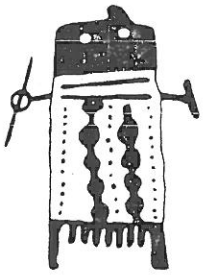
#149

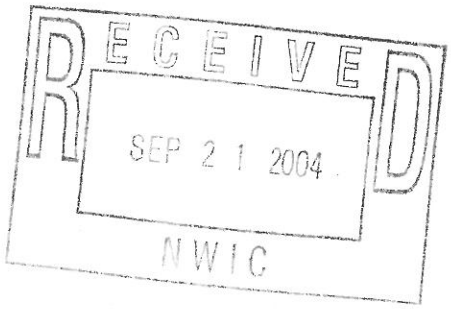
S-28943



BASIN
RESEARCH
ASSOCIATES

1933 DAVIS STREET
SUITE 210
SAN LEANDRO, CA 94577
VOICE (510) 430-8441
FAX (510) 430-8443

January 25, 2003
(Revised June 9, 2003)



Ms. Nora Monette
David J. Powers & Associates
1885 The Alameda, Suite 204
San Jose, CA 95126

RE: *Cultural Resources Review*
Northern San Benito County Groundwater Management Plan
Program Environmental Impact Report (EIR), California

Dear Ms. Monette,

Please let this letter report stand as Basin Research Associates' cultural resources review for the above project. This review was requested in order to fulfill the various mandates of the California Environmental Quality Act (CEQA) and cultural resources and planning directives of the counties of San Benito and Santa Clara County. The review provides the results of an archaeological records search of the Plan area, a review of pertinent literature, prehistoric and historic contexts, and presents recommendations for future program environmental compliance documents.

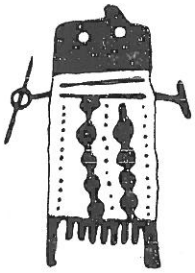
PROJECT LOCATION AND DESCRIPTION

The San Benito County Water District (SBCWD) will prepare an Environmental Impact Report (EIR) on the implementation of a Northern San Benito County Groundwater Management Plan (SBCGMP, Plan) within its service area (including a small portion of Santa Clara County). The proposed project consists of the adoption and implementation of a groundwater management plan with goals and objectives for short-term and long-term management of water resources[1] in order to provide good quality water and adequate water supplies for existing and future agricultural, municipal, and industrial uses.

1. Surface and groundwater management as well as wastewater treatment discharges an use of reclaimed water supplies.

5-28943a #1490

5-28944



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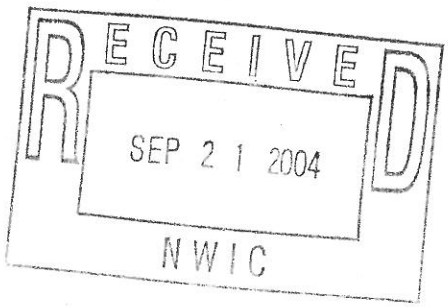
June 9, 2003



Ms. Nora Monette
David J. Powers & Associates
1885 The Alameda, Suite 204
San Jose, CA 95126

RE: Additional/Supplemental Areas Archival Records Search Results for *Cultural Resources Assessment* (letter dated January 25, 2003)
Northern San Benito County Groundwater Management Plan
Program Environmental Impact Report (EIR), California

Dear Ms. Monette,

This letter report provides the results of the additional records search requested for the above project and it should be considered an addendum to our previously submitted report of January 25, 2003 (revised June 9, 2003). The search was undertaken due to changes in the location of previously planned facilities and the addition of minor expansion areas. No archaeological sites have been recorded in or adjacent to the additional areas. Each of the new search areas is reviewed individually below with references consulted.

RESEARCH SOURCES CONSULTED

A supplemental prehistoric and historic site record and literature search of the Groundwater Management Plan area and immediately adjacent areas was completed by the California Historical Resources Information System, Northwest Information Center at California State University Sonoma, Rohnert Park (CHRIS/NWIC File No. 02-843 [dated May 19, 2003]).

PROJECT SEARCH LOCATIONS AND RESULTS

RELOCATED LOCAL CONVEYANCE PIPELINE [see Fig. 4M in main report]

T 14S, R 6E, Unsectioned

No recorded sites in, adjacent or within 0.25 mile. No compliance reports on file with the CHRIS/NWIC in or adjacent.

S-38300

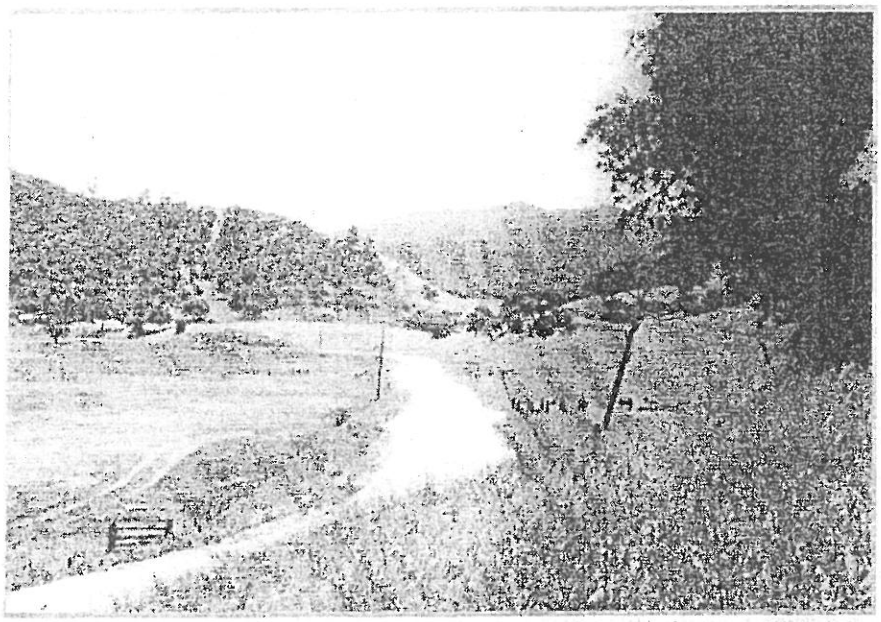
Cultural Resources Inventory of Caltrans District 5 Rural Highways San Benito County, California

Highways 25, 101, 129, 146, and 156

VOLUME I
-REPORT-

by

Patricia Mikkelsen, Laura Leach-Palm,
Jennifer Hatch, Elizabeth Kallenbach, and Jerome King

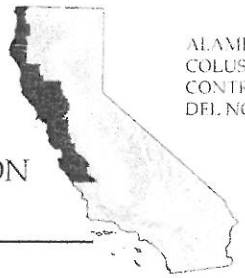


Submitted to
Caltrans District 5
San Luis Obispo, California

EA: 009E07 (30-SCR, MON, SBT, SLO, SB)
Contract No. 06A0148

June 2001

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM



ALAMEDA	HUMBOLDT	SAN FRANCISCO
COLUSA	LAKE	SAN MATEO
CONTRA COSTA	MARIN	SANTA CLATA
DEL NORTE	MENDOCINO	SANTA CRUZ
	MONTEREY	SOLANO
	NAPA	SONOMA
	SAN BENITO	YOLO

Northwest Information Center
Sonoma State University
150 Professional Center Drive, Suite E
Rohnert Park, California 94928-3609
Tel: 707.588.8455
nwic@sonoma.edu
http://www.sonoma.edu/nwic

NWIC Billing Worksheet

IC File Number: 14-1119

Client Name: Michelle Cross Phone: (916) 384-0773

Affiliation: Stantec Consulting Email: michelle.cross@stantec.com

Proj Name/Number: Vista Del Oro Project, Hollister, CA 185703052

Date Request Rec'd: 2/26/2015 Date of Response: 2/26/2015

Check In: 10:05:00 AM Check Out: 10:55:00 AM Check In: Check Out:

In-person Time:	Hour(s):	0.83	$	100.00
Staff Time:	Hour(s):		$	0.00
Shape Files:	Number:		$	0.00
Custom Map Features:	Number:		$	0.00
Digital Database Record:	Number of Row(s):		$	0.00
Quads:	Number:		$	0.00
Address-mapped Flat Fee:			$	0.00
Hard Copy (Xerox/Computer) Pages:	Page(s):	64	$	9.60
Labor Charge:	Hour(s):		$	0.00
PDF Pages:	Page(s):		$	0.00
PDF Flat Fee:			$	0.00
Other: CRC Search			$	0.00
		Subtotal	$	**109.60**
Multi-Day Start:		Multi-Day End:	$	0.00

Rapid response surcharge of 50% of total cost:	$	0.00
Emergency Response surcharge of 100% of total cost	$	0.00
Total:	$	**109.60**

Information Center Staff: Bryan Much

Sonoma State University Customer ID:

Sonoma State University Invoice No.:

CHRIS Access and Use Agreement No.: 131

**This is not an invoice. Sonoma State University will send separate invoice **

APPENDIX E

PHASE I ENVIRONMENTAL ASSESSMENT

Phase I
Environmental Site Assessment

Hollister Family Apartments
APN 052-090-043
1480 San Juan Road
Hollister, San Benito County, California 95023

Prepared For:
Pacific West Communities, Inc.
430 East State Street, Suite 100
Eagle, ID 83616

June 8, 2010
RNC Project Number 1008A

RNC Environmental, LLC
3326 M Street • Sacramento, CA 95816
(888) 485-3330 • www.rnc-enviro.com

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Phase I Environmental Site Assessment
Hollister Family Apartments
APN 052-090-043
1480 San Juan Road
Hollister, California

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Appendices

RNC Environmental, LLC

3326 M Street • Sacramento, CA 95816
(888) 485-3330 • www.rnc-enviro.com

Phase I Environmental Site Assessment
Hollister Family Apartments
APN 052-090-043
1480 San Juan Road
Hollister, California

1. SUMMARY

RNC Environmental, LLC (RNC) has been retained by Pacific West Communities, Inc. to conduct a Phase I Environmental Site Assessment for the property identified as Assessor's Parcel Number 052-090-043, located at 1480 San Juan Road in the City of Hollister, San Benito County, California. This site is also referred to as the "Hollister Family Apartments."

This report is intended to constitute an "inquiry by an environmental professional" for All Appropriate Inquiry under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). As such, it presents the results of an effort to gather reasonably obtainable and practicably reviewable information regarding environmental conditions on the property. Sources of this information include interviews with present and (as necessary) past owners and operators of the property; a review of historical sources such as aerial photographs, maps, and building records; a search for environmental cleanup liens on the property; a review of government records of hazardous material storage facilities, known or threatened releases, waste generation, cleanup sites, etc., for the subject and surrounding properties; a visual inspection of the subject and adjacent properties, and a review of various information provided by the client. The methods and procedures utilized to gather and interpret this information are consistent with the nationally recognized standard, ASTM E1527-05.

The details of the information reviewed, and of any data gaps identified, can be found in the body of this document. The primary investigator for the assessment was Neil O'Hara, California Registered Environmental Assessor #REA1-05321.

This assessment has found that the subject property is currently vacant, except for an occupied rental residence and a shed. Prior to approximately 1980, the property was agricultural, planted with orchards. The house and barn on the property date from some time before 1939. Extensive trash and debris was noted on the property, particularly near the shed. Based on aerial photos, this appears to be a relatively recent development,

and not a long-term condition of the property. Stained soil and oily odors were noted in this area.

Although stains and odors, along with substantial trash, were observed in the area on the north side of the shed, this appears to be a *de minimis* condition. The debris has been present only for the last few years - parked vehicles are visible in this area in the 2007 and 2009 aerial photos, but no older ones. Soil samples were collected by scraping off only the top inch or less of visibly stained soil, and collecting immediately below that. The detection of only minor amounts of motor oil in this soil, and no other hydrocarbons, indicates that the observed stains are surficial only. No significant soil remediation or removal will be required in this area beyond removing visibly stained surface soils.

The non-detection of organochlorine pesticides in the remaining soil samples, and the presence of arsenic a normal background concentrations indicate that the past development of the property as an orchard has not resulted in the presence of residual persistent pesticides.

Adjacent properties include two gas stations, as well as residential and vacant properties. The gas stations are currently within regulatory compliance and there is no evidence that either represents a concern for the subject property. One of the gas stations, is a former leaking UST site. The Victory Gas site is located on the south side of San Juan Road, across from the western end of the subject property. A leak was discovered when the tanks were removed from this site in 1999; groundwater monitoring and remediation were implemented, and the site was closed in 2004. The groundwater monitoring program included four wells on the north side of San Juan Road, two of which were located on the subject property. No chemicals of concern were detected in either of the wells on the subject property.

Two former cleanup sites and two waste handlers were identified within one-half mile of the property. There is no evidence that either represents a concern for the subject property.

This assessment has revealed no evidence of recognized environmental conditions on the property.

2. INTRODUCTION

2.1 Purpose

Due to concerns regarding potential liability for toxic hazards, real estate investors need to assess property before purchase to determine if current or past occupants or surrounding land uses could adversely impact property development.

The Federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 USC §9601), which defines far-reaching joint, several, and retrospective

liability for environmental cleanup costs, also includes landowner liability protections for innocent landowners, bona fide prospective purchasers, and contiguous property owners, provided that certain conditions are met. One of these conditions is that "all appropriate inquiries" (AAI) must be made into present and past environmental conditions at the site. Performance of a Phase I Environmental Site Assessment according to ASTM Standard E1527 has been the industry standard method for such inquiries since 1993. In November 2005, the US Environmental Protection Agency (US EPA) released the first official Federal Rule for conducting "all appropriate inquiries"(40 CFR Part 312). Pursuant to §312.11 of the AAI rule, this assessment has been conducted in accordance with ASTM Standard, E1527-05, as a method of compliance with that rule.

According to the AAI rule, "All Appropriate Inquiries are intended to result in the identification of conditions indicative of releases or threatened releases of hazardous substances on, at, in, or to the subject property." Such conditions are defined as "recognized environmental conditions" by ASTM E1527-05, §1.1.1 as follows:

> The term "recognized environmental conditions" means the presence or likely presence of any hazardous substances or petroleum products on the 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, onto the property, or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimis conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be de minimis are not recognized environmental conditions.

Additional "business environmental risks" have also been evaluated in this report. These are potential concerns which are not directly related to CERCLA liability, but may result in other environmental liabilities or remediation costs. Many lenders and investors require that such risks be evaluated as a part of a Phase I report. These include:

- Asbestos-containing materials
- Lead-based paint
- Radon

2.2 Scope of Work

The standards and practices implemented in this assessment are intended to result in the identification of conditions indicative of releases and threatened releases of hazardous substances on, at, in, or to the subject property. The investigation seeks to identify the following types of information about the subject property:

- Current and past property uses and occupancies;
- Current and past uses of hazardous substances;
- Waste management and disposal activities that could have caused releases or threatened releases of hazardous substances;
- Current and past corrective actions and response activities undertaken to address past and on-going releases of hazardous substances, including engineering controls and institutional controls; and
- Properties adjoining or located nearby the subject property that have environmental conditions that could have resulted in conditions indicative of releases or threatened releases of hazardous substances to the subject property.

Specific investigative procedures implemented include:

- Interviewing the current owner and occupant of the subject property. For properties with multiple occupants, the inquiry includes interviewing major occupants, as well as those occupants likely to use, store, treat, handle, or dispose of hazardous substances, or those who have likely done so in the past.
- To the extent necessary to achieve the objectives above, interviewing current and past facility managers, past owners, occupants, or operators of the subject property; employees of current and past occupants of the subject property; and/or one or more owners or occupants of neighboring or nearby properties.
- Reviewing historical documents and records which may include, but are not limited to, aerial photographs, fire insurance maps, building department records, chain of title documents, and land use records. Historical documents and records reviewed attempt to cover a period of time as far back in the history of the subject property as it can be shown that the property contained structures or from the time the property was first used for residential, agricultural, commercial, industrial, or governmental purposes.
- Reviewing Federal, tribal, State, and local government records or databases of government records, including:
    - reported releases or threatened releases, public health records, Emergency Response Notification System records, and records of land use restrictions for the subject property;

  - registered waste management activities, including records of RCRA small quantity and large quantity generators, and records of registered storage tanks, for the subject and adjoining properties;
  - landfills and solid waste management facilities, voluntary cleanup and brownfields sites, leaking underground storage tanks, registries of engineering controls and/or institutional controls, delisted NPL sites; and current and former CERCLIS sites, for the subject and properties within one-half mile;
  - NPL and state-equivalent sites; RCRA facilities subject to corrective action , for the subject and properties within one mile.
- Conducting a visual on-site inspection of the subject property and facilities and improvements on the subject property, including a visual inspection of the areas where hazardous substances may be or may have been used, stored, treated, handled, or disposed.
- Conducting a visual inspection of adjoining properties, from the subject property, public rights-of-way, or other vantage point (e.g., aerial photography), including a visual inspection of areas where hazardous substances may be or may have been stored, treated, handled or disposed.
- Making recommendations for a Phase II Investigation if necessary.

In performing each of the standards and practices set forth in ASTM Standard E1527-05 and the AAI rules (40 CFR 312.20), RNC Environmental seeks to:

- Gather the information that is publicly available, obtainable from its source within reasonable time and cost constraints, and which can practicably be reviewed;
- Review and evaluate the thoroughness and reliability of the information gathered from various sources; and
- To the extent that there are data gaps in the information developed, identify the sources of information consulted to address such data gaps, and comment upon the significance of such data gaps with regard to the ability to identify conditions on the property.

This Phase I Environmental Site Assessment Report discusses all work performed by RNC to date with regard to this project. The principal findings are outlined throughout the body of this text and are summarized in the conclusion of this report.

2.3 Significant Assumptions

No significant assumptions were made in the course of this assessment.

2.4 Limitations and Exceptions

This report was compiled as a Phase I Environmental Site Assessment for the subject project. This report contains information and data provided to RNC by several sources. RNC in no way warrants the accuracy or completeness of the information provided to this investigation by those sources.

It should be noted that when an assessment is completed without adequate subsurface exploration or chemical screening of soil and groundwater beneath the site, as in this study, no statement of scientific certainty can be made regarding latent subsurface conditions which may be the result of on-site or off-site sources. The findings and conclusions of this report are not scientific certainties, but rather probabilities based on professional judgement concerning the significance of the data gathered during the course of this investigation. RNC is not able to represent that the site or adjoining land contains no hazardous waste, oil, underground storage tanks, or other latent condition beyond that detected or observed by RNC during the Phase I Environmental Site Assessment. The possibility always exists for contaminants to migrate through surface water, air, or groundwater. An investigation to determine whether or not contaminants are present in the surface and subsurface soil is not within the scope of work required to produce the Phase I Environmental Site Assessment. Chemical analysis of soil and groundwater samples to quantify levels of contamination is also not within the scope of work required to develop a Phase I Environmental Site Assessment.

For this assessment, no additional project-specific limitations arose.

2.5 Special Terms and Conditions

This report was prepared according to ASTM Standard E1527-05; no special terms or conditions were specified by the user. Should there be a need to conduct an investigation into a specific question not addressed in this report, contact our office immediately regarding your concerns.

2.6 User Reliance

This report was prepared for the exclusive use of Pacific West Communities, Inc., and its successor and/or assigns. It also may be relied upon by lenders, investors, government agencies (including, but not limited to, the California Department of Housing and Community Development, the USDA Rural Development Program, and the California Tax Credit Allocation Committee) and/or nonprofit entities which may provide financial assistance to, or partner with, Pacific West Communities, Inc., in the proposed development of the subject property.

No other person or entity is entitled to rely upon this report without the specific written authorization of RNC. Such reliance is subject to the same limitations, terms, and

conditions as the original contract with the client. RNC specifically disclaims any responsibility for any unauthorized use of this report.

All users of this report, whether identified in this section, provided authorization in a separate reliance letter, or for any reason using this report without specific authorization, should be aware that Landowner Liability Protection under CERCLA is also contingent upon the user's compliance with certain additional responsibilities, as specified in ASTM E1527-05, §6, and discussed in Section 5 of this report. RNC cannot be responsible for any user's failure to comply with these responsibilities.

2.7 Validity of Report

This report may be presumed to be valid for one year from its cover date, excepting that if acquisition of the property occurs more than 180 days after the date of this report (December 5, 2010), certain information in the report must be updated in accordance with ASTM E1527-05, §4.6.

3. SITE DESCRIPTION

3.1 Location and Legal Description

The subject property consists of the east half of an eight-acre parcel on the north side of San Juan Road, west of Miller Street in the City of Hollister, San Benito County, California. The street address is 1480 San Juan Road. The property is located in an unsectioned area of Township 12 South, Range 4 East, Mount Diablo Meridian.

According to the preliminary title report, the legal description of the property is:

> Parcell, in the City of Hollister, County of San Benito, State of California, according to the Map filed November 16, 1984 in Book 6, Page 61 of Parcel Maps, in the Office of the County Recorder of said County.

APN: 052-090-043

Location maps and site maps of the subject property are attached to this report as Appendix A. Photographs of the subject property are attached to this report as Appendix B.

3.2 Site and Vicinity General Characteristics

The property is located near the western edge of the City of Hollister. San Juan Road is the former route of Highway 156, until a bypass was opened in 1997. It remains a mix of highway commercial, semi-rural and residential properties. The adjacent land to the north is a single-family residential neighborhood.

3.3 Current Use of the Property

The property is mostly vacant. A rental house and a shed is located near the southwest corner.

3.4 Descriptions of Structures, Roads, Other Improvements on the Site

A small house and a shed appear to be the remains of an old farmstead on the property. A paved driveway access to the adjacent mini-mart encroaches onto the east end of the property.

3.5 Current Uses of the Adjoining Properties

The adjacent properties to the north are residential. A mini-mart and gas station occupies the corner of San Juan Road and Miller Street; the subject property abuts the north and west sides of this parcel. Across Miller Street is a restaurant. Across San Juan Road to the south is a vacant former agricultural property, and a gas station. The property to the west is the continuation of the parcel of which the subject property is a part; it is vacant.

4. PHYSICAL SETTING

4.1 Topography

According to the most recent USGS topographic map covering the subject property and vicinity, the subject property is located on level terrain, at an elevation of approximately 274 feet above mean sea level.

Regional surface water drainage is generally toward the west, toward the San Benito River, about a half mile away.

4.2 Geology

The subject property is located in the Hollister Valley, within the Coast Ranges Geomorphic Province. The Coast Ranges are northwest-trending mountain ranges (2,000 to 4,000, occasionally 6,000 feet elevation above sea level), and valleys. The ranges and valleys trend northwest, subparallel to the San Andreas Fault. Strata dip beneath alluvium of the Great Valley. To the west is the Pacific Ocean. The Coast Ranges are composed of thick Mesozoic and Cenozoic sedimentary strata. The northern and southern ranges are separated by a depression containing the San Francisco Bay.

According to the Geologic Map of California, the subject property is located over Quaternary alluvium.

4.3 Soils

According to the Natural Resources Conservation Service, Web Soil Survey, the property is underlain by Sorrento silt loam and Sorrento silty clay loam. The parent material consists of alluvium derived from calcareous shale or sandstone. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3c. Irrigated land capability classification is 1 This soil does not meet hydric criteria.

4.4 Groundwater

Two groundwater monitoring wells were located on the subject property, in association with a leaking underground storage tank site located across San Juan Road. (More information below.) Monitoring reports obtained through the State Water Resources Control Board show groundwater in these wells at a depth of 37 feet below ground surface. The groundwater gradient is toward the east and northeast.

5. USER PROVIDED INFORMATION

A User Questionnaire was completed by Mike Kelley on behalf of Pacific West Communities, Inc..

5.1 Title Records

A copy of a Preliminary Title Report regarding the subject property, prepared by Chicago Title Company and dated May 26, 2010, was provided. The report includes no references indicative of environmental concerns associated with the property.

The title report includes reference to an easement for a pipeline granted to Serafino Mello on November 14, 1949. A review of the easement agreement shows that the pipeline was intended to convey irrigation water; it is therefor not an environmental concern.

5.2 Environmental Liens or Activity and Use Limitations

No other knowledge of environmental liens was identified by the user.

5.3 Specialized Knowledge

The user reported no specialized knowledge of the property.

5.4 Commonly Known or Reasonably Ascertainable Information

The user reported no commonly known or reasonably ascertainable information of environmental significance with regard to the property.

5.5 Valuation Reduction for Environmental Issues

The user reported that the purchase price of the property is consistent with current market value.

5.6 Owner, Property Manager, and Occupant Information

According to the Preliminary Title Report, the property is owned by "J. B. Howard Family, LLC, a California Limited Liability Company as to an undivided 1/2 interest and Craig M. Ritts and Theresa Ritts, Trustees of the Ritts Family Trust uta dated March 31, 2006, as to an undivided 1/2 interest."

5.7 Reason for Performing Phase I

This report was commissioned for the purpose of qualifying the user and potential investors for "innocent landowner defense" under CERCLA.

5.8 Other

No additional information or previous environmental reports were provided.

6. ENVIRONMENTAL LIENS

6.1 Preliminary Title Report

As noted above, a Preliminary Title Report regarding the subject property, prepared by Chicago Title Company and dated May 26, 2010, was reviewed. The report indicates that there are no environmentally-related liens, encumbrances or activity use limitations recorded against the deed on the subject property.

6.2 State Records

The State of California, Department of Toxic Substances Control DTSC maintains three sources of information regarding properties with deed restrictions:

- The EnviroStor database includes sites cleaned up under DTSC oversight, and specifies whether a deed restriction was place on a property
- The DTSC Hazardous Waste Management Program (HWMP) has also 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 DTSC list of Border Zone sites includes facilities where nearby properties, not directly effected by a lien, may still have some activity use limitations.

The subject property is not listed in any of these sources as having a deed restriction, and there are no Border Zone sites within one-half mile of the property.

6.3 Federal Records

The US Environmental Protection Agency maintains three databases which may include information about liens and land use restrictions, if they have been established on a listed property:

- Comprehensive Environmental Response Compensation and Liability Information System List (CERCLIS)
- RCRAInfo, Corrective Action sites
- Brownfields Management System Database

The subject property does not appear on any of these lists.

7. RECORDS REVIEW

On May 26, 2010, RNC utilized the services of Environmental First Search to review data files obtained from various local, state and federal regulatory agencies, to determine whether there are publicly available records regarding hazardous materials for the subject and surrounding properties.

RNC also conducted direct supplemental searches of data posted on the internet by various agencies, in order to minimize potential errors resulting from the unavoidable limitations in the accuracy of computer mapping programs. The Environmental First Search report, as well as any significant findings from internet sources, are provided in Appendix E of this report.

7.1 Hazardous Waste Cleanup Sites

The following sources were reviewed for records of existing hazardous waste cleanup sites within one-half to one mile of the subject property:

- Comprehensive Environmental Response Compensation and Liability Information System List (CERCLIS); Source: US EPA. The CERCLIS database contains information on potentially hazardous waste sites that have been reported to the US EPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

- National Priority List (NPL); Source: US EPA. The NPL database, maintained by the US EPA, is a subset of CERCLIS and identifies sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas.
- RCRA Corrective Action Activity (CORRACTS); Source: US EPA. CORRACTS data was accessed using EPA's Enforcement & Compliance History Online The Corrective Action Program encompasses active, or soon to be active facilities, where hazardous waste pollutants have been released into soil, ground water, surface water, or air. RCRA Corrective Action differs from Superfund in that Corrective Action sites generally have viable operators and on-going operations.
- State Hazardous Waste Cleanup Sites (EnviroStor); Source: California Department of Toxic Substances Control (DTSC). The EnviroStor database provides access to detailed information on hazardous waste permitted and corrective action facilities, as well as existing site cleanup information. EnviroStor allows you to search for information on investigation, cleanup, permitting, and/or corrective actions that are planned, being conducted or have been completed under DTSC's oversight.
- Spills, Leaks Investigations and Cleanups (SLIC); Source: California State Water Resources Control Board (SWRCB). In the SLIC Program, Water Board staff oversee soil and water investigations, corrective actions, and human health risk assessments at sites with current or historic unauthorized discharges, which have adversely affected or threaten to adversely affect waters of the state. The program covers all types of pollutants (such as solvents, petroleum fuels, heavy metals, pesticides, etc.) and all environments (including surface water, groundwater, sediment, and soil).

No active cleanup sites were identified within the specified search distances.

7.2 Leaking Underground Fuel Tanks

The following source was reviewed for records of leaking underground fuel tank sites within one-half mile of the subject property:

- Leaking Underground Fuel Tanks (LUFT); Source: SWRCB.

One leaking UST sites were identified:

Victory Gas And Food	1615 San Juan Rd	Completed - Case Closed

The Victory Gas site is located on the south side of San Juan Road, across from the western end of the subject property. Monitoring records for this site were obtained from the SWRCB's Geotracker system. A leak was discovered when the tanks were removed from this site in 1999; groundwater monitoring and remediation were implemented, and the site was closed in 2004. The groundwater monitoring program included four wells on the north side of San Juan Road, two of which were located on the subject property. No chemicals of concern were detected in either of the wells on the subject property.

There is no evidence to indicate that there is any residual contamination at this site which might impact the subject property.

7.3 Accidental Spills and Releases

The following source was reviewed for records of accidental spills and releases of hazardous material on the subject property:

- Emergency Response Notification System (ERNS); Source: U.S. Coast Guard, National Response Center.

No accidental spills or releases were identified on the subject property.

7.4 Previously Regulated Sites

The following sources were reviewed for information about facilities which were formerly identified or regulated by a government agency due to environmental concerns at the property. In each case, these sources were reviewed in conjunction with the active cleanup site sources discussed above.

- Delisted NPL Sites; Source: US EPA. Sites previously identified for priority cleanup under the Superfund Program which have since been removed from that list.
- CERCLIS "No Further Remedial Action Planned" (NFRAP); Source: US EPA. The CERCLIS-NFRAP database contains information on sites designated "No Further Remedial Action Planned" which have been removed from the CERCLIS database. NFRAP sites may be sites where no contamination was found following an initial investigation, where remedial action has been completed, or where US EPA has deferred to a state or local agency to oversee remediation.
- Brownfields Management System; Source: US EPA. The Brownfields Management System (BMS) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding.
- CalSites - No Further Action; Source: California Department of Toxic Substances Control (DTSC). This category contains properties at which DTSC has made a clear determination that the property does not pose a problem to the environment or to public health. This determination is typically based on findings of a Preliminary Endangerment Assessment.
- CalSites – Referrals; Source: DTSC. Site Mitigation and Brownfields Reuse Program Facility Sites referred to other agencies. This data was reviewed primarily to cross-check other sources, to reduce potential data gaps.

Two former cleanup and/or remediation sites were identified within one-half mile of the subject property.

Pacsci Quantic LLC	2751 San Juan Rd
Workingmans Auto Wrecking	2450 San Juan Road

Pacsci Quantic was evaluated in 1995 as a potential RCRA Corrective Action site. It was instead referred to the RWQCB for remediation oversight. Work was completed in 2009. The site is almost one-half mile southwest of the subject property; there is no evidence that it has had any potential impact to the subject property.

Workingmans Auto Wrecking was identified as a potential state cleanup site by DTSC in 1989. The site was referred to the San Benito County Environmental Health Department, which was last reported in 1996 to be working with the owners to obtain compliance. The site is about a third of a mile southwest of the subject property; there is no evidence that it has had any potential impact to the subject property.

7.5 Waste Management Activities on the Subject and Adjacent Properties

The following sources were reviewed for information about facilities which are identified or regulated by a government agency as handling or storing hazardous materials or petroleum products:

- Resource Conservation and Recovery Information System - Hazardous Waste Generators (RCRIS); Source: US EPA. RCRIS contains basic information on facilities which generate hazardous waste as defined by Resource Conservation and Recovery Act (RCRA). A LARGE QUANTITY GENERATOR (LQG) is a facility that generates more than 1000 kg. per month of non-acutely hazardous waste, or more than 1 kg. per month of acutely hazardous waste. A SMALL QUANTITY GENERATOR (SQG) generates between 100 kg. and 1000 kg. per month of non-acutely hazardous waste.
- Registered Underground Storage Tanks (UST); Source: SWRCB. The UST database contains statewide address, business name, and local agency information related to permitted Underground Storage Tank (UST) facilities.

Two adjacent business are listed as small-quantity hazardous waste generators:

Quik Stop Markets Inc Mkt 129	1300 San Juan Rd
Fast Gas	1615 San Juan

These listings are the adjacent gas stations at the southeast corner and across the road from the subject property. No violations are listed for either of these sites; field observations noted no evidence of poor housekeeping or other conditions of concern.

Three UST facilities were identified

Fast Gas 1617 San Juan Rd
Victory Gas 1615 San Juan Rd
Quik Stop 1300 San Juan Rd

Fast Gas and Quik Stop are the two adjacent gas stations; Victory Gas is a business previously operated in the present Fast Gas site. No current leaks or violations are reported at either site. A previous leak was reported at Victory Gas - see Section 7.2 above.

7.6 Waste Management Activities in Surrounding Area

The following sources were reviewed for information about facilities within one-half mile of the subject property which are identified or regulated by a government agency as transporting, disposing, or otherwise releasing hazardous materials:

- Resource Conservation and Recovery Information System - Treatment, Storage and Disposal Facilities (RCRIS-TSD); Source: US EPA. The RCRIS-TSD database contains basic information on facilities that Transport, Store, or Dispose of (TSD) hazardous waste as defined by RCRA.
- Solid Waste Information System (SWIS); Source: California Integrated Waste Management Board (CIWMB). The SWIS database contains an inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open dumps that failed to meet RCRA Section 2004 criteria for solid waste landfills or disposal sites.
- Toxic Release Inventory System (TRIS); Source: US EPA. TRIS contains information on facilities which release toxic chemicals into the air, water, and land in reportable quantities under the Superfund Amendments and Reauthorization Act (SARA) Title III Section 313.

Two solid waste facilities were identified:

PMS Towing Service	1550 South Street
Industrial Waste Treatment Facility	South St

PMS towing is a former waste tire facility located 0.3 mile southeast of the subject property. No violations were reported.

The Industrial Waste Treatment Facility is located 1500 feet south of the subject property. It accepts biosolid sludge for land disposal, and does not represent a potential concern for the subject property.

7.7 Oil and Gas Wells

Oil and gas well map W3-8, dated March 23, 2009, published by the California Division of Oil, Gas, and Geothermal Resources, was reviewed. This map shows that the subject property is located on the south edge of the Hollister Oil Field. The oil field extends primarily to the northwest of the City; no wells are mapped on or adjacent to the subject property.

7.8 Cortese List

The California Environmental Protection Agency is responsible for compiling a list of known contaminated sites, generally referred to as the "Cortese List." The list is used for planning, rather than regulatory purposes, and is compiled from the following sources:

Contaminated or potentially contaminated hazardous waste sites listed in the CAL Sites database by DTSC;

Leaking Underground Storage Tanks with known groundwater contamination, listed by he California State Water Resources Control Board;

Landfills which have evidence of groundwater contamination or known migration of hazardous materials, listed by the California Integrated Waste Management Board.

Each of these sources is separately referenced in this report. The subject property is not reported on the Cortese List.

7.9 Tribal Records

The following source was reviewed for information regarding the location of tribal lands in the vicinity of the subject property, and the presence of US EPA regulated properties on those lands.

- Tribal Windows to the Environment. Source: US EPA. The American Indian Environmental Office (AIEO) coordinates and integrates all the tribal programs at the Environmental Protection Agency. To track the progress that these programs are making toward protecting the environment and public health in Indian country, AIEO has linked the various regulatory and environmental monitoring databases of EPA into a single "window to the environment" for tribes.

No tribal lands were identified within one mile of the subject property.

8. LOCAL AGENCY INQUIRIES

8.1 San Benito County Environmental Health Department

The San Benito County Environmental Health Department is the Certified Unified Program Agency ("CUPA") responsible for all oversight of hazardous materials storage, releases or spills, underground storage tanks, above ground storage tanks, and leaking underground storage tanks in all of San Benito County.

The Department was contacted by fax on June 3, 2010. No response has been received.

