	0	175
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	28	595	99	86	213	0	0	0	0	284	0	175
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	28	5	1	6	0	0	0	0	1	0	0
Initial Fut:	28	623	104	87	219	0	0	0	0	285	0	175
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	28	623	104	87	219	0	0	0	0	285	0	175
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	28	623	104	87	219	0	0	0	0	285	0	175
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	28	623	104	87	219	0	0	0	0	285	0	175
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	1.00	1.71	0.29	1.00	2.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	1750	3170	529	1750	3800	0	0	0	0	3150	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.20	0.20	0.05	0.06	0.00	0.00	0.00	0.00	0.09	0.00	0.10
Crit Moves:		****		****						****		
Green Time:	17.0	32.9	32.9	8.3	24.3	0.0	0.0	0.0	0.0	16.8	0.0	16.8
Volume/Cap:	0.06	0.40	0.40	0.40	0.16	0.00	0.00	0.00	0.00	0.36	0.00	0.40
Delay/Veh:	19.0	10.9	10.9	28.2	14.5	0.0	0.0	0.0	0.0	21.0	0.0	21.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	19.0	10.9	10.9	28.2	14.5	0.0	0.0	0.0	0.0	21.0	0.0	21.5
LOS by Move:	B	B	B	C	B	A	A	A	A	C	A	C
HCM2k95thQ:	1	10	10	5	3	0	0	0	0	6	0	7

Note: Queue reported is the number of cars per lane.

North Capitol Villas
96 Townhomes
San Jose, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background + Project AM

Intersection #3390: Capitol Av / Sierra Rd



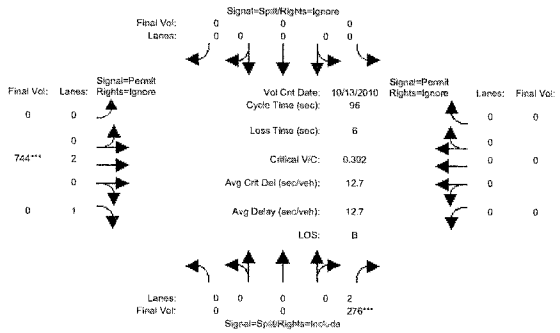
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	0	0	0	0	10	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 13 Oct 2010 << 7:30-8:30AM												
Base Vol:	28	595	99	86	213	0	0	0	0	284	0	175
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	28	595	99	86	213	0	0	0	0	284	0	175
Added Vol:	0	9	0	13	3	0	0	0	0	16	0	6
ATI:	0	28	5	1	6	0	0	0	0	1	0	0
Initial Fut:	28	632	104	100	222	0	0	0	0	301	0	181
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	28	632	104	100	222	0	0	0	0	301	0	181
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	28	632	104	100	222	0	0	0	0	301	0	181
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	28	632	104	100	222	0	0	0	0	301	0	181
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	1.00	1.71	0.29	1.00	2.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	1750	3177	523	1750	3800	0	0	0	0	3150	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.20	0.20	0.06	0.06	0.00	0.00	0.00	0.00	0.10	0.00	0.10
Crit Moves:		****		****						****		
Green Time:	17.0	32.1	32.1	9.2	24.3	0.0	0.0	0.0	0.0	16.7	0.0	16.7
Volume/Cap:	0.06	0.42	0.42	0.42	0.16	0.00	0.00	0.00	0.00	0.38	0.00	0.42
Delay/Veh:	19.0	11.5	11.5	27.6	14.5	0.0	0.0	0.0	0.0	21.2	0.0	21.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	19.0	11.5	11.5	27.6	14.5	0.0	0.0	0.0	0.0	21.2	0.0	21.7
LOS by Move:	B	B	B	C	B	A	A	A	A	C	A	C
HCM2k95thQ:	1	10	10	5	3	0	0	0	0	7	0	7

Note: Queue reported is the number of cars per lane.

North Capitol Villas
96 Townhomes
San Jose, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing AM

Intersection #3948: I-680 NB Off-Ramp / Berryessa Rd



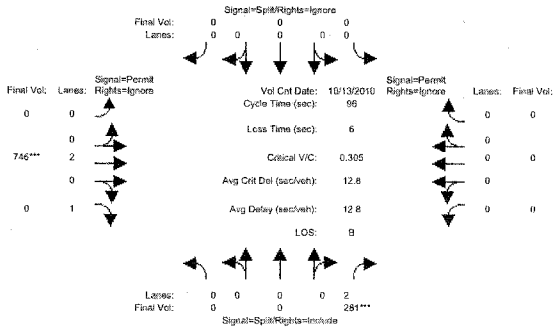
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	10	0	0	0	0	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 13 Oct 2010 << 7:15-8:15AM												
Base Vol:	0	0	276	0	0	0	0	744	597	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	276	0	0	0	0	744	597	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	276	0	0	0	0	744	597	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	0	276	0	0	0	0	744	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	276	0	0	0	0	744	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	0	276	0	0	0	0	744	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.83	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00
Final Sat.:	0	0	3150	0	0	0	0	3800	1750	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00
Crit Moves:			****					****				
Green Time:	0.0	0.0	27.8	0.0	0.0	0.0	0.0	62.2	0.0	0.0	0.0	0.0
Volume/Cap:	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	0.0	26.7	0.0	0.0	0.0	0.0	7.5	0.0	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	26.7	0.0	0.0	0.0	0.0	7.5	0.0	0.0	0.0	0.0
LOS by Move:	A	A	C	A	A	A	A	A	A	A	A	A
HCM2k95thQ:	0	0	8	0	0	0	0	9	0	0	0	0

Note: Queue reported is the number of cars per lane.