9. HISTORICAL USE INFORMATION

9.1 Recorded Land Title Records

A chain of title report was not provided by the client for RNC's use in preparing this report.

9.2 Aerial Photographs

Aerial photographs of the subject property, dated 1939, 1949, 1958, and 1989, were obtained from the University of California, Santa Barbara, library. Additional aerial photographs, published by the U. S. Geological Survey and dated 1998, 2003, 2007 and 2009, were obtained from Google Earth.

In the 1939 photo, San Juan Road exists in its present alignment along the south side of the property. The subject property and all adjacent properties are occupied by orchards. The house and shed on the property are visible.

No significant land use changes are apparent in the 1949 or 1958 photos, except that another house is present just to the west of the subject property.

The 1989 photo shows the subject property having been cleared, the north adjacent property developed as a subdivision, the mini-mart present at the southeast corner, and the gas station across the road. Further detail is difficult to discern due to poor photo resolution.

The 1998 through 2009 photos all show the subject and adjacent properties essentially in their present configuration. Only the 2007 and 2009 photos show various numbers of vehicles parked on the west and north sides of the shed.

Copies of the aerial photos are found in Appendix C of this report.

9.3 USGS Topographic Maps

U. S. Geologic Survey topographic map of the Hollister, California, 7.5' quadrangle, published in 1995, was reviewed. According to the map notes, it is based on photography dated 1955, with revisions dated 1987; a 1995 photo-inspection found no major culture revisions.

The map shows the house and shed on the property present in 1955; the adjacent subdivisions, mini-mart and gas stations are shown as added on the 1987 edition.

The map is included in Appendix A of this report.

9.4 Sanborn Insurance Company Maps

The Sanborn Map Company produced a series of large-scale maps, dating from 1867 to the present and depicting the commercial, industrial, and residential sections of some twelve thousand cities and towns in North America. The maps show significant detail regarding dwellings, commercial buildings, and factories. Where available, Sanborn maps are a valuable source of information about past land uses.

No Sanborn maps were identified which cover the subject property, as it was not urbanized at the time the maps were produced.

9.5 Property Tax Files

San Benito County Tax Assessor records list an assessed value of the larger 8-acre parcel as $500,000, with a structure valued at $40,000. No other substantive information is provided.

9.6 Zoning/Land Use Records

According to the City of Hollister, the property is within the West Gateway mixed use zoning area.

10. INTERVIEWS

An environmental questionnaire was completed by John Howard. Mr. Howard states that the property has been vacant except for a single-family rental home since about 1980. Prior to 1980 it was agricultural.

Mr. Howard is unaware of the presence of any hazardous materials on the property, and is unaware of any lawsuits, liens or regulator actions against the property, either past, present, or pending.

He is aware of the leaking UST at the gas station across the road; it is his understanding that this has been fully remediated. Two additional residences were present on the property in 1980; both of these structures burned - one accidentally, one intentional. [Note - RNC's interpretation is that these structures were located on the remainder parcel to the west, and not on the subject property.] Mr. Howard also provided documentation of the destruction of the monitoring wells and an old agricultural supply well on the property.

11. SITE VISIT/ASSESSMENT

A visual and physical reconnaissance of the subject property was conducted on June 2, 2010 by Neil O'Hara. A site map and photographs of the subject property are attached to

this report in Appendices A and B. A site visit/assessment checklist is attached to this report as Appendix C.

11.1 Survey Methodology

The reconnaissance was conducted by walking around the entire perimeter of the property, and crossing the property as needed to assure that the entire site was observed. The subject property was observed to be vacant, except for a house and a shed at the southwest corner.

11.2 Interior Observations

The shed was observed to be used for storage of a variety of household goods, and well as paints, cleaning supplies, etc. The interior of the house was inaccessible; the appearance of the yard was consistent with that of an occupied single-family residence. Electric utilities were observed.

11.3 Hazardous Substances Associated with Identified Uses

Two abandoned, partially disassembled vehicles were observed on the north side of the shed. Both were lying on their sides, and appeared to have leaked automotive fluids onto the soil. A significant amount of additional trash and debris was observed in this area, including retail-sized oil containers associated with apparent spills.

11.4 Storage Tanks

No evidence of storage tanks was observed.

11.5 Drums and Other Containers

A large number of empty one- to five-gallon plastic buckets were observed. The labels indicated that most had originally contained food-grade materials, a few contained biodegradable cleaners and adhesives.

11.6 Pits, Ponds, Lagoons

No pits, ponds, or lagoons were observed on the property.

11.7 Monitoring wells

No monitoring wells were observed. As noted above, the monitoring wells associated with the gas station across the street have been destroyed.

11.8 Soil Stains, Odors, Stressed Vegetation

An oily odors was present in the vicinity of the vehicles; some oil stains on the soil and in a concrete driveway were visible.

11.9 Fill soil and debris

No evidence of fill soil was observed. In addition to the debris noted near the shed, several other debris piles were observed throughout the property.

11.10 PCBs

The term polychlorinated biphenyls (PCBs) refers to any of several compounds that are produced by replacing hydrogen atoms in biphenyl with chlorine. PCBs are used in various industrial applications, primarily as an insulating fluid in electrical equipment. PCBs are considered hazardous materials due to their toxicity and their tendency to accumulate in animal tissues. The Toxic Substance Control Act of 1976 banned the manufacture, processing, distribution, and use of PCBs. However, continued use of existing PCB-containing and PCB-contaminated equipment, such electrical transformers, capacitors, and electromagnets is allowed for the life of that equipment. Federal regulations (40 CFR 761.2) require that electrical equipment of unknown PCB content be presumed to be PCB-contaminated if it was manufactured prior to July 2, 1979.

Several pole-mounted transformers were observed on power lines running along San Juan Road. All appeared to be in good condition.

11.11 Potable Water Supply

Public water service is provided to the property. A private well most likely served the property when the house was originally constructed.

11.12 Sewage Disposal System

Public sewer service is provided to the property. A private septic system most likely served the property when the house was originally constructed.

11.13 Adjacent Properties

Adjacent properties include a single family neighborhood to the north. Two adjacent properties are gas stations - one at the southeast corner and one across San Juan Road. No evidence of poor housekeeping or improper hazardous waste disposal was observed.

12. PHASE II ASSESSMENT

Based on the preliminary information obtained for this Assessment, it was determined that Phase II testing would also be required. The Phase II was therefore conducted concurrently, with soil samples collected at the time of the site visit, and submitted for laboratory analysis. The complete Phase II report is attached to this report as Appendix G.

Three issues of potential concern were addressed in the Phase II Assessment:

- The potential presence of residual pesticides, especially arsenic and chlorinated hydrocarbons, as a result of past agricultural practices on the property.
- The observed presence of spilled automotive fluids on the site.
- The potential presence of Polynuclear Aromatic Hydrocarbons (PAHs) as a combustion by-product from the burning of two houses which were formerly present on the remainder parcel immediately adjacent to the subject property.

A total of six soil samples were submitted to the laboratory.

Two were collected from the area north of the shed where junk and soil stains were observed. These samples are also close to the former location of the burned buildings. These samples were tested for petroleum hydrocarbons, gasoline-associated volatile compounds ("BTEX") and PAHs. The laboratory results found no gasoline, diesel, BTEX, or PAHs, and a low concentration of motor oil, below any regulatory action level.

The remaining four samples were collected from locations distributed across the undeveloped portion of the property. These samples were tested for arsenic and organochlorine pesticides. No pesticides were detected, and arsenic concentrations were consistent with naturally occurring background levels.

13. OTHER PUBLIC INFORMATION

An internet search identified no significant new information other than that discussed elsewhere in this report.

14. BUSINESS ENVIRONMENTAL RISKS

Additional “business environmental risks” have also been evaluated in this report. These are potential concerns which are not directly related to CERCLA liability, but may result in other environmental liabilities or remediation costs. Many lenders and investors require that such risks be evaluated as part of a Phase I report.

14.1 Asbestos Containing Materials

Asbestos includes any of several minerals which occur naturally in metamorphic rock formations in the earth's crust and that readily separate into long flexible fibers. Asbestos is resistant to destruction by heat or chemicals, and its fibers are extremely durable. These characteristics led to its use in wall insulation, paint, sprayed- or troweled-on surfacing materials, ceiling and flooring materials, pipe, boiler, and duct insulations, cement filler, and a variety of other products. Asbestos that may be crumbled by hand pressure is called "friable" asbestos. Material containing friable asbestos is considered hazardous because the fibers are easily released into the air by impact and deterioration. The inhalation of these fibers has been linked to the lung disease asbestosis, as well as lung cancer, mesothelioma, and other cancers. ("A Consumer Guide to Asbestos," Second Edition, California Contractors State License Board, September 1991).

The U.S. Environmental Protection Agency banned nearly all uses of asbestos in 1977/78 for ceilings, walls, insulation, patching and taping compound, and pipe and boiler insulation. However, the potential exists for asbestos to be present in older friable and non-friable materials.

Asbestos is not considered a hazardous waste under CERCLA when it is contained within building materials in an occupied building, but can become a hazardous waste if not properly handled during building demolition.

No obvious asbestos containing materials were observed. Based on the age of the buildings, there is a potential for asbestos-containing materials to be present. Prior to demolition of the existing structures, a comprehensive asbestos survey should be conducted, and any identified asbestos should be properly abated by a licensed asbestos abatement contractor. Typically, this work will be required as a condition for a demolition permit for the buildings.

14.2 Lead-based Paint

Buildings constructed prior to 1978 may have been painted with lead-based paint. When ingested or inhaled, lead constitutes a serious health hazard, especially for young children. Any renovation or demolition project which may result in disturbing lead-based paint must be completed according to federal regulations which control the release of lead dust. Paint which will not be disturbed, but which is peeling or flaking, is also a significant hazard and should be abated utilizing proper techniques.

Based on the age of the buildings, there is a potential for lead-based paint to be present. Lead-based paint is not considered a hazardous waste under CERCLA when it is associated with building materials in an occupied building, but can become a hazardous waste if not properly handled during building demolition.

Normally, lead paint testing is not required for building demolition. Intact paint can be disposed of as part of normal construction/demolition debris. Should flaking or loose paint be apparent, it should be tested for lead content and handled as a separate waste stream in a manner appropriate to the identified lead concentration.

14.3 Radon

Radon is a colorless, odorless, and tasteless gas that is produced by the decay of uranium and radium. This naturally occurring, radioactive gas is produced in most soil or rock. As a result, all buildings have some radon, as does the outdoor air. Radon can move easily through any material that has pores or void spaces through which gases can move. Void spaces and pores are found in the soil beneath any building. Radon is a known human carcinogen. The Surgeon General has warned that radon is the second leading cause of lung cancer in the United States. Anyone living in a building with elevated radon concentrations may have an increased risk of contracting lung cancer over a period of years.

The National Radon Database has been developed by the U.S. Environmental Protection Agency and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. Where necessary, data has been supplemented by information collected from private sources such as universities and research institutions.

The US EPA has designated San Benito County as Radon Zone 2, where average radon level in the area is between 2.0 and 4.0 pCi/L (pico curies per liter of air) for the first floor living area.

Recommended action by the USEPA is as follows:

- Under 2 pCi/L reducing radon levels below 2 pCi/L is difficult
- 2 pCi/ - 4 pCi/L consider reducing levels to below 2 pCi/L, however no action needs to be taken
- 4 pCi/L - 20 pCi/L take action to reduce radon levels to below 4 pCi/L
- Over 20 pCi/L take action to reduce concentrations to as far below 20 pCi/L as possible
- Over 200 pCi/L take immediate action to reduce concentrations as far below 200 pCi/L as possible.

This is only a general estimation of the radon levels for the area in which the subject property is located. Site specific radon testing is necessary if specific conditions on the subject property need to be determined.

15. FINDINGS

This assessment has found that:

- The subject property is currently vacant, except for an occupied rental residence and a shed.
- Prior to approximately 1980, the property was agricultural, planted with orchards. The house and barn on the property date from some time before 1939.
- Extensive trash and debris was noted on the property, particularly near the shed. Based on aerial photos, this appears to be a relatively recent development, and not a long-term condition of the property. Stained soil and oily odors were noted in this area.
- Adjacent properties include two gas stations, as well as residential and vacant properties. The gas stations are currently within regulatory compliance and there is no evidence that either represents a concern for the subject property.
- One of the gas stations, is a former leaking UST site. The Victory Gas site is located on the south side of San Juan Road, across from the western end of the subject property. A leak was discovered when the tanks were removed from this site in 1999; groundwater monitoring and remediation were implemented, and the site was closed in 2004. The groundwater monitoring program included four wells on the north side of San Juan Road, two of which were located on the subject property. No chemicals of concern were detected in either of the wells on the subject property.
- Two former cleanup sites and two waste handlers were identified within one-half mile of the property. There is no evidence that either represents a concern for the subject property.

16. DATA GAPS

None of the limitations of this assessment has result in a data gap of any significance.

17. OPINIONS

Although stains and odors, along with substantial trash, were observed in the area on the north side of the shed, this appears to be a *de minimis* condition. The debris has been present only for the last few years - parked vehicles are visible in this area in the 2007 and 2009 aerial photos, but no older ones. Soil samples were collected by scraping off only the top inch or less of visibly stained soil, and collecting immediately below that. The detection of only minor amounts of motor oil in this soil, and no other hydrocarbons, indicates that the observed stains are surficial only. No significant soil remediation or removal will be required in this area beyond removing visibly stained surface soils.

The non-detection of organochlorine pesticides in the remaining soil samples, and the presence of arsenic a normal background concentrations indicate that the past development of the property as an orchard has not resulted in the presence of residual persistent pesticides.

18. CONCLUSIONS

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-05, of 1480 San Juan Road (APN 052-090-043), located in the city of Hollister, San Benito County, California, "*the property*". Any exceptions to, or deletions from, this practice are described in the Limitations Section of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the subject property.

19. RECOMMENDATIONS

No further investigation is recommended.

We recommend that any soils in the vicinity of the shed which have visible oil stains and/or odors be excavated and removed from the site at the beginning of site preparation for construction.

20. SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

"We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in the §312.10 of 40 CFR part 312. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR part 312."

RNC Environmental, LLC

Neil O'Hara
REA #1-05321

21. STATEMENT OF QUALIFICATIONS

RNC Environmental, LLC was founded in 2004 by a small group of environmental professionals with decades of experience each. Structured around a minimum-overhead business model, RNC strives to provide top-quality consulting services in a cost-effective manner.

The principal of RNC Environmental is Neil O'Hara, whose 35+ years of experience include work in CEQA compliance, biological resources, wetlands evaluation and permitting, water quality management, habitat restoration, environmental site assessment, environmental education, and more.

In addition to the wide-ranging experience Neil brings to the table, RNC has an extensive network of multi-disciplinary resources, and is able to pull together a team to tackle virtually any environmental problem or project.

Neil E. O'Hara, REA
California Registered Environmental Assessor #1-05321
Mr. O'Hara's career in the environmental sciences includes 20+ years as a consultant and 15 years as an educator. His areas of expertise include environmental site assessment and due diligence, biological resources evaluation and wetlands assessment, CEQA compliance and regulatory compliance. He has conducted environmental assessments, trained and supported others in conducting such work, and provided third-party review services for a real estate investment fund. He has conducted over 100 Phase I Environmental Site Assessments, and provided third-party reviews for hundreds more. His work in interpreting regulations and specifications has been critical to the development of Phase I report formats which fully comply with ASTM E1527-05, the more stringent requirements for Fannie Mae and other major lenders, California Education Code requirements for school site evaluation, and EPA's new All Appropriate Inquiry rules.

He has managed the preparation of CEQA documents, including Mitigated Negative Declarations and Environmental Impact Reports, for several new school site development projects, and overseen the public review and comment process for them.

He is also a computer expert, experienced in database programming, development of complex spreadsheets for data presentation and process modeling, and document and information management.

Education
- University of California, Davis – B.S., Environmental Planning & Management
- California State University, Hayward – graduate-level courses in Teacher Education and Environmental Education

- University of San Francisco – candidate, Master of Nonprofit Organization Management

Continuing Education

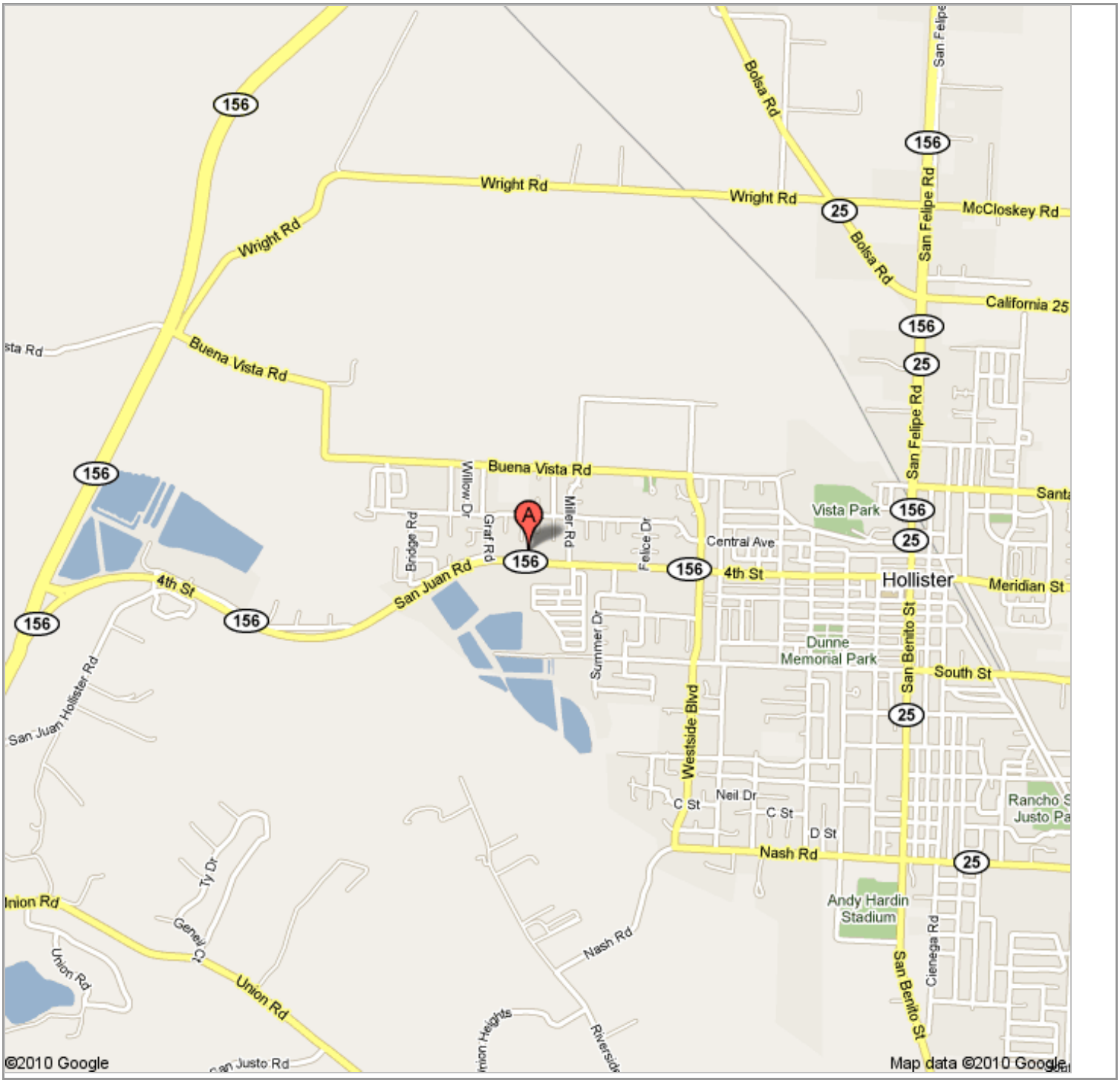
- Stormwater Management
- CEQA Compliance

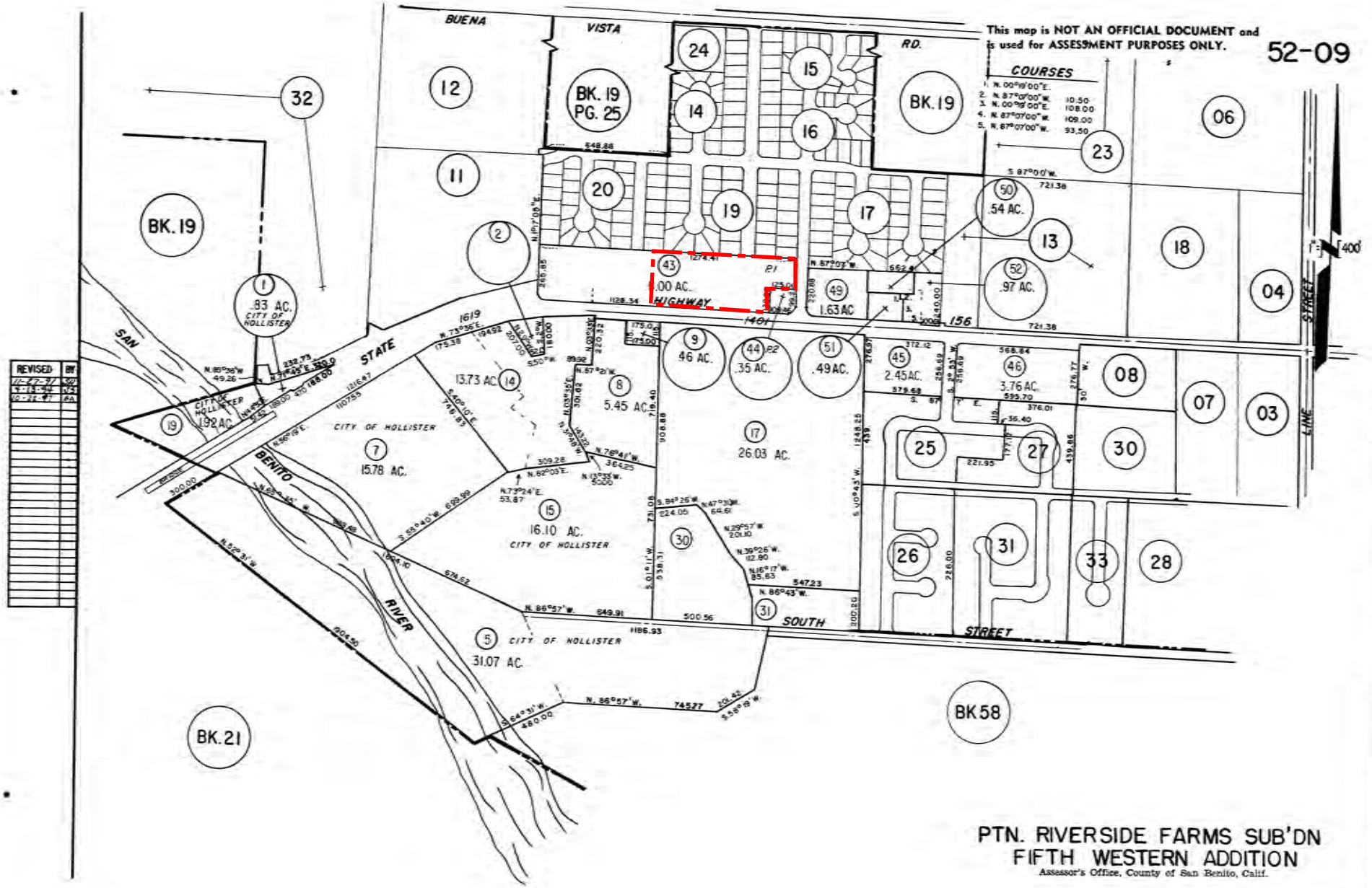
Career Experience

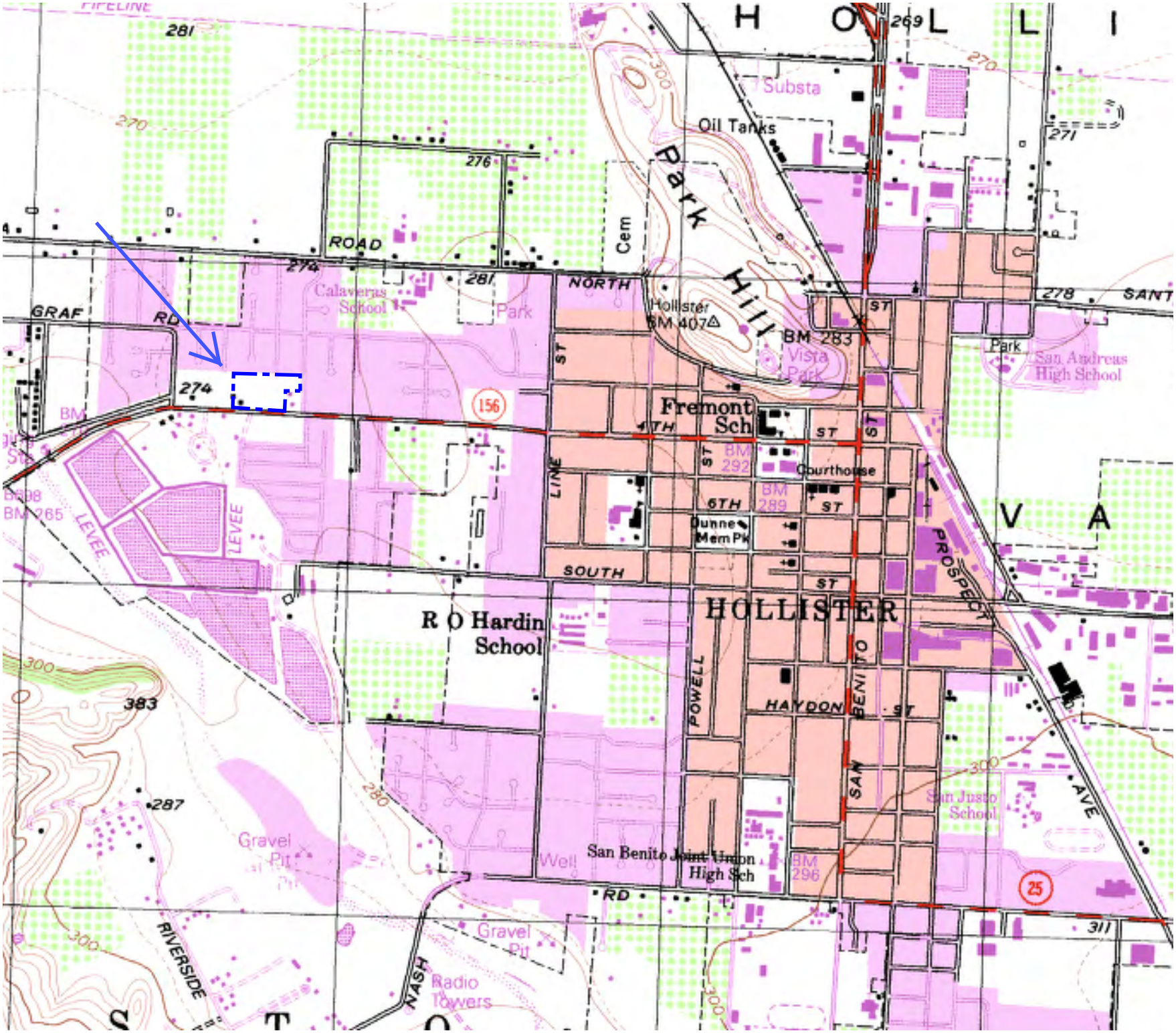
- RNC Environmental, LLC, Sutter Creek and Elk Grove, CA. Founding partner, 2004.
- Neil O. Anderson & Associates, Lodi, CA. Senior Environmental Specialist, 1998-2004.
- O'Hara Environmental, Volcano, CA. Independent consultant, 1995-1998.
- Sugnet & Associates, Roseville, CA. Water Quality Specialist, 1992-1995.
- Limnion Corp., Concord, CA. Senior Biologist, 1989-1992.
- Venture West School of Outdoor Living, Walnut Creek, CA. Executive Director, 1982-1989.
- San Mateo County Outdoor Education, La Honda, CA. Chief Naturalist, 1976-1982.

Appendix A -- Location Maps

Google maps Address **1480 San Juan Rd**
Hollister, CA 95023




This map is NOT AN OFFICIAL DOCUMENT and is used for ASSESSMENT PURPOSES ONLY.
52-09
BUENA VISTA RD.
BK. 19 PG. 25
BK. 19
BK. 21
BK 58
COURSES
1. N. 00°19'00"E.
2. N. 87°07'00"W. 10.50
3. N. 00°19'00"E. 108.00
4. N. 87°07'00"W. 109.00
5. N. 87°07'00"W. 93.50
.83 AC. CITY OF HOLLISTER
1.92 AC.
13.73 AC.
15.78 AC.
16.10 AC.
31.07 AC.
5.45 AC.
26.03 AC.
.46 AC.
.35 AC.
.49 AC.
.00 AC.
1.63 AC
.54 AC.
.97 AC.
2.45 AC.
3.76 AC.
HIGHWAY 101
STATE
SAN BENITO RIVER
SOUTH STREET
CITY OF HOLLISTER
1" = 400'
PTN. RIVERSIDE FARMS SUB'DN
FIFTH WESTERN ADDITION
Assessor's Office, County of San Benito, Calif.


H O L L I
Park Hill
Oil Tanks
Substa
Cem
ROAD
NORTH
GRAF RD
Calaveras School
Park
Hollister BM 407
BM 283
Vista Park
San Andreas High School
Fremont Sch
Courthouse
BM 292
BM 289
6TH
4TH
SOUTH
Dunne Mem Pk
HOLLISTER
R O Hardin School
PROSPECT
POWELL
SAN BENITO
HAYDON
ST
AVE
San Justo School
San Benito Joint Union High Sch
BM 296
Well
Gravel Pit
LEVEE
LINE
RIVERSIDE
NASH
Radio Towers
156
25
383
287
274
276
281
269
271
278
311
300
280
270


Central Ave
Terrace St
Mulberry St
Sunset Dr
Vista Ct
Vista Dr
Center Rd
Center St
Mulberry Rd
Jessen St
Madison St
4th St
Applebee Ln
Lake Gate Dr
Clearview Ln
Peartree Ln
Peach Ln
Cherry Ln
Ivy Ln
©2009 Google

Appendix B -- Photographs

Figure 1. Driveway entrance to property.

Figure 2. Driveway at house.

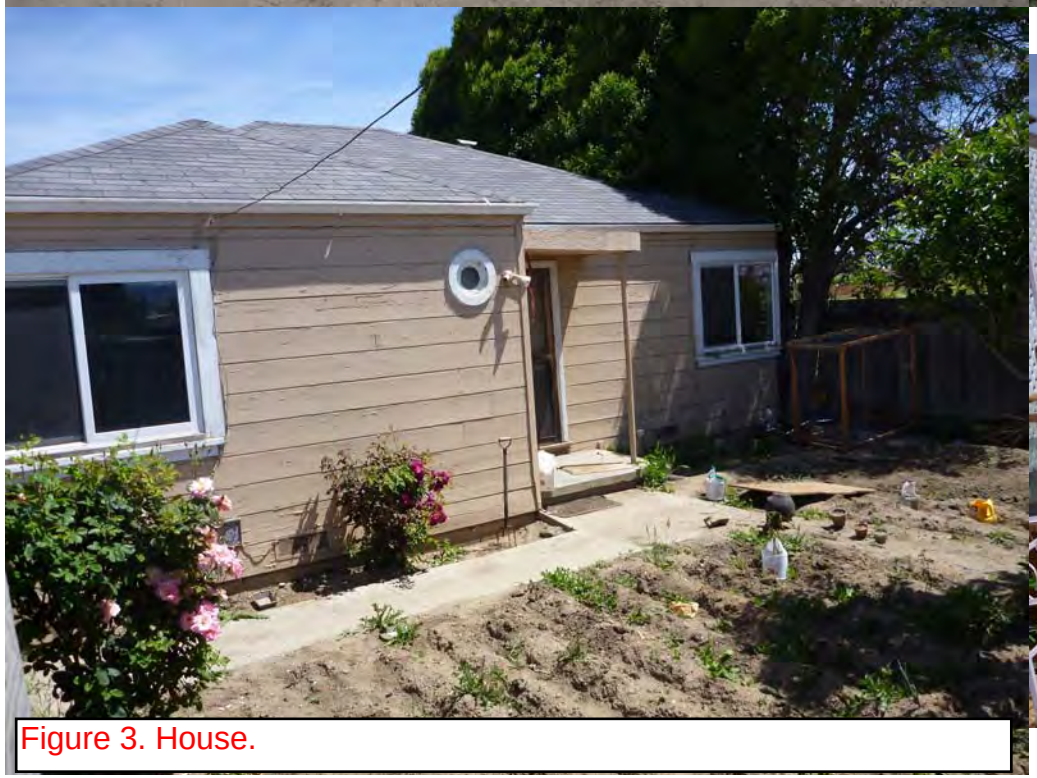


Figure 3. House.

Figure 4. Stained driveway and junk near shed.

Figure 5. Old truck behind shed.

Figure 6. Old RV behind shed.

Figure 7. Gas tank from truck; stained soil.

Figure 8. Trash behind shed; stained soil.

Figure 9. Tires stacked near shed.

Figure 10. Assorted materials stored in shed.

Figure 11. Typical junk pile on property.

Figure 12. Adjacent property to west.

Figure 13. Old asphalt & concrete, northwest corner of property.

Figure 14. Northeast portion of property.

Figure 15. Gas station across San Juan Road to south

Figure 16. Vacant property east of gas station.

Figure 17. Adjacent neighborhood to north.

Figure 18. Adjacent neighborhood to northeast.

Figure 19. Restaurant across street to east.

Figure 20. Mini-mat and gas station adjacent to southeast corner.

Appendix C -- Site Assessment Checklist

RNC ENVIRONMENTAL, LLC

Site Assessment, Regulatory Compliance and Permitting Assistance
3326 M Street, Sacramento, CA 95816
(888)485-3330

Phase I Site Reconnaissance Checklist
RNC Project Number: *1008A*

Project Name: *Hollister Family Apartments*
Address: *1480 San Juan Road*
Hollister CA

---

1. Describe observed land uses:

a. Subject property: Industrial? ☐ Yes ☒ No

Mostly vacant, with house, shed and junk storage at southwest corner.

b. Adjoining land to the north: Industrial? ☐ Yes ☒ No

Single-family residential neighborhood.

c. Adjoining land to the east: Industrial? ☐ Yes ☒ No

Gas station/ mini-mart at southeast corner; restaurant across Miller Road

d. Adjoining land to the south: Industrial? ☐ Yes ☒ No

San Juan Road (former State Route 156); gas station across from southwest; otherwise vacant.

e. Adjoining land to the west: Industrial? ☐ Yes ☒ No

Vacant; continuation of parcel of which subject property is a part.

f. Is the property or any adjoining property observed to be used as a type of business typically associated with waste treatment, storage, disposal, processing, or recycling?
Site: ☐ Yes ☒ No
Adjacent: ☒ Yes ☐ No

Gas station across San Juan Road

g. Other observations/comments:

Evidence of vehicle maintenance, dumping, etc., on site; does not appear to have been a operated as a business.

2.	a. Are there any transformers observed on the subject property, or adjacent properties?	Site:	☒ Yes ☐ No
		Adjacent:	☒ Yes ☐ No

Several pole-mounted along south boundary; appear in good condition & fairly new.

	b. Do any transformers appear not to be the property of a public utility?	Site:	☐ Yes ☒ No
		Adjacent:	☐ Yes ☒ No

3.	Is there any staining of soil observed on the subject property, or adjacent properties?	Site:	☒ Yes ☐ No
		Adjacent:	☐ Yes ☒ No

Leaks from overturned vehicles, oil containers in trash piles.

4.	Was stressed or dead vegetation observed during the site reconnaissance, other than seasonal grasses and forbs, on the subject property, or adjacent properties?	Site:	☐ Yes ☒ No
		Adjacent:	☐ Yes ☒ No

5.	Are any strong, noxious, or pungent odors observed on the subject property, or from adjacent properties?	Site:	☒ Yes ☐ No
		Adjacent:	☐ Yes ☒ No

Oily odor near vehicles and trash.

6.	Have any construction debris, substances identified as hazardous, unidentified waste materials, tires, automotive or industrial batteries, or any other waste materials, trash, debris, or refuse observed to have been dumped on the subject property, or adjacent properties?	Site:	☒ Yes ☐ No
		Adjacent:	☒ Yes ☐ No

Abundant trash behind shed; several other piles of abandoned materials across property. Some extends onto west adjacent property.

7.	Is there observed evidence that fill dirt has been brought onto the site which originated from a contaminated site or an unknown location?	Site:	☐ Yes ☒ No
		Adjacent:	☐ Yes ☒ No

8.	Is there observed evidence of any pesticides, automotive or industrial batteries, paints, or other chemicals being stored or used on the subject property, or adjacent properties?	Site:	☒ Yes ☐ No
		Adjacent:	☐ Yes ☒ No

Stored paints, oils, etc., in 1-5 gallon containers in shed. Numerous empty containers behind shed are mostly food-related, but include some oils & cleaners.

9.	Are there any industrial drums or sacks of chemicals observed on the subject property, or adjacent properties?	Site:	☐ Yes ☒ No
		Adjacent:	☐ Yes ☒ No
10.	Are there any open or damaged containers containing unidentified substances observed on the subject property, or adjacent properties?	Site:	☐ Yes ☒ No
		Adjacent:	☐ Yes ☒ No
11.	Are there any pits, ponds, or lagoons located on the property in connection with waste treatment or waste disposal?	Site:	☐ Yes ☒ No
		Adjacent:	☐ Yes ☒ No
12.	Is there evidence that the subject property or any adjacent property discharges waste water, other than storm water, directly into a ditch or stream on or adjacent to the property?	Site:	☐ Yes ☒ No
		Adjacent:	☐ Yes ☒ No
13.	Is there evidence of underground/aboveground storage tanks on the subject property, including vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the subject property?	Site:	☐ Yes ☒ No
		Adjacent:	☒ Yes ☐ No

Gas station across street and adjacent to SE corner.

14. a. Identify the potable water supply source: ☒ Public ☐ Pvt well ☐ Other ☐ None

b. Is there observed evidence of a private well within 1,000 feet? ☐ Yes ☒ No

Former ag well has been removed.

15. Identify the sewage disposal system: ☐ Public ☐ Pvt septic ☒ Other ☐ None

Currently public as reported by owner; likely septic in past.

16. Identify any surface waters, including channels and potential wetlands, on or near the subject property

None on or adjacent. San Benito River is about a half mile to the west.

17. Describe the subject property and its physical, topographic, and vegetative features.

Level, weedy property, with a house and shed in the southwest corner.

18. a. For each structure on the subject property, describe its uses and location, type of heating and cooling system, whether any readily apparent asbestos-containing materials or potential lead-based paintswere observed, and whether there are drains, stains, and/or odors in the structure.

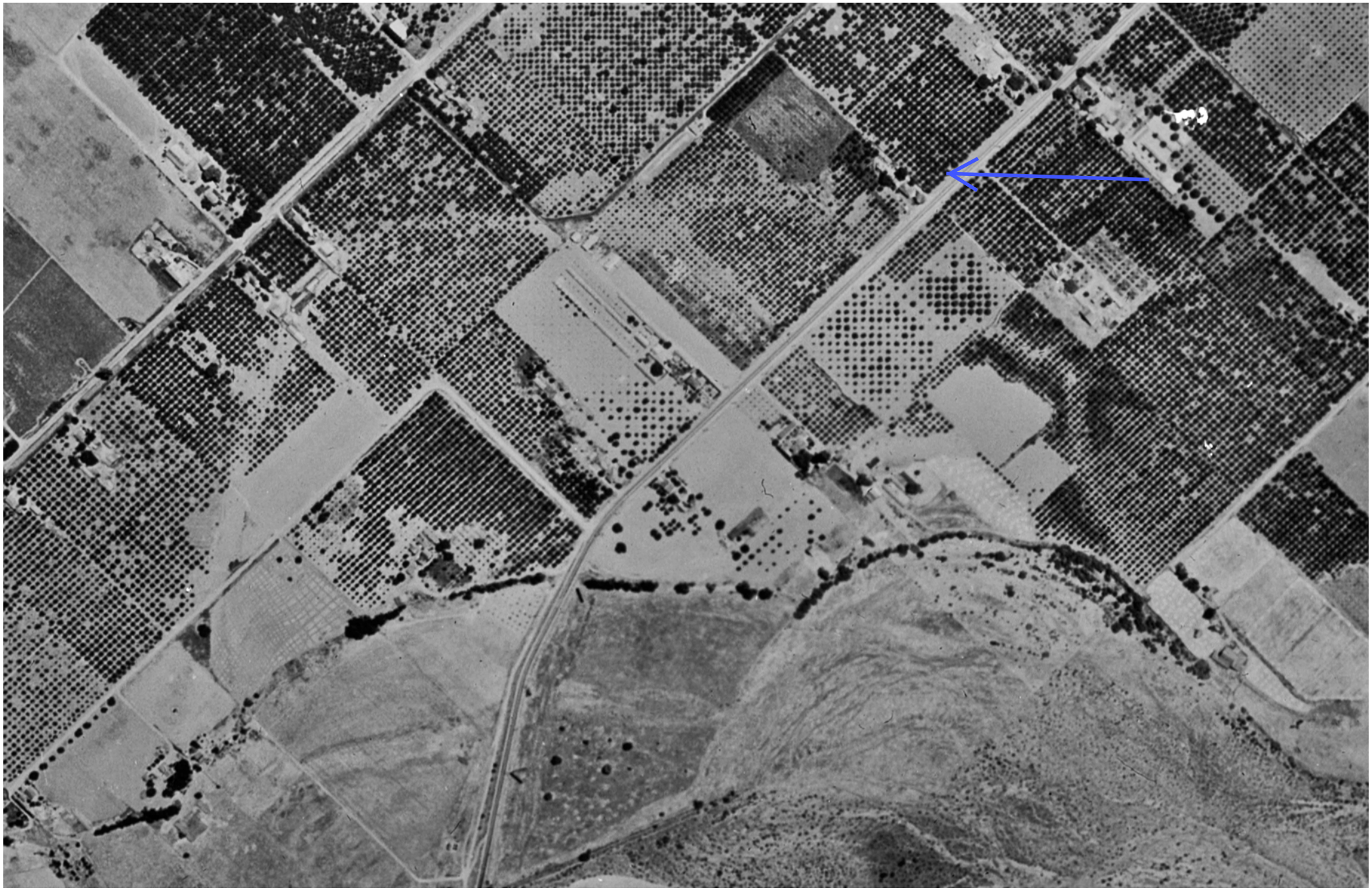
House and storage shed. Electric utilities. No ACM observed, but potentially present due to age of buildings.

Continuations from above (identify by question #):

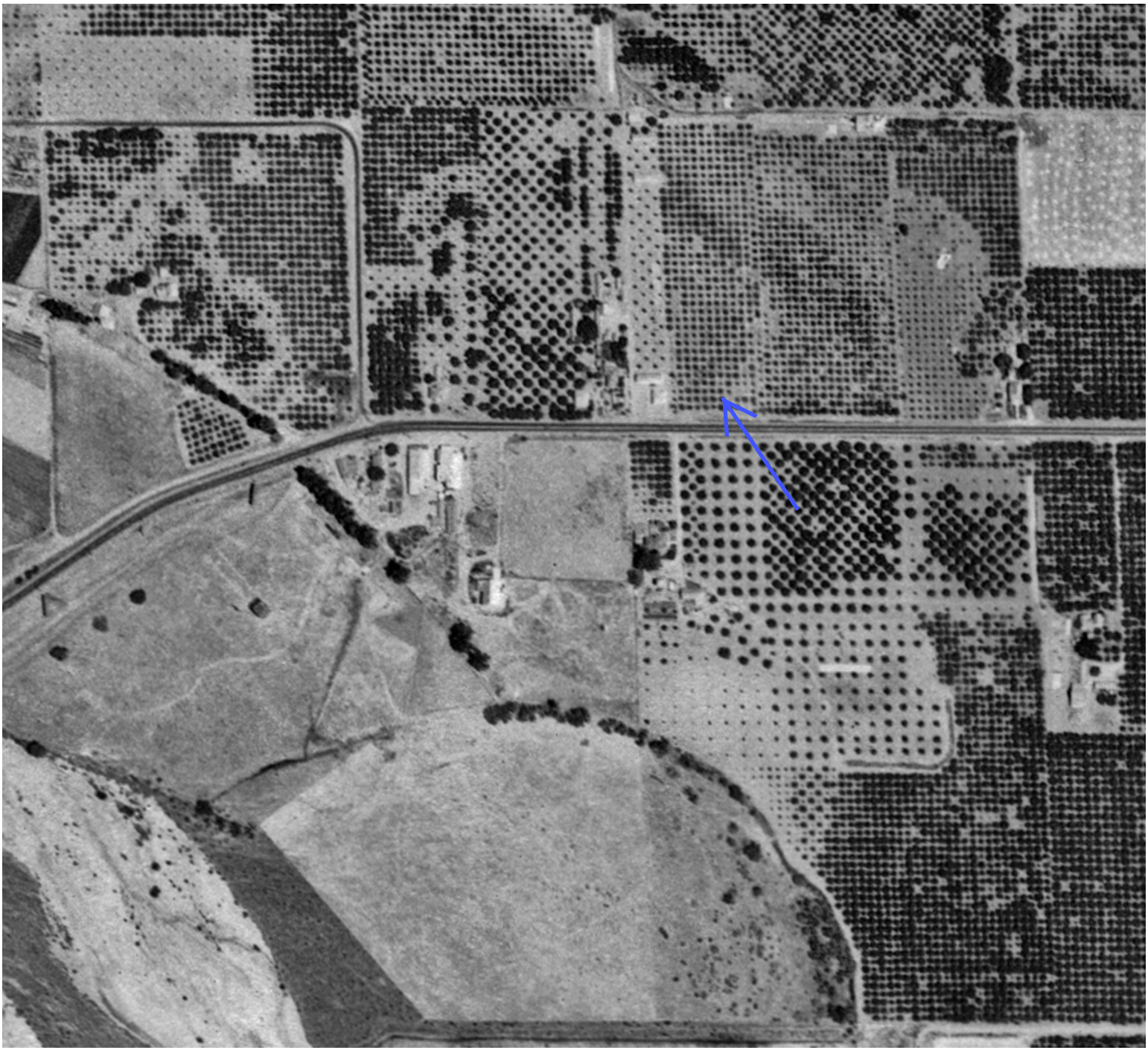
Site Reconnaissance conducted on *June 2, 2010* by: *Neil O'Hara*

RNC ENVIRONMENTAL

Appendix D -- Historical Photos and Maps



1939



1949

1958


1989


Central Ave
Ortiz Ct
Verde Ct
Encinal Rd
Vereda St
Sanchez Dr
Mendoza St
Gonzalez Dr
Miller Rd
Valdez Ct
Madera Ct
4th St
Applecross Ln
Lake Leaf Dr
Chestnut Ln
Cherry Ln
Peartree Ln
Peach Ln
Fig Ln
©2009 Google

1998


Central Ave
Terrace Dr
Mountain Dr
Sunset Dr
Larsen Ct
Madison Ct
Ortiz Ct
Vasco Ln
Balfour Rd
Brentwood Blvd
Elm St
Walnut Rd
Lake Oaks Dr
Chestnut Ln
Cherry Ln
Peartree Ln
Peach Ln
Ash Ln
Appletree Ln
©2009 Google

2003


Central Ave
Ortiz Ct
Verde Ct
Glover Rd
Ortiz Dr
Terracita Ct
San Lorenzo Dr
Mirabel Ct
Gonzalez Dr
Miller Rd
Jackson Ct
Madera Ct
5th St
Chestnut Ln
Peartree Ln
©2009 Google

2007


Central Ave
Ortiz St
Vesta St
Encina Rd
Cretin St
Terrace St
San Lorenzo Dr
Mirabel St
Sunset Dr
Jessen St
Kaplan St
Miller Rd
4th St
Applebrook Ln
Idyllwood Dr
Clearbrook Ln
Parish Ln
Glenwood Ln
Pearlbrook Ln
Ivy Ln
©2009 Google

2009

Appendix E -- Government Records Search

TRACK INFO SERVICES, LLC

Environmental FirstSearch ™ Report

Target Property: Hollister Family Apartments

1480 SAN JUAN ROAD

HOLLISTER CA 95023

Job Number: 1008A

PREPARED FOR:

RNC Environmental, LLC

3326 M Street

Sacramento, CA 95816

05-26-10

Tel: (866) 664-9981 *Fax: (818) 249-4227*

Environmental FirstSearch
Search Summary Report

Target Site: 1480 SAN JUAN ROAD
HOLLISTER CA 95023

FirstSearch Summary

Database	Sel	Updated	Radius	Site	1/8	1/4	1/2	1/2>	ZIP	TOTALS
NPL	Y	05-01-10	1.00	0	0	0	0	0	0	0
NPL Delisted	Y	05-01-10	0.50	0	0	0	0	-	0	0
CERCLIS	Y	04-29-10	0.50	0	0	0	0	-	0	0
NFRAP	Y	04-29-10	0.50	0	0	0	0	-	0	0
RCRA COR ACT	Y	04-21-10	1.00	0	0	0	1	0	0	1
RCRA TSD	Y	04-21-10	0.50	0	0	0	0	-	0	0
RCRA GEN	Y	04-21-10	0.25	0	0	0	-	-	0	0
RCRA NLR	Y	02-16-10	0.12	0	0	-	-	-	0	0
Federal IC / EC	Y	04-19-10	0.50	0	0	0	0	-	0	0
ERNS	Y	04-29-10	0.12	0	0	-	-	-	0	0
Tribal Lands	Y	12-01-05	1.00	0	0	0	0	0	0	0
State/Tribal Sites	Y	02-08-10	1.00	0	0	0	1	0	0	1
State Spills 90	Y	03-11-10	0.50	0	0	0	0	-	0	0
State/Tribal SWL	Y	02-22-10	0.50	0	0	0	1	-	1	2
State/Tribal LUST	Y	03-01-10	0.50	0	1	0	0	-	0	1
State/Tribal UST/AST	Y	05-13-09	0.25	0	9	4	-	-	0	13
State/Tribal EC	Y	NA	0.50	0	0	0	0	-	0	0
State/Tribal IC	Y	03-02-10	0.25	0	0	0	-	-	0	0
State/Tribal VCP	Y	02-08-10	0.50	0	0	0	0	-	0	0
State/Tribal Brownfields	Y	NA	0.50	0	0	0	0	-	0	0
State Permits	Y	02-19-10	0.25	0	0	1	-	-	0	1
State Other	Y	02-08-10	0.25	0	0	0	-	-	1	1
- TOTALS -				0	10	5	3	0	2	20

Notice of Disclaimer

Due to the limitations, constraints, inaccuracies and incompleteness of government information and computer mapping data currently available to TRACK Info Services, certain conventions have been utilized in preparing the locations of all federal, state and local agency sites residing in TRACK Info Services's databases. All EPA NPL and state landfill sites are depicted by a rectangle approximating their location and size. The boundaries of the rectangles represent the eastern and western most longitudes; the northern and southern most latitudes. As such, the mapped areas may exceed the actual areas and do not represent the actual boundaries of these properties. All other sites are depicted by a point representing their approximate address location and make no attempt to represent the actual areas of the associated property. Actual boundaries and locations of individual properties can be found in the files residing at the agency responsible for such information.

Waiver of Liability

Although TRACK Info Services uses its best efforts to research the actual location of each site, TRACK Info Services does not and can not warrant the accuracy of these sites with regard to exact location and size. All authorized users of TRACK Info Services's services proceeding are signifying an understanding of TRACK Info Services's searching and mapping conventions, and agree to waive any and all liability claims associated with search and map results showing incomplete and or inaccurate site locations.

Environmental FirstSearch
Site Information Report

Request Date:	05-26-10	**Search Type:**	COORD
Requestor Name:	Neil OHara	**Job Number:**	1008A
Standard:	AAI	**Filtered Report**	

Target Site: 1480 SAN JUAN ROAD
HOLLISTER CA 95023

Demographics

Sites:	20	**Non-Geocoded:**	2	**Population:**	NA
Radon:	0 - 0.7 PCI/L				

Site Location

	Degrees (Decimal)	**Degrees (Min/Sec)**		**UTMs**
Longitude:	-121.422603	-121:25:21	**Easting:**	640627.469
Latitude:	36.853698	36:51:13	**Northing:**	4079601.223
			Zone:	10

Comment

Comment:

Additional Requests/Services

Adjacent ZIP Codes: 0 Mile(s)

ZIP Code	City Name	ST	Dist/Dir	Sel

Services:

	Requested?	Date
Sanborns	No	
Aerial Photographs	No	
Historical Topos	No	
City Directories	No	
Title Search/Env Liens	No	
Municipal Reports	No	
Online Topos	No	

Environmental FirstSearch
Sites Summary Report

Target Property: 1480 SAN JUAN ROAD
HOLLISTER CA 95023

JOB: 1008A

TOTAL: 20 **GEOCODED:** 18 **NON GEOCODED:** 2 **SELECTED:** 20

Map ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Page No.
2	LUST	VICTORY GAS and FOOD T0606900054/COMPLETED - CASE CLO	1615 SAN JUAN RD HOLLISTER CA 95023	0.11 SW	1
	OTHER	PAC SCI QUANTIC LLC CAL80001766/REFER: RWQCB	2751 SAN JUAN RD HOLLISTER CA 95023	NON GC	16
3	PERMITS	QUIK STOP MARKETS INC MKT 129 CAL000045924/ACTIVE	1300 SAN JUAN RD HOLLISTER CA 95023	0.16 SE	3
6	RCRACOR	PACSCI QUANTIC L L C CAD981368392/CA	2751 SAN JUAN RD HOLLISTER CA 95023	0.48 SW	4
5	STATE	WORKINGMANS AUTO WRECKING CAL35500003/PROPERTY/SITE REFERR	2450 SAN JUAN ROAD HOLLISTER CA 95023	0.35 SW	6
4	SWL	PMS TOWING SERVICE SWIS35-TI-0524/ACTIVE	1550 SOUTH STREET HOLLISTER CA 95023	0.31 SE	8
	SWL	INDUSTRIAL WASTE TREATMENT FACILIT SWIS35-AA-0003/ACTIVE	SOUTH ST HOLLISTER CA 95023	NON GC	18
1	UST	FAST GAS HOLLISTER_TISID16/OPEN	1617 SAN JUAN RD HOLLISTER CA	0.11 SW	9
1	UST	FAST GAS HOLLISTER_TISID16/UNKNOWN	1617 SAN JUAN RD HOLLISTER CA	0.11 SW	9
1	UST	FAST GAS HOLLISTER_TISID16/OPEN	1617 SAN JUAN RD HOLLISTER CA	0.11 SW	10
1	UST	FAST GAS HOLLISTER_TISID16/OPEN	1617 SAN JUAN RD HOLLISTER CA	0.11 SW	10
1	UST	FAST GAS HOLLISTER_TISID16/UNKNOWN	1617 SAN JUAN RD HOLLISTER CA	0.11 SW	11
2	UST	VICTORY GAS HOLLISTER_TISID20/OPERATING	1615 SAN JUAN RD HOLLISTER CA	0.11 SW	11
2	UST	VICTORY GAS HOLLISTER_TISID20/OPERATING	1615 SAN JUAN RD HOLLISTER CA	0.11 SW	12
2	UST	VICTORY GAS HOLLISTER_TISID20/OPERATING	1615 SAN JUAN RD HOLLISTER CA	0.11 SW	12
2	UST	FAST GAS TISID-STATE38489/ACTIVE	1615 SAN JUAN HOLLISTER CA 95023	0.11 SW	13
3	UST	QUICK STOP HOLLISTER_TISID1/OPEN	1300 SAN JUAN RD HOLLISTER CA	0.16 SE	14
3	UST	QUICK STOP HOLLISTER_TISID16/OPERATING	1300 SAN JUAN RD HOLLISTER CA	0.16 SE	14
3	UST	QUICK STOP HOLLISTER_TISID16/OPERATING	1300 SAN JUAN RD HOLLISTER CA	0.16 SE	15
3	UST	QUIK STOP MARKET 129 TISID-STATE38655/ACTIVE	1300 SAN JUAN HOLLISTER CA 95023	0.16 SE	15

Environmental FirstSearch
Site Detail Report

Target Property: 1480 SAN JUAN ROAD
HOLLISTER CA 95023

JOB: 1008A

LUST

SEARCH ID: 18 **DIST/DIR:** 0.11 SW **MAP ID:** 2

NAME: VICTORY GAS and FOOD
ADDRESS: 1615 SAN JUAN RD
HOLLISTER CA 95023
SAN BENITO
CONTACT:

REV: 03/01/10
ID1: T0606900054
ID2:
STATUS: COMPLETED - CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

Please note that some data previously provided by the State Water Resources Control Board in the LUSTIS database is not currently being provided by the agency in the most recent edition. Incidents that occurred after the year 2000 may not have much information. Field headers with blank information following after should be interpreted as unreported by the agency.

LEAD AGENCY: *CENTRAL COAST RWQCB (REGION 3)*
REGIONAL BOARD CASE NUMBER: *3319*
LOCAL AGENCY: *HOLLISTER , CITY OF*
LOCAL CASE NUMBER: *3319*
RESPONSIBLE PARTY:
ADDRESS OF RESPONSIBLE PARTY:
SITE OPERATOR:
WATER SYSTEM:

CASE TYPE: *LUST Cleanup Site*
POTENTIAL CONTAMINANTS OF CONCERN: *Gasoline*
POTENTIAL MEDIA AFFECTED: *Other Groundwater (uses other than drinking water)*
LEAK CAUSE:
LEAK SOURCE:
HOW LEAK WAS DISCOVERED:
DATE DISCOVERED (blank if not reported):
HOW LEAK WAS STOPPED:
STOP DATE (blank if not reported):
STATUS: *Completed - Case Closed*
STATUS DATE: *2004-05-28*
ABATEMENT METHOD (please note that not all code translations have been provided by the reporting agency):
ENFORCEMENT TYPE (please note that not all code translations have been provided by the reporting agency):
DATE OF ENFORCEMENT (blank if not reported):
SITE HISTORY (blank if not reported):

ACTION TYPE (blank if not reported): *ENFORCEMENT*
DATE (blank if not reported): *2003-04-28 00:00:00*
ACTION (blank if not reported): *Staff Letter*

ACTION TYPE (blank if not reported): *ENFORCEMENT*
DATE (blank if not reported): *2004-05-28 00:00:00*
ACTION (blank if not reported): *Closure/No Further Action Letter*

ACTION TYPE (blank if not reported): *ENFORCEMENT*
DATE (blank if not reported): *2003-01-30 00:00:00*
ACTION (blank if not reported): *Staff Letter*

ACTION TYPE (blank if not reported): *ENFORCEMENT*
DATE (blank if not reported): *2003-10-23 00:00:00*
ACTION (blank if not reported): *Staff Letter*

ACTION TYPE (blank if not reported): *Other*
DATE (blank if not reported): *1950-01-01 00:00:00*
ACTION (blank if not reported): *Leak Reported*

ACTION TYPE (blank if not reported): *RESPONSE*
DATE (blank if not reported): *2003-07-20 00:00:00*
ACTION (blank if not reported): *Monitoring Report - Quarterly*

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: 1480 SAN JUAN ROAD
HOLLISTER CA 95023

JOB: 1008A

LUST

SEARCH ID: 18 **DIST/DIR:** 0.11 SW **MAP ID:** 2

NAME: VICTORY GAS and FOOD
ADDRESS: 1615 SAN JUAN RD
HOLLISTER CA 95023
SAN BENITO
CONTACT:

REV: 03/01/10
ID1: T0606900054
ID2:
STATUS: COMPLETED - CASE CLOSED
PHONE:

ACTION TYPE (blank if not reported): *RESPONSE*
DATE (blank if not reported): *2003-10-20 00:00:00*
ACTION (blank if not reported): *Monitoring Report - Quarterly*

ACTION TYPE (blank if not reported): *RESPONSE*
DATE (blank if not reported): *2004-05-01 00:00:00*
ACTION (blank if not reported): *Well Destruction Report*

ACTION TYPE (blank if not reported): *RESPONSE*
DATE (blank if not reported): *2002-12-02 00:00:00*
ACTION (blank if not reported): *Corrective Action Report*

ACTION TYPE (blank if not reported): *RESPONSE*
DATE (blank if not reported): *2002-12-02 00:00:00*
ACTION (blank if not reported): *Soil and Water Investigation Report*

ACTION TYPE (blank if not reported): *RESPONSE*
DATE (blank if not reported): *2003-04-20 00:00:00*
ACTION (blank if not reported): *Monitoring Report - Quarterly*

Environmental FirstSearch
Site Detail Report

Target Property: 1480 SAN JUAN ROAD
HOLLISTER CA 95023

JOB: 1008A

PERMITS

SEARCH ID: 4 **DIST/DIR:** 0.16 SE **MAP ID:** 3

NAME: QUIK STOP MARKETS INC MKT 129
ADDRESS: 1300 SAN JUAN RD
HOLLISTER CA 95023
SAN BENITO
CONTACT:

REV: 02/19/10
ID1: CAL000045924
ID2:
STATUS: ACTIVE
PHONE:

THE CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL HAZARDOUS WASTE MANIFEST INVENTORY (HWMI) SITE INFORMATION FROM THE CA EPA AND DTSC HAZARDOUS WASTE TRACKING SYSTEM (HWTS) :

Date Record was Created: *3/28/1995*
Inactivity Date:
Facility Mail Name:
Facility Mailing Address: *4567 ENTERPRISE ST, FREMONT, CA 94538-7605*
Owner Name: *QUIK STOP MARKETS, INC.*
Owner Address: *4567 ENTERPRISE STREET, FREMONT, CA 94538-0000*
Contact Name: *MIKE KARVELOT*
Contact Address: *4567 ENTERPRISE STREET, FREMONT, CA 94538-0000*
Contact Phone: *5106578500*

HWMI WASTE TYPE AND TONNAGE INFORMATION BY YEAR 1993-1999:

1999 Waste Type:
1999 Total Tonnage:
1998 Waste Type:
1998 Total Tonnage:
1997 Waste Type:
1997 Total Tonnage:
1996 Waste Type:
1996 Total Tonnage:
1995 Waste Type:
1995 Total Tonnage:
1994 Waste Type:
1994 Total Tonnage:
1993 Waste Type:
1993 Total Tonnage:

HWMI WASTE TYPE AND TONNAGE INFORMATION BY YEAR 2000-2008:

2008 Waste Type:
2008 Total Tonnage:
2007 Waste Type: *Hydrocarbon solvents (benzene, hexane, Stoddard, Etc.)*
2007 Total Tonnage: *0.0834*
2006 Waste Type:
2006 Total Tonnage:
2005 Waste Type: *Oil/water separation sludge*
2005 Total Tonnage: *0.1*
2004 Waste Type:
2004 Total Tonnage:
2003 Waste Type:
2003 Total Tonnage:
2002 Waste Type:
2002 Total Tonnage:
2001 Waste Type:
2001 Total Tonnage:
2000 Waste Type:
2000 Total Tonnage:

Target Property: 1480 SAN JUAN ROAD
HOLLISTER CA 95023

JOB: 1008A

RCRACOR

SEARCH ID: 1 **DIST/DIR:** 0.48 SW **MAP ID:** 6

NAME:	PACSCI QUANTIC L L C	**REV:**	4/21/10
ADDRESS:	2751 SAN JUAN RD	**ID1:**	CAD981368392
	HOLLISTER CA 95023	**ID2:**	
	SAN BENITO	**STATUS:**	CA
CONTACT:		**PHONE:**	

SITE INFORMATION

CONTACT INFORMATION: MILES DYER
P O BOX 148
HOLLISTER CA 950240148

PHONE: 8316375851

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

VIOLATION NUMBER:	0001	**RESPONSIBLE:**	E - EPA
DETERMINED:	7/27/1992	**DETERMINED BY:**	E - EPA
CITATION:	262.50-60		
RESOLVED:	9/1/1992		
TYPE:	GENERATOR-ALL REQUIREMENTS (OVERSIGHT)		

VIOLATION NUMBER:	0002	**RESPONSIBLE:**	E - EPA
DETERMINED:	7/27/1992	**DETERMINED BY:**	E - EPA
CITATION:	262.44.D		
RESOLVED:	9/1/1992		
TYPE:	GENERATOR-ALL REQUIREMENTS (OVERSIGHT)		

VIOLATION NUMBER:	0003	**RESPONSIBLE:**	E - EPA
DETERMINED:	7/27/1992	**DETERMINED BY:**	E - EPA
CITATION:	262.10-12.A		
RESOLVED:	9/1/1992		
TYPE:	GENERATOR-ALL REQUIREMENTS (OVERSIGHT)		

CORRECTIVE ACTION INFORMATION

CA EVENT: 10/22/1997 CA225YE - STABILIZATION MEASURES EVALUATION-FACILITY IS AMENABLE TO STABILIZATION

CA EVENT: 10/22/1997 CA750NO - RELEASE TO GW CONTROLLED DETERMINATION-FACILITY DOES NOT MEET DEFINITION

CA EVENT: 10/22/1997 CA725YE - HUMAN EXPOSURES CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE

CA EVENT: 10/22/1997 CA075HI - CA PRIORITIZATION-HIGH CA PRIORITY

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: 1480 SAN JUAN ROAD
HOLLISTER CA 95023

JOB: 1008A

RCRACOR

SEARCH ID: 1 **DIST/DIR:** 0.48 SW **MAP ID:** 6

NAME: PACSCI QUANTIC L L C
ADDRESS: 2751 SAN JUAN RD
HOLLISTER CA 95023
SAN BENITO
CONTACT:

REV: 4/21/10
ID1: CAD981368392
ID2:
STATUS: CA
PHONE:

CA EVENT: 10/27/1993 CA150 - RFI WORKPLAN APPROVED

CA EVENT: 12/28/2000 CA725NO - HUMAN EXPOSURES CONTROLLED DETERMINATION-FACILITY DOES NOT MEET DEFINITION

CA EVENT: 12/28/2000 CA750NO - RELEASE TO GW CONTROLLED DETERMINATION-FACILITY DOES NOT MEET DEFINITION

CA EVENT: 6/30/1995 CA075ME - CA PRIORITIZATION-MEDIUM CA PRIORITY

CA EVENT: 8/23/1993 CA100 - RFI IMPOSITION

CA EVENT: 9/29/2004 CA725YE - HUMAN EXPOSURES CONTROLLED DETERMINATION-YES, APPLICABLE AS OF THIS DATE

HAZARDOUS WASTE INFORMATION:

Reactive waste
The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/ blends containing, b
Silver
Ignitable waste
Chromium
Corrosive waste
Lead

Target Property: 1480 SAN JUAN ROAD
HOLLISTER CA 95023

JOB: 1008A

STATE

SEARCH ID: 2 **DIST/DIR:** 0.35 SW **MAP ID:** 5

NAME: WORKINGMANS AUTO WRECKING
ADDRESS: 2450 SAN JUAN ROAD
HOLLISTER CA 95023
San Benito
CONTACT:

REV: 07/03/00
ID1: CAL35500003
ID2:
STATUS: PROPERTY/SITE REFERRED
PHONE:

OTHER SITE NAMES (blank below = not reported by agency)
WORKINGMANS AUTO WRECKING

GENERAL SITE INFORMATION
File Name (if different than site name):

Status: *PROPERTY/SITE REFERRED TO ANOTHER AGENCY (REFOA)*
AWP Site Type: *N/A*
NPL Site:
Fund:
Status Date: *01161996*
Lead:
Staff:
Senior Supervisor:

DTSC Region and RWQCB : *2 / BERKELEY*
Branch: *NORTH COAST*
RWQCB:
Site Access:
On Cortese List:
Groundwater Contamination:
Haz Ranking Score:
Haz Ranking Score:
Number of Sources Contributing to Contamination at the Site: *0*

INFORMATION ON SPECIAL PROGRAMS THE SITE IS ASSOCIATED WITH (blank below = not reported by agency)
RURAL COUNTY SURVEY PROGRAM

PROJECTED ACTIVITIES (blank below = not reported by agency)

PROJECTED ACTIVITIES (blank below = not reported by agency)

PROJECTED ACTIVITIES (blank below = not reported by agency)
Activity: ***DISCOVERY (DISC)***
Activity Status: *PROPERTY/SITE REFERRED TO ANOTHER AGENCY*
Completion Due Date:
Revised Completion Due Date:
Date Activity Actually Completed: *02031989*
Yards of Solids Removed: *0*
Yards of Solids Treated: *0*
Gallons of Liquid Removed: *0*
Gallons of Liquid Treated: *0*

Activity: ***(SS)***
Activity Status: *PROPERTY/SITE REFERRED TO ANOTHER AGENCY*
Completion Due Date:
Revised Completion Due Date:
Date Activity Actually Completed: *04271989*
Yards of Solids Removed: *0*
Yards of Solids Treated: *0*

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: 1480 SAN JUAN ROAD
HOLLISTER CA 95023

JOB: 1008A

STATE

SEARCH ID: 2 **DIST/DIR:** 0.35 SW **MAP ID:** 5

NAME: WORKINGMANS AUTO WRECKING
ADDRESS: 2450 SAN JUAN ROAD
HOLLISTER CA 95023
San Benito
CONTACT:

REV: 07/03/00
ID1: CAL35500003
ID2:
STATUS: PROPERTY/SITE REFERRED
PHONE:

Gallons of Liquid Removed: *0*
Gallons of Liquid Treated: *0*

Activity: ***(SS)***
Activity Status: *PROPERTY/SITE REFERRED TO ANOTHER AGENCY*
Completion Due Date:
Revised Completion Due Date:
Date Activity Actually Completed: *01161996*
Yards of Solids Removed: *0*
Yards of Solids Treated: *0*
Gallons of Liquid Removed: *0*
Gallons of Liquid Treated: *0*

DTSC COMMENTS REGARDING THIS SITE (blank below = not reported by agency)

DATE	COMMENT
02031989	*FACILITY IDENTIFIED 1988 PHONE BOOK*
03081989	*FACILITY DRIVE-BY*
03081989	*GROUND PHOTOS*
04271989	*SITE SCREENING DONE RATIONALE FOR PAM BASED ON BUS TYPE;*
04271989	*SEND Q; OES - SAN BENITO CO LOOKING AT*
04271989	*AUTO WRECKERS TO BRING THEM UNDER*
04271989	*COMPLIANCE*
01161996	*County of San Benito Environmental Health Dept.*
01161996	*working with the current property owners to*
01161996	*remediate site.*

Environmental FirstSearch
Site Detail Report

Target Property: 1480 SAN JUAN ROAD
HOLLISTER CA 95023

JOB: 1008A

SWL

SEARCH ID: 3 **DIST/DIR:** 0.31 SE **MAP ID:** 4

NAME: PMS TOWING SERVICE
ADDRESS: 1550 SOUTH STREET
HOLLISTER CA 95023
SAN BENITO
CONTACT:

REV: 08/24/00
ID1: SWIS35-TI-0524
ID2:
STATUS: ACTIVE
PHONE:

Activity: *Waste Tire Location*
Accepted Waste: *Tires*
Operational Status: *Closed*
Regulatory Status *Not Currently Regulated*
Closure Date:
Closure Type:
Permitted Throughput with Units: *500 Tires*
Permitted Capacity with Units: *Tires*
Remaining Capacity with Units (landfills only):
Permitted Total Acreage:
Permitted Disposal Acreage:
Last Tire Inspection Count: *499*
Last Tire Inspection Count Date: *9/30/1999*
Original Tire Inspection Count: *499*
Last Tire Inspection Count Date: *9/30/1999*
Inspection Frequency: *None*

Target Property: 1480 SAN JUAN ROAD
HOLLISTER CA 95023

JOB: 1008A

UST

SEARCH ID: 9 **DIST/DIR:** 0.11 SW **MAP ID:** 1

NAME: FAST GAS
ADDRESS: 1617 SAN JUAN RD
HOLLISTER CA
San Benito
CONTACT:

REV: 10/25/2000
ID1: HOLLISTER_TISID162
ID2:
STATUS: OPEN
PHONE:

CITY OF HOLLISTER UST LIST INFORMATION
According to the Hollister City Fire Dept. the following information is current as of 06/28/01

Tank Number: *13893.01*
Fuel Type: *LEADED FUEL*
Status: *OPEN*
Certification Number (if applicable):
Upgraded (if applicable):
Comments:

UST

SEARCH ID: 5 **DIST/DIR:** 0.11 SW **MAP ID:** 1

NAME: FAST GAS
ADDRESS: 1617 SAN JUAN RD
HOLLISTER CA
San Benito
CONTACT:

REV: 10/25/2000
ID1: HOLLISTER_TISID160
ID2:
STATUS: UNKNOWN
PHONE:

CITY OF HOLLISTER UST LIST INFORMATION
According to the Hollister City Fire Dept. the following information is current as of 06/28/01

Tank Number: *51159.01*
Fuel Type: *LEADED FUEL*
Status: *UNKNOWN*
Certification Number (if applicable):
Upgraded (if applicable):
Comments: *NO TANK INFO*

Target Property: 1480 SAN JUAN ROAD
HOLLISTER CA 95023

JOB: 1008A

UST

SEARCH ID: 6 **DIST/DIR:** 0.11 SW **MAP ID:** 1

NAME: FAST GAS
ADDRESS: 1617 SAN JUAN RD
HOLLISTER CA
San Benito
CONTACT:

REV: 10/25/2000
ID1: HOLLISTER_TISID163
ID2:
STATUS: OPEN
PHONE:

CITY OF HOLLISTER UST LIST INFORMATION
According to the Hollister City Fire Dept. the following information is current as of 06/28/01

Tank Number: *13893.02*
Fuel Type: *UNLEADED FUEL*
Status: *OPEN*
Certification Number (if applicable):
Upgraded (if applicable):
Comments:

UST

SEARCH ID: 8 **DIST/DIR:** 0.11 SW **MAP ID:** 1

NAME: FAST GAS
ADDRESS: 1617 SAN JUAN RD
HOLLISTER CA
San Benito
CONTACT:

REV: 10/25/2000
ID1: HOLLISTER_TISID164
ID2:
STATUS: OPEN
PHONE:

CITY OF HOLLISTER UST LIST INFORMATION
According to the Hollister City Fire Dept. the following information is current as of 06/28/01

Tank Number: *UNKNOWN*
Fuel Type: *UNKNOWN*
Status: *OPEN*
Certification Number (if applicable):
Upgraded (if applicable):
Comments:

Target Property: 1480 SAN JUAN ROAD
HOLLISTER CA 95023

JOB: 1008A

UST

SEARCH ID: 10 **DIST/DIR:** 0.11 SW **MAP ID:** 1

NAME: FAST GAS
ADDRESS: 1617 SAN JUAN RD
HOLLISTER CA
San Benito
CONTACT:

REV: 10/25/2000
ID1: HOLLISTER_TISID161
ID2:
STATUS: UNKNOWN
PHONE:

CITY OF HOLLISTER UST LIST INFORMATION
According to the Hollister City Fire Dept. the following information is current as of 06/28/01

Tank Number: *51159.02*
Fuel Type: *LEADED FUEL*
Status: *UNKNOWN*
Certification Number (if applicable):
Upgraded (if applicable):
Comments:

UST

SEARCH ID: 15 **DIST/DIR:** 0.11 SW **MAP ID:** 2

NAME: VICTORY GAS
ADDRESS: 1615 SAN JUAN RD
HOLLISTER CA
San Benito
CONTACT:

REV: 10/25/2000
ID1: HOLLISTER_TISID201
ID2:
STATUS: OPERATING
PHONE:

CITY OF HOLLISTER UST LIST INFORMATION
According to the Hollister City Fire Dept. the following information is current as of 06/28/01

Tank Number: *13893.01*
Fuel Type: *UNLEADED FUEL*
Status: *OPERATING*
Certification Number (if applicable): *12291*
Upgraded (if applicable): *02-01-00*
Comments:

Target Property: 1480 SAN JUAN ROAD
HOLLISTER CA 95023

JOB: 1008A

UST

SEARCH ID: 16 **DIST/DIR:** 0.11 SW **MAP ID:** 2

NAME: VICTORY GAS
ADDRESS: 1615 SAN JUAN RD
HOLLISTER CA
San Benito
CONTACT:

REV: 10/25/2000
ID1: HOLLISTER_TISID202
ID2:
STATUS: OPERATING
PHONE:

CITY OF HOLLISTER UST LIST INFORMATION
According to the Hollister City Fire Dept. the following information is current as of 06/28/01

Tank Number: *13893.02*
Fuel Type: *UNLEADED FUEL*
Status: *OPERATING*
Certification Number (if applicable): *12291*
Upgraded (if applicable): *02-01-00*
Comments:

UST

SEARCH ID: 17 **DIST/DIR:** 0.11 SW **MAP ID:** 2

NAME: VICTORY GAS
ADDRESS: 1615 SAN JUAN RD
HOLLISTER CA
San Benito
CONTACT:

REV: 10/25/2000
ID1: HOLLISTER_TISID203
ID2:
STATUS: OPERATING
PHONE:

CITY OF HOLLISTER UST LIST INFORMATION
According to the Hollister City Fire Dept. the following information is current as of 06/28/01

Tank Number: *13893.03*
Fuel Type: *DIESEL FUEL*
Status: *OPERATING*
Certification Number (if applicable): *12291*
Upgraded (if applicable): *1992*
Comments:

Environmental FirstSearch
Site Detail Report

Target Property: 1480 SAN JUAN ROAD
HOLLISTER CA 95023

JOB: 1008A

UST

SEARCH ID: 7 **DIST/DIR:** 0.11 SW **MAP ID:** 2

NAME: FAST GAS
ADDRESS: 1615 SAN JUAN
HOLLISTER CA 95023
San Benito
CONTACT:

REV: 01/01/94
ID1: TISID-STATE38489
ID2:
STATUS: ACTIVE
PHONE:

UST HISTORICAL DATA

This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names and locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.

The UST information included in FIDS as provided by the Office of Hazardous Data Management was originally collected from the SWEEPS database. The SWEEPS database recorded Underground Storage Tanks and was maintained by the State Water Resources Control Board (SWRCB). That agency no longer maintains the SWEEPS database and last updated it in 1994. The last release of that 1994 database was in 1997.

Oversight of Underground Storage Tanks within California is now conducted by Certified Unified Program Agencies referred to as CUPA s. There are approximately 102 CUPA s and Local Oversight Programs (LOP s) in the State of California. Most are city or county government agencies. As of 1998, all sites or facilities with underground storage tanks were required by Federal mandate to obtain certification by designated UST oversight agencies (in this case, CUPA s) that the UST/s at their location were upgraded or removed in adherence with the 1998 RCRA standards.

Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by us. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Target Property: 1480 SAN JUAN ROAD
HOLLISTER CA 95023

JOB: 1008A

UST

SEARCH ID: 11 **DIST/DIR:** 0.16 SE **MAP ID:** 3

NAME: QUICK STOP
ADDRESS: 1300 SAN JUAN RD
HOLLISTER CA
San Benito
CONTACT:

REV: 10/25/2000
ID1: HOLLISTER_TISID1
ID2:
STATUS: OPEN
PHONE:

CITY OF HOLLISTER UST LIST INFORMATION
According to the Hollister City Fire Dept. the following information is current as of 06/28/01

Tank Number: *62592.03*
Fuel Type: *PLUS UNLEADED*
Status: *OPEN*
Certification Number (if applicable): *12284*
Upgraded (if applicable): *1994*
Comments:

UST

SEARCH ID: 12 **DIST/DIR:** 0.16 SE **MAP ID:** 3

NAME: QUICK STOP
ADDRESS: 1300 SAN JUAN RD
HOLLISTER CA
San Benito
CONTACT:

REV: 10/25/2000
ID1: HOLLISTER_TISID166
ID2:
STATUS: OPERATING
PHONE:

CITY OF HOLLISTER UST LIST INFORMATION
According to the Hollister City Fire Dept. the following information is current as of 06/28/01

Tank Number: *62592.02*
Fuel Type: *REG UNLEADED*
Status: *OPERATING*
Certification Number (if applicable): *12284*
Upgraded (if applicable): *1994*
Comments:

Target Property: 1480 SAN JUAN ROAD
HOLLISTER CA 95023

JOB: 1008A

UST

SEARCH ID: 13 **DIST/DIR:** 0.16 SE **MAP ID:** 3

NAME: QUICK STOP
ADDRESS: 1300 SAN JUAN RD
HOLLISTER CA
San Benito
CONTACT:

REV: 10/25/2000
ID1: HOLLISTER_TISID165
ID2:
STATUS: OPERATING
PHONE:

CITY OF HOLLISTER UST LIST INFORMATION
According to the Hollister City Fire Dept. the following information is current as of 06/28/01

Tank Number: *62592.01*
Fuel Type: *UNLEADED FUEL*
Status: *OPERATING*
Certification Number (if applicable): *12284*
Upgraded (if applicable): *1994*
Comments:

UST

SEARCH ID: 14 **DIST/DIR:** 0.16 SE **MAP ID:** 3

NAME: QUIK STOP MARKET 129
ADDRESS: 1300 SAN JUAN
HOLLISTER CA 95023
San Benito
CONTACT:

REV: 01/01/94
ID1: TISID-STATE38655
ID2:
STATUS: ACTIVE
PHONE:

UST HISTORICAL DATA
This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names and locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.
The UST information included in FIDS as provided by the Office of Hazardous Data Management was originally collected from the SWEEPS database. The SWEEPS database recorded Underground Storage Tanks and was maintained by the State Water Resources Control Board (SWRCB). That agency no longer maintains the SWEEPS database and last updated it in 1994. The last release of that 1994 database was in 1997.
Oversight of Underground Storage Tanks within California is now conducted by Certified Unified Program Agencies referred to as CUPA s. There are approximately 102 CUPA s and Local Oversight Programs (LOP s) in the State of California. Most are city or county government agencies. As of 1998, all sites or facilities with underground storage tanks were required by Federal mandate to obtain certification by designated UST oversight agencies (in this case, CUPA s) that the UST/s at their location were upgraded or removed in adherence with the 1998 RCRA standards.
Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by us. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Target Property: 1480 SAN JUAN ROAD
HOLLISTER CA 95023

JOB: 1008A

OTHER

SEARCH ID: 20 **DIST/DIR:** NON GC **MAP ID:**

NAME: PAC SCI QUANTIC LLC
ADDRESS: 2751 SAN JUAN RD
HOLLISTER CA 95023
SAN BENITO
CONTACT:

REV: 02/08/10
ID1: CAL80001766
ID2:
STATUS: REFER: RWQCB
PHONE:

GENERAL SITE INFORMATION

Site Type:	*Corrective Action*
Status:	*Refer: RWQCB*
Status Date:	*2008-01-01 00:00:00*
NPL Site:	*NO*
Funding:	
Regulatory Agencies Involved:	*RWQCB*
Lead Agency:	*WQC*
Project Manager:	
Supervisor:	*Wei Wei Chui*
Branch:	*Berkeley*
Acres:	*0*
Assessor s Parcel Number:	*NONE SPECIFIED*
Past Uses:	*NONE SPECIFIED*
Potential Contaminants:	*NONE SPECIFIED*
Confirmed Contaminants:	*NONE SPECIFIED*
Potential Media Affected:	*NONE SPECIFIED*
Restricted Use:	*NO*
Site Management Required:	*NONE SPECIFIED*
Special Programs Associated with this Site:	

OTHER SITE NAMES (blank below = not reported by agency)

CAD981368392

80001766

COMPLETED ACTIVITIES AND DTSC COMMENTS REGARDING THIS SITE (blank below = not reported by agency)

Area Name:	***Sites With No Operable Unit***
Sub- Area Name:	***ENTIRE FACILITY***
Document Type:	***RCRA Facility Assessment Report***
Completion Date:	***1995-06-30 00:00:00***
Comments:	*Site formerly known as Whittaker Ordnance, Inc. LA 9/8/08*
Area Name:	***Sites With No Operable Unit***
Sub- Area Name:	***ENTIRE FACILITY***
Document Type:	***Interim Measures Questionnaire***
Completion Date:	***1997-10-22 00:00:00***
Comments:	
Area Name:	***Sites With No Operable Unit***
Sub- Area Name:	***ENTIRE FACILITY***
Document Type:	***RFI Workplan***
Completion Date:	***1993-10-27 00:00:00***
Comments:	
Area Name:	***PROJECT WIDE***
Sub- Area Name:	
Document Type:	**** Other Instrument***
Completion Date:	***1995-06-30 00:00:00***
Comments:	

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: 1480 SAN JUAN ROAD
HOLLISTER CA 95023

JOB: 1008A

OTHER

SEARCH ID: 20 **DIST/DIR:** NON GC **MAP ID:**

NAME:	PAC SCI QUANTIC LLC	**REV:**	02/08/10
ADDRESS:	2751 SAN JUAN RD	**ID1:**	CAL80001766
	HOLLISTER CA 95023	**ID2:**	
	SAN BENITO	**STATUS:**	REFER: RWQCB
CONTACT:		**PHONE:**	

Area Name:	***Sites With No Operable Unit***
Sub- Area Name:	***ENTIRE FACILITY***
Document Type:	***Consent Agreement***
Completion Date:	***1993-08-23 00:00:00***
Comments:	

Environmental FirstSearch
Site Detail Report

Target Property: 1480 SAN JUAN ROAD
HOLLISTER CA 95023

JOB: 1008A

SWL

SEARCH ID: 19 **DIST/DIR:** NON GC **MAP ID:**

NAME: INDUSTRIAL WASTE TREATMENT FACILITY
ADDRESS: SOUTH ST
HOLLISTER CA
SAN BENITO
CONTACT:

REV: 02/01/00
ID1: SWIS35-AA-0003
ID2:
STATUS: ACTIVE
PHONE:

Activity: *Treatment Unit (processing)*
Accepted Waste: *Sludge (BioSolids)*
Operational Status: *Active*
Regulatory Status *Exempt*
Closure Date:
Closure Type:
Permitted Throughput with Units: *0*
Permitted Capacity with Units: *0*
Remaining Capacity with Units (landfills only):
Permitted Total Acreage: *1*
Permitted Disposal Acreage:
Last Tire Inspection Count: *0*
Last Tire Inspection Count Date:
Original Tire Inspection Count: *0*
Last Tire Inspection Count Date:
Inspection Frequency: *None*

Environmental FirstSearch Descriptions

NPL: ***EPA*** NATIONAL PRIORITY LIST - The National Priorities List is a list of the worst hazardous waste sites that have been identified by Superfund. Sites are only put on the list after they have been scored using the Hazard Ranking System (HRS), and have been subjected to public comment. Any site on the NPL is eligible for cleanup using Superfund Trust money.
A Superfund site is any land in the United States that has been contaminated by hazardous waste and identified by the Environmental Protection Agency (EPA) as a candidate for cleanup because it poses a risk to human health and/or the environment.
FINAL - Currently on the Final NPL
PROPOSED - Proposed for NPL

NPL DELISTED: ***EPA*** NATIONAL PRIORITY LIST Subset - Database of delisted NPL sites. 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.
DELISTED - Deleted from the Final NPL

CERCLIS: ***EPA*** COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM (CERCLIS)- CERCLIS is a database of potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL.
PART OF NPL- Site is part of NPL site
DELETED - Deleted from the Final NPL
FINAL - Currently on the Final NPL
NOT PROPOSED - Not on the NPL
NOT VALID - Not Valid Site or Incident
PROPOSED - Proposed for NPL
REMOVED - Removed from Proposed NPL
SCAN PLAN - Pre-proposal Site
WITHDRAWN - Withdrawn

NFRAP: ***EPA*** COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM ARCHIVED SITES - database of Archive designated CERCLA sites that, to the best of EPA's knowledge, assessment has been completed and has determined no further steps will be taken to list this site on the National Priorities List (NPL). 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.
NFRAP – No Further Remedial Action Plan
P - Site is part of NPL site
D - Deleted from the Final NPL
F - Currently on the Final NPL
N - Not on the NPL
O - Not Valid Site or Incident
P - Proposed for NPL
R - Removed from Proposed NPL
S - Pre-proposal Site
W – Withdrawn

RCRA COR ACT: ***EPA*** RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.
RCRAInfo facilities that have reported violations and subject to corrective actions.

RCRA TSD: ***EPA*** RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM TREATMENT, STORAGE, and DISPOSAL FACILITIES. - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.
Facilities that treat, store, dispose, or incinerate hazardous waste.

RCRA GEN: ***EPA*** RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM GENERATORS - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.
Facilities that generate or transport hazardous waste or meet other RCRA requirements.
LGN - Large Quantity Generators
SGN - Small Quantity Generators
VGN – Conditionally Exempt Generator.
Included are RAATS (RCRA Administrative Action Tracking System) and CMEL (Compliance Monitoring & Enforcement List) facilities.

RCRA NLR: ***EPA*** RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.
Facilities not currently classified by the EPA but are still included in the RCRAInfo database. Reasons for non classification:
Failure to report in a timely matter.
No longer in business.
No longer in business at the listed address.
No longer generating hazardous waste materials in quantities which require reporting.

Federal IC / EC: ***EPA*** BROWNFIELD MANAGEMENT SYSTEM (BMS) - database designed to assist EPA in collecting, tracking, and updating information, as well as reporting on the major activities and accomplishments of the various Brownfield grant Programs.
FEDERAL ENGINEERING AND INSTITUTIONAL CONTROLS- Superfund sites that have either an engineering or an institutional control. The data includes the control and the media contaminated.

ERNS: ***EPA/NRC*** EMERGENCY RESPONSE NOTIFICATION SYSTEM (ERNS) - Database of incidents reported to the National Response Center. These incidents include chemical spills, accidents involving chemicals (such as fires or explosions), oil spills, transportation accidents that involve oil or chemicals, releases of radioactive materials, sightings of oil sheens on bodies of water, terrorist incidents involving chemicals, incidents where illegally dumped chemicals have been found, and drills intended to prepare responders to handle these kinds of incidents. Data since January 2001 has been received from the National Response System database as the EPA no longer maintains this data.

Tribal Lands: ***DOI/BIA*** INDIAN LANDS OF THE UNITED STATES - Database of areas with boundaries established by treaty, statute, and (or) executive or court order, recognized by the Federal Government as territory in which American Indian tribes have primary governmental authority. The Indian Lands of the United States map layer shows areas of 640 acres or more, administered by the Bureau of Indian Affairs. Included are Federally-administered lands within a reservation which may or may not be considered

part of the reservation.

State/Tribal Sites: ***CA EPA*** SMBRPD / CAL SITES- The California Department of Toxic Substances Control (DTSC) has developed an electronic database system with information about sites that are known to be contaminated with hazardous substances as well as information on uncharacterized properties where further studies may reveal problems. The Site Mitigation and Brownfields Reuse Program Database (SMBRPD), also known as CalSites, is used primarily by DTSC's staff as an informational tool to evaluate and track activities at properties that may have been affected by the release of hazardous substances.
The SMBRPD displays information in six categories. The categories are:
1. CalSites Properties (CS)
2. School Property Evaluation Program Properties (SCH)
3. Voluntary Cleanup Program Properties (VCP)
4. Unconfirmed Properties Needing Further Evaluation (RFE)
Please Note: FirstSearch Reports list the above sites as DB Type (STATE).
5. Unconfirmed Properties Referred to Another Local or State Agency (REF)
6. Properties where a No Further Action Determination has been made (NFA)
Please Note: FirstSearch Reports list the above sites as DB Type (OTHER).
Each Category contains information on properties based upon the type of work taking place at the site. For example, the CalSites database is now one of the six categories within SMPBRD and contains only confirmed sites considered as posing the greatest threat to the public and/or the potential public school sites will be found within the School Property Evaluation Program, and those properties undergoing voluntary investigation and/or cleanup are in the Voluntary Cleanup Program.
CORTESE LIST-Pursuant to Government Code Section 65962.5, the Hazardous Waste and Substances Sites List has been compiled by Cal/EPA, Hazardous Materials Data Management Program. The CAL EPA Dept. of Toxic Substances Control compiles information from subsets of the following databases to make up the CORTESE list:
1. The Dept. of Toxic Substances Control; contaminated or potentially contaminated hazardous waste sites listed in the CAL Sites database. Formerly known as ASPIS are included (CALSITES formerly known as ASPIS).
2. The California State Water Resources Control Board; listing of Leaking Underground Storage Tanks are included (LTANK)
3. The California Integrated Waste Management Board; Sanitary Landfills which have evidence of groundwater contamination or known migration of hazardous materials (formerly WB-LF, now AB 3750).
Note: Track Info Services collects each of the above data sets individually and lists them separately in the following First Search categories in order to provide more current and comprehensive information: CALSITES: SPL, LTANK: LUST, WB-LF: SWL

State Spills 90: ***CA EPA*** SLIC REGIONS 1 - 9- The California Regional Water Quality Control Boards maintain report of sites that have records of spills, leaks, investigation, and cleanups.

State/Tribal SWL: ***CA IWMB/SWRCB/COUNTY*** SWIS SOLID WASTE INFORMATION SYSTEM-The California Integrated Waste Management Board maintains a database on solid waste facilities, operations, and disposal sites throughout the state of California. The types of facilities found in this database include landfills, transfer stations, material recovery facilities, composting sites, transformation facilities, waste tire sites, and closed disposal sites. For more information on individual sites call the number listed in the source field..
Please Note: This database contains poor site location information for many sites in the First Search reports; therefore, it may not be possible to locate or plot some sites in First Search reports.
WMUDS-The State Water Resources Control Board maintained the Waste Management Unit Database System (WMUDS). It is no longer updated. It tracked management units for several regulatory programs related to waste management and its potential impact on groundwater. Two of these programs (SWAT & TPCA) are no longer on-going regulatory programs as described below. Chapter 15 (SC15) is still an on-going regulatory program and information is updated periodically but not to the WMUDS database. The WMUDS System contains information from the following agency databases: Facility, Waste Management Unit (WMU), Waste Discharger System (WDS), SWAT, Chapter 15, TPCA, RCRA, Inspections, Violations, and Enforcement's.
Note: This database contains poor site location information for many sites in the First Search reports; therefore, it may not be possible to locate or plot some sites in First Search reports.
ORANGE COUNTY LANDFILLS LIST- A list maintained by the Orange County Health Department.

State/Tribal LUST: ***CA SWRCB/COUNTY*** LUSTIS- The State Water Resources Control Board maintains a database of sites with confirmed or unconfirmed leaking underground storage tanks. Information for this database is collected from the states regional boards quarterly and integrated with this database.

SAN DIEGO COUNTY LEAKING TANKS- The San Diego County Department of Environmental Health maintains a database of sites with confirmed or unconfirmed leaking underground storage tanks within its HE17/58 database. For more information on a specific file call the HazMat Duty Specialist at phone number listed in the source information field.

State/Tribal UST/AST: ***CA EPA/COUNTY/CITY*** ABOVEGROUND STORAGE TANKS LISTING-The Above Ground Petroleum Storage Act became State Law effective January 1, 1990. In general, the law requires owners or operators of AST's with petroleum products to file a storage statement and pay a fee by July 1, 1990 and every two years thereafter, take specific action to prevent spills, and in certain instances implement a groundwater monitoring program. This law does not apply to that portion of a tank facility associated with the production oil and regulated by the State Division of Oil and Gas of the Dept. of Conservation.
SWEEPS / FIDS STATE REGISTERED UNDEGROUND STORAGE TANKS- Until 1994 the State Water Resources Control Board maintained a database of registered underground storage tanks statewide referred to as the SWEEPS System. The SWEEPS UST information was integrated with the CAL EPA's Facility Index System database (FIDS) which is a master index of information from numerous California agency environmental databases. That was last updated in 1994. Track Info Services included the UST information from the FIDS database in its First Search reports for historical purposes to help its clients identify where tanks may possibly have existed. For more information on specific sites from individual paper files archived at the State Water Resources Control Board call the number listed with the source information.
INDIAN LANDS UNDERGROUND STORAGE TANKS LIST- A listing of underground storage tanks currently on Indian Lands under federal jurisdiction. California Indian Land USTS are administered by US EPA Region 9.
CUPA DATABASES & SOURCES- Definition of a CUPA: A Certified Unified Program Agency (CUPA) is a local agency that has been certified by the CAL EPA to implement six state environmental programs within the local agency's jurisdiction. These can be a county, city, or JPA (Joint Powers Authority). This program was established under the amendments to the California Health and Safety Code made by SB 1082 in 1994.
A Participating Agency (PA) is a local agency that has been designated by the local CUPA to administer one or more Unified Programs within their jurisdiction on behalf of the CUPA. A Designated Agency (DA) is an agency that has not been certified by the CUPA but is the responsible local agency that would implement the six unified programs until they are certified.
Please Note: Track Info Services, LLC collects and maintains information regarding Underground Storage Tanks from majority of the CUPAS and Participating Agencies in the State of California. These agencies typically do not maintain nor release such information on a uniform or consistent schedule; therefor, currency of the data may vary. Please look at the details on a specific site with a UST record in the First Search Report to determine the actual currency date of the record as provided by the relevant agency. Numerous efforts are made on a regular basis to obtain updated records.

State/Tribal IC: ***CA EPA*** DEED-RESTRICTED SITES LISTING- The California EPA's Department of Toxic Substances Control Board maintains a list of deed-restricted sites, properties where the DTSC has placed limits or requirements on the future use of the property due to varying levels of cleanup possible, practical or necessary at the site.

State/Tribal VCP: ***CA EPA*** SMBRPD / CAL SITES- The California Department of Toxic Substances Control (DTSC) has developed an electronic database system with information about sites that are known to be contaminated with hazardous substances as well as information on uncharacterized properties where further studies may reveal problems. The Site Mitigation and Brownfields Reuse Program Database (SMBRPD), also known as CalSites, is used primarily by DTSC's staff as an informational tool to evaluate and track activities at properties that may have been affected by the release of hazardous substances.
The SMBRPD displays information in six categories. The categories are:
1. CalSites Properties (CS)
2. School Property Evaluation Program Properties (SCH)
3. Voluntary Cleanup Program Properties (VCP)
4. Unconfirmed Properties Needing Further Evaluation (RFE)
5. Unconfirmed Properties Referred to Another Local or State Agency (REF)
6. Properties where a No Further Action Determination has been made (NFA)

Please Note: FirstSearch Reports list the above sites as DB Type VC. Each Category contains information on properties based upon the type of work taking place at the site. The VC category contains only those properties undergoing voluntary investigation and/or cleanup and which are listed in the Voluntary Cleanup Program.

RADON: ***NTIS*** NATIONAL RADON DATABASE - EPA radon data from 1990-1991 national radon

project collected for a variety of zip codes across the United States.

State Permits: ***CA COUNTY*** SAN DIEGO COUNTY HE17 PERMITS- The HE17/58 database tracks establishments issued permits and the status of their permits in relation to compliance with federal, state, and local regulations that the County oversees. It tracks if a site is a hazardous waste generator, TSD, gas station, has underground tanks, violations, or unauthorized releases. For more information on a specific file call the HazMat Duty Specialist at the phone number listed in the source information field.
SAN BERNARDINO COUNTY HAZARDOUS MATERIALS PERMITS- Handlers and Generators Permit Information Maintained by the Hazardous Materials Division.

State Other: ***CA EPA/COUNTY*** SMBRPD / CAL SITES- The California Department of Toxic Substances Control (DTSC) has developed an electronic database system with information about sites that are known to be contaminated with hazardous substances as well as information on uncharacterized properties where further studies may reveal problems. The Site Mitigation and Brownfields Reuse Program Database (SMBRPD), also known as CalSites, is used primarily by DTSC's staff as an informational tool to evaluate and track activities at properties that may have been affected by the release of hazardous substances.
The SMBRPD displays information in six categories. The categories are:
1. CalSites Properties (CS)
2. School Property Evaluation Program Properties (SCH)
3. Voluntary Cleanup Program Properties (VCP)
4. Unconfirmed Properties Needing Further Evaluation (RFE)
Please Note: FirstSearch Reports list the above sites as DB Type (STATE).
5. Unconfirmed Properties Referred to Another Local or State Agency (REF)
6. Properties where a No Further Action Determination has been made (NFA)
Please Note: FirstSearch Reports list the above sites as DB Type (OTHER).
Each Category contains information on properties based upon the type of work taking place at the site. For example, the CalSites database is now one of the six categories within SMPBRD and contains only confirmed sites considered as posing the greatest threat to the public and/or the potential public school sites will be found within the School Property Evaluation Program, and those properties undergoing voluntary investigation and/or cleanup are in the Voluntary Cleanup Program.
LA COUNTY SITE MITIGATION COMPLAINT CONTROL LOG- The County of Los Angeles Public Health Investigation Compliant Control Log.
ORANGE COUNTY INDUSTRIAL SITE CLEANUPS- List maintained by the Orange County Environmental Health Agency.
RIVERSIDE COUNTY WASTE GENERATORS-A list of facilities in Riverside County which generate hazardous waste.
SACRAMENTO COUNTY MASTER HAZMAT LIST-Master list of facilities within Sacramento County with potentially hazardous materials.
SACRAMENTO COUNTY TOXIC SITE CLEANUPS-A list of sites where unauthorized releases of potentially hazardous materials have occurred.

Environmental FirstSearch Database Sources

NPL: ***EPA*** Environmental Protection Agency

Updated quarterly

NPL DELISTED: ***EPA*** Environmental Protection Agency

Updated quarterly

CERCLIS: ***EPA*** Environmental Protection Agency

Updated quarterly

NFRAP: ***EPA*** Environmental Protection Agency.

Updated quarterly

RCRA COR ACT: ***EPA*** Environmental Protection Agency.

Updated quarterly

RCRA TSD: ***EPA*** Environmental Protection Agency.

Updated quarterly

RCRA GEN: ***EPA*** Environmental Protection Agency.

Updated quarterly

RCRA NLR: ***EPA*** Environmental Protection Agency

Updated quarterly

Federal IC / EC: ***EPA*** Environmental Protection Agency

Updated quarterly

ERNS: ***EPA/NRC*** Environmental Protection Agency

Updated semi-annually

Tribal Lands: ***DOI/BIA*** United States Department of the Interior

Updated annually

State/Tribal Sites: ***CA EPA*** The CAL EPA, Depart. Of Toxic Substances Control
Phone: (916) 323-3400

Updated quarterly/when available

State Spills 90: ***CA EPA*** The California State Water Resources Control Board

Updated when available

State/Tribal SWL: ***CA IWMB/SWRCB/COUNTY*** The California Integrated Waste Management Board
Phone:(916) 255-2331
The State Water Resources Control Board
Phone:(916) 227-4365
Orange County Health Department

Updated quarterly/when available

State/Tribal LUST: ***CA SWRCB/COUNTY*** The California State Water Resources Control Board
Phone:(916) 227-4416
San Diego County Department of Environmental Health

Updated quarterly/when available

State/Tribal UST/AST: ***CA EPA/COUNTY/CITY*** The State Water Resources Control Board
Phone:(916) 227-4364
CAL EPA Department of Toxic Substances Control
Phone:(916)227-4404
US EPA Region 9 Underground Storage Tank Program
Phone: (415) 972-3372
ALAMEDA COUNTY CUPAS:
* County of Alameda Department of Environmental Health
* Cities of Berkeley, Fremont, Hayward, Livermore / Pleasanton, Newark, Oakland, San Leandro, Union
ALPINE COUNTY CUPA:
* Health Department (Only updated by agency sporadically)
AMADOR COUNTY CUPA:
* County of Amador Environmental Health Department
BUTTE COUNTY CUPA
* County of Butte Environmental Health Division (Only updated by agency biannually)
CALAVERAS COUNTY CUPA:
* County of Calaveras Environmental Health Department
COLUSA COUNTY CUPA:
* Environmental Health Dept.
CONTRA COSTA COUNTY CUPA:
* Hazardous Materials Program
DEL NORTE COUNTY CUPA:
* Department of Health and Social Services
EL DORADO COUNTY CUPAS:
* County of El Dorado Environmental Health - Solid Waste Div (Only updated by agency annually)
* County of El Dorado EMD Tahoe Division (Only updated by agency annually)
FRESNO COUNTY CUPA:
* Haz. Mat and Solid Waste Programs
GLENN COUNTY CUPA:
* Air Pollution Control District
HUMBOLDT COUNTY CUPA:
* Environmental Health Division

IMPERIAL COUNTY CUPA:
* Department of Planning and Building
INYO COUNTY CUPA:
* Environmental Health Department
KERN COUNTY CUPA:
* County of Kern Environmental Health Department
* City of Bakersfield Fire Department
KINGS COUNTY CUPA:
* Environmental Health Services
LAKE COUNTY CUPA:
* Division of Environmental Health
LASSEN COUNTY CUPA:
* Department of Agriculture
LOS ANGELES COUNTY CUPAS:
* County of Los Angeles Fire Department CUPA Data as maintained by the Los Angeles County Department of Public Works
* County of Los Angeles Environmental Programs Division
* Cities of Burbank, El Segundo, Glendale, Long Beach/Signal Hill, Los Angeles,Pasadena, Santa Fe Springs, Santa Monica, Torrance, Vernon
MADERA COUNTY CUPA:
* Environmental Health Department
MARIN COUNTY CUPA:
* County of Marin Office of Waste Management
* City of San Rafael Fire Department
MARIPOSA COUNTY CUPA:
* Health Department
MENDOCINO COUNTY CUPA:
* Environmental Health Department
MERCED COUNTY CUPA:
* Division of Environmental Health
MODOC COUNTY CUPA:
* Department of Agriculture
MONO COUNTY CUPA:
* Health Department
MONTEREY COUNTY CUPA:
* Environmental Health Division
NAPA COUNTY CUPA:
* Hazardous Materials Section
NEVADA COUNTY CUPA:
* Environmental Health Department
ORANGE COUNTY CUPAS:
* County of Orange Environmental Health Department
* Cities of Anaheim, Fullerton, Orange, Santa Ana
* County of Orange Environmental Health Department
PLACER COUNTY CUPAS:
* County of Placer Division of Environmental Health Field Office
* Tahoe City
* City of Roseville Roseville Fire Department
PLUMAS COUNTY CUPA:
* Environmental Health Department
RIVERSIDE COUNTY CUPA:
* Environmental Health Department
SACRAMENTO COUNTY CUPA:
* County Environmental Mgmt Dept, Haz. Mat. Div.
SAN BENITO COUNTY CUPA:
* City of Hollister Environmental Service Department
SAN BERNARDINO COUNTY CUPAS:
* County of San Bernardino Fire Department, Haz. Mat. Div.
* City of Hesperia Hesperia Fire Prevention Department
*City of Victorville Victorville Fire Department
SAN DIEGO COUNTY CUPA:

* The San Diego County Dept. of Environmental Health HE 17/58
SAN FRANCISCO COUNTY CUPA:
* Department of Public Health
SAN JOAQUIN COUNTY CUPA:
* Environmental Health Division
SAN LUIS OBISPO COUNTY CUPAS:
* County of San Luis Obispo Environmental Health Division
* City of San Luis Obispo City Fire Department
SAN MATEO COUNTY CUPA:
* Environmental Health Department
SANTA BARBARA COUNTY CUPA:
* County Fire Dept Protective Services Division
SANTA CLARA COUNTY CUPAS:
* County of Santa Clara Hazardous Materials Compliance Division
* Santa Clara County Central Fire Protection District (Covers Campbell, Cupertino, Los Gatos, & Morgan Hill)
* Cities of Gilroy, Milpitas, Mountain View, Palo Alto, San Jose Fire, Santa Clara, Sunnyvale
SANTA CRUZ COUNTY CUPA:
* Environmental Health Department
SHASTA COUNTY CUPA:
* Environmental Health Department
SIERRA COUNTY CUPA:
* Health Department
SISKIYOU COUNTY CUPA:
* Environmental Health Department
SONOMA COUNTY CUPAS:
* County of Sonoma Department Of Environmental Health
* Cities of Healdsburg / Sebastopol, Petaluma, Santa Rosa
STANISLAUS COUNTY CUPA:
* Department of Environmental Resources Haz. Mat. Division
SUTTER COUNTY CUPA:
* Department of Agriculture
TEHAMA COUNTY CUPA:
* Department of Environmental Health
TRINITY COUNTY CUPA:
* Department of Health
TULARE COUNTY CUPA:
* Environmental Health Department
TUOLUMNE COUNTY CUPA:
* Environmental Health
VENTURA COUNTY CUPAS:
* County of Ventura Environmental Health Division
* Cities of Oxnard, Ventura
YOLO COUNTY CUPA:
* Environmental Health Department
YUBA COUNTY CUPA:

Updated quarterly/annually/when available

State/Tribal IC: ***CA EPA*** The California EPA Department of Toxic Substances Control.