North Capitol Villas
96 Townhomes
San Jose, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing + Project AM

Intersection #3948: I-680 NB Off-Ramp / Berryessa Rd



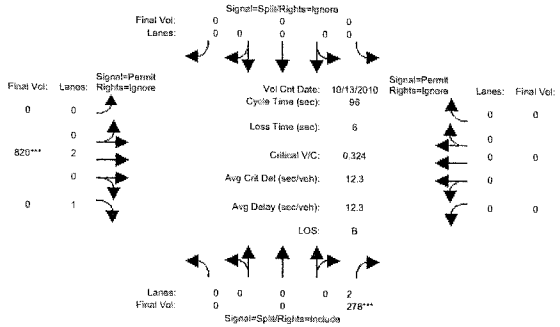
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	10	0	0	0	0	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 13 Oct 2010 << 7:15-8:15AM												
Base Vol:	0	0	276	0	0	0	0	744	597	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	276	0	0	0	0	744	597	0	0	0
Added Vol:	0	0	5	0	0	0	0	2	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	281	0	0	0	0	746	597	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	0	281	0	0	0	0	746	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	281	0	0	0	0	746	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	0	281	0	0	0	0	746	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.83	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00
Final Sat.:	0	0	3150	0	0	0	0	3800	1750	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00
Crit Moves:			****					****				
Green Time:	0.0	0.0	28.1	0.0	0.0	0.0	0.0	61.9	0.0	0.0	0.0	0.0
Volume/Cap:	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	0.0	26.5	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	26.5	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0	0.0
LOS by Move:	A	A	C	A	A	A	A	A	A	A	A	A
HCM2k95thQ:	0	0	8	0	0	0	0	9	0	0	0	0

Note: Queue reported is the number of cars per lane.

North Capitol Villas
96 Townhomes
San Jose, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background AM

Intersection #3948: I-680 NB Off-Ramp / Berryessa Rd



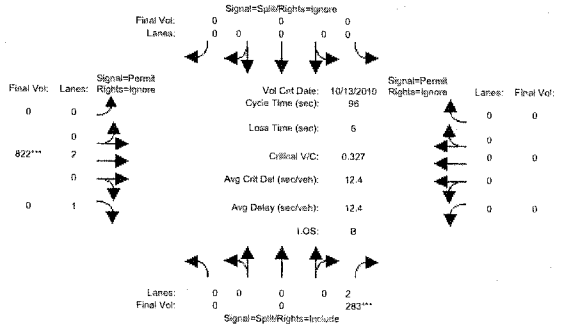
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Min. Green:	0		0	10	0		0	0	0		10	10	0		10	10
Y+R:	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0
Volume Module: >> Count Date: 13 Oct 2010 << 7:15-8:15AM																
Base Vol:	0		0	276	0		0	0	0		744	597	0		0	0
Growth Adj:	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00
Initial Bse:	0		0	276	0		0	0	0		744	597	0		0	0
Added Vol:	0		0	0	0		0	0	0		0	0	0		0	0
ATI:	0		0	2	0		0	0	0		76	115	0		0	0
Initial Fut:	0		0	278	0		0	0	0		820	712	0		0	0
User Adj:	1.00		1.00	1.00	1.00		1.00	0.00	1.00		1.00	0.00	0.00		0.00	0.00
PHF Adj:	1.00		1.00	1.00	1.00		1.00	0.00	1.00		1.00	0.00	1.00		1.00	0.00
PHF Volume:	0		0	278	0		0	0	0		820	0	0		0	0
Reduct Vol:	0		0	0	0		0	0	0		0	0	0		0	0
Reduced Vol:	0		0	278	0		0	0	0		820	0	0		0	0
PCE Adj:	1.00		1.00	1.00	1.00		1.00	0.00	1.00		1.00	0.00	1.00		1.00	0.00
MLF Adj:	1.00		1.00	1.00	1.00		1.00	0.00	1.00		1.00	0.00	1.00		1.00	0.00
FinalVolume:	0		0	278	0		0	0	0		820	0	0		0	0
Saturation Flow Module:																
Sat/Lane:	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900
Adjustment:	0.92		1.00	0.83	0.92		1.00	0.92	0.92		1.00	0.92	0.92		1.00	0.92
Lanes:	0.00		0.00	2.00	0.00		0.00	0.00	0.00		2.00	1.00	0.00		0.00	0.00
Final Sat.:	0		0	3150	0		0	0	0		3800	1750	0		0	0
Capacity Analysis Module:																
Vol/Sat:	0.00		0.00	0.09	0.00		0.00	0.00	0.00		0.22	0.00	0.00		0.00	0.00
Crit Moves:				****							****					
Green Time:	0.0		0.0	26.1	0.0		0.0	0.0	0.0		63.9	0.0	0.0		0.0	0.0
Volume/Cap:	0.00		0.00	0.32	0.00		0.00	0.00	0.00		0.32	0.00	0.00		0.00	0.00
Delay/Veh:	0.0		0.0	28.1	0.0		0.0	0.0	0.0		6.9	0.0	0.0		0.0	0.0
User DelAdj:	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00
AdjDel/Veh:	0.0		0.0	28.1	0.0		0.0	0.0	0.0		6.9	0.0	0.0		0.0	0.0
LOS by Move:	A		A	C	A		A	A	A		A	A	A		A	A
HCM2k95thQ:	0		0	8	0		0	0	0		10	0	0		0	0

Note: Queue reported is the number of cars per lane.

North Capitol Villas
96 Townhomes
San Jose, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background + Project AM

Intersection #3948: I-680 NB Off-Ramp / Berryessa Rd



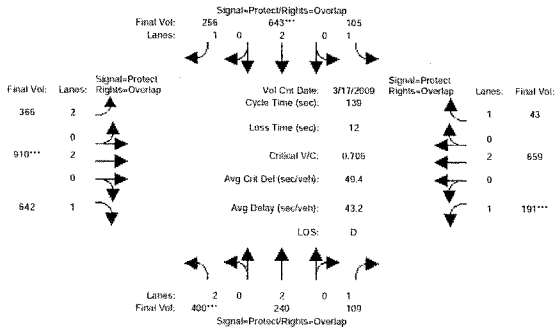
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Min. Green:	0		0	10	0		0	0	0		10	10	0		10	10
Y+R:	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0
Volume Module: >> Count Date: 13 Oct 2010 << 7:15-8:15AM																
Base Vol:	0		0	276	0		0	0	0		744	597	0		0	0
Growth Adj:	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00
Initial Bse:	0		0	276	0		0	0	0		744	597	0		0	0
Added Vol:	0		0	5	0		0	0	0		2	0	0		0	0
ATI:	0		0	2	0		0	0	0		76	115	0		0	0
Initial Fut:	0		0	283	0		0	0	0		822	712	0		0	0
User Adj:	1.00		1.00	1.00	1.00		1.00	0.00	1.00		1.00	0.00	0.00		0.00	0.00
PHF Adj:	1.00		1.00	1.00	1.00		1.00	0.00	1.00		1.00	0.00	1.00		1.00	0.00
PHF Volume:	0		0	283	0		0	0	0		822	0	0		0	0
Reduct Vol:	0		0	0	0		0	0	0		0	0	0		0	0
Reduced Vol:	0		0	283	0		0	0	0		822	0	0		0	0
PCE Adj:	1.00		1.00	1.00	1.00		1.00	0.00	1.00		1.00	0.00	1.00		1.00	0.00
MLF Adj:	1.00		1.00	1.00	1.00		1.00	0.00	1.00		1.00	0.00	1.00		1.00	0.00
FinalVolume:	0		0	283	0		0	0	0		822	0	0		0	0
Saturation Flow Module:																
Sat/Lane:	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900
Adjustment:	0.92		1.00	0.83	0.92		1.00	0.92	0.92		1.00	0.92	0.92		1.00	0.92
Lanes:	0.00		0.00	2.00	0.00		0.00	0.00	0.00		2.00	1.00	0.00		0.00	0.00
Final Sat.:	0		0	3150	0		0	0	0		3800	1750	0		0	0
Capacity Analysis Module:																
Vol/Sat:	0.00		0.00	0.09	0.00		0.00	0.00	0.00		0.22	0.00	0.00		0.00	0.00
Crit Moves:				****							****					
Green Time:	0.0		0.0	26.4	0.0		0.0	0.0	0.0		63.6	0.0	0.0		0.0	0.0
Volume/Cap:	0.00		0.00	0.33	0.00		0.00	0.00	0.00		0.33	0.00	0.00		0.00	0.00
Delay/Veh:	0.0		0.0	27.9	0.0		0.0	0.0	0.0		7.1	0.0	0.0		0.0	0.0
User DelAdj:	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00
AdjDel/Veh:	0.0		0.0	27.9	0.0		0.0	0.0	0.0		7.1	0.0	0.0		0.0	0.0
LOS by Move:	A		A	C	A		A	A	A		A	A	A		A	A
HCM2k95thQ:	0		0	8	0		0	0	0		10	0	0		0	0

Note: Queue reported is the number of cars per lane.

North Capitol Villas
96 Townhomes
San Jose, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #3293: Capitol Av / Berryessa Rd



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 17 Mar 2009 << 5:00-6:00PM												
Base Vol:	400	240	109	105	643	256	366	910	642	191	659	43
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	400	240	109	105	643	256	366	910	642	191	659	43
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	400	240	109	105	643	256	366	910	642	191	659	43
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	400	240	109	105	643	256	366	910	642	191	659	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	400	240	109	105	643	256	366	910	642	191	659	43
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	400	240	109	105	643	256	366	910	642	191	659	43
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	1750	3800	1750	3150	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.13	0.06	0.06	0.06	0.17	0.15	0.12	0.24	0.37	0.11	0.17	0.02
Crit Moves:	****				****			****		****		
Green Time:	25.0	31.8	53.3	26.5	33.3	60.9	27.5	47.2	72.2	21.5	41.1	67.6
Volume/Cap:	0.71	0.28	0.16	0.31	0.71	0.33	0.59	0.71	0.71	0.71	0.59	0.05
Delay/Veh:	57.6	44.3	28.3	49.0	50.9	26.0	52.0	41.7	27.9	64.0	42.5	18.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	57.6	44.3	28.3	49.0	50.9	26.0	52.0	41.7	27.9	64.0	42.5	18.8
LOS by Move:	E	D	C	D	D	C	D	D	C	E	D	B
HCM2k95thQ:	20	8	6	8	24	14	16	29	37	18	22	2

Note: Queue reported is the number of cars per lane.

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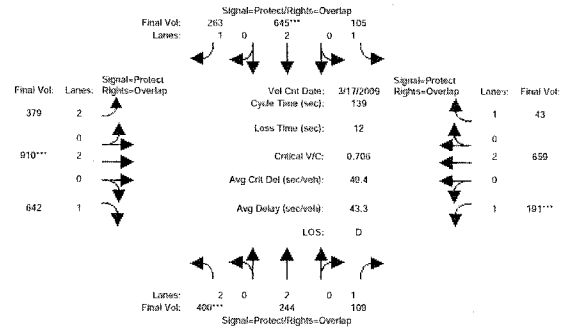
North Capitol Villas
96 Townhomes
San Jose, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing + Project PM

Intersection #3293: Capitol Av / Berryessa Rd



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 17 Mar 2009 << 5:00-6:00PM												
Base Vol:	400	240	109	105	643	256	366	910	642	191	659	43
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	400	240	109	105	643	256	366	910	642	191	659	43
Added Vol:	0	4	0	0	2	7	13	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	400	244	109	105	645	263	379	910	642	191	659	43
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	400	244	109	105	645	263	379	910	642	191	659	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	400	244	109	105	645	263	379	910	642	191	659	43
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	400	244	109	105	645	263	379	910	642	191	659	43
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	1750	3800	1750	3150	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.13	0.06	0.06	0.06	0.17	0.15	0.12	0.24	0.37	0.11	0.17	0.02
Crit Moves:	****				****			****		****		
Green Time:	25.0	31.8	53.3	26.6	33.4	61.5	28.1	47.1	72.1	21.5	40.5	67.1
Volume/Cap:	0.71	0.28	0.16	0.31	0.71	0.34	0.60	0.71	0.71	0.71	0.60	0.05
Delay/Veh:	57.6	44.3	28.3	48.9	50.9	25.7	51.8	41.7	28.0	64.0	43.1	19.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	57.6	44.3	28.3	48.9	50.9	25.7	51.8	41.7	28.0	64.0	43.1	19.1
LOS by Move:	E	D	C	D	D	C	D	D	C	E	D	B
HCM2k95thQ:	20	8	6	8	24	15	16	29	37	18	22	2

Note: Queue reported is the number of cars per lane.