Updated Updated quarterly/annually/when available

State/Tribal VCP: ***CA EPA*** The California EPA Department of Toxic Substances Control.

Updated Updated quarterly/annually/when available

RADON: ***NTIS*** Environmental Protection Agency, National Technical Information Services

Updated periodically

State Permits: ***CA COUNTY*** The San Diego County Depart. Of Environmental Health
Phone:(619) 338-2211
San Bernardino County Fire Department

Updated quarterly/when available

State Other: ***CA EPA/COUNTY*** The CAL EPA, Depart. Of Toxic Substances Control
Phone: (916) 323-3400
The Los Angeles County Hazardous Materials Division
Phone: (323) 890-7806
Orange County Environmental Health Agency
Phone: (714) 834-3536
Riverside County Department of Environmental Health, Hazardous Materials Management Division
Phone:(951) 358-5055
Sacramento County Environmental Management Department

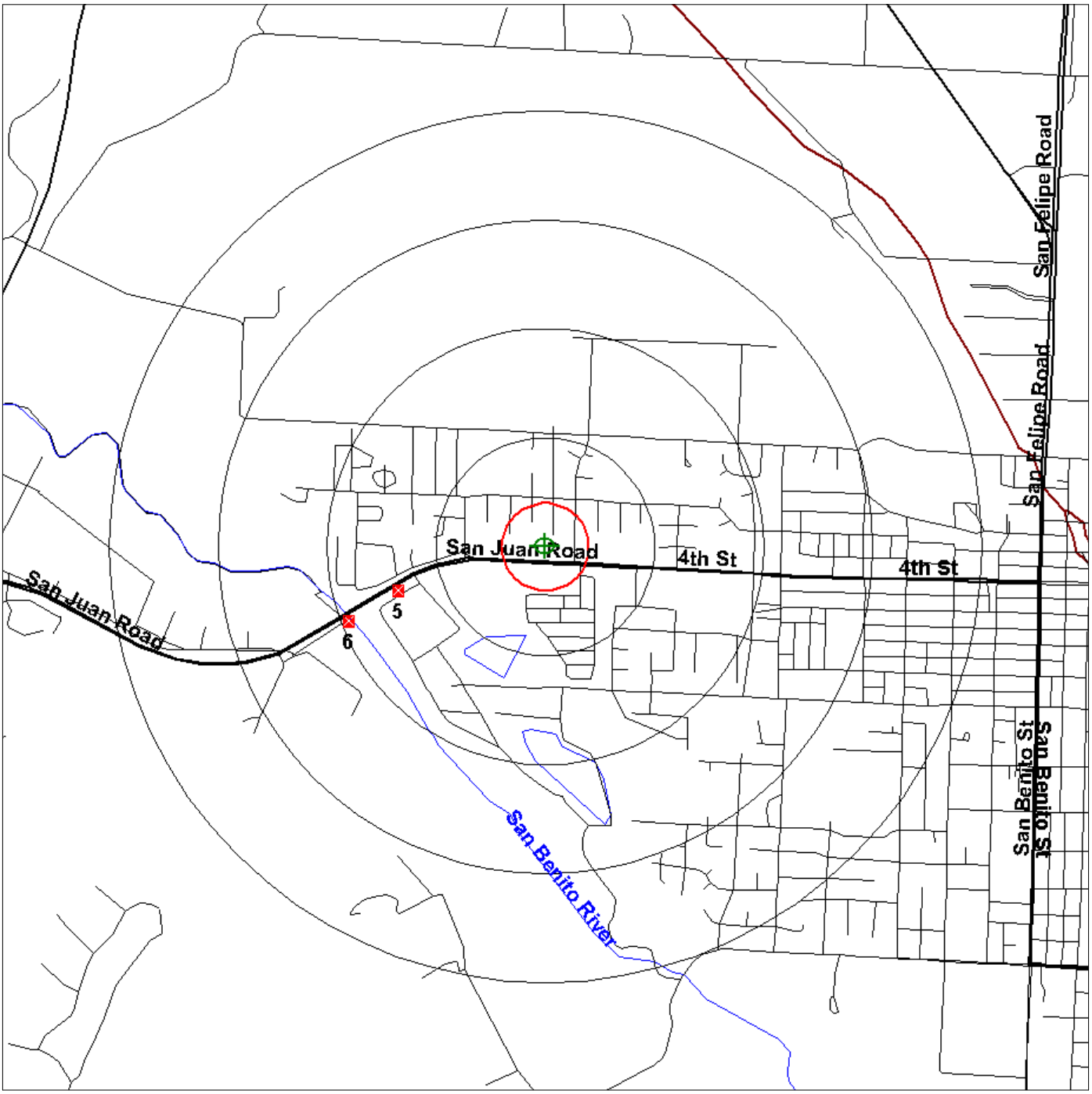
Updated quarterly/when available

Environmental FirstSearch

1 Mile Radius

ASTM Map: NPL, RCRACOR, STATE Sites

1480 SAN JUAN ROAD, HOLLISTER CA 95023



Source: 2005 U.S. Census TIGER Files

Target Site (Latitude: 36.853698 Longitude: -121.422603) .....

Identified Site, Multiple Sites, Receptor .....

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

Triballand.....

Railroads .....

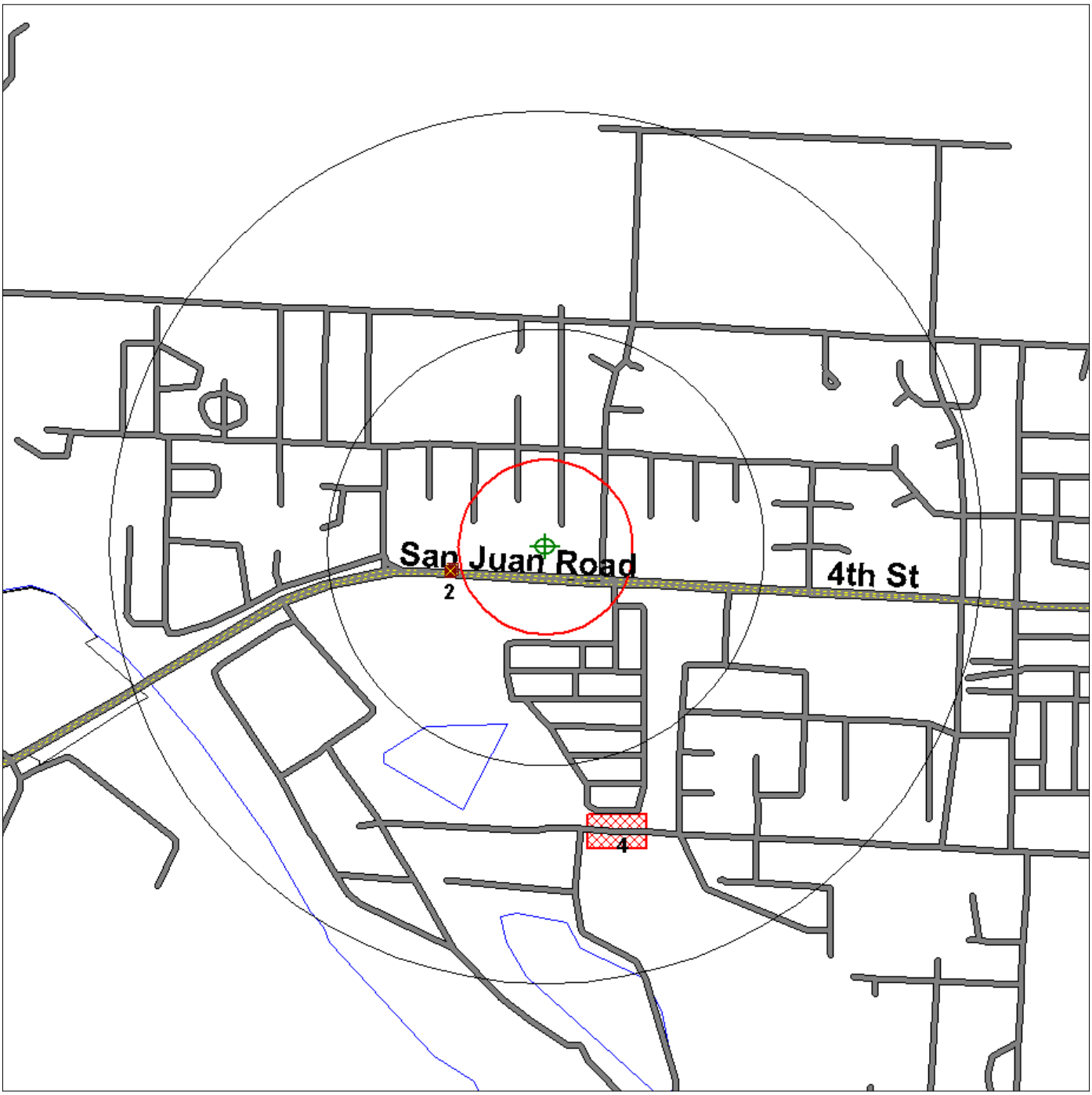
Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius

Environmental FirstSearch

.5 Mile Radius

ASTM Map: CERCLIS, RCRATSD, LUST, SWL

1480 SAN JUAN ROAD, HOLLISTER CA 95023



Source: 2005 U.S. Census TIGER Files

Target Site (Latitude: 36.853698 Longitude: -121.422603) .....

Identified Site, Multiple Sites, Receptor .....

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

Triballand.....

Railroads .....

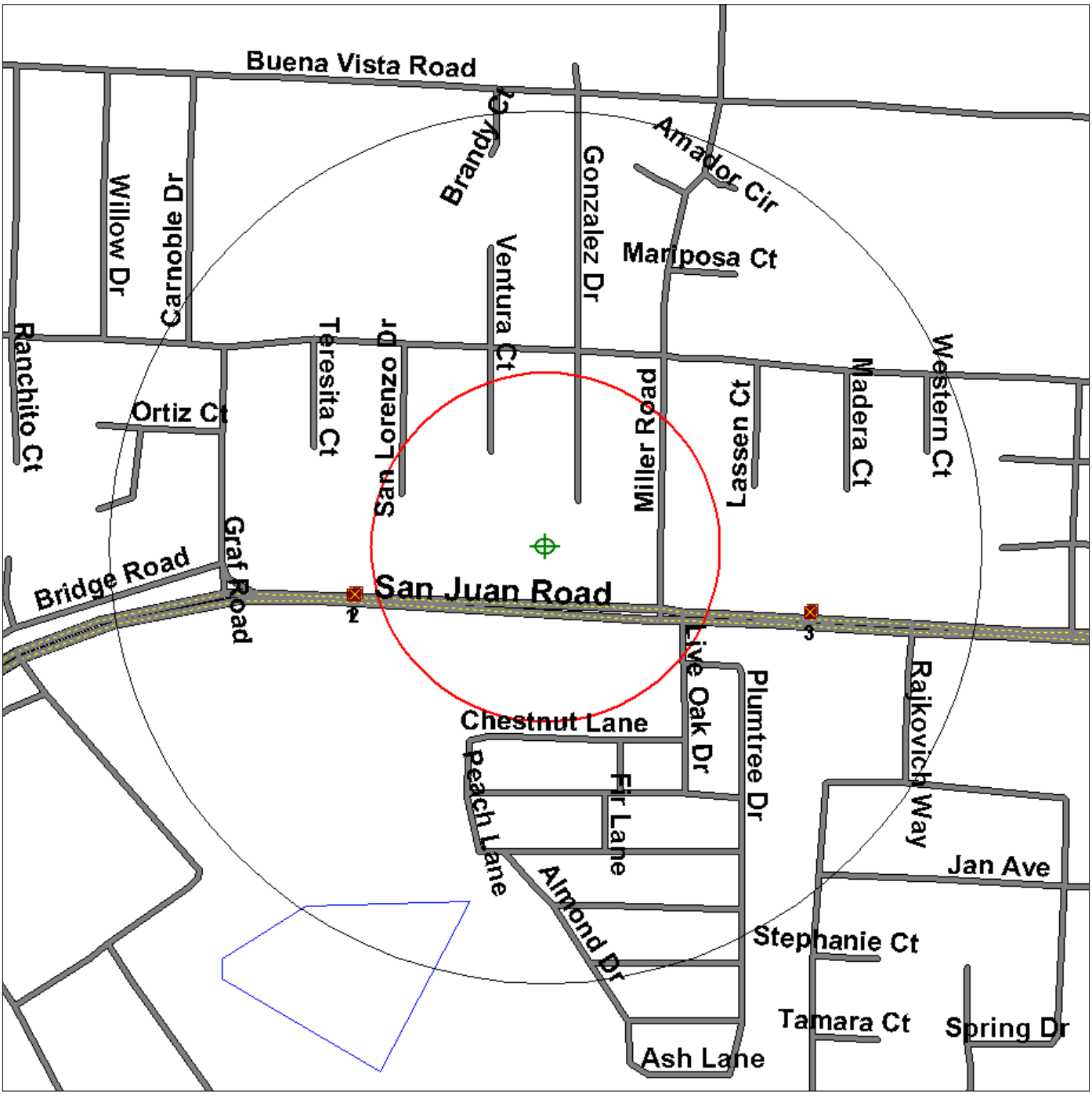
Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius

Environmental FirstSearch

.25 Mile Radius

ASTM Map: RCRAGEN, ERNS, UST

1480 SAN JUAN ROAD, HOLLISTER CA 95023



Source: 2005 U.S. Census TIGER Files

Target Site (Latitude: 36.853698 Longitude: -121.422603) .....

Identified Site, Multiple Sites, Receptor .....

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

Triballand.....

Railroads .....

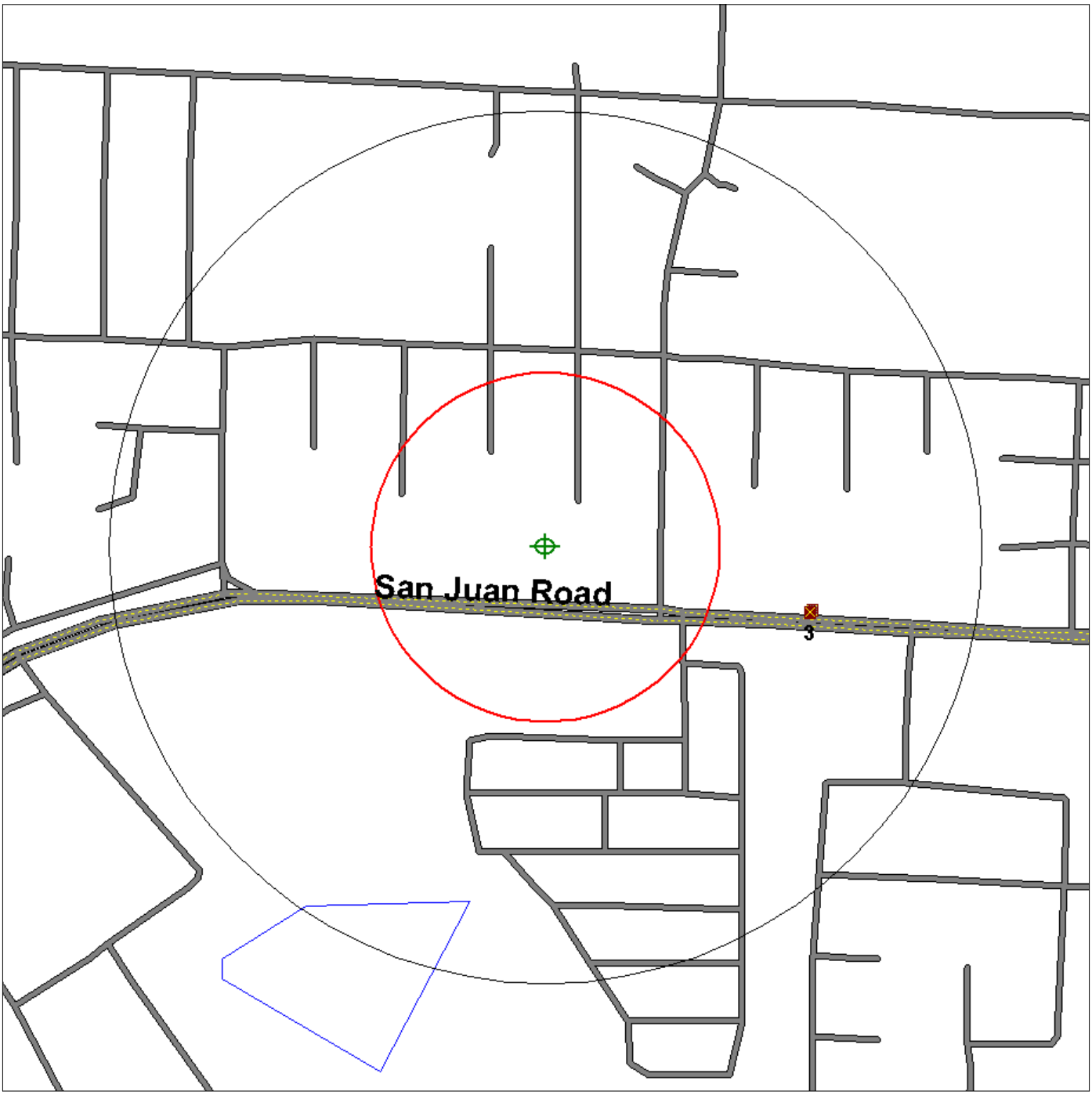
Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius

Environmental FirstSearch

.25 Mile Radius

Non-ASTM Map: Permits

1480 SAN JUAN ROAD, HOLLISTER CA 95023



Source: 2005 U.S. Census TIGER Files

Target Site (Latitude: 36.853698 Longitude: -121.422603) .....

Identified Site, Multiple Sites, Receptor .....

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

Triballand.....

National Historic Sites and Landmark Sites .....

Railroads .....

Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius

Appendix F -- Title Records

CHICAGO TITLE COMPANY

PRELIMINARY REPORT

In response to the application for a policy of title insurance referenced herein, ***Chicago Title Company*** *hereby reports that it is prepared to issue, or cause to be issued, as of the date hereof, a policy or policies of title insurance describing the land and the estate or interest therein hereinafter set forth, insuring against loss which may be sustained by reason of any defect, lien or encumbrance not shown or referred to as an exception herein or not excluded from coverage pursuant to the printed Schedules, Conditions and Stipulations or Conditions of said policy forms.*

The printed Exceptions and Exclusions from the coverage and Limitations on Covered Risks of said policy or policies are set forth in Attachment One. The policy to be issued may contain an arbitration clause. When the Amount of Insurance is less than that set forth in the arbitration clause, all arbitrable matters shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties. Limitations on Covered Risks applicable to the CLTA and ALTA Homeowner's Policies of Title Insurance which establish a Deductible Amount and a Maximum Dollar Limit of Liability for certain coverages are also set forth in Attachment One. Copies of the policy forms should be read. They are available from the office which issued this report.

This report (and any supplements or amendments hereto) is issued solely for the purpose of facilitating the issuance of a policy of title insurance and no liability is assumed hereby. If it is desired that liability be assumed prior to the issuance of a policy of title insurance, a Binder or Commitment should be requested.

The policy(s) of title insurance to be issued hereunder will be policy(s) of Chicago Title Insurance Company, a Nebraska corporation.

Please read the exceptions shown or referred to herein and the exceptions and exclusions set forth in Attachment One of this report carefully. The exceptions and exclusions are meant to provide you with notice of matters which are not covered under the terms of the title insurance policy and should be carefully considered.

It is important to note that this preliminary report is not a written representation as to the condition of title and may not list all liens, defects and encumbrances affecting title to the land.

Countersigned

Chicago Title Company

BY _____ President

ATTEST _____ Secretary

Chicago Title Company

ISSUING OFFICE: 330 Tres Pinos Road, Suite C4 • Hollister, CA 95023

FOR SETTLEMENT INQUIRIES, CONTACT: Chicago Title Company - Visalia
1750 W. Walnut Avenue • Visalia, CA 93277
559 636-4300 • FAX 559 636-4365

PRELIMINARY REPORT

Amended

Title Officer: Joe Ortiz
Escrow Officer: Ann A. Kay
Escrow No.: 09-**42113340**-AK

Title No.: 09-**98010567**-B-JO
Locate No.: CACTI7743-7754-4421-0098010567

TO: Pacific West Communities Inc., an Idaho corporation
430 E. State Street Suite 100
Eagle, ID 83616

ATTN: Peter Van Dorne

SHORT TERM RATE: No

PROPERTY ADDRESS: 1480 San Juan Road, Hollister, California

EFFECTIVE DATE: May 26, 2010, 07:30 A.M.

The form of policy or policies of title insurance contemplated by this report is:

ALTA Owner's Policy (6/17/06)
ALTA Loan Policy (6/17/06)

1. THE ESTATE OR INTEREST IN THE LAND HEREINAFTER DESCRIBED OR REFERRED TO COVERED BY THIS REPORT IS:

   A Fee

2. TITLE TO SAID ESTATE OR INTEREST AT THE DATE HEREOF IS VESTED IN:

   J. B. Howard Family, LLC, a California Limited Liability Company as to an undivided 1/2 interest and Craig M. Ritts and Theresa Ritts, Trustees of the Ritts Family Trust uta dated March 31, 2006, as to an undivided 1/2 interest.

3. THE LAND REFERRED TO IN THIS REPORT IS DESCRIBED AS FOLLOWS:

   SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF

JO\JO 09/18/2009

LEGAL DESCRIPTION

EXHIBIT "A"

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF Hollister, COUNTY OF SAN BENITO, STATE OF California AND IS DESCRIBED AS FOLLOWS:

Parcel 1, in the City of Hollister, County of San Benito, State of California, according to the Map filed November 16, 1984 in Book 6, Page 61 of Parcel Maps, in the Office of the County Recorder of said County.

APN: 052-090-043

AT THE DATE HEREOF, ITEMS TO BE CONSIDERED AND EXCEPTIONS TO COVERAGE IN ADDITION TO THE PRINTED EXCEPTIONS AND EXCLUSIONS IN SAID POLICY FORM WOULD BE AS FOLLOWS:

1. **Property taxes**, which are a lien not yet due and payable, including any assessments collected with taxes to be levied for the fiscal year 2010-2011.

2. **The lien of supplemental taxes**, if any, assessed pursuant to the provisions of Chapter 3.5 (Commencing with Section 75) of the Revenue and Taxation code of the State of California.

3. **The fact** that said land is included within a project area of the Redevelopment Agency shown below, and that proceedings for the redevelopment of said project have been instituted under the Redevelopment Law (such redevelopment to proceed only after the adoption of the redevelopment plan) as disclosed by a document.

Redevelopment Agency:	Hollister Redevelopment Agency
Recorded:	April 16, 2003, Instrument No. 2003-0007372, of Official Records

4. **Easement(s)** for the purpose(s) shown below and rights incidental thereto as granted in a document.

Granted to:	Hollister Irrigation Co.
Purpose:	15 foot wide canal
Recorded:	November 5, 1891, Book 12, Page 360, of Deeds

The exact location and extent of said easement is not disclosed of record.

5. **Easement(s)** for the purpose(s) shown below and rights incidental thereto as granted in a document.

Granted to:	Hollister Irrigation Co.
Purpose:	Branch Canal
Recorded:	August 15, 1892, Book 13, Page 80, of Deeds

The exact location and extent of said easement is not disclosed of record.

6. **Easement(s)** for the purpose(s) shown below and rights incidental thereto as granted in a document.

Granted to:	The Sierra & San Francisco Power Co.
Purpose:	Electric Transmission line
Recorded:	June 1, 1912, Book 38, Page 555, of Deeds

The exact location and extent of said easement is not disclosed of record.

7. **Easement(s)** for the purpose(s) shown below and rights incidental thereto as granted in a document.

Granted to:	Serafino Mello
Purpose:	Pipeline
Recorded:	November 14, 1949, Book 166, Page 261, of Official Records

The exact location and extent of said easement is not disclosed of record.

8. **Easement(s)** for the purpose(s) shown below and rights incidental thereto as delineated or as offered for dedication, on the map of said tract.

Purpose:	Public Utilities
Affects:	6 feet along all street frontage

Purpose:	Sanitary Sewer and Storm Drainage
Affects:	as shown on said map

Purpose:	Non-access
Affects:	as shown on said map

Said easement having been accepted by resolution of the City of Hollister, recorded 06-21-1983 in Vol. 495, page 808 of Official Records.

9. **A covenant and agreement** entitled "AGREEMENT TO CONSTRUCT LAND DEVELOPMENT IMPROVEMENTS"

Executed by:	The City of Hollister, a Municipal Corporation, etal
In favor of:	The City of Hollister
Recorded:	January 15, 1980, Book 449, Page 483, of Official Records

Reference is hereby made to said document for full particulars.

10. **Easement(s)** for the purpose(s) shown below and rights incidental thereto as granted in a document.

Granted to:	Bradley A. First
Purpose:	Access
Recorded:	December 28, 1984, Instrument No. 8406989, of Official Records
Affects:	as described therein

11. **Easement(s)** for the purpose(s) shown below and rights incidental thereto as granted in a document.

Granted to:	The City of Hollister
Purpose:	one foot non-access strip
Recorded:	March 11, 1992, Instrument No. 9202168, of Official Records
Affects:	as described therein

12. **Matters** contained in that certain document entitled "RESOLUTION CONFIRMING AND ADOPTING ITEMIZED WRITTEN REPORT OF THE COST OF ABATEMENT OF WEEDS AND DEBRIS AS PUBLIC NUISANCES" dated August 7, 1995, executed by CITY OF HOLLISTER recorded August 10, 1995, Instrument No. 9506650, of Official Records.

Reference is hereby made to said document for full particulars.

13. The herein referred to property appears to be free and clear of any Deeds of Trust or Mortgages. Please confirm if this is the case.

14. The name(s) of the buyer(s) furnished with this application for Title Insurance is/are:

Pacific West Communities, Inc.

If these names are incorrect, incomplete or misspelled, please notify the Company.

15. **Before issuing its policy of title insurance**, this Company will require for review, the following documents from the Limited Liability Company named below.

Limited Liability Company: J. B. Howard Family, LLC

(a) A copy of its operating agreement and any and all amendments, supplements and/or modifications thereto, certified by the appropriate manager or member.

(b) Confirmation that its Articles of Organization (LLC-1), and Certificate of Amendment (LLC-2), any restated Articles of Organization (LLC-10) and/or Certificate of Correction (LLC-11) have been filed with the Secretary of State.

(c) If the Limited Liability Company is member-managed a full and complete current list of members certified by the appropriate manager or member.

(d) If the Limited Liability Company was formed in a foreign jurisdiction, evidence satisfactory to the Company, that it was validly formed, is in good standing and authorized to do business in the state of origin.

(e) If the Limited Liability Company was formed in a foreign jurisdiction, evidence satisfactory to the Company, that it has complied with California "doing business" laws, if applicable.

After review of the requested documents, the Company reserves the right to add additional items or make additional requirements prior to the issuance of any policy of title insurance.

16. **This Company will require** the following documents for review prior to the issuance of any title assurance predicated upon a conveyance or encumbrance by the corporation named below.

Corporation: Pacific West Communities, Inc.,

(a) A copy of the corporation By-Laws and Articles of Incorporation.

(b) An original or certified copy of the Resolution authorizing the transaction contemplated herein.

(c) If the Articles and/or By-Laws require approval by a "parent" organization, a copy of the Articles and By-Laws of the parent.

The right is reserved to add requirements or additional items after completion of such review.

17. The terms and provisions of that certain Trust Agreement under which the vestee holds title, and the requirement that this office be furnished with:

signed Certification Statement reflecting the current status of said trust,

prior to the issuance of any Title Insurance, and any exceptions that may be disclosed thereby.

18. **The transaction contemplated** in connection with this Report is subject to the review and approval of the Company's Corporate Underwriting Department. The Company reserves the right to add additional items or make further requirements after such review.

END OF ITEMS

Note 1. Property taxes for the fiscal year shown below are PAID. For proration purposes the amounts are:

Tax Identification No.:	052-090-043
Fiscal Year:	2009 - 2010
1st Installment:	$4,602.26
2nd Installment:	$4,602.26

Note 2. The current owner does NOT qualify for the $20.00 discount pursuant to the coordinated stipulated judgments entered in actions filed by both the Attorney General and private class action plaintiffs for the herein described property.

Note 3. **The application** for title insurance was placed by reference to only a street address or tax identification number.

Based on our records, we believe that the description in this report covers the parcel requested, however, if the legal description is incorrect a new report must be prepared.

If the legal description is incorrect, in order to prevent delays, the seller/buyer/borrower must provide the Company and/or the settlement agent with the correct legal description intended to be the subject of this transaction.

Note 4. The Company is not aware of any matters which would cause it to decline to attach the CLTA Endorsement Form 116 indicating that there is located on said land Single Family Dwelling known as 1480 San Juan Road, Hollister, CA to an Extended Coverage Loan Policy.

Note 5. The only deeds affecting said land, which recorded within twenty-four (24) months of the date of this report, as are follows:

Grantor:	Joanne Luna, Trustee of the Jess V. Arias and Josephine Arias Revocable Living Trust DTD 6/30/98, as to an undivided 1/3 interest
Grantee:	Joanne Luna as Trustee of the Bypass Trust of the Jess V. Arias and Josephine Arias Revocable Living Trust; DTD 6-30-98
Recorded:	September 8, 2008, Instrument No. 2008-0008759, of Official Records

and	
Grantor:	Joanne Luna as Trustee of the Bypass Trust of the Jess V. Arias and Josephine Arias Revocable Living Trust; dated 6-30-98 as to all their interest
Grantee:	J. B. Howard Family, LLC, a California Limited Liability Company as to an undivided 1/2 interest and Craig M. Ritts and Theresa Ritts, Trustees of the Ritts Family Trust uta dated March 31, 2006, as to an undivided 1/2 interest.
Recorded:	January 8, 2010, Instrument No. 2010-0000185, of Official Records

Note 6. If a county recorder, title insurance company, escrow company, real estate broker, real estate agent or association provides a copy of a declaration, governing document or deed to any person, California law requires that the document provided shall include a statement regarding any unlawful restrictions. Said statement is to be in at least 14-point bold face type and may be stamped on the first page of any document provided or included as a cover page attached to the requested document. Should a party to this transaction request a copy of any document reported herein that fits this category, the statement is to be included in the manner described.

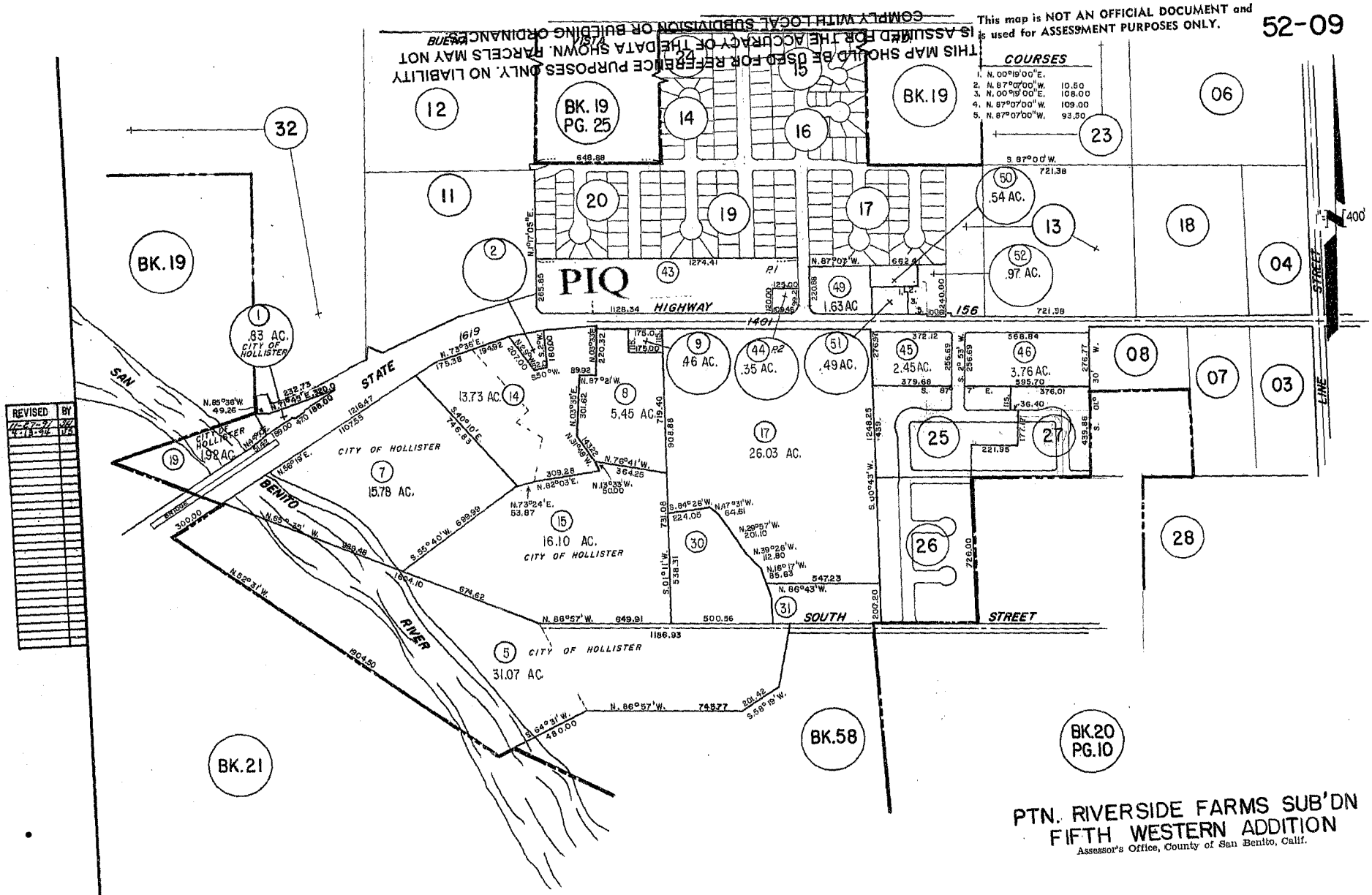
Note 7. Wiring instructions for Chicago Title Company, Visalia, CA, are as follows:

Receiving Bank:	Bank of America 275 Valencia Blvd, 2nd Floor Brea, CA 92823-6340
ABA Routing No.:	026009593
Credit Account Name:	Chicago Title Company - Visalia 1750 W. Walnut Avenue, Visalia, CA 93277
Credit Account No.:	12355-73185
Escrow No.:	09-**42113340**-AK

These wiring instructions are for this specific transaction involving the Title Department of the Hollister office of Chicago Title Company. These instructions therefore should not be used in other transactions without first verifying the information with our accounting department. It is imperative that the wire text be exactly as indicated. Any extraneous information may cause unnecessary delays in confirming the receipt of funds.

Note 8. Any documents being executed in conjunction with this transaction must be signed in the presence of an authorized Company employee, an authorized employee of an agent, an authorized employee of the insured lender, or by using Bancserv or other approved third-party service. If the above requirements cannot be met, please call the company at the number provided in this report.

END OF NOTES



This is not a survey of the land and is inserted as a matter of information only, and while the same is compiled from information we believe to be correct, no liability is assumed by Chicago Title Company as to the correctness of said information.