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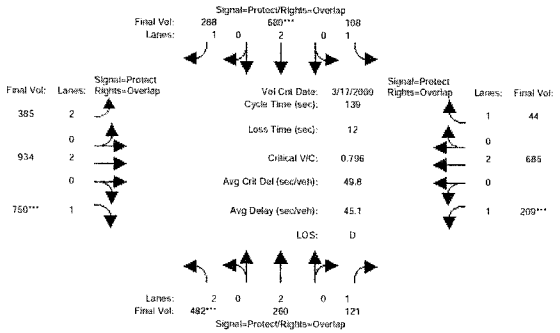
North Capitol Villas
98 Townhomes
San Jose, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background PM

Intersection #3293: Capitol Av / Berryessa Rd



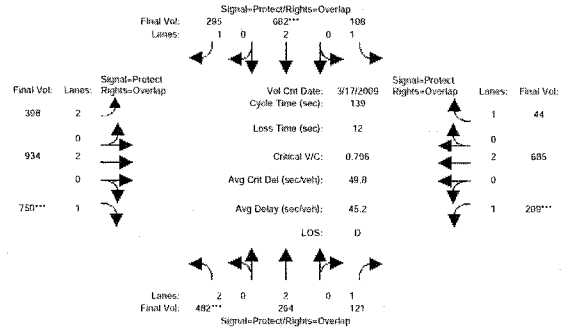
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 17 Mar 2009 << 5:00-6:00PM												
Base Vol:	400	240	109	105	643	256	366	910	642	191	659	43
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	400	240	109	105	643	256	366	910	642	191	659	43
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	82	20	12	3	37	32	19	24	108	18	26	1
Initial Fut:	482	260	121	108	680	288	385	934	750	209	685	44
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	482	260	121	108	680	288	385	934	750	209	685	44
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	482	260	121	108	680	288	385	934	750	209	685	44
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	482	260	121	108	680	288	385	934	750	209	685	44
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	1750	3800	1750	3150	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.15	0.07	0.07	0.06	0.18	0.16	0.12	0.25	0.43	0.12	0.18	0.03
Crit Moves:	****				****				****	****		
Green Time:	26.7	31.2	52.1	26.8	31.3	59.1	27.9	48.1	74.9	20.9	41.1	67.9
Volume/Cap:	0.80	0.30	0.18	0.32	0.80	0.39	0.61	0.71	0.80	0.80	0.61	0.05
Delay/Veh:	60.8	45.1	29.3	48.8	56.1	27.8	52.3	41.2	30.6	72.4	43.0	18.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	60.8	45.1	29.3	48.8	56.1	27.8	52.3	41.2	30.6	72.4	43.0	18.7
LOS by Move:	E	D	C	D	E	C	D	D	C	E	D	B
HCM2k95thQ:	24	9	7	9	27	17	16	29	46	21	23	2

Note: Queue reported is the number of cars per lane.

North Capitol Villas
98 Townhomes
San Jose, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background + Project PM

Intersection #3293: Capitol Av / Berryessa Rd



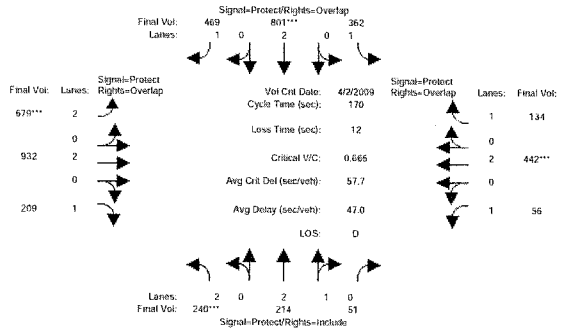
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 17 Mar 2009 << 5:00-6:00PM												
Base Vol:	400	240	109	105	643	256	366	910	642	191	659	43
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	400	240	109	105	643	256	366	910	642	191	659	43
Added Vol:	0	4	0	0	2	7	13	0	0	0	0	0
ATI:	82	20	12	3	37	32	19	24	108	18	26	1
Initial Fut:	482	264	121	108	682	295	398	934	750	209	685	44
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	482	264	121	108	682	295	398	934	750	209	685	44
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	482	264	121	108	682	295	398	934	750	209	685	44
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	482	264	121	108	682	295	398	934	750	209	685	44
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	3800	1750	1750	3800	1750	3150	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.15	0.07	0.07	0.06	0.18	0.17	0.13	0.25	0.43	0.12	0.18	0.03
Crit Moves:	****				****				****	****		
Green Time:	26.7	31.2	52.1	26.8	31.3	59.7	28.4	48.1	74.8	20.8	40.5	67.3
Volume/Cap:	0.80	0.31	0.18	0.32	0.80	0.39	0.62	0.71	0.80	0.80	0.62	0.05
Delay/Veh:	60.8	45.1	29.3	48.8	56.1	27.5	52.2	41.2	30.7	72.5	43.6	19.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	60.8	45.1	29.3	48.8	56.1	27.5	52.2	41.2	30.7	72.5	43.6	19.0
LOS by Move:	E	D	C	D	E	C	D	D	C	E	D	B
HCM2k95thQ:	24	9	7	9	27	17	17	29	46	21	23	2

Note: Queue reported is the number of cars per lane.

North Capitol Villas
96 Townhomes
San Jose, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #3383: Capitol Av / Hostetter Rd



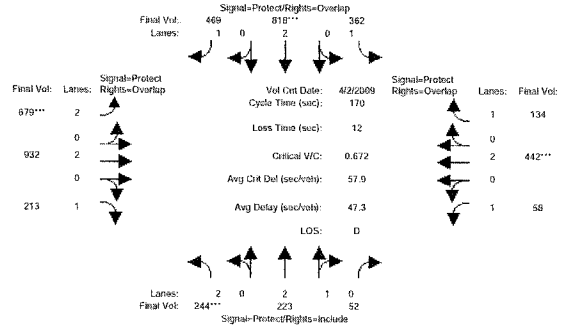
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 2 Apr 2009 << 5:00-6:00PM												
Base Vol:	240	214	51	362	801	469	679	932	209	56	442	134
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	240	214	51	362	801	469	679	932	209	56	442	134
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	240	214	51	362	801	469	679	932	209	56	442	134
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	240	214	51	362	801	469	679	932	209	56	442	134
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	240	214	51	362	801	469	679	932	209	56	442	134
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	240	214	51	362	801	469	679	932	209	56	442	134
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.40	0.60	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	4521	1077	1750	3800	1750	3150	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.08	0.05	0.05	0.21	0.21	0.27	0.22	0.25	0.12	0.03	0.12	0.08
Crit Moves:	****				****		****				****	
Green Time:	19.5	16.2	16.2	57.0	53.8	108.9	55.0	72.6	92.0	12.2	29.7	86.7
Volume/Cap:	0.67	0.50	0.50	0.62	0.67	0.42	0.67	0.57	0.22	0.45	0.67	0.15
Delay/Veh:	76.8	73.7	73.7	49.3	51.7	15.3	51.2	37.5	20.4	78.2	68.1	22.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	76.8	73.7	73.7	49.3	51.7	15.3	51.2	37.5	20.4	78.2	68.1	22.2
LOS by Move:	E	E	E	D	D	B	D	D	C	E	E	C
HCM2k95thQ:	15	10	10	30	31	23	32	31	11	7	21	8

Note: Queue reported is the number of cars per lane.

North Capitol Villas
96 Townhomes
San Jose, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing + Project PM

Intersection #3383: Capitol Av / Hostetter Rd



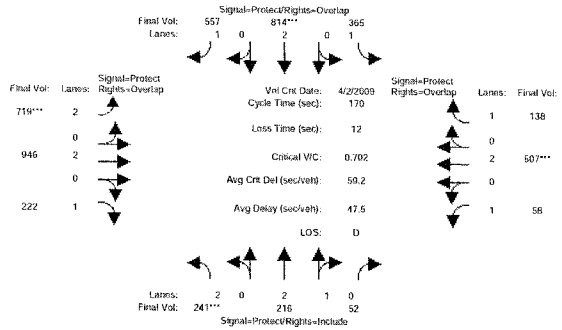
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 2 Apr 2009 << 5:00-6:00PM												
Base Vol:	240	214	51	362	801	469	679	932	209	56	442	134
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	240	214	51	362	801	469	679	932	209	56	442	134
Added Vol:	4	9	1	0	17	0	0	0	4	2	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	244	223	52	362	818	469	679	932	213	58	442	134
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	244	223	52	362	818	469	679	932	213	58	442	134
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	244	223	52	362	818	469	679	932	213	58	442	134
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	244	223	52	362	818	469	679	932	213	58	442	134
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.41	0.59	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	4540	1059	1750	3800	1750	3150	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.08	0.05	0.05	0.21	0.22	0.27	0.22	0.25	0.12	0.03	0.12	0.08
Crit Moves:	****				****		****				****	
Green Time:	19.6	16.4	16.4	57.7	54.5	109.0	54.5	71.9	91.5	12.1	29.4	87.1
Volume/Cap:	0.67	0.51	0.51	0.61	0.67	0.42	0.67	0.58	0.23	0.47	0.67	0.15
Delay/Veh:	77.0	73.8	73.8	48.7	51.5	15.2	51.8	38.1	20.8	78.6	68.5	22.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	77.0	73.8	73.8	48.7	51.5	15.2	51.8	38.1	20.8	78.6	68.5	22.0
LOS by Move:	E	E	E	D	D	B	D	D	C	E	E	C
HCM2k95thQ:	16	10	10	29	32	23	32	31	12	7	21	8

Note: Queue reported is the number of cars per lane.

North Capitol Villas
96 Townhomes
San Jose, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background PM

Intersection #3383: Capitol Av / Hostetter Rd



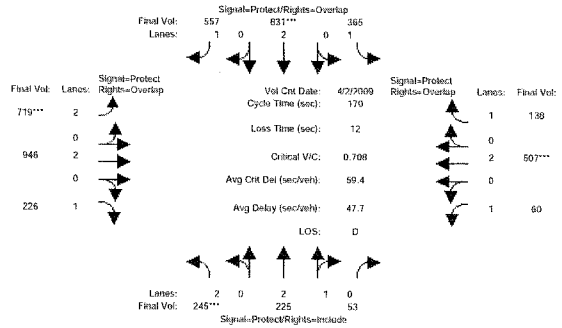
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 2 Apr 2009 << 5:00-6:00PM												
Base Vol:	240	214	51	362	801	469	679	932	209	56	442	134
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	240	214	51	362	801	469	679	932	209	56	442	134
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	1	2	1	3	13	88	40	14	13	2	65	4
Initial Fut:	241	216	52	365	814	557	719	946	222	58	507	138
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	241	216	52	365	814	557	719	946	222	58	507	138
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	241	216	52	365	814	557	719	946	222	58	507	138
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	241	216	52	365	814	557	719	946	222	58	507	138
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.40	0.60	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	4512	1086	1750	3800	1750	3150	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.08	0.05	0.05	0.21	0.21	0.32	0.23	0.25	0.13	0.03	0.13	0.08
Crit Moves:	****				****		****				****	
Green Time:	18.5	15.5	15.5	54.9	51.9	107.2	55.3	75.2	93.7	12.4	32.3	87.2
Volume/Cap:	0.70	0.53	0.53	0.65	0.70	0.50	0.70	0.56	0.23	0.45	0.70	0.15
Delay/Veh:	79.5	74.8	74.8	51.8	54.2	17.4	52.4	35.7	19.7	78.1	67.5	22.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	79.5	74.8	74.8	51.8	54.2	17.4	52.4	35.7	19.7	78.1	67.5	22.0
LOS by Move:	E	E	E	D	D	B	D	D	B	E	E	C
HCM2k95thQ:	16	10	10	31	33	29	34	31	12	7	24	8

Note: Queue reported is the number of cars per lane.

North Capitol Villas
96 Townhomes
San Jose, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background + Project PM

Intersection #3383: Capitol Av / Hostetter Rd



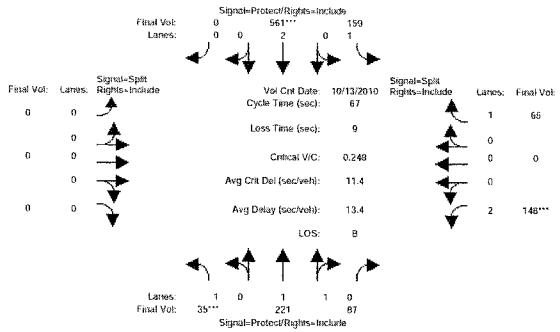
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 2 Apr 2009 << 5:00-6:00PM												
Base Vol:	240	214	51	362	801	469	679	932	209	56	442	134
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	240	214	51	362	801	469	679	932	209	56	442	134
Added Vol:	4	9	1	0	17	0	0	0	4	2	0	0
ATI:	1	2	1	3	13	88	40	14	13	2	65	4
Initial Fut:	245	225	53	365	831	557	719	946	226	60	507	138
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	245	225	53	365	831	557	719	946	226	60	507	138
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	245	225	53	365	831	557	719	946	226	60	507	138
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	245	225	53	365	831	557	719	946	226	60	507	138
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.83	0.99	0.95	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92
Lanes:	2.00	2.41	0.59	1.00	2.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3150	4531	1067	1750	3800	1750	3150	3800	1750	1750	3800	1750
Capacity Analysis Module:												
Vol/Sat:	0.08	0.05	0.05	0.21	0.22	0.32	0.23	0.25	0.13	0.03	0.13	0.08
Crit Moves:	****				****		****				****	
Green Time:	18.7	15.7	15.7	55.5	52.5	107.3	54.8	74.5	93.2	12.3	32.0	87.5
Volume/Cap:	0.71	0.54	0.54	0.64	0.71	0.50	0.71	0.57	0.24	0.47	0.71	0.15
Delay/Veh:	79.7	74.9	74.9	51.1	54.0	17.3	52.9	36.2	20.1	78.5	67.9	21.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	79.7	74.9	74.9	51.1	54.0	17.3	52.9	36.2	20.1	78.5	67.9	21.8
LOS by Move:	E	E	E	D	D	B	D	D	C	E	E	C
HCM2k95thQ:	16	10	10	30	33	29	34	31	12	8	24	8