Ortiz, Joe

From: Kay, Ann
Sent: Wednesday, May 26, 2010 10:41 AM
To: Ortiz, Joe
Subject: FW: Hollister PTR

Can you send me the document listed below.
Ann

From: Neil O'Hara [mailto:neil@rnc-enviro.com]
Sent: Wednesday, May 26, 2010 10:20 AM
To: Kay, Ann
Cc: Mike Kelley; James Vo
Subject: Re: Hollister PTR

Ann -

I'll need whatever detail is available on the following item:

7. Easement(s) for the purpose(s) shown below and rights incidental thereto as granted in a document.
   Granted to: Serafino Mello
   Purpose: Pipeline
   Recorded: November 14, 1949, Book 166, Page 261, of Official Records

Thanks!

Neil O'Hara
RNC Environmental, LLC
3326 M Street
Sacramento CA 95816
(888) 485-3330 (voice & fax)
neil@rnc-enviro.com

On May 26, 2010, at 10:16 AM, Kay, Ann wrote:

You bet.
I'll order right now.
Ann

G R A N T D E E D

No U.S. Revenue Stamps required

For value received, we, MANUEL A. MELLO and MARGARET E. MELLO, husband and wife, hereby grant to SEBASTINO MELLO, a single man, all that real property situate in the County of San Benito, State of California, described as follows:

Lots 21 and 22 of the Subdivision of the Riverside Farm, according to the map thereof filed July 28, 1892, in Vol. 1 of Maps, at Page 56, San Benito County Records, containing 17.87 acres, more or less.

Excepting from said Lot 21 the West 86 feet thereof.

Excepting from said Lot 22 the easterly 0.80 feet thereof.

Together with an undivided 5/8ths interest in and to the certain irrigation well and pumping plant on the certain real property of the grantors continuous to the real property hereby conveyed on the east, and the right and easement to convey the waters of said well to the real property hereby conveyed for irrigation purposes over and across said real property of grantors by means of open ditches along such route or routes as grantee shall from time to time select; provided, however, that any such water which is conveyed along said Hollister-San Juan Highway shall be conveyed through underground or surface pipe line. Grantee shall fill in all ditches which are from time to time made by him for such conveyance of water promptly after each irrigation.

The cost of maintenance, upkeep and repair of said well and pumping plant shall be borne and paid by and between the parties hereto as follows: 3/8ths thereof by grantors and 5/8ths thereof by grantee. Grantors shall bear and pay the entire cost of operation of said pumping plant while they are using same. Grantee shall bear and pay the entire cost of operation of said pumping plant while he is using the same.

Grantee shall have the use, not exclusive of the grantors, of the certain water tank, and any replacements thereof, on said real property of grantors for the purpose of conveying water to said water tank from said irrigation well and thence to the real property hereby conveyed, for domestic uses, by means of a pipe line. The location of said pipe line shall be designated by grantors. The cost of maintenance, repair and replacement of said water tank shall be borne and paid one-half by the grantors and one-half by the grantee.

Grantors hereby except and reserve the right and easement to use the east 20 feet of the real property hereby conveyed for the purpose of turning their cultivating equipment thereon, provided that such turning will not damage any trees or crops growing thereon, or interfere with grantee's farming operations thereon.

Grantors hereby grant to the grantee the right and easement to use the west 20 feet of said real property of grantors for the purpose of turning his cultivating equipment thereon, provided that such turning will not damage any trees or crops growing thereon, or interfere with grantors' farming operations thereon.

Witness our hands this 3rd day of November 1948.

Manuel A. Mello

Margaret E. Mello

State of California,)
ss.
County of San Benito.)

On November 3rd 1948, before me, Margaret L. O'Donnell, a Notary Public, in and for said County and State, personally appeared Manuel A. Mello and Margaret E. Mello, husband and wife, known to me to be the persons whose names are subscribed to the within instrument, and acknowledged to me that they executed the same.

Margaret L. O'Donnell

Notary Public in and for the County of San Benito, State of California.

STATE OF CALIFORNIA,
County of San Benito } ss

VOL 166 PAGE 263

On December 28, 1949, before me, [illegible]
a Notary Public, in and for said County and State, personally
appeared [illegible], his wife

known to me to be the person whose name subscribed to the
within instrument, and acknowledged to me that executed the
same.

John E. Lewis
Notary Public

My Commission Expires June 5, 1950.

48705

RECORDED AT REQUEST OF
SAN BENITO TITLE GUARANTEE COMPANY,
December 14, 1949,
At 3 Min. past 1 P. M.
In Vol ____ of Official Records
Page ____ San Benito County
RALPH G. TOWLE, Recorder
By Helen Prudhomme
DEPUTY RECORDER
Fee $2.10 Cpd.

46504

GRANT

MANUEL A. MELLO and
MARGARET E. MELLO

To

SERAFINO MELLO

Dated: November 3, 1948

RECORDED AT REQUEST OF
[illegible]
Dec 16, 1948
At [illegible] Min. past 11 A.
In Vol 154 [illegible]
Page 442 San Benito Co.
RALPH G. TOWLE, Recorder
By [illegible]
DEPUTY RECORDER

COMPARED BY
RALPH G. TOWLE RECORDER

Mail: Louise Mello
P.O. Box 992
Hollister, Calif.

Appendix G -- Phase II Report

RNC ENVIRONMENTAL, LLC
3326 M Street, Sacramento, CA 95816
(888)485-3330 • www.rnc-enviro.com

June 8, 2010
RNC Project Number 1008B

Mr. Mike Kelley
Pacific Communities West, Inc.
430 E. State Street, Suite 100
Eagle, ID 83616

Re: Hollister Family Apartments
Phase II Environmental Site Assessment

Dear Mike:

Pursuant to our agreement, we have conducted a Phase II investigation for the Hollister Family Apartments property. The subject property is located at 1480 San Juan Road in Hollister, San Benito County, California, and is comprised of a 4.0± acre parcel identified as the east half of APN 052-090-043.

This work was conducted concurrently with our Phase I assessment for the same property. Preliminary information obtained for the assessment found that the property had historically been used fas an orchard. Additional concerns were noted, based on observed debris and soil stains at the time of the site visit, and on the present owner reporting the two houses previously located on the property has been burned.

Because extremely persistent pesticides, such as arsenic compounds and organochlorines such as DDT, were frequently applied to agricultural fields in the past, there is a potential concern for residual concentrations of these chemicals to remain present in the soil at levels considered unacceptable for residential use by regulatory agencies. In order to further evaluate this potential concern, soil sampling for arsenic and chlorinated hydrocarbon pesticides is advisable.

Also, incomplete combustion form a structure fire can result in the creation of carcinogenic polynuclear aromatic hydrocarbons (PAHs). These substances are normally airborne in the event of a fire, but can settle locally and create soil contamination.

Methodology

This assessment was conducted accordance with ASTM E1903-97, Standard Guide for Environmental Site Assessments: Phase II Environmental Site Assessment Process. The scope of the sampling and analysis protocol was based on the Interim Guidance for Sampling Agricultural Fields for School Sites (Third Revision), published by the

California Department of Toxic Substances Control , California Environmental Protection Agency, August 7, 2008.

A total of eight sample locations were established; six were distributed evenly throughout the property, and two were located in the debris area north of the shed, where oil stains and odors were observed. (See attached map.) At each sample location, one soil sample was collected from the top 6 inches of the soil. The samples were collected at the time of the site visit for the Phase I assessment, June 2, 2010

Four of the six field samples, and the two debris-areas samples were submitted to a California certified analytical laboratory. The field samples were analyzed for organochlorine pesticides by EPA Method 8081, and for arsenic. The two debris-area samples were analyzed for total petroleum hydrocarbons; benzene, toluene, ethylbenzene, and xylenes (BTEX); and semi-volatile organic compounds (including PAHs). The laboratory analysis report is attached.

Results of Analysis

No organochlorine pesticides were detected in any of the samples. Arsenic concentrations ranged from 6.6 to 7.3 mg/kg.

Arsenic is present in excess of the CHHSL of 0.07 mg/kg. However, arsenic commonly occurs in natural background concentrations that exceed the CHHSL. The DTSC *Interim Guidance for Sampling Agricultural Fields for School Sites* states that:

> The DTSC Schools Program evaluated data from a large number of school sites across California. The data evaluation indicates that 12 mg/kg maybe a useful screening number for the Schools Program when evaluating arsenic as a COPC (Chemical of Potential Concern). If the proposed school property has been adequately characterized for arsenic and all the arsenic data are equal to or less than 12 mg/kg, then arsenic will be not be considered a COPC.

The detected arsenic concentrations of 6.6 to 7.3 mg/kg on this site meet this criteria, so no further evaluation of arsenic is required.

No PAHs were detected. No gasoline, diesel, or BTEX was detected. Motor oil was detected in the two samples tested at 52.1 and 70.2 mg/kg. Although there is no established CHHSL for petroleum hydrocarbons, RWQCB guidelines generally do not require further evaluation of a site for concentrations of less than 100 mg/kg. Concentrations as high as 500 mg/kg of motor oil can be considered acceptable for

residential soil. The detected oil concentrations are well below these levels, so no further evaluation of petroleum hydrocarbons is required.

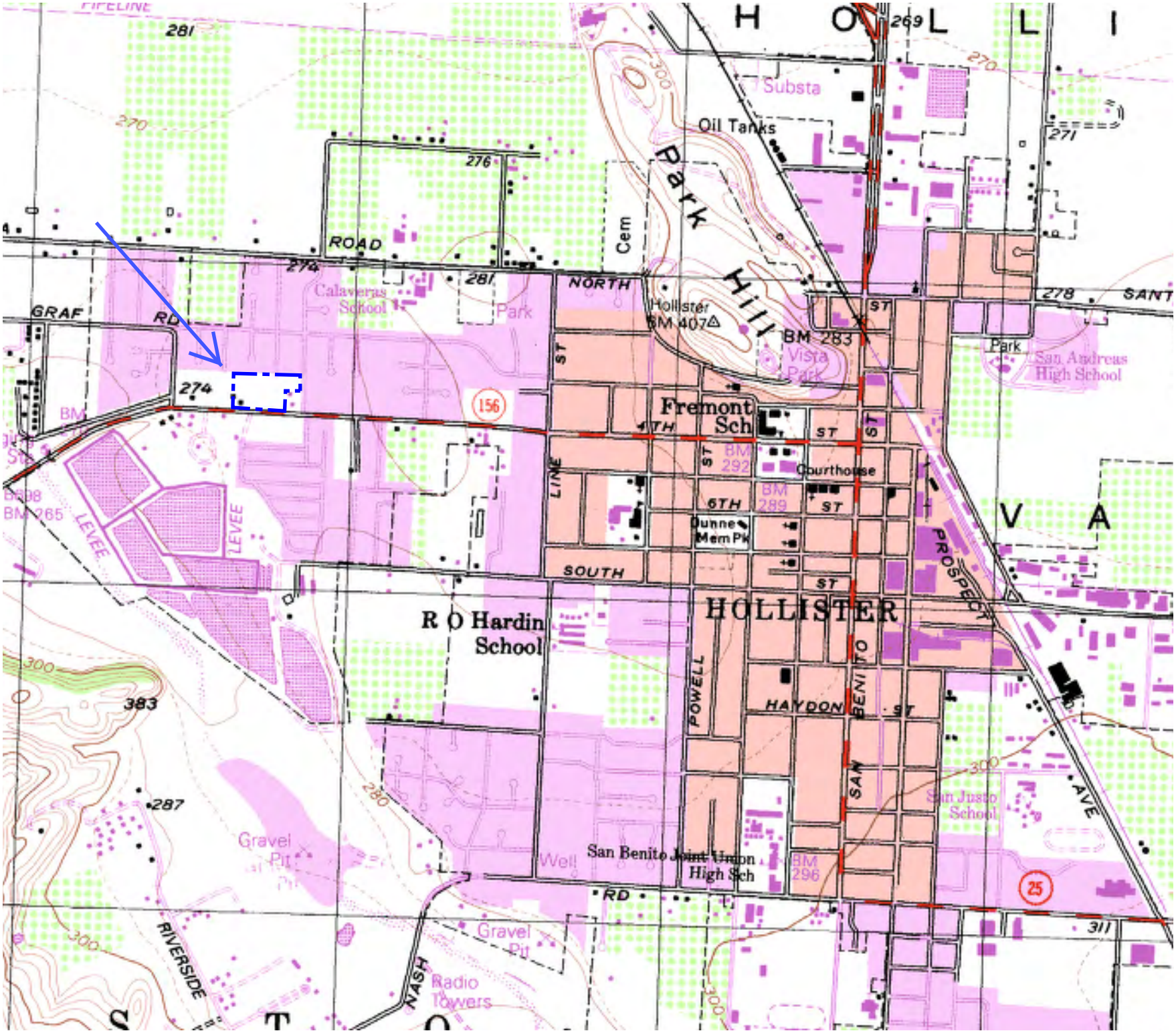
Conclusion

Based on the findings of this assessment, there is no evidence that past agricultural practices, inappropriate disposal of petroleum fluids, or the burning of tow former structures on this site has resulted in the presence of chemicals of concern which might represent a health hazard to future residents of the Hollister Family Apartments.

Sincerely,
RNC Environmental

Neil O'Hara, R.E.A.

/Volumes/neileohara/-RNC/1008B Hollister P2/1008B Hollister Phase II report.odt


H O L L I
Park Hill
Oil Tanks
Substa
Cem
ROAD
NORTH
GRAF RD
Calaveras School
Park
Hollister BM 407
BM 283
Vista Park
San Andreas High School
Fremont Sch
Courthouse
BM 292
BM 289
6TH
4TH
SOUTH
Dunne Mem Pk
HOLLISTER
R O Hardin School
PROSPECT
POWELL
SAN BENITO
HAYDON
ST
AVE
San Justo School
San Benito Joint Union High Sch
BM 296
Well
Gravel Pit
LEVEE
LINE
RIVERSIDE
NASH
Radio Towers
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Central Ave
Terrace St
Mission St
Ortiz St
Vega St
Center St
Main St
Miller Rd
Cherimoya Ln
Persimmon Ln
Pomerace Ln
©2009 Google

EXCELCHEM
Environmental Labs

1135 W Sunset Boulevard
Suite A
Rocklin, CA 95765
Phone# 916-543-4445
Fax# 916-543-4449

ELAP Certificate No. : 2119

08 June 2010

Neil O'Hara

RNC Environmental LLC

3326 M St.

Sacramento, CA 95816

RE: Hollister Family Apts.

Workorder number:1006017

Enclosed are the results of analyses for samples received by the laboratory on 06/03/10 10:14. All Quality Control results are within acceptable limits except where noted as a case narrative. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

_____

John Somers, Lab Director

Excelchem Environmental Labs

RNC Environmental LLC	Project:	Hollister Family Apts.	
3326 M St.	Project Number:	1008B	Date Reported:
Sacramento, CA 95816	Project Manager:	Neil O'Hara	06/08/10 11:19

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
1008B-1	1006017-01	Soil	06/02/10 11:30	06/03/10 10:14
1008B-3	1006017-02	Soil	06/02/10 11:30	06/03/10 10:14
1008B-4	1006017-03	Soil	06/02/10 11:30	06/03/10 10:14
1008B-6	1006017-04	Soil	06/02/10 11:30	06/03/10 10:14
1008B-7	1006017-05	Soil	06/02/10 11:30	06/03/10 10:14
1008B-8	1006017-06	Soil	06/02/10 11:30	06/03/10 10:14

Excelchem Environmental Lab.

Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Excelchem Environmental Labs

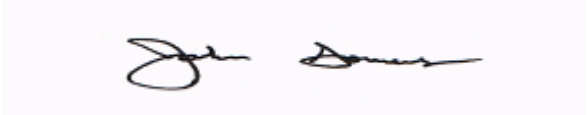
RNC Environmental LLC	Project:	Hollister Family Apts.	
3326 M St.	Project Number:	1008B	Date Reported:
Sacramento, CA 95816	Project Manager:	Neil O'Hara	06/08/10 11:19

1008B-1

1006017-01 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
METALS BY 6000/7000 SERIES								
Arsenic	**6.6**	1.0	mg/kg	ATF0038	06/03/10	06/07/10	EPA 6010B	
Pesticides by ECD								**R-07**
alpha-BHC	ND	0.050	mg/kg	ATF0032	06/04/10	06/04/10	EPA 8081A	
beta-BHC	ND	0.050	"	"	"	"	"	
gamma-BHC (Lindane)	ND	0.050	"	"	"	"	"	
delta-BHC	ND	0.050	"	"	"	"	"	
Heptachlor	ND	0.050	"	"	"	"	"	
Aldrin	ND	0.050	"	"	"	"	"	
Heptachlor epoxide	ND	0.050	"	"	"	"	"	
gamma-Chlordane	ND	0.050	"	"	"	"	"	
Endosulfan I	ND	0.050	"	"	"	"	"	
alpha-Chlordane	ND	0.050	"	"	"	"	"	
4,4'-DDE	ND	0.050	"	"	"	"	"	
Dieldrin	ND	0.050	"	"	"	"	"	
Endrin	ND	0.050	"	"	"	"	"	
Endosulfan II	ND	0.050	"	"	"	"	"	
4,4'-DDD	ND	0.050	"	"	"	"	"	
Endrin aldehyde	ND	0.050	"	"	"	"	"	
Endosulfan sulfate	ND	0.050	"	"	"	"	"	
4,4'-DDT	ND	0.050	"	"	"	"	"	
Endrin Ketone	ND	0.050	"	"	"	"	"	
Methoxychlor	ND	0.050	"	"	"	"	"	
Toxaphene	ND	0.500	"	"	"	"	"	
Chlordane	ND	0.500	"	"	"	"	"	
Surrogate: Decachlorobiphenyl	*133 %*	% Recovery Limits		*50-150*			*"*	

Excelchem Environmental Lab.



Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Excelchem Environmental Labs

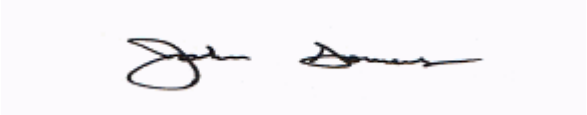
RNC Environmental LLC	Project:	Hollister Family Apts.	
3326 M St.	Project Number:	1008B	Date Reported:
Sacramento, CA 95816	Project Manager:	Neil O'Hara	06/08/10 11:19

1008B-3

1006017-02 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
METALS BY 6000/7000 SERIES								
Arsenic	**6.8**	1.0	mg/kg	ATF0038	06/03/10	06/07/10	EPA 6010B	
Pesticides by ECD								**R-07**
alpha-BHC	ND	0.050	mg/kg	ATF0032	06/04/10	06/04/10	EPA 8081A	
beta-BHC	ND	0.050	"	"	"	"	"	
gamma-BHC (Lindane)	ND	0.050	"	"	"	"	"	
delta-BHC	ND	0.050	"	"	"	"	"	
Heptachlor	ND	0.050	"	"	"	"	"	
Aldrin	ND	0.050	"	"	"	"	"	
Heptachlor epoxide	ND	0.050	"	"	"	"	"	
gamma-Chlordane	ND	0.050	"	"	"	"	"	
Endosulfan I	ND	0.050	"	"	"	"	"	
alpha-Chlordane	ND	0.050	"	"	"	"	"	
4,4'-DDE	ND	0.050	"	"	"	"	"	
Dieldrin	ND	0.050	"	"	"	"	"	
Endrin	ND	0.050	"	"	"	"	"	
Endosulfan II	ND	0.050	"	"	"	"	"	
4,4'-DDD	ND	0.050	"	"	"	"	"	
Endrin aldehyde	ND	0.050	"	"	"	"	"	
Endosulfan sulfate	ND	0.050	"	"	"	"	"	
4,4'-DDT	ND	0.050	"	"	"	"	"	
Endrin Ketone	ND	0.050	"	"	"	"	"	
Methoxychlor	ND	0.050	"	"	"	"	"	
Toxaphene	ND	0.500	"	"	"	"	"	
Chlordane	ND	0.500	"	"	"	"	"	
Surrogate: Decachlorobiphenyl	*124 %*	% Recovery Limits		*50-150*			*"*	

Excelchem Environmental Lab.



Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Excelchem Environmental Labs

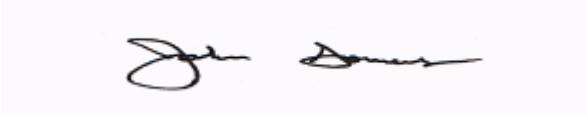
RNC Environmental LLC	Project:	Hollister Family Apts.	
3326 M St.	Project Number:	1008B	Date Reported:
Sacramento, CA 95816	Project Manager:	Neil O'Hara	06/08/10 11:19

1008B-4

1006017-03 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
METALS BY 6000/7000 SERIES								
Arsenic	**7.3**	1.0	mg/kg	ATF0038	06/03/10	06/07/10	EPA 6010B	
Pesticides by ECD								**R-07**
alpha-BHC	ND	0.050	mg/kg	ATF0032	06/04/10	06/04/10	EPA 8081A	
beta-BHC	ND	0.050	"	"	"	"	"	
gamma-BHC (Lindane)	ND	0.050	"	"	"	"	"	
delta-BHC	ND	0.050	"	"	"	"	"	
Heptachlor	ND	0.050	"	"	"	"	"	
Aldrin	ND	0.050	"	"	"	"	"	
Heptachlor epoxide	ND	0.050	"	"	"	"	"	
gamma-Chlordane	ND	0.050	"	"	"	"	"	
Endosulfan I	ND	0.050	"	"	"	"	"	
alpha-Chlordane	ND	0.050	"	"	"	"	"	
4,4'-DDE	ND	0.050	"	"	"	"	"	
Dieldrin	ND	0.050	"	"	"	"	"	
Endrin	ND	0.050	"	"	"	"	"	
Endosulfan II	ND	0.050	"	"	"	"	"	
4,4'-DDD	ND	0.050	"	"	"	"	"	
Endrin aldehyde	ND	0.050	"	"	"	"	"	
Endosulfan sulfate	ND	0.050	"	"	"	"	"	
4,4'-DDT	ND	0.050	"	"	"	"	"	
Endrin Ketone	ND	0.050	"	"	"	"	"	
Methoxychlor	ND	0.050	"	"	"	"	"	
Toxaphene	ND	0.500	"	"	"	"	"	
Chlordane	ND	0.500	"	"	"	"	"	
Surrogate: Decachlorobiphenyl	*159 %*	% Recovery Limits		*50-150*			*"*	*S-06*

Excelchem Environmental Lab.



Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Excelchem Environmental Labs

RNC Environmental LLC	Project:	Hollister Family Apts.	
3326 M St.	Project Number:	1008B	Date Reported:
Sacramento, CA 95816	Project Manager:	Neil O'Hara	06/08/10 11:19

1008B-6
1006017-04 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
METALS BY 6000/7000 SERIES								
Arsenic	**6.8**	1.0	mg/kg	ATF0038	06/03/10	06/07/10	EPA 6010B	
Pesticides by ECD								**R-07**
alpha-BHC	ND	0.050	mg/kg	ATF0032	06/04/10	06/04/10	EPA 8081A	
beta-BHC	ND	0.050	"	"	"	"	"	
gamma-BHC (Lindane)	ND	0.050	"	"	"	"	"	
delta-BHC	ND	0.050	"	"	"	"	"	
Heptachlor	ND	0.050	"	"	"	"	"	
Aldrin	ND	0.050	"	"	"	"	"	
Heptachlor epoxide	ND	0.050	"	"	"	"	"	
gamma-Chlordane	ND	0.050	"	"	"	"	"	
Endosulfan I	ND	0.050	"	"	"	"	"	
alpha-Chlordane	ND	0.050	"	"	"	"	"	
4,4'-DDE	ND	0.050	"	"	"	"	"	
Dieldrin	ND	0.050	"	"	"	"	"	
Endrin	ND	0.050	"	"	"	"	"	
Endosulfan II	ND	0.050	"	"	"	"	"	
4,4'-DDD	ND	0.050	"	"	"	"	"	
Endrin aldehyde	ND	0.050	"	"	"	"	"	
Endosulfan sulfate	ND	0.050	"	"	"	"	"	
4,4'-DDT	ND	0.050	"	"	"	"	"	
Endrin Ketone	ND	0.050	"	"	"	"	"	
Methoxychlor	ND	0.050	"	"	"	"	"	
Toxaphene	ND	0.500	"	"	"	"	"	
Chlordane	ND	0.500	"	"	"	"	"	
Surrogate: Decachlorobiphenyl	*129 %*	% Recovery Limits		*50-150*			*"*	

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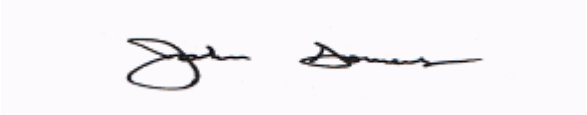

Laboratory Representative

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Excelchem Environmental Labs

RNC Environmental LLC	Project:	Hollister Family Apts.	
3326 M St.	Project Number:	1008B	Date Reported:
Sacramento, CA 95816	Project Manager:	Neil O'Hara	06/08/10 11:19

1008B-7

1006017-05 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
BTEX/TPHG by PID/FID								
Gasoline Range Hydrocarbons	ND	1.00	mg/kg	ATF0025	06/03/10	06/04/10	EPA 8021B/8015m	
Benzene	ND	0.005	"	"	"	"	"	
Toluene	ND	0.005	"	"	"	"	"	
Ethylbenzene	ND	0.005	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	
Surrogate: Chlorobenzene	*41.5 %*	% Recovery Limits		*70-130*			*"*	*S-LOW*
Total Petroleum Hydrocarbons by FID								
TPH as Diesel	ND	1.00	mg/kg	ATF0040	06/07/10	06/07/10	EPA 8015Mod	
TPH as Motor Oil	**52.1**	10.0	"	"	"	"	"	
SemiVolatile Organic Compounds by GC/MS								**R-07**
N-Nitrosodimethylamine	ND	1.00	mg/kg	ATF0037	06/04/10	06/07/10	EPA 8270C	
Aniline	ND	1.00	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	1.00	"	"	"	"	"	
Phenol	ND	1.00	"	"	"	"	"	
2-Chlorophenol	ND	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	
Benzyl alcohol	ND	1.00	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	1.00	"	"	"	"	"	
2-Methylphenol	ND	1.00	"	"	"	"	"	
Hexachloroethane	ND	1.00	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	1.00	"	"	"	"	"	
4-Methylphenol	ND	1.00	"	"	"	"	"	
Nitrobenzene	ND	1.00	"	"	"	"	"	
Isophorone	ND	1.00	"	"	"	"	"	
2-Nitrophenol	ND	2.50	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.00	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	1.00	"	"	"	"	"	
Benzoic acid	ND	15.0	"	"	"	"	"	
2,4-Dichlorophenol	ND	2.50	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	
4-Chloroaniline	ND	1.00	"	"	"	"	"	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	2.50	"	"	"	"	"	
2-Methylnaphthalene	ND	1.00	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	1.00	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	2.50	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	2.50	"	"	"	"	"	

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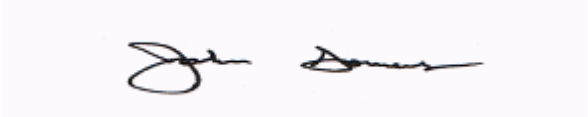

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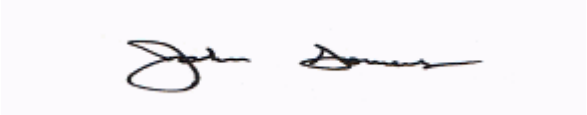
RNC Environmental LLC	Project:	Hollister Family Apts.	
3326 M St.	Project Number:	1008B	Date Reported:
Sacramento, CA 95816	Project Manager:	Neil O'Hara	06/08/10 11:19

1008B-7

1006017-05 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
SemiVolatile Organic Compounds by GC/MS								**R-07**
2-Chloronaphthalene	ND	1.00	mg/kg	ATF0037	06/04/10	06/07/10	EPA 8270C	
2-Nitroaniline	ND	1.00	"	"	"	"	"	
Acenaphthylene	ND	1.00	"	"	"	"	"	
Dimethyl phthalate	ND	1.00	"	"	"	"	"	
2,6-Dinitrotoluene	ND	1.00	"	"	"	"	"	
Acenaphthene	ND	1.00	"	"	"	"	"	
3-Nitroaniline	ND	1.00	"	"	"	"	"	
2,4-Dinitrophenol	ND	15.0	"	"	"	"	"	
Dibenzofuran	ND	1.00	"	"	"	"	"	
2,4-Dinitrotoluene	ND	1.00	"	"	"	"	"	
4-Nitrophenol	ND	2.50	"	"	"	"	"	
Fluorene	ND	1.00	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	1.00	"	"	"	"	"	
Diethyl phthalate	ND	1.00	"	"	"	"	"	
4-Nitroaniline	ND	1.00	"	"	"	"	"	
Azobenzene	ND	1.00	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	15.0	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	1.00	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	1.00	"	"	"	"	"	
Hexachlorobenzene	ND	1.00	"	"	"	"	"	
Pentachlorophenol	ND	5.00	"	"	"	"	"	
Phenanthrene	ND	1.00	"	"	"	"	"	
Anthracene	ND	1.00	"	"	"	"	"	
Carbazole	ND	1.00	"	"	"	"	"	
Di-n-butyl phthalate	ND	1.00	"	"	"	"	"	
Fluoranthene	ND	1.00	"	"	"	"	"	
Benzidine	ND	1.00	"	"	"	"	"	
Pyrene	ND	1.00	"	"	"	"	"	
Butyl benzyl phthalate	ND	2.50	"	"	"	"	"	
3,3´-Dichlorobenzidine	ND	2.50	"	"	"	"	"	
Benzo (a) anthracene	ND	1.00	"	"	"	"	"	
Chrysene	ND	1.00	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	1.00	"	"	"	"	"	
Di-n-octyl phthalate	ND	2.50	"	"	"	"	"	
Benzo (b) fluoranthene	ND	1.00	"	"	"	"	"	
Benzo (k) fluoranthene	ND	1.00	"	"	"	"	"	
Benzo (a) pyrene	ND	1.00	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	2.50	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	1.00	"	"	"	"	"	

Excelchem Environmental Lab.



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RNC Environmental LLC	Project:	Hollister Family Apts.	
3326 M St.	Project Number:	1008B	Date Reported:
Sacramento, CA 95816	Project Manager:	Neil O'Hara	06/08/10 11:19

1008B-7

1006017-05 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
SemiVolatile Organic Compounds by GC/MS								**R-07**
Benzo (g,h,i) perylene	ND	1.00	mg/kg	ATF0037	06/04/10	06/07/10	EPA 8270C	
Surrogate: 2-Fluorophenol	*48.2 %*	% Recovery Limits		*10-125*			"	
Surrogate: Phenol-d6	*37.0 %*	% Recovery Limits		*10-125*			"	
Surrogate: Nitrobenzene-d5	*30.0 %*	% Recovery Limits		*10-125*			"	
Surrogate: 2-Fluorobiphenyl	*54.8 %*	% Recovery Limits		*10-125*			"	
Surrogate: 2,4,6-Tribromophenol	*%*	% Recovery Limits		*10-125*			"	*S-06*
Surrogate: Terphenyl-dl4	*70.4 %*	% Recovery Limits		*10-125*			"	

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Laboratory Representative

Excelchem Environmental Labs

RNC Environmental LLC	Project:	Hollister Family Apts.	
3326 M St.	Project Number:	1008B	Date Reported:
Sacramento, CA 95816	Project Manager:	Neil O'Hara	06/08/10 11:19

1008B-8

1006017-06 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
BTEX/TPHG by PID/FID								
Gasoline Range Hydrocarbons	ND	1.00	mg/kg	ATF0025	06/03/10	06/04/10	EPA 8021B/8015m	
Benzene	ND	0.005	"	"	"	"	"	
Toluene	ND	0.005	"	"	"	"	"	
Ethylbenzene	ND	0.005	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	
Surrogate: Chlorobenzene	*48.4 %*	% Recovery Limits		*70-130*			*"*	*S-LOW*
Total Petroleum Hydrocarbons by FID								
TPH as Diesel	ND	1.00	mg/kg	ATF0040	06/07/10	06/07/10	EPA 8015Mod	
TPH as Motor Oil	**70.2**	10.0	"	"	"	"	"	
SemiVolatile Organic Compounds by GC/MS								**R-07**
N-Nitrosodimethylamine	ND	1.00	mg/kg	ATF0037	06/04/10	06/07/10	EPA 8270C	
Aniline	ND	1.00	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	1.00	"	"	"	"	"	
Phenol	ND	1.00	"	"	"	"	"	
2-Chlorophenol	ND	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	
Benzyl alcohol	ND	1.00	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	1.00	"	"	"	"	"	
2-Methylphenol	ND	1.00	"	"	"	"	"	
Hexachloroethane	ND	1.00	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	1.00	"	"	"	"	"	
4-Methylphenol	ND	1.00	"	"	"	"	"	
Nitrobenzene	ND	1.00	"	"	"	"	"	
Isophorone	ND	1.00	"	"	"	"	"	
2-Nitrophenol	ND	2.50	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.00	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	1.00	"	"	"	"	"	
Benzoic acid	ND	15.0	"	"	"	"	"	
2,4-Dichlorophenol	ND	2.50	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	
4-Chloroaniline	ND	1.00	"	"	"	"	"	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	2.50	"	"	"	"	"	
2-Methylnaphthalene	ND	1.00	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	1.00	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	2.50	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	2.50	"	"	"	"	"	

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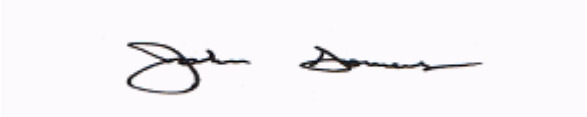

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RNC Environmental LLC	Project:	Hollister Family Apts.	
3326 M St.	Project Number:	1008B	Date Reported:
Sacramento, CA 95816	Project Manager:	Neil O'Hara	06/08/10 11:19

1008B-8

1006017-06 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
SemiVolatile Organic Compounds by GC/MS								**R-07**
2-Chloronaphthalene	ND	1.00	mg/kg	ATF0037	06/04/10	06/07/10	EPA 8270C	
2-Nitroaniline	ND	1.00	"	"	"	"	"	
Acenaphthylene	ND	1.00	"	"	"	"	"	
Dimethyl phthalate	ND	1.00	"	"	"	"	"	
2,6-Dinitrotoluene	ND	1.00	"	"	"	"	"	
Acenaphthene	ND	1.00	"	"	"	"	"	
3-Nitroaniline	ND	1.00	"	"	"	"	"	
2,4-Dinitrophenol	ND	15.0	"	"	"	"	"	
Dibenzofuran	ND	1.00	"	"	"	"	"	
2,4-Dinitrotoluene	ND	1.00	"	"	"	"	"	
4-Nitrophenol	ND	2.50	"	"	"	"	"	
Fluorene	ND	1.00	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	1.00	"	"	"	"	"	
Diethyl phthalate	ND	1.00	"	"	"	"	"	
4-Nitroaniline	ND	1.00	"	"	"	"	"	
Azobenzene	ND	1.00	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	15.0	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	1.00	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	1.00	"	"	"	"	"	
Hexachlorobenzene	ND	1.00	"	"	"	"	"	
Pentachlorophenol	ND	5.00	"	"	"	"	"	
Phenanthrene	ND	1.00	"	"	"	"	"	
Anthracene	ND	1.00	"	"	"	"	"	
Carbazole	ND	1.00	"	"	"	"	"	
Di-n-butyl phthalate	ND	1.00	"	"	"	"	"	
Fluoranthene	ND	1.00	"	"	"	"	"	
Benzidine	ND	1.00	"	"	"	"	"	
Pyrene	ND	1.00	"	"	"	"	"	
Butyl benzyl phthalate	ND	2.50	"	"	"	"	"	
3,3´-Dichlorobenzidine	ND	2.50	"	"	"	"	"	
Benzo (a) anthracene	ND	1.00	"	"	"	"	"	
Chrysene	ND	1.00	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	1.00	"	"	"	"	"	
Di-n-octyl phthalate	ND	2.50	"	"	"	"	"	
Benzo (b) fluoranthene	ND	1.00	"	"	"	"	"	
Benzo (k) fluoranthene	ND	1.00	"	"	"	"	"	
Benzo (a) pyrene	ND	1.00	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	2.50	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	1.00	"	"	"	"	"	