Note: Queue reported is the number of cars per lane.

North Capitol Villas
96 Townhomes
San Jose, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #3390: Capitol Av / Sierra Rd



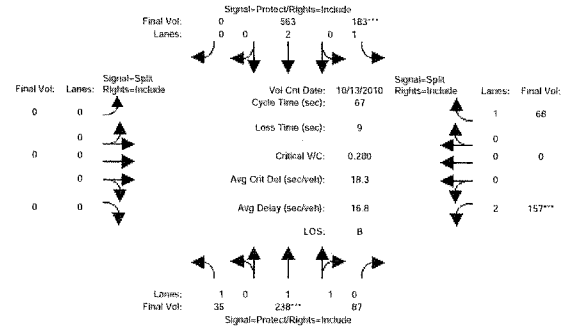
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	0	0	0	0	10	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:	>> Count Date: 13 Oct 2010 << 5:00-6:00PM											
Base Vol:	35	221	87	159	561	0	0	0	0	148	0	65
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	35	221	87	159	561	0	0	0	0	148	0	65
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	35	221	87	159	561	0	0	0	0	148	0	65
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	35	221	87	159	561	0	0	0	0	148	0	65
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	35	221	87	159	561	0	0	0	0	148	0	65
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	35	221	87	159	561	0	0	0	0	148	0	65
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	1.00	1.42	0.58	1.00	2.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	1750	2654	1045	1750	3800	0	0	0	0	3150	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.08	0.08	0.09	0.15	0.00	0.00	0.00	0.00	0.05	0.00	0.04
Crit Moves:	****				****					****		
Green Time:	7.0	26.9	26.9	18.8	38.7	0.0	0.0	0.0	0.0	12.3	0.0	12.3
Volume/Cap:	0.19	0.21	0.21	0.32	0.26	0.00	0.00	0.00	0.00	0.26	0.00	0.20
Delay/Veh:	27.9	13.2	13.2	19.4	7.1	0.0	0.0	0.0	0.0	23.7	0.0	23.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	27.9	13.2	13.2	19.4	7.1	0.0	0.0	0.0	0.0	23.7	0.0	23.5
LOS by Move:	C	B	B	B	A	A	A	A	A	C	A	C
HCM2k95thQ:	2	4	4	6	6	0	0	0	0	4	0	3

Note: Queue reported is the number of cars per lane.

North Capitol Villas
96 Townhomes
San Jose, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing + Project PM

Intersection #3390: Capitol Av / Sierra Rd



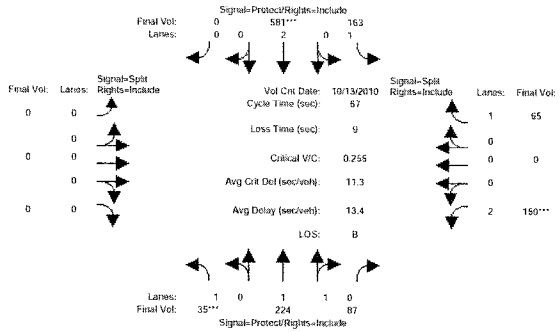
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	0	0	0	0	10	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:	>> Count Date: 13 Oct 2010 << 5:00-6:00PM											
Base Vol:	35	221	87	159	561	0	0	0	0	148	0	65
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	35	221	87	159	561	0	0	0	0	148	0	65
Added Vol:	0	17	0	24	2	0	0	0	0	9	0	3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	35	238	87	183	563	0	0	0	0	157	0	68
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	35	238	87	183	563	0	0	0	0	157	0	68
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	35	238	87	183	563	0	0	0	0	157	0	68
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	35	238	87	183	563	0	0	0	0	157	0	68
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	1.00	1.45	0.55	1.00	2.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	1750	2709	990	1750	3800	0	0	0	0	3150	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.09	0.09	0.10	0.15	0.00	0.00	0.00	0.00	0.05	0.00	0.04
Crit Moves:		****		****						****		
Green Time:	19.0	21.0	21.0	25.0	27.1	0.0	0.0	0.0	0.0	11.9	0.0	11.9
Volume/Cap:	0.07	0.28	0.28	0.28	0.37	0.00	0.00	0.00	0.00	0.28	0.00	0.22
Delay/Veh:	17.6	17.4	17.4	14.9	14.1	0.0	0.0	0.0	0.0	24.1	0.0	23.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	17.6	17.4	17.4	14.9	14.1	0.0	0.0	0.0	0.0	24.1	0.0	23.9
LOS by Move:	B	B	B	B	B	A	A	A	A	C	A	C
HCM2k95thQ:	1	5	5	6	8	0	0	0	0	4	0	3

Note: Queue reported is the number of cars per lane.

North Capitol Villas
96 Townhomes
San Jose, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background PM

Intersection #3390: Capitol Av / Sierra Rd



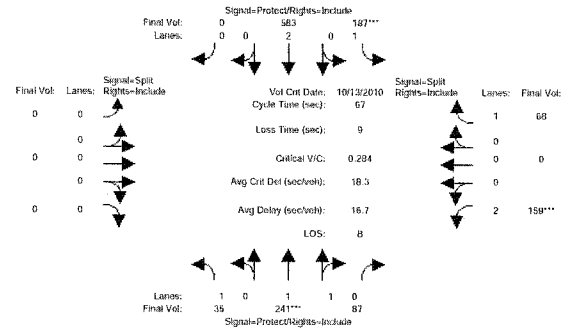
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	0	0	0	0	10	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:	>> Count Date: 13 Oct 2010 << 5:00-6:00PM											
Base Vol:	35	221	87	159	561	0	0	0	0	148	0	65
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	35	221	87	159	561	0	0	0	0	148	0	65
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	3	0	4	20	0	0	0	0	2	0	0
Initial Fut:	35	224	87	163	581	0	0	0	0	150	0	65
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	35	224	87	163	581	0	0	0	0	150	0	65
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	35	224	87	163	581	0	0	0	0	150	0	65
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	35	224	87	163	581	0	0	0	0	150	0	65
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	1.00	1.43	0.57	1.00	2.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	1750	2664	1035	1750	3800	0	0	0	0	3150	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.08	0.08	0.09	0.15	0.00	0.00	0.00	0.00	0.05	0.00	0.04
Crit Moves:	****				****					****		
Green Time:	7.0	27.0	27.0	18.9	38.9	0.0	0.0	0.0	0.0	12.1	0.0	12.1
Volume/Cap:	0.19	0.21	0.21	0.33	0.26	0.00	0.00	0.00	0.00	0.26	0.00	0.21
Delay/Veh:	27.9	13.1	13.1	19.4	7.0	0.0	0.0	0.0	0.0	23.9	0.0	23.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	27.9	13.1	13.1	19.4	7.0	0.0	0.0	0.0	0.0	23.9	0.0	23.7
LOS by Move:	C	B	B	B	A	A	A	A	A	C	A	C
HCM2k95thQ:	2	4	4	6	6	0	0	0	0	4	0	3

Note: Queue reported is the number of cars per lane.

North Capitol Villas
96 Townhomes
San Jose, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background + Project PM

Intersection #3390: Capitol Av / Sierra Rd



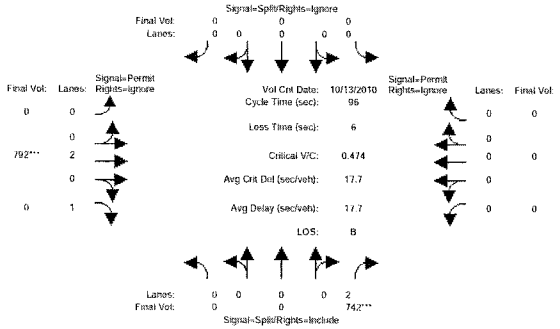
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	7	10	10	7	10	0	0	0	0	10	0	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:	>> Count Date: 13 Oct 2010 << 5:00-6:00PM											
Base Vol:	35	221	87	159	561	0	0	0	0	148	0	65
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	35	221	87	159	561	0	0	0	0	148	0	65
Added Vol:	0	17	0	24	2	0	0	0	0	9	0	3
ATI:	0	3	0	4	20	0	0	0	0	2	0	0
Initial Fut:	35	241	87	187	583	0	0	0	0	159	0	68
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	35	241	87	187	583	0	0	0	0	159	0	68
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	35	241	87	187	583	0	0	0	0	159	0	68
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	35	241	87	187	583	0	0	0	0	159	0	68
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92
Lanes:	1.00	1.45	0.55	1.00	2.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	1750	2718	981	1750	3800	0	0	0	0	3150	0	1750
Capacity Analysis Module:												
Vol/Sat:	0.02	0.09	0.09	0.11	0.15	0.00	0.00	0.00	0.00	0.05	0.00	0.04
Crit Moves:		****		****						****		
Green Time:	18.7	20.9	20.9	25.2	27.4	0.0	0.0	0.0	0.0	11.9	0.0	11.9
Volume/Cap:	0.07	0.28	0.28	0.28	0.37	0.00	0.00	0.00	0.00	0.28	0.00	0.22
Delay/Veh:	17.8	17.5	17.5	14.8	14.0	0.0	0.0	0.0	0.0	24.1	0.0	23.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	17.8	17.5	17.5	14.8	14.0	0.0	0.0	0.0	0.0	24.1	0.0	23.9
LOS by Move:	B	B	B	B	B	A	A	A	A	C	A	C
HCM2k95thQ:	1	6	6	6	9	0	0	0	0	4	0	3

Note: Queue reported is the number of cars per lane.

North Capitol Villas
96 Townhomes
San Jose, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing PM

Intersection #3948: I-680 NB Off-Ramp / Berryessa Rd



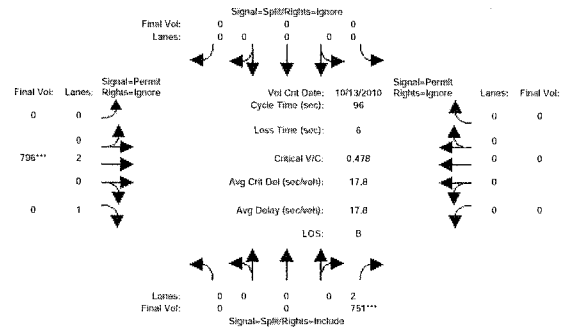
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Min. Green:	0	0	10		0	0	0		0	10	10		0	10	10	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Volume Module: >> Count Date: 13 Oct 2010 << 5:00-6:00PM																
Base Vol:	0	0	742		0	0	0		0	792	357		0	0	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	0	0	742		0	0	0		0	792	357		0	0	0	
Added Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	742		0	0	0		0	792	357		0	0	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00		0.00	0.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Volume:	0	0	742		0	0	0		0	792	0		0	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	742		0	0	0		0	792	0		0	0	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00	
FinalVolume:	0	0	742		0	0	0		0	792	0		0	0	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.92	1.00	0.83		0.92	1.00	0.92		0.92	1.00	0.92		0.92	1.00	0.92	
Lanes:	0.00	0.00	2.00		0.00	0.00	0.00		0.00	2.00	1.00		0.00	0.00	0.00	
Final Sat.:	0	0	3150		0	0	0		0	3800	1750		0	0	0	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.24		0.00	0.00	0.00		0.00	0.21	0.00		0.00	0.00	0.00	
Crit Moves:			****							****						
Green Time:	0.0	0.0	47.8		0.0	0.0	0.0		0.0	42.2	0.0		0.0	0.0	0.0	
Volume/Cap:	0.00	0.00	0.47		0.00	0.00	0.00		0.00	0.47	0.00		0.00	0.00	0.00	
Delay/Veh:	0.0	0.0	16.1		0.0	0.0	0.0		0.0	19.2	0.0		0.0	0.0	0.0	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	0.0	0.0	16.1		0.0	0.0	0.0		0.0	19.2	0.0		0.0	0.0	0.0	
LOS by Move:	A	A	B		A	A	A		A	B	A		A	A	A	
HCM2k95thQ:	0	0	16		0	0	0		0	16	0		0	0	0	

Note: Queue reported is the number of cars per lane.