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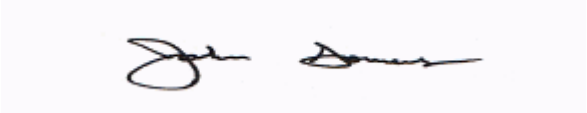

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RNC Environmental LLC	Project:	Hollister Family Apts.	
3326 M St.	Project Number:	1008B	Date Reported:
Sacramento, CA 95816	Project Manager:	Neil O'Hara	06/08/10 11:19

1008B-8

1006017-06 (Soil)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
SemiVolatile Organic Compounds by GC/MS								**R-07**
Benzo (g,h,i) perylene	ND	1.00	mg/kg	ATF0037	06/04/10	06/07/10	EPA 8270C	
Surrogate: 2-Fluorophenol	*56.6 %*	% Recovery Limits		*10-125*			"	
Surrogate: Phenol-d6	*37.4 %*	% Recovery Limits		*10-125*			"	
Surrogate: Nitrobenzene-d5	*37.4 %*	% Recovery Limits		*10-125*			"	
Surrogate: 2-Fluorobiphenyl	*59.8 %*	% Recovery Limits		*10-125*			"	
Surrogate: 2,4,6-Tribromophenol	*%*	% Recovery Limits		*10-125*			"	*S-06*
Surrogate: Terphenyl-dl4	*72.6 %*	% Recovery Limits		*10-125*			"	

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RNC Environmental LLC	Project:	Hollister Family Apts.	
3326 M St.	Project Number:	1008B	Date Reported:
Sacramento, CA 95816	Project Manager:	Neil O'Hara	06/08/10 11:19

BTEX/TPHG by PID/FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch ATF0025 - EPA 8021B/8015m										
Blank (ATF0025-BLK1)				Prepared: 06/03/10 Analyzed: 06/04/10						
Surrogate: Chlorobenzene	*9.08*		*ug/l*	*12.5*		*72.7*	*70-130*			
Gasoline Range Hydrocarbons	ND	1.00	mg/kg							
Benzene	ND	0.005	"							
Toluene	ND	0.005	"							
Ethylbenzene	ND	0.005	"							
Xylenes (total)	ND	0.010	"							
LCS (ATF0025-BS1)				Prepared: 06/03/10 Analyzed: 06/04/10						
Surrogate: Chlorobenzene	*0.0414*		*mg/kg*	*0.0500*		*82.8*	*80-120*			
Benzene	0.047	0.005	"	0.0500		94.0	80-120			
Toluene	0.045	0.005	"	0.0500		89.8	80-120			
Ethylbenzene	0.043	0.005	"	0.0500		86.4	80-120			
Xylenes (total)	0.128	0.010	"	0.150		85.6	80-120			
LCS Dup (ATF0025-BSD1)				Prepared: 06/03/10 Analyzed: 06/04/10						
Surrogate: Chlorobenzene	*0.0428*		*mg/kg*	*0.0500*		*85.6*	*80-120*			
Benzene	0.047	0.005	"	0.0500		94.5	80-120	0.501	20	
Toluene	0.045	0.005	"	0.0500		90.1	80-120	0.359	20	
Ethylbenzene	0.043	0.005	"	0.0500		86.7	80-120	0.353	20	
Xylenes (total)	0.129	0.010	"	0.150		85.9	80-120	0.323	20	
Matrix Spike (ATF0025-MS1)		**Source: 1006017-05**		Prepared: 06/03/10 Analyzed: 06/04/10						
Surrogate: Chlorobenzene	*0.0319*		*mg/kg*	*0.0500*		*63.8*	*70-130*			*QL-01*
Benzene	0.040	0.005	"	0.0500	ND	79.5	80-120			QL-01
Toluene	0.036	0.005	"	0.0500	ND	72.4	80-120			QL-01
Ethylbenzene	0.033	0.005	"	0.0500	ND	65.2	80-120			QL-01
Xylenes (total)	0.094	0.010	"	0.150	ND	63.0	80-120			QL-01

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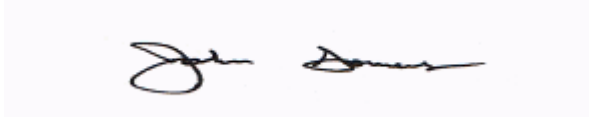

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RNC Environmental LLC	Project:	Hollister Family Apts.	
3326 M St.	Project Number:	1008B	Date Reported:
Sacramento, CA 95816	Project Manager:	Neil O'Hara	06/08/10 11:19

BTEX/TPHG by PID/FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch ATF0025 - EPA 8021B/8015m										
Matrix Spike Dup (ATF0025-MSD1)		**Source: 1006017-05**		Prepared: 06/03/10 Analyzed: 06/04/10						
Surrogate: Chlorobenzene	*0.0332*		*mg/kg*	*0.0500*		*66.3*	*70-130*			*QL-01*
Benzene	0.041	0.005	"	0.0500	ND	81.5	80-120	2.37	20	
Toluene	0.037	0.005	"	0.0500	ND	74.9	80-120	3.40	20	QL-01
Ethylbenzene	0.034	0.005	"	0.0500	ND	68.0	80-120	4.31	20	QL-01
Xylenes (total)	0.098	0.010	"	0.150	ND	65.6	80-120	4.04	20	QL-01

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RNC Environmental LLC	Project:	Hollister Family Apts.	
3326 M St.	Project Number:	1008B	Date Reported:
Sacramento, CA 95816	Project Manager:	Neil O'Hara	06/08/10 11:19

METALS BY 6000/7000 SERIES - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch ATF0038 - EPA 6010B										
Blank (ATF0038-BLK1)				Prepared: 06/03/10 Analyzed: 06/07/10						
Arsenic	ND	1.0	mg/kg							
LCS (ATF0038-BS1)				Prepared: 06/03/10 Analyzed: 06/07/10						
Arsenic	105	1.0	mg/kg	100		105	80-120			
LCS Dup (ATF0038-BSD1)				Prepared: 06/03/10 Analyzed: 06/07/10						
Arsenic	107	1.0	mg/kg	100		107	80-120	1.59	25	
Matrix Spike (ATF0038-MS1)		**Source: 1006017-01**		Prepared: 06/03/10 Analyzed: 06/07/10						
Arsenic	111	1.0	mg/kg	100	6.63	104	75-125			
Matrix Spike Dup (ATF0038-MSD1)		**Source: 1006017-01**		Prepared: 06/03/10 Analyzed: 06/07/10						
Arsenic	110	1.0	mg/kg	100	6.63	103	75-125	0.545	25	

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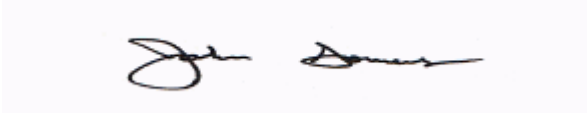

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3326 M St.	Project Number:	1008B	Date Reported:
Sacramento, CA 95816	Project Manager:	Neil O'Hara	06/08/10 11:19

Total Petroleum Hydrocarbons by FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch ATF0040 - EPA 8015Mod										
Blank (ATF0040-BLK1)				Prepared & Analyzed: 06/07/10						
TPH as Diesel	ND	1.00	mg/kg							
TPH as Motor Oil	ND	10.0	"							
LCS (ATF0040-BS1)				Prepared & Analyzed: 06/07/10						
TPH as Diesel	97.7	1.00	mg/kg	100		97.7	70-130			
LCS (ATF0040-BS2)				Prepared & Analyzed: 06/07/10						
TPH as Motor Oil	113	10.0	mg/kg	100		113	70-130			
LCS Dup (ATF0040-BSD1)				Prepared & Analyzed: 06/07/10						
TPH as Diesel	81.7	1.00	mg/kg	100		81.7	70-130	17.8	30	
LCS Dup (ATF0040-BSD2)				Prepared & Analyzed: 06/07/10						
TPH as Motor Oil	117	10.0	mg/kg	100		117	70-130	2.93	30	

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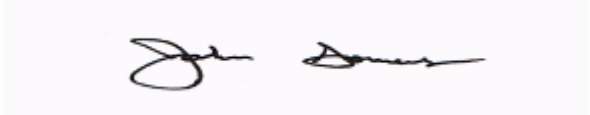

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3326 M St.	Project Number:	1008B	Date Reported:
Sacramento, CA 95816	Project Manager:	Neil O'Hara	06/08/10 11:19

Pesticides by ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch ATF0032 - EPA 8081A										
Blank (ATF0032-BLK1)				Prepared & Analyzed: 06/04/10						
Surrogate: Decachlorobiphenyl	*0.0205*		*mg/kg*	*0.0200*		*102*	*50-150*			
alpha-BHC	ND	0.005	"							
beta-BHC	ND	0.005	"							
gamma-BHC (Lindane)	ND	0.005	"							
delta-BHC	ND	0.005	"							
Heptachlor	ND	0.005	"							
Aldrin	ND	0.005	"							
Heptachlor epoxide	ND	0.005	"							
gamma-Chlordane	ND	0.005	"							
Endosulfan I	ND	0.005	"							
alpha-Chlordane	ND	0.005	"							
4,4'-DDE	ND	0.005	"							
Dieldrin	ND	0.005	"							
Endrin	ND	0.005	"							
Endosulfan II	ND	0.005	"							
4,4'-DDD	ND	0.005	"							
Endrin aldehyde	ND	0.005	"							
Endosulfan sulfate	ND	0.005	"							
4,4'-DDT	ND	0.005	"							
Endrin Ketone	ND	0.005	"							
Methoxychlor	ND	0.005	"							
Toxaphene	ND	0.050	"							
Chlordane	ND	0.050	"							
LCS (ATF0032-BS1)				Prepared & Analyzed: 06/04/10						
Surrogate: Decachlorobiphenyl	*0.0206*		*mg/kg*	*0.0200*		*103*	*50-150*			
gamma-BHC (Lindane)	0.019	0.005	"	0.0200		97.1	50-150			
Aldrin	0.021	0.005	"	0.0200		107	50-150			
Dieldrin	0.050	0.005	"	0.0500		100	50-150			
Endrin	0.053	0.005	"	0.0500		105	50-150			
4,4'-DDT	0.056	0.005	"	0.0500		111	50-150			

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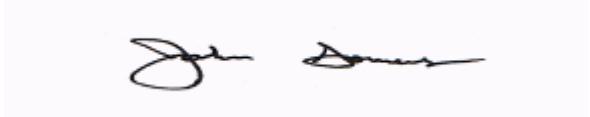

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RNC Environmental LLC	Project:	Hollister Family Apts.	
3326 M St.	Project Number:	1008B	Date Reported:
Sacramento, CA 95816	Project Manager:	Neil O'Hara	06/08/10 11:19

Pesticides by ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch ATF0032 - EPA 8081A										
LCS Dup (ATF0032-BSD1)				Prepared & Analyzed: 06/04/10						
Surrogate: Decachlorobiphenyl	*0.0204*		*mg/kg*	*0.0200*		*102*	*50-150*			
gamma-BHC (Lindane)	0.020	0.005	"	0.0200		101	50-150	3.79	25	
Aldrin	0.022	0.005	"	0.0200		110	50-150	2.97	25	
Dieldrin	0.051	0.005	"	0.0500		103	50-150	2.33	25	
Endrin	0.054	0.005	"	0.0500		108	50-150	2.44	25	
4,4'-DDT	0.056	0.005	"	0.0500		112	50-150	0.737	25	

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3326 M St.	Project Number:	1008B	Date Reported:
Sacramento, CA 95816	Project Manager:	Neil O'Hara	06/08/10 11:19

SemiVolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch ATF0037 - EPA 8270C										
Blank (ATF0037-BLK1)				Prepared: 06/04/10 Analyzed: 06/07/10						
Surrogate: 2-Fluorophenol	*38.6*		*mg/L*	*50.0*		*77.1*	*10-125*			
Surrogate: Phenol-d6	*39.0*		*"*	*50.0*		*77.9*	*10-125*			
Surrogate: Nitrobenzene-d5	*33.9*		*"*	*50.0*		*67.8*	*10-125*			
Surrogate: 2-Fluorobiphenyl	*36.7*		*"*	*50.0*		*73.5*	*10-125*			
Surrogate: 2,4,6-Tribromophenol	*37.3*		*"*	*50.0*		*74.6*	*10-125*			
Surrogate: Terphenyl-dl4	*42.0*		*"*	*50.0*		*84.0*	*10-125*			
N-Nitrosodimethylamine	ND	0.100	mg/kg							
Aniline	ND	0.100	"							
Bis(2-chloroethyl)ether	ND	0.100	"							
Phenol	ND	0.100	"							
2-Chlorophenol	ND	0.100	"							
1,4-Dichlorobenzene	ND	0.100	"							
Benzyl alcohol	ND	0.100	"							
Bis(2-chloroisopropyl)ether	ND	0.100	"							
2-Methylphenol	ND	0.100	"							
Hexachloroethane	ND	0.100	"							
N-Nitrosodi-n-propylamine	ND	0.100	"							
4-Methylphenol	ND	0.100	"							
Nitrobenzene	ND	0.100	"							
Isophorone	ND	0.100	"							
2-Nitrophenol	ND	0.250	"							
2,4-Dimethylphenol	ND	0.100	"							
Bis(2-chloroethoxy)methane	ND	0.100	"							
Benzoic acid	ND	1.50	"							
2,4-Dichlorophenol	ND	0.250	"							
1,2,4-Trichlorobenzene	ND	0.100	"							
Naphthalene	ND	0.100	"							
4-Chloroaniline	ND	0.100	"							
Hexachlorobutadiene	ND	0.100	"							
4-Chloro-3-methylphenol	ND	0.250	"							
2-Methylnaphthalene	ND	0.100	"							
Hexachlorocyclopentadiene	ND	0.100	"							
2,4,6-Trichlorophenol	ND	0.250	"							
2,4,5-Trichlorophenol	ND	0.250	"							
2-Chloronaphthalene	ND	0.100	"							
2-Nitroaniline	ND	0.100	"							
Acenaphthylene	ND	0.100	"							
Dimethyl phthalate	ND	0.100	"							
2,6-Dinitrotoluene	ND	0.100	"							

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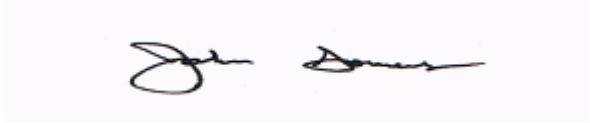

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3326 M St.	Project Number:	1008B	Date Reported:
Sacramento, CA 95816	Project Manager:	Neil O'Hara	06/08/10 11:19

SemiVolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch ATF0037 - EPA 8270C										
Blank (ATF0037-BLK1)				Prepared: 06/04/10 Analyzed: 06/07/10						
Acenaphthene	ND	0.100	mg/kg							
3-Nitroaniline	ND	0.100	"							
2,4-Dinitrophenol	ND	1.50	"							
Dibenzofuran	ND	0.100	"							
2,4-Dinitrotoluene	ND	0.100	"							
4-Nitrophenol	ND	0.250	"							
Fluorene	ND	0.100	"							
4-Chlorophenyl phenyl ether	ND	0.100	"							
Diethyl phthalate	ND	0.100	"							
4-Nitroaniline	ND	0.100	"							
Azobenzene	ND	0.100	"							
4,6-Dinitro-2-methylphenol	ND	1.50	"							
N-Nitrosodiphenylamine	ND	0.100	"							
4-Bromophenyl phenyl ether	ND	0.100	"							
Hexachlorobenzene	ND	0.100	"							
Pentachlorophenol	ND	0.500	"							
Phenanthrene	ND	0.100	"							
Anthracene	ND	0.100	"							
Carbazole	ND	0.100	"							
Di-n-butyl phthalate	ND	0.100	"							
Fluoranthene	ND	0.100	"							
Benzidine	ND	0.100	"							
Pyrene	ND	0.100	"							
Butyl benzyl phthalate	ND	0.250	"							
3,3´-Dichlorobenzidine	ND	0.250	"							
Benzo (a) anthracene	ND	0.100	"							
Chrysene	ND	0.100	"							
Bis(2-ethylhexyl)phthalate	ND	0.100	"							
Di-n-octyl phthalate	ND	0.250	"							
Benzo (b) fluoranthene	ND	0.100	"							
Benzo (k) fluoranthene	ND	0.100	"							
Benzo (a) pyrene	ND	0.100	"							
Indeno (1,2,3-cd) pyrene	ND	0.250	"							
Dibenz (a,h) anthracene	ND	0.100	"							
Benzo (g,h,i) perylene	ND	0.100	"							

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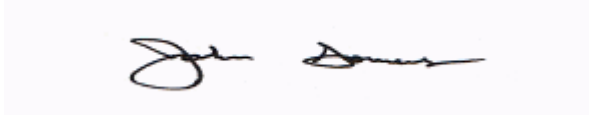

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RNC Environmental LLC	Project:	Hollister Family Apts.	
3326 M St.	Project Number:	1008B	Date Reported:
Sacramento, CA 95816	Project Manager:	Neil O'Hara	06/08/10 11:19

SemiVolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch ATF0037 - EPA 8270C										
LCS (ATF0037-BS1)				Prepared: 06/04/10 Analyzed: 06/07/10						
Surrogate: 2-Fluorophenol	*32.3*		*mg/L*	*50.0*		*64.6*	*0-150*			
Surrogate: Phenol-d6	*33.5*		*"*	*50.0*		*67.1*	*0-150*			
Surrogate: Nitrobenzene-d5	*30.6*		*"*	*50.0*		*61.3*	*0-150*			
Surrogate: 2-Fluorobiphenyl	*33.9*		*"*	*50.0*		*67.7*	*0-150*			
Surrogate: 2,4,6-Tribromophenol	*36.9*		*"*	*50.0*		*73.8*	*0-150*			
Surrogate: Terphenyl-dl4	*41.0*		*"*	*50.0*		*82.0*	*0-150*			
Phenol	0.837	0.100	mg/kg	1.67		50.2	0-150			
2-Chlorophenol	0.820	0.100	"	1.67		49.2	0-150			
1,4-Dichlorobenzene	1.08	0.100	"	1.67		64.9	0-150			
N-Nitrosodi-n-propylamine	1.24	0.100	"	1.67		74.6	0-150			
1,2,4-Trichlorobenzene	1.07	0.100	"	1.67		64.4	0-150			
4-Chloro-3-methylphenol	0.826	0.250	"	1.67		49.6	0-150			
Acenaphthene	1.16	0.100	"	1.67		69.4	0-150			
2,4-Dinitrotoluene	1.24	0.100	"	1.67		74.7	0-150			
4-Nitrophenol	0.501	0.250	"	1.67		30.1	0-150			
Pentachlorophenol	0.748	0.500	"	1.67		44.9	0-150			
Pyrene	1.60	0.100	"	1.67		95.9	0-150			
LCS Dup (ATF0037-BSD1)				Prepared: 06/04/10 Analyzed: 06/07/10						
Surrogate: 2-Fluorophenol	*35.0*		*mg/L*	*50.0*		*70.0*	*0-150*			
Surrogate: Phenol-d6	*35.8*		*"*	*50.0*		*71.5*	*0-150*			
Surrogate: Nitrobenzene-d5	*30.7*		*"*	*50.0*		*61.4*	*0-150*			
Surrogate: 2-Fluorobiphenyl	*34.1*		*"*	*50.0*		*68.2*	*0-150*			
Surrogate: 2,4,6-Tribromophenol	*40.0*		*"*	*50.0*		*80.0*	*0-150*			
Surrogate: Terphenyl-dl4	*41.8*		*"*	*50.0*		*83.6*	*0-150*			
Phenol	0.882	0.100	mg/kg	1.67		52.9	0-150	5.20	20	
2-Chlorophenol	0.862	0.100	"	1.67		51.7	0-150	4.99	20	
1,4-Dichlorobenzene	1.09	0.100	"	1.67		65.6	0-150	1.07	20	
N-Nitrosodi-n-propylamine	1.29	0.100	"	1.67		77.5	0-150	3.87	20	
1,2,4-Trichlorobenzene	1.10	0.100	"	1.67		65.7	0-150	2.06	20	
4-Chloro-3-methylphenol	0.857	0.250	"	1.67		51.4	0-150	3.60	20	
Acenaphthene	1.22	0.100	"	1.67		72.9	0-150	4.89	20	
2,4-Dinitrotoluene	1.26	0.100	"	1.67		75.3	0-150	0.907	20	
4-Nitrophenol	0.448	0.250	"	1.67		26.9	0-150	11.2	20	
Pentachlorophenol	0.723	0.500	"	1.67		43.4	0-150	3.45	20	
Pyrene	1.67	0.100	"	1.67		100	0-150	4.12	20	

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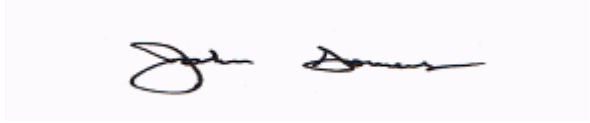

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3326 M St.	Project Number:	1008B	Date Reported:
Sacramento, CA 95816	Project Manager:	Neil O'Hara	06/08/10 11:19

Notes and Definitions

S-LOW	Low surrogate recovery confirmed as a matrix effect by a second analysis.
S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
R-07	This sample was diluted due to matrix interference, resulting in elevated reporting limits
QL-01	Sample results for the QC batch were accepted based on LCS/LCSD percent recoveries and RPD values.
ND	Analyte not detected at reporting limit.
NR	Not reported

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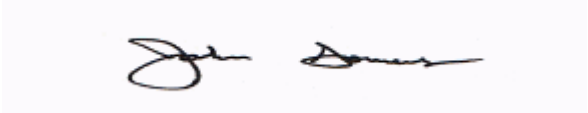

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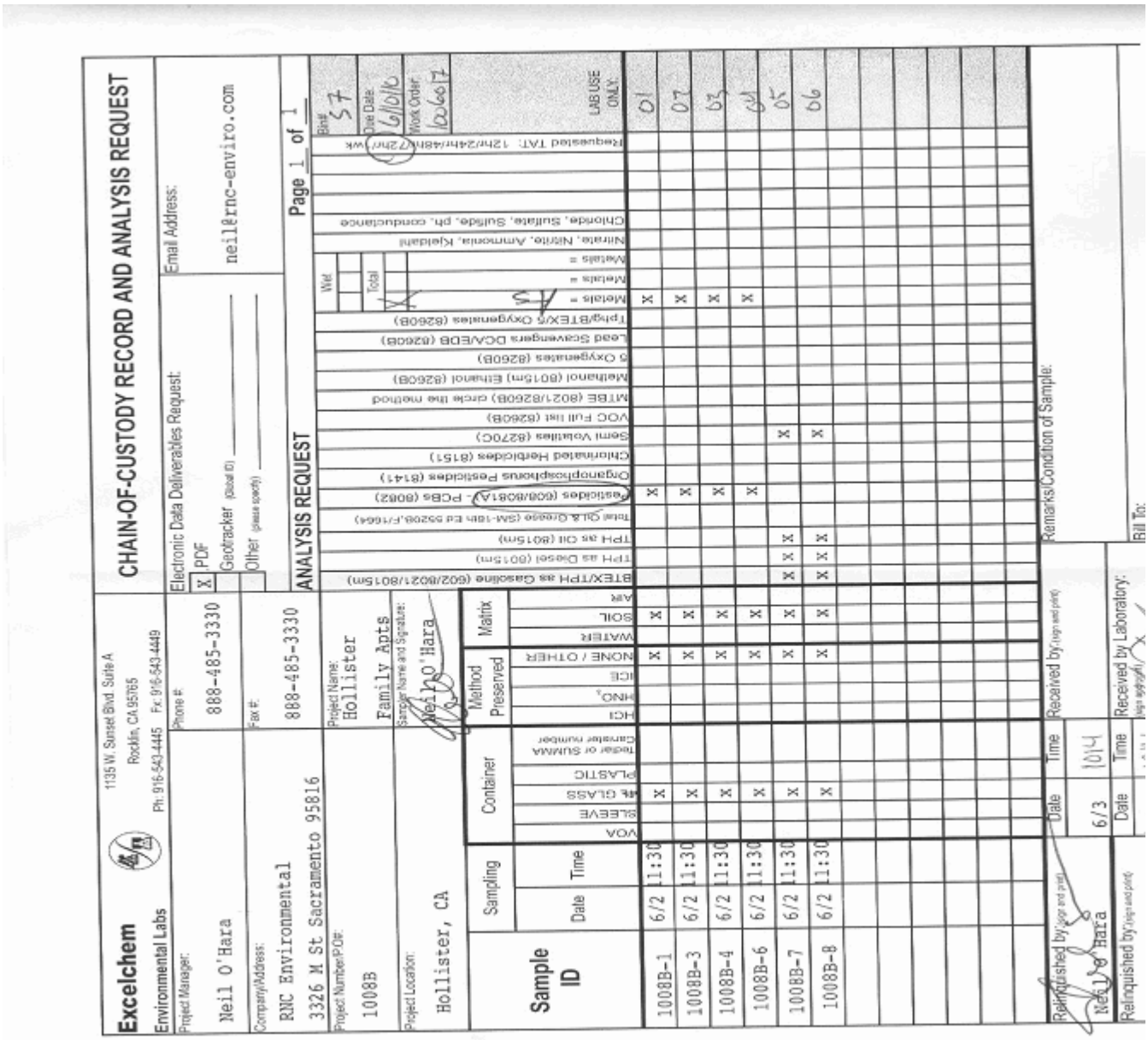
3326 M St.	Project Number:	1008B	Date Reported:
Sacramento, CA 95816	Project Manager:	Neil O'Hara	06/08/10 11:19



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Appendix H -- Additional Documentation

USER QUESTIONNAIRE

In order to qualify for one of the Landowner Liability Protections offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "Brownfields Amendments"), any additional user of this report should complete a copy of this questionnaire in order to document their own knowledge of the property. Failure to document this information could result in a determination that "all appropriate inquiry" is not complete, should a previously unknown recognized environmental condition come to light at a later date.

	Yes	No
(1.) Are you aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state or local law?		
(2.) Are you aware of any activity and land use limitations, 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?		
(3.) Do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?		
(4.) (a.) Is the purchase price being paid for this property significantly less than the fair market value of the property? (b.) If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?		
(5.) Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example, do you know the past uses of the property? Do you know of specific chemicals that are present or once were present at the property? Do you know of spills or other chemical releases that have taken place at the property? Do you know of any environmental cleanups that have taken place at the property?		
(6.) Based on your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of contamination at the property?		

For each "Yes" answer, please attach a description or supporting documentation as appropriate, for your files.

Completed by (please print): _____

Signed _____ Date _____

RNC ENVIRONMENTAL, LLC
3326 M Street, Sacramento, CA 95816
(888)485-3330 • www.rnc-enviro.com

USER QUESTIONNAIRE

In order to qualify for one of the Landowner Liability Protections offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "Brownfields Amendments"), the user *must* provide the following information (if available) to the environmental professional. Failure to provide this information could result in a determination that "all appropriate inquiry" is not complete.

Property: 1480 San Juan Road, Hollister, CA

	Yes	No
(1.) Are you aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state or local law?	☐	✓
(2.) Are you aware of any activity and land use limitations, 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?	☐	✓
(3.) Do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?	☐	✓
(4.) (a.) Is the purchase price being paid for this property significantly less than the fair market value of the property?	☐	✓
(b.) If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?	☐	✓
(5.) Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example, do you know the past uses of the property? Do you know of specific chemicals that are present or once were present at the property? Do you know of spills or other chemical releases that have taken place at the property? Do you know of any environmental cleanups that have taken place at the property?	☐	✓
(6.) Based on your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of contamination at the property?	☐	✓

For each "Yes" answer, please attach a description or supporting documentation as appropriate.

Completed by (please print): Mike Kelley

Signed Mike Kelley Digitally signed by Mike Kelley DN: cn=Mike Kelley, o=The Pacific Companies, ou, email=mikek@tpchousing.com, c=US Date: 2010.06.08 11:05:58 -07'00'

Date 6-8-2010

RNC ENVIRONMENTAL, LLC

Site Assessment, Regulatory Compliance and Permitting Assistance
3326 M Street, Sacramento, CA 95816
(888)485-3330

RNC Project Number: *1008A*
Property Location:
1480 San Juan Road
Hollister, CA

ENVIRONMENTAL QUESTIONNAIRE AND DISCLOSURE STATEMENT

1. Name of person completing this questionnaire: John B. Howard

2. This person's association with the subject property:

☒ Current Owner ☐ Previous Owner ☐ Property Manager ☐ Occupant

☐ Other : _____

Please answer the following questions in good faith and to the best of your knowledge. Please be as specific as reasonably feasible. For "Yes/No" answers, please provide details and/or supporting documentation, as appropriate, on attached sheets.

3. Who is the current owner of property? What year was the property purchased?

John B. Howard, Craig Ritts

4. Do you know the identity of any previous owners? What years did they own the property?

N/A Matulich Family Farms "

5. Please describe current use(s) of property:

Rental

6. Please describe any other known past use(s) of property, and approximate dates of each use:

N/A Farming until approx 1980
Vacant land except for single family home Rental

7. Please provide copies of any available documents you think may be useful to us, such as asbestos or lead paint surveys, building plans, site boundary and topography or ALTA surveys, etc.

8. Are there any businesses using any portion of the property which are operated by an entity other than the property owner (including a tenant farming operation)? If yes, please provide a contact name and phone number for each. ☐ Yes ☒ No

9. To the best of your knowledge has the property ever been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility? ☐ Yes ☒ No

10. To the best of your knowledge has any **adjoining** property been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility? ☐ Yes ☒ No

11. Do you have any knowledge of environmental liens or governmental notification relating to past or recurrent violations of environmental laws with respect to the property or any facility located on the property? ☐ Yes ☒ No

12. Do you have any knowledge of the past or current existence of hazardous substances or petroleum products or environmental violations with respect to the property or any facility located on the property? ☒ Yes ☐ No 3
GAS ~~READS~~ STATION ACROSS THE STREET HAD TANK LEAK GAS SUCH BEEN REMEDIATED

13. Are you aware of any spills, leaks, or other releases of chemicals on the property? If so, please describe the chemicals and quantities released, any cleanup measures taken, and the results of any soil or groundwater samples performed to detect the presence of chemicals spilled, leaked, or released on the property. ☐ Yes ☒ No 3

14. Are there any wastewaters generated and/or disposed of on the property, other than stormwater runoff and domestic sewage? Please describe. (*Please attach copies of any wastewater discharge permits or licenses pertaining to operations on the property.*) ☐ Yes ☒ No

15. Are there any other types of liquid wastes and solid wastes generated at the property? Please describe how they are handled and disposed of. (*Please attach copies of any waste disposal permits or licenses pertaining to operations on the property.*) ☐ Yes ☒ No

16. Are the any activities on the property which generate air pollutants, including fuel burning equipment? Please describe. (*Please attach copies of any air permits or licenses pertaining to operations on the property.*) ☐ Yes ☒ No

17. Are there currently any structures on the property? ☒ Yes ☐ No

18. To the best of your knowledge, have there been any structures on the property in the past which have since been removed? ☒ Yes ☐ No 4

If the answer to question 17 and/or 18 is "yes," please provide the following:

For each building, please describe type and use of building, type of heating/cooling system, date of original construction, date of any substantial renovations. For removed buildings, include year of removal.

2 SFR's AGE & SYSTEMS unknown ; ~ 1980's ; 1 - CITY BLDG WITH CONSENT AND (1) BUILT ACCIDENTALLY

19. Are there currently, or to the best of your knowledge have there been previously, any flooring, drains, or walls located within the facility that are stained by substances other than water or are emitting foul odors? ☐ Yes ☑ No

20. Are there any electrical transformers or capacitors on the property which are known to contain PCBs (Polychlorinated biphenyls), or which may have been manufactured before 1980 and whose PCB content is unknown? ☐ Yes ☑ No

21. Water is provided to the property by:
☐ A well ☑ Public water system ☐ N/A

22. Waste water disposal is provided to the property by:
☐ Public sewer system ☑ On-site septic system ☐ Pond(s)
☐ Other ☐ N/A

23. Are there currently, or to the best of your knowledge have there been previously, any registered or unregistered gasoline, diesel, fuel oil or other chemical storage tanks (above or underground) located on the property? ☐ Yes ☑ No

24. Are any pesticides, paints, or other chemicals stored or used on the property in drums, sacks or other containers greater than 5 gallons each or 50 gallons in the aggregate? ☐ Yes ☑ No

If the answer to question 23 and/or 24 is "yes," please provide the following:
For each tank, please list substance stored and tank capacity. Have the tanks been inspected or tested for leakage? When was the most recent test? What were the results? (Please attach copies of results if available). For other storage containers, please describe the substances, quantities stored, and types of containers. Please attach copies of any permits or licenses pertaining to the use, storage, handling, or disposal of chemicals on the property.

25. Is the property currently used for any industrial purpose? ☐ Yes ☑ No

26. Has the property ever been previous used for an industrial purpose (other than the current use)? ☐ Yes ☑ No

If the answer to question 25 and/or 26 is "yes," please provide the following:
If any of questions 1-4 are answered "yes," please provide a description, including the location of all disposal sites, treatment facilities and storage areas, the type of chemicals or wastes handled at each site, the results of any soil or groundwater samples taken in the vicinity of each site, and the manner in which each site not presently in use was closed.

27. Is the property currently used for agricultural purposes, other that grazing or pasture land? ☐ Yes ☑ No

28. To the best of your knowledge, has the property been used in the past for agricultural purposes, other that grazing or pasture land? ☐ Yes ☑ No

If the answer to question 27 and/or 17 is "yes," please provide the following:

Please describe the locations where pesticides, herbicides or chemicals were applied to the property, and the type of pesticides, herbicides or chemicals applied in each area. (Please attach copies of pesticide use reports if available.)

Please describe the locations where pesticides, herbicides or chemicals were mixed, formulated rinsed, or disposed, and the type of pesticides, herbicides or chemicals mixed, formulated, rinsed or disposed of at each location.

29. Please describe any other relevant historical information in your possession concerning the subject property.

Completed by:

Signed _____ Date 6/1/10

SVLG
SILICON VALLEY LAW GROUP
A LAW CORPORATION

Jeffrey S. Lawson jsl@svlg.com

June 2, 2004

Via U.S. Mail

J.B. Howard
J.B. Howard Investments
4 San Benito Street
Hollister CA 95023

Re: 1480 San Juan Road, Hollister, CA
Well Destruction Report

Dear J.B.:

I recently reviewed the May 18, 2004 Well Destruction Report from Toxichem. It appears that all the wells on your property have been successfully and properly destroyed. Please inspect your property to determine whether there was any damage caused by the contractors. If there was, we should make a claim promptly. If I do not hear from you, then I will assume that there was no noticeable damage. The Victory Gas and Food, Inc. property will now be seeking closure before the Regional Water Quality Control Board. At this point I see no reason for us to interfere in that process.

I will keep you informed as matters progress. Please call me if you have any questions or concerns.

Very truly yours,
Silicon Valley Law Group

JEFFREY S. LAWSON

JSL/lt

California Regional Water Quality Control Board

Central Coast Region

Terry Tamminen
Secretary for Environmental Protection

Internet Address: http://www.swrcb.ca.gov
895 Aerovista Place, Suite 101, San Luis Obispo, California 93401-7906
Phone (805) 549-3147 • FAX (805) 543-0397

Arnold Schwarzenegger
Governor

May 28, 2004

Ms. Maria Eiro
Victory Gas and Food Corporation
287 Vega Road
Watsonville, CA 95076

Dear Ms. Eiro:

UGT: 1615 SAN JUAN ROAD, HOLLISTER, VICTORY GAS AND FOOD CORPORATION; CASE CLOSURE TRANSMITTAL (RWQCB CASE NO. 3319)

Regional Board staff have reviewed Toxichem Management System, Inc.'s May 18, 2004, *Well Destruction Summary* report and previously submitted *Case Closure Summary* form for the subject site. Thank you for submitting this information. The requirements for case closure have been met. This case is now closed as certified by the enclosed Case Closure letter.