North Capitol Villas
96 Townhomes
San Jose, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Existing + Project PM

Intersection #3948: I-680 NB Off-Ramp / Berryessa Rd



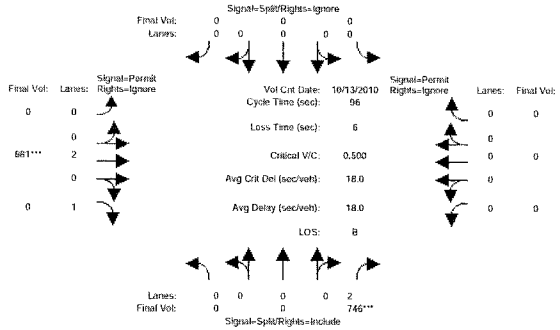
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Min. Green:	0	0	10		0	0	0		0	10	10		0	10	10	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Volume Module: >> Count Date: 13 Oct 2010 << 5:00-6:00PM																
Base Vol:	0	0	742		0	0	0		0	792	357		0	0	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	0	0	742		0	0	0		0	792	357		0	0	0	
Added Vol:	0	0	9		0	0	0		0	4	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	751		0	0	0		0	796	357		0	0	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00		0.00	0.00	0.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00	
PHF Volume:	0	0	751		0	0	0		0	796	0		0	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	751		0	0	0		0	796	0		0	0	0	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	0.00		1.00	1.00	0.00		1.00	1.00	0.00	
FinalVolume:	0	0	751		0	0	0		0	796	0		0	0	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.92	1.00	0.83		0.92	1.00	0.92		0.92	1.00	0.92		0.92	1.00	0.92	
Lanes:	0.00	0.00	2.00		0.00	0.00	0.00		0.00	2.00	1.00		0.00	0.00	0.00	
Final Sat.:	0	0	3150		0	0	0		0	3800	1750		0	0	0	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.24		0.00	0.00	0.00		0.00	0.21	0.00		0.00	0.00	0.00	
Crit Moves:			****							****						
Green Time:	0.0	0.0	47.9		0.0	0.0	0.0		0.0	42.1	0.0		0.0	0.0	0.0	
Volume/Cap:	0.00	0.00	0.48		0.00	0.00	0.00		0.00	0.48	0.00		0.00	0.00	0.00	
Delay/Veh:	0.0	0.0	16.0		0.0	0.0	0.0		0.0	19.4	0.0		0.0	0.0	0.0	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	0.0	0.0	16.0		0.0	0.0	0.0		0.0	19.4	0.0		0.0	0.0	0.0	
LOS by Move:	A	A	B		A	A	A		A	B	A		A	A	A	
HCM2k95thQ:	0	0	17		0	0	0		0	16	0		0	0	0	

Note: Queue reported is the number of cars per lane.

North Capitol Villas
96 Townhomes
San Jose, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background PM

Intersection #3948: I-680 NB Off-Ramp / Berryessa Rd



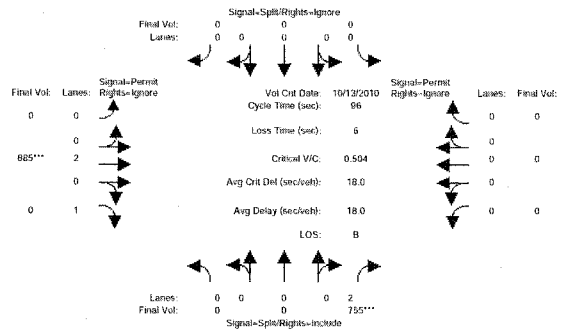
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	10	0	0	0	0	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 13 Oct 2010 << 5:00-6:00PM												
Base Vol:	0	0	742	0	0	0	0	792	357	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	742	0	0	0	0	792	357	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	4	0	0	0	0	89	79	0	0	0
Initial Fut:	0	0	746	0	0	0	0	881	436	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	0	746	0	0	0	0	881	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	746	0	0	0	0	881	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	0	746	0	0	0	0	881	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.83	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00
Final Sat.:	0	0	3150	0	0	0	0	3800	1750	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.00
Crit Moves:			****					****				
Green Time:	0.0	0.0	45.5	0.0	0.0	0.0	0.0	44.5	0.0	0.0	0.0	0.0
Volume/Cap:	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	0.0	17.7	0.0	0.0	0.0	0.0	18.2	0.0	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	17.7	0.0	0.0	0.0	0.0	18.2	0.0	0.0	0.0	0.0
LOS by Move:	A	A	B	A	A	A	A	B	A	A	A	A
HCM2k95thQ:	0	0	17	0	0	0	0	17	0	0	0	0

Note: Queue reported is the number of cars per lane.

North Capitol Villas
96 Townhomes
San Jose, CA

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Background + Project PM

Intersection #3948: I-680 NB Off-Ramp / Berryessa Rd



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Min. Green:	0	0	10	0	0	0	0	10	10	0	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 13 Oct 2010 << 5:00-6:00PM												
Base Vol:	0	0	742	0	0	0	0	792	357	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	742	0	0	0	0	792	357	0	0	0
Added Vol:	0	0	9	0	0	0	0	4	0	0	0	0
ATI:	0	0	4	0	0	0	0	89	79	0	0	0
Initial Fut:	0	0	755	0	0	0	0	885	436	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	0	755	0	0	0	0	885	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	755	0	0	0	0	885	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	0	755	0	0	0	0	885	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.83	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00
Final Sat.:	0	0	3150	0	0	0	0	3800	1750	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.00
Crit Moves:			****					****				
Green Time:	0.0	0.0	45.6	0.0	0.0	0.0	0.0	44.4	0.0	0.0	0.0	0.0
Volume/Cap:	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	0.0	17.6	0.0	0.0	0.0	0.0	18.3	0.0	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	17.6	0.0	0.0	0.0	0.0	18.3	0.0	0.0	0.0	0.0
LOS by Move:	A	A	B	A	A	A	A	B	A	A	A	A
HCM2k95thQ:	0	0	17	0	0	0	0	17	0	0	0	0

Note: Queue reported is the number of cars per lane.