This concludes the Regional Board's regulatory oversight for the investigation and cleanup of the former release. This letter does not relieve you of other agency's requirements, which may continue to have jurisdiction or require further work. As with any real property, additional or previously identified contamination at the site may require additional investigation and cleanup.

Thank you for your diligence in addressing water quality issues at the subject site and your continued commitment to the protection of water quality in the Central Coast Region. If you have any question regarding this matter, please call **Burton Chadwick at (805) 542-4786.**

Sincerely,

Roger W. Briggs
Executive Officer

S:\UST\Regulated Sites\San Benito Co\1516 San Juan Hollister Victory\case closure transm 0504.doc

Enclosures: Case Closure letter
Case Closure Summary form

cc: see page 2
(w/ Case Closure letter)

TOXICHEM Management Systems, Inc.
Environmental & Occupational Health Services
343 Soquel Avenue, #180
Santa Cruz, California 95062
(831) 423-7673 / Fax (831) 401-2332

COPY

Industrial Hygiene - Exposure Assessment
Quantitative Risk Assessment
Compliance Audits
Real Property Environmental Assessments
Remedial Investigations
Air, Soil, and Groundwater Sampling
Remedial Engineering and Construction
Regulatory Compliance and Negotiation
Litigation Support Services

May 18, 2004
Project UST-04.6A

Mr. Burton Chadwick
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD,
CENTRAL COAST REGION
895 Aerovista Place, Suite 101
San Luis Obispo, California 93401

Re: **Well Destruction Summary**
Victory Gas and Food, Inc.
1615 San Juan Road, Hollister, California

Dear Mr. Chadwick:

On behalf of Victory Gas and Food, Inc., this letter prepared by Toxichem Management Systems, Inc. (TOXICHEM) summarizes the well destruction activities recently performed in association with the site referenced above (see Figure 1, Site Vicinity Map and Figure 2, Site Plan). The work was performed in response to the RWQCB's letter dated October 23, 2003, regarding case closure.

One abandoned irrigation supply well on the Howard property, located across San Juan Road from the subject site to the north, was destroyed. One dual-phase extraction well, one vapor extraction well and three groundwater monitoring wells, located on the subject site were also destroyed. Additionally, eight groundwater monitoring wells located on the Howard property were destroyed.

Abandoned Irrigation Supply Well

The abandoned irrigation supply well on the Howard property (1480 San Juan Road) was 12 inches in diameter, with a steel casing (see Figure 3, Study Area Plan). No other construction details were known prior to the destruction.

The well was destroyed on April 6 and 7, 2004. Maggiora Bros. Drilling, Inc., a C-57-licensed drilling contractor, destroyed the well under San Benito County Environmental Health Services (SBCEHS) permit number WP 03-166. A copy of the permit is included in Appendix A.

A drill rig utilizing the mud rotary method was used to drill out the soil debris inside the casing. Initially, a 12-inch-diameter drill bit was used until an obstruction was encountered at a depth of approximately 15 feet. A 8-inch-diameter drill bit was then used for the remainder of the operation. The bottom of the well was encountered at approximately 125 feet. After drilling out the soil debris in the casing, the well was then sealed to the surface with 10-sack sand slurry introduced with a tremie pipe.

A copy of the DWR Well Completion Report completed for the destruction is included in Appendix B.

Dual-Phase Extraction, Vapor Extraction and Groundwater Monitoring Wells

The dual-phase extraction well (DE-1), the vapor extraction well (VE-1) and the three groundwater monitoring wells (MW-1, MW-2A and MW-2B), located on the subject site were destroyed on April 6, 2004 (see Figure 2). Additionally, eight groundwater monitoring wells (MW-3A, MW-3B, MW-4A, MW-4B, MW-5A, MW-5B, MW-6A and MW-6B) located on the Howard property were destroyed the same date (see Figure 3). Table 1 summarizes the well construction details.

The wells were destroyed by Exploration Geoservices, Inc., a C-57-licensed drilling contractor, under permits issued by the SBCDEH. The permit numbers are WP 04-032 through WP 04-044. Copies of the permits are included in Appendix A.

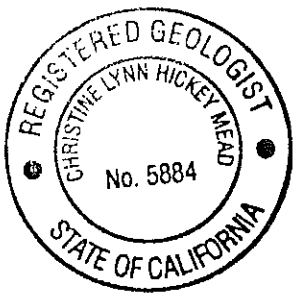
The wells were all destroyed by pressure grouting with neat cement. It was calculated a minimum of 310 gallons of grout was necessary to seal the casings and filter packs of all wells. A total of approximately 430 gallons of grout was used to pressure-grout the wells.

Copies of the DWR Well Completion Reports completed for the destructions are included in Appendix B.

Now that the wells have been destroyed, TOXICHEM recommends that the RWQCB formally close this case. If you have any questions, please contact me at your convenience in the Monterey Bay office at (831) 423-7673.

Sincerely,

Toxichem Management Systems, Inc.



Christine L.H. Mead, RG 5884
Senior Geologist

Attachments: Figure 1 - Site Vicinity Map
Figure 2 - Site Plan
Figure 3 - Study Area Plan
Appendix A - SBCDEH Well Destruction Permits
Appendix B - DWR Water Well Completion Reports

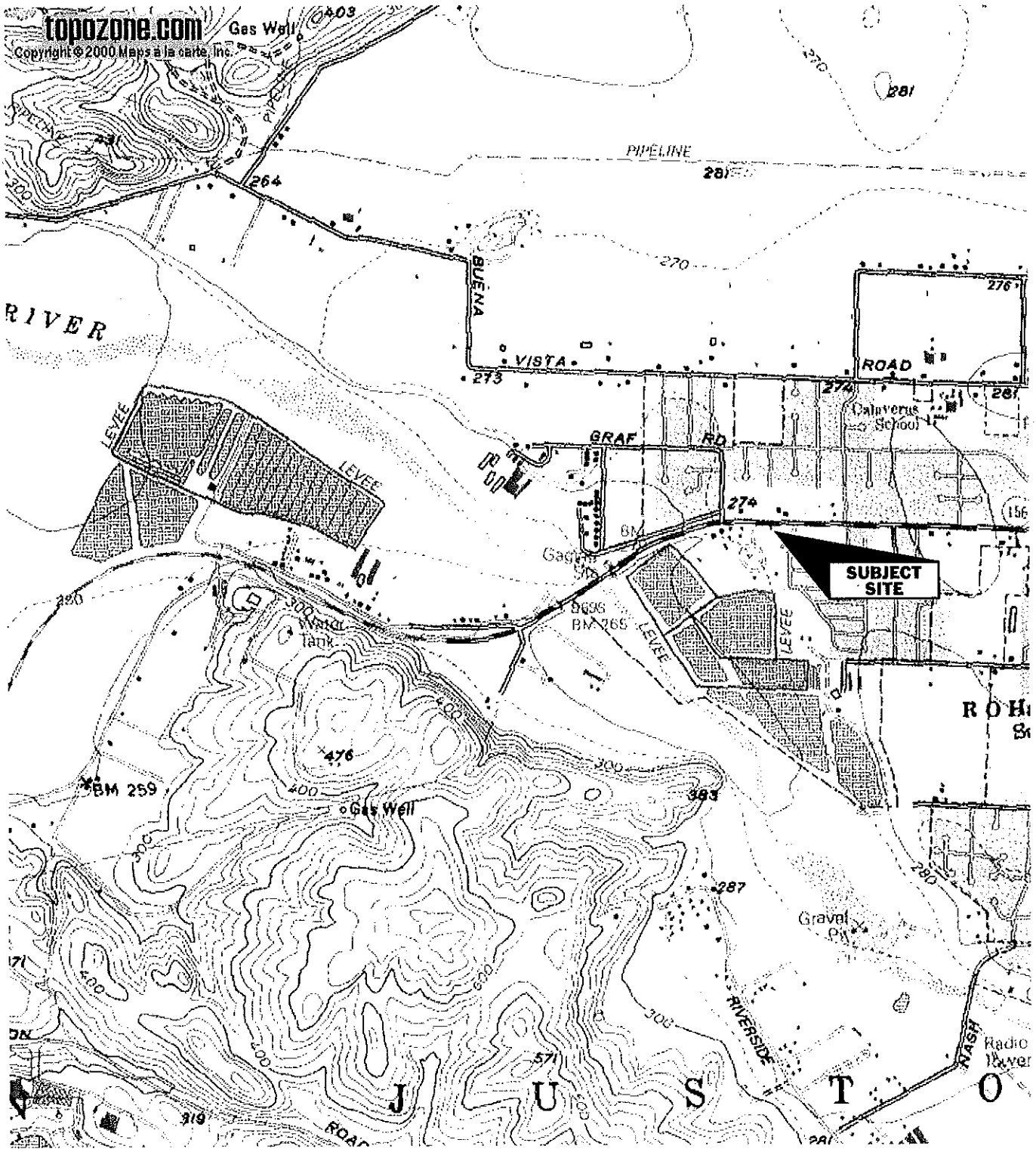
cc: Mrs. Maria Eíro, Victory Gas and Food, Inc., 287 Vega Road, Watsonville, CA 95076
Captain Michael O'Connor, Hollister Fire Department, 110 Fifth St., Hollister, CA 95023
Mr. Harry Wiggins, 35 Secondo Way, Watsonville, CA 95076
Mr. Warren Woo, 4790 Geary Blvd., San Francisco, CA 94118
Mr. Jeff Lawson, Silicon Valley Law Group, 152 N. Third St., Ste 900, San Jose, CA 95112
Mr. J.B. Howard, John B. Howard Trust, PO Box 371, Carmel Valley, CA 93924

Table 1
Construction Details of Wells Destroyed April 2004

Victory Gas
1615 San Juan Road, Hollister, California

Well No.	Diameter (inches)	Total Depth (feet, bgs)	Screened Interval (feet, bgs)
DE-1	4	40	15 - 40
VE-1	2	15	5 - 15
MW-1	2	40	20 - 40
MW-2A	2	40	20 - 40
MW-2B	2	59	54 - 59
MW-3A	2	40	20 - 40
MW-3B	2	55	50 - 55
MW-4A	4	40	20 - 40
MW-4B	2	48.5	43.5 - 48.5
MW-5A	2	40	20 - 40
MW-5B	2	50	45 - 50
MW-6A	2	40	20 - 40
MW-6B	2	47	42 - 47

bgs = Below ground surface



PREPARED BY

TOXICHEM Management Systems, Inc.

Environmental & Occupational Health Services

Victory Gas and Food

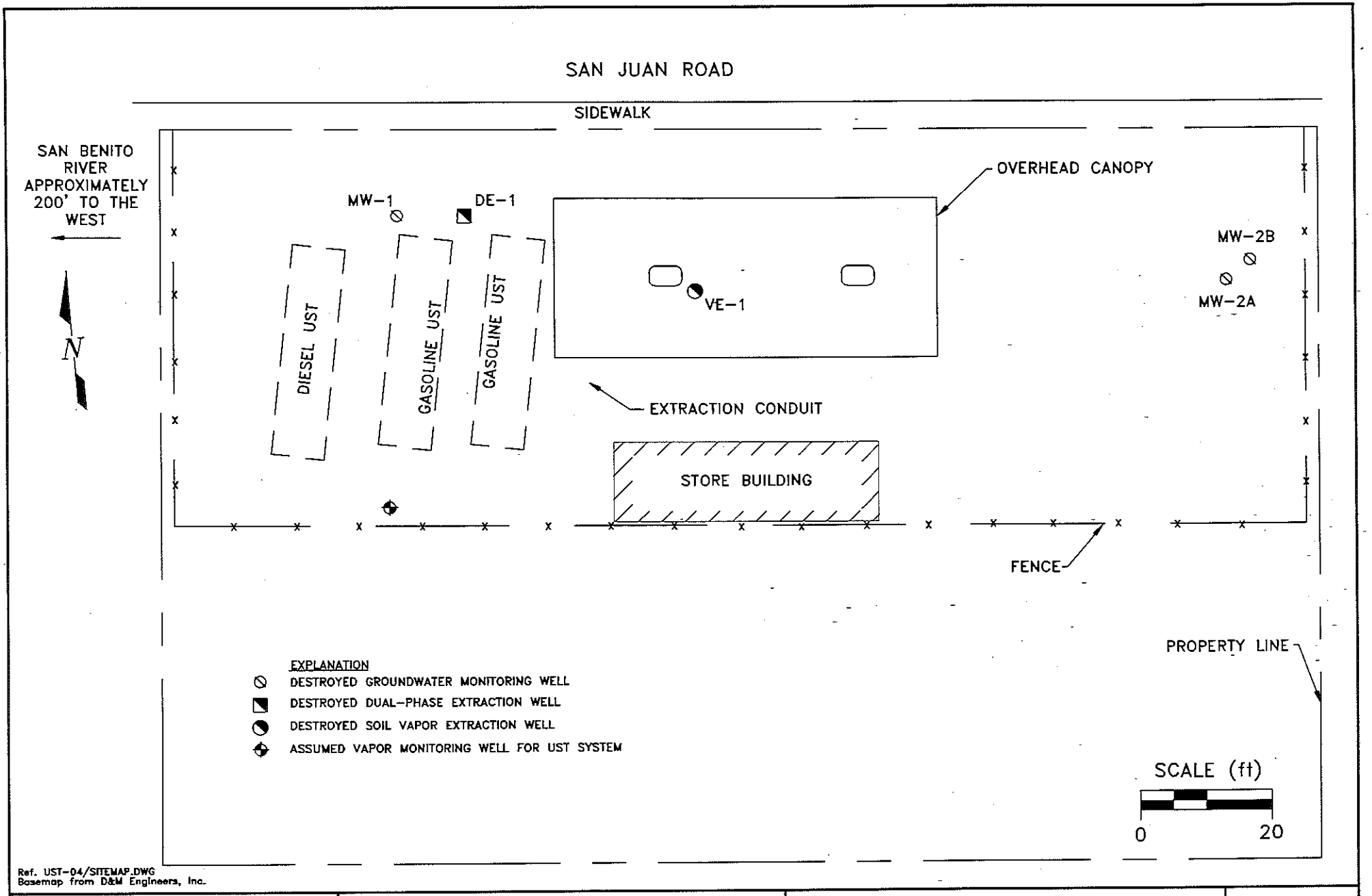
1615 San Juan Road

Hollister, California

SITE VICINITY MAP

FIGURE: 1

PROJECT: UST-04



Ref. UST-04/SITEMAP.DWG
Basemap from D&M Engineers, Inc.

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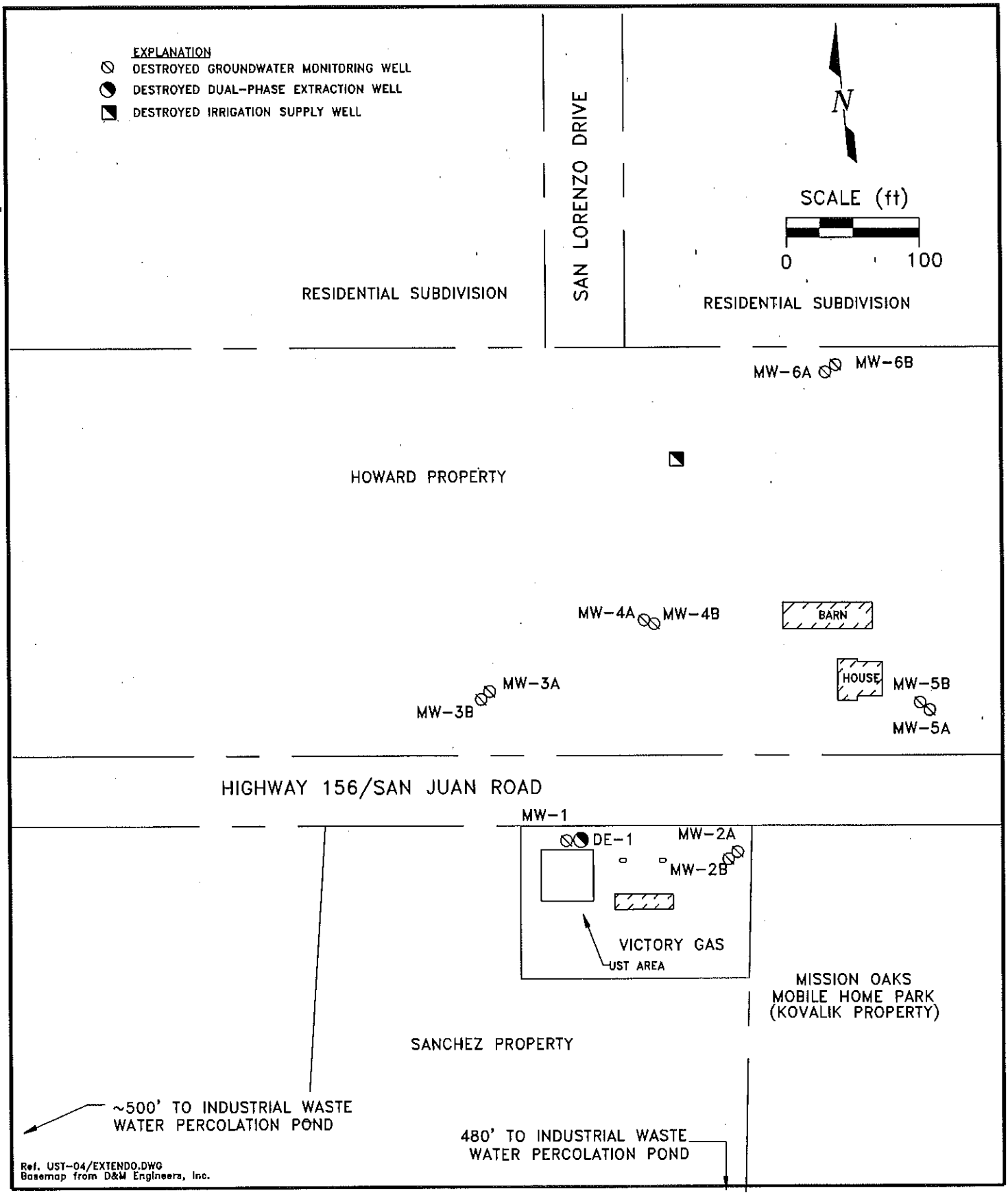
TOXICHEM Management Systems, Inc.
Environmental & Occupational Health Services

Victory Gas and Food
1615 San Juan Road
Hollister, California

SITE PLAN

FIGURE: 2
PROJECT: UST-04



PREPARED BY

TOXICHEM Management Systems, Inc.
Environmental & Occupational Health Services

Victory Gas and Food Corporation
1615 San Juan Road
Hollister, California

STUDY AREA PLAN

FIGURE: 3

PROJECT: UST-04

Appendix A
SBCDEH Well Destruction Permits

ELIZABETH FALADE, M.D., M.P.H.
HEALTH OFFICER

MARILYN COPPOLA
DIRECTOR

SAN BENITO COUNTY

HEALTH & HUMAN SERVICES AGENCY

☐ 439 FOURTH STREET
HOLLISTER, CALIFORNIA 95023

☒ 1111 SAN FELIPE ROAD, SUITE 101
HOLLISTER, CALIFORNIA 95023

☐ 1111 SAN FELIPE ROAD, SUITE 102
HOLLISTER, CALIFORNIA 95023

WATER WELL PERMIT

WP 03-166 Permit Number	
1480 San Juan Road Site Location	052-090-0-043 Assesor's Parcel Number
J.B. Howard Owner	 Phone Number
P.O. Box 371 Address	Carmel Valley, CA 93924 City, State, Zip
Maggiora Bros. Drilling Drilling Contractor	249957 License Number
2001 Shelton Drive Address	Hollister, CA 95023 City, State, Zip
CONDITIONS:	
November 24, 2003 Date Issued	November 23, 2004 Date Expired
Ray Stevenson Issued by:	

DATE: INITIALS: COMMENTS:

SEAL INSPECTION:

PUBLIC
HEALTH SERVICES
831-637-5367
FAX 831-637-9073

ENVIRONMENTAL
HEALTH SERVICES
831-636-4035
FAX 831-636-4037

HEALTH EDUCATION
PROGRAMS
831-636-4011
FAX 831-636-4037

ELIZABETH FALADE, M.D., M.P.H.
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HOLLISTER, CALIFORNIA 95023

☐ 1111 SAN FELIPE ROAD, SUITE 102
HOLLISTER, CALIFORNIA 95023

WATER WELL PERMIT

WP 04-033 DE-1 Permit Number	
1615 San Juan Road Site Location	052-09-0-09 Assesor's Parcel Number
Maria Eiro Owner	728-3530 Phone Number
287 Vega Road Address	Watsonville, CA 95076 City, State, Zip
Exploration Geoservices Drilling Contractor	484288 License Number
1535 Industrial Ave. Address	San Jose,CA 95112 City, State, Zip
CONDITIONS:	
March 12, 2004 Date Issued	March 11, 2005 Date Expired
Robert Shingai Issued by:	

DATE: INITIALS: COMMENTS:

SEAL INSPECTION:

PUBLIC
HEALTH SERVICES
831-637-5367
FAX 831-637-9073

ENVIRONMENTAL
HEALTH SERVICES
831-636-4035
FAX 831-636-4037

HEALTH EDUCATION
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HOLLISTER, CALIFORNIA 95023

☐ 1111 SAN FELIPE ROAD, SUITE 102
HOLLISTER, CALIFORNIA 95023

WATER WELL PERMIT

WP 04-034 VE-1	
Permit Number	
1615 San Juan Road	052-09-0-09
Site Location	Assesor's Parcel Number
Maria Eiro	728-3530
Owner	Phone Number
287 Vega Road	Watsonville, CA 95076
Address	City, State, Zip
Exploration Geoservices	484288
Drilling Contractor	License Number
1535 Industrial Ave.	San Jose,CA 95112
Address	City, State, Zip
CONDITIONS:	
March 12, 2004	March 11, 2005
Date Issued	Date Expired
Robert Shingai	
Issued by:	

DATE: INITIALS: COMMENTS:

SEAL INSPECTION:

ELIZABETH FALADE, M.D., M.P.H.
HEALTH OFFICER

MARILYN COPPOLA
DIRECTOR

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HOLLISTER, CALIFORNIA 95023

☐ 1111 SAN FELIPE ROAD, SUITE 102
HOLLISTER, CALIFORNIA 95023

WATER WELL PERMIT

WP 04-032 MW-1 Permit Number	
1615 San Juan Road Site Location	052-09-0-09 Assesor's Parcel Number
Maria Eiro Owner	728-3530 Phone Number
287 Vega Road Address	Watsonville, CA 95076 City, State, Zip
Exploration Geoservices Drilling Contractor	484288 License Number
1535 Industrial Ave. Address	San Jose,CA 95112 City, State, Zip
CONDITIONS:	
March 12, 2004 Date Issued	March 11, 2005 Date Expired
Robert Shingai Issued by:	

	DATE:	INITIALS:	COMMENTS:
SEAL INSPECTION:			

PUBLIC
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HOLLISTER, CALIFORNIA 95023

WATER WELL PERMIT

WP 04-036 MW-2A Permit Number	
1615 San Juan Road Site Location	052-09-0-09 Assesor's Parcel Number
Maria Eiro Owner	728-3530 Phone Number
287 Vega Road Address	Watsonville, CA 95076 City, State, Zip
Exploration Geoservices Drilling Contractor	484288 License Number
1535 Industrial Ave. Address	San Jose,CA 95112 City, State, Zip
CONDITIONS:	
March 12, 2004 Date Issued	March 11, 2005 Date Expired
Robert Shingai Issued by:	

DATE: INITIALS: COMMENTS:

SEAL INSPECTION:

ELIZABETH FALADE, M.D., M.P.H.
HEALTH OFFICER

MARILYN COPPOLA
DIRECTOR

SAN BENITO COUNTY

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HOLLISTER, CALIFORNIA 95023

☐ 1111 SAN FELIPE ROAD, SUITE 102
HOLLISTER, CALIFORNIA 95023

WATER WELL PERMIT

WP 04-035 MW-2B Permit Number	
1615 San Juan Road Site Location	052-09-0-09 Assesor's Parcel Number
Maria Eiro Owner	728-3530 Phone Number
287 Vega Road Address	Watsonville, CA 95076 City, State, Zip
Exploration Geoservices Drilling Contractor	484288 License Number
1535 Industrial Ave. Address	San Jose,CA 95112 City, State, Zip
CONDITIONS:	
March 12, 2004 Date Issued	March 11, 2005 Date Expired
Robert Shingai Issued by:	

	DATE:	INITIALS:	COMMENTS:
SEAL INSPECTION:			

ELIZABETH FALADE, M.D., M.P.H.
HEALTH OFFICER

MARILYN COPPOLA
DIRECTOR

SAN BENITO COUNTY

HEALTH & HUMAN SERVICES AGENCY

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HOLLISTER, CALIFORNIA 95023

☑ 1111 SAN FELIPE ROAD, SUITE 104
HOLLISTER, CALIFORNIA 95023

☐ 1111 SAN FELIPE ROAD, SUITE 102
HOLLISTER, CALIFORNIA 95023

WATER WELL PERMIT

WP 04-041 MW-3A Permit Number	
1480 San Juan Road Site Location	052-09-0-043 Assesor's Parcel Number
J.B. Howard Trust Owner	637-0001 Phone Number
P.O. Box 371 Address	Carmel Valley, CA 93924 City, State, Zip
Exploration Geoservices Drilling Contractor	484288 License Number
1535 Industrial Ave. Address	San Jose,CA 95112 City, State, Zip
CONDITIONS:	
March 12, 2004 Date Issued	March 11, 2005 Date Expired
Robert Shingai Issued by:	

DATE: INITIALS: COMMENTS:

SEAL INSPECTION:

PUBLIC
HEALTH SERVICES
831-637-5367
FAX 831-637-9073

ENVIRONMENTAL
HEALTH SERVICES
831-636-4035
FAX 831-636-4037

HEALTH EDUCATION
PROGRAMS
831-636-4011
FAX 831-636-4037

ELIZABETH FALADE, M.D., M.P.H.
HEALTH OFFICER

MARILYN COPPOLA
DIRECTOR

SAN BENITO COUNTY

HEALTH & HUMAN SERVICES AGENCY

☐ 439 FOURTH STREET
HOLLISTER, CALIFORNIA 95023

☑ 1111 SAN FELIPE ROAD, SUITE 101
HOLLISTER, CALIFORNIA 95023

☐ 1111 SAN FELIPE ROAD, SUITE 102
HOLLISTER, CALIFORNIA 95023

WATER WELL PERMIT

WP 04-042 MW-3B Permit Number	
1480 San Juan Road Site Location	052-09-0-043 Assesor's Parcel Number
J.B. Howard Trust Owner	637-0001 Phone Number
P.O. Box 371 Address	Carmel Valley, CA 93924 City, State, Zip
Exploration Geoservices Drilling Contractor	484288 License Number
1535 Industrial Ave. Address	San Jose,CA 95112 City, State, Zip
CONDITIONS:	
March 12, 2004 Date Issued	March 11, 2005 Date Expired
Robert Shingai Issued by:	

DATE: INITIALS: COMMENTS:

SEAL INSPECTION:

PUBLIC
HEALTH SERVICES
831-637-5367
FAX 831-637-9073

ENVIRONMENTAL
HEALTH SERVICES
831-636-4035
FAX 831-636-4037

HEALTH EDUCATION
PROGRAMS
831-636-4011
FAX 831-636-4037

ELIZABETH FALADE, M.D., M.P.H.
HEALTH OFFICER

MARILYN COPPOLA
DIRECTOR

SAN BENITO COUNTY

HEALTH & HUMAN SERVICES AGENCY

☐ 439 FOURTH STREET
HOLLISTER, CALIFORNIA 95023

☑ 1111 SAN FELIPE ROAD, SUITE 101
HOLLISTER, CALIFORNIA 95023

☐ 1111 SAN FELIPE ROAD, SUITE 102
HOLLISTER, CALIFORNIA 95023

WATER WELL PERMIT

WP 04-039 MW-4A Permit Number	
1480 San Juan Road Site Location	052-09-0-043 Assesor's Parcel Number
J.B. Howard Trust Owner	637-0001 Phone Number
P.O. Box 371 Address	Carmel Valley, CA 93924 City, State, Zip
Exploration Geoservices Drilling Contractor	484288 License Number
1535 Industrial Ave. Address	San Jose,CA 95112 City, State, Zip
CONDITIONS:	
March 12, 2004 Date Issued	March 11, 2005 Date Expired
Robert Shingai Issued by:	

DATE: INITIALS: COMMENTS:

SEAL INSPECTION:

PUBLIC
HEALTH SERVICES
831-637-5367
FAX 831-637-9073

ENVIRONMENTAL
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831-636-4035
FAX 831-636-4037

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PROGRAMS
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HEALTH OFFICER

MARILYN COPPOLA
DIRECTOR

SAN BENITO COUNTY

HEALTH & HUMAN SERVICES AGENCY

☐ 439 FOURTH STREET
HOLLISTER, CALIFORNIA 95023

☑ 1111 SAN FELIPE ROAD, SUITE 101
HOLLISTER, CALIFORNIA 95023

☐ 1111 SAN FELIPE ROAD, SUITE 102
HOLLISTER, CALIFORNIA 95023

WATER WELL PERMIT

WP 04-040 MW-4B Permit Number	
1480 San Juan Road Site Location	052-09-0-043 Assesor's Parcel Number
J.B. Howard Trust Owner	637-0001 Phone Number
P.O. Box 371 Address	Carmel Valley, CA 93924 City, State, Zip
Exploration Geoservices Drilling Contractor	484288 License Number
1535 Industrial Ave. Address	San Jose,CA 95112 City, State, Zip
CONDITIONS:	
March 12, 2004 Date Issued	March 11, 2005 Date Expired
Robert Shingai Issued by:	

DATE: INITIALS: COMMENTS:

SEAL INSPECTION:

PUBLIC
HEALTH SERVICES
831-637-5367
FAX 831-637-9073

ENVIRONMENTAL
HEALTH SERVICES
831-636-4035
FAX 831-636-4037

HEALTH EDUCATION
PROGRAMS
831-636-4011
FAX 831-636-4037

ELIZABETH FALADE, M.D., M.P.H.
HEALTH OFFICER

MARILYN COPPOLA
DIRECTOR

SAN BENITO COUNTY

HEALTH & HUMAN SERVICES AGENCY

☐ 439 FOURTH STREET
HOLLISTER, CALIFORNIA 95023

☑ 1111 SAN FELIPE ROAD, SUITE 101
HOLLISTER, CALIFORNIA 95023

☐ 1111 SAN FELIPE ROAD, SUITE 102
HOLLISTER, CALIFORNIA 95023

WATER WELL PERMIT

WP 04-044 MW-5A Permit Number	
1480 San Juan Road Site Location	052-09-0-043 Assesor's Parcel Number
J.B. Howard Trust Owner	637-0001 Phone Number
P.O. Box 371 Address	Carmel Valley, CA 93924 City, State, Zip
Exploration Geoservices Drilling Contractor	484288 License Number
1535 Industrial Ave. Address	San Jose,CA 95112 City, State, Zip
CONDITIONS:	
March 12, 2004 Date Issued	March 11, 2005 Date Expired
Robert Shingai Issued by:	

DATE: **INITIALS:** **COMMENTS:**

SEAL INSPECTION:

ELIZABETH FALADE, M.D., M.P.H.
HEALTH OFFICER

MARILYN COPPOLA
DIRECTOR

SAN BENITO COUNTY

HEALTH & HUMAN SERVICES AGENCY

☐ 439 FOURTH STREET
HOLLISTER, CALIFORNIA 95023

☑ 1111 SAN FELIPE ROAD, SUITE 101
HOLLISTER, CALIFORNIA 95023

☐ 1111 SAN FELIPE ROAD, SUITE 102
HOLLISTER, CALIFORNIA 95023

WATER WELL PERMIT

WP 04-043 MW-5B Permit Number	
1480 San Juan Road Site Location	052-09-0-043 Assesor's Parcel Number
J.B. Howard Trust Owner	637-0001 Phone Number
P.O. Box 371 Address	Carmel Valley, CA 93924 City, State, Zip
Exploration Geoservices Drilling Contractor	484288 License Number
1535 Industrial Ave. Address	San Jose,CA 95112 City, State, Zip
CONDITIONS:	
March 12, 2004 Date Issued	March 11, 2005 Date Expired
Robert Shingai Issued by:	

DATE: INITIALS: COMMENTS:

SEAL INSPECTION:

PUBLIC
HEALTH SERVICES
831-637-5367
FAX 831-637-9073

ENVIRONMENTAL
HEALTH SERVICES
831-636-4035
FAX 831-636-4037

HEALTH EDUCATION
PROGRAMS
831-636-4011
FAX 831-636-4037

ELIZABETH FALADE, M.D., M.P.H.
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MARILYN COPPOLA
DIRECTOR

SAN BENITO COUNTY

HEALTH & HUMAN SERVICES AGENCY

☐ 439 FOURTH STREET
HOLLISTER, CALIFORNIA 95023

☑ 1111 SAN FELIPE ROAD, SUITE 101
HOLLISTER, CALIFORNIA 95023

☐ 1111 SAN FELIPE ROAD, SUITE 102
HOLLISTER, CALIFORNIA 95023

WATER WELL PERMIT

WP 04-037 MW-6A Permit Number	
1480 San Juan Road Site Location	052-09-0-043 Assesor's Parcel Number
J.B. Howard Trust Owner	637-0001 Phone Number
P.O. Box 371 Address	Carmel Valley, CA 93924 City, State, Zip
Exploration Geoservices Drilling Contractor	484288 License Number
1535 Industrial Ave. Address	San Jose,CA 95112 City, State, Zip
CONDITIONS:	
March 12, 2004 Date Issued	March 11, 2005 Date Expired
Robert Shingai Issued by:	

	DATE:	INITIALS:	COMMENTS:
SEAL INSPECTION:			

PUBLIC
HEALTH SERVICES
831-637-5367
FAX 831-637-9073

ENVIRONMENTAL
HEALTH SERVICES
831-636-4035
FAX 831-636-4037

HEALTH EDUCATION
PROGRAMS
831-636-4011
FAX 831-636-4037

ELIZABETH FALADE, M.D., M.P.H.
HEALTH OFFICER

MARILYN COPPOLA
DIRECTOR

SAN BENITO COUNTY

HEALTH & HUMAN SERVICES AGENCY

☐ 439 FOURTH STREET
HOLLISTER, CALIFORNIA 95023

☒ 1111 SAN FELIPE ROAD, SUITE 101
HOLLISTER, CALIFORNIA 95023

☐ 1111 SAN FELIPE ROAD, SUITE 102
HOLLISTER, CALIFORNIA 95023

WATER WELL PERMIT

WP 04-038 MW-6B Permit Number	
1480 San Juan Road Site Location	052-09-0-043 Assesor's Parcel Number
J.B. Howard Trust Owner	637-0001 Phone Number
P.O. Box 371 Address	Carmel Valley, CA 93924 City, State, Zip
Exploration Geoservices Drilling Contractor	484288 License Number
1535 Industrial Ave. Address	San Jose,CA 95112 City, State, Zip
CONDITIONS:	
March 12, 2004 Date Issued	March 11, 2005 Date Expired
Robert Shingai Issued by:	

DATE: INITIALS: COMMENTS:

SEAL INSPECTION:

PUBLIC
HEALTH SERVICES
831-637-5367
FAX 831-637-9073

ENVIRONMENTAL
HEALTH SERVICES
831-636-4035
FAX 831-636-4037

HEALTH EDUCATION
PROGRAMS
831-636-4011
FAX 831-636-4037

Appendix B
DWR Well Completion Reports

ORIGINAL
File with DWR

Page 1 of 1

Owner's Well No. [redacted] NA

Date Work Began 4/6/04 Ended 4/8/04

Local Permit Agency San Benito County

Permit No. WP-09-166 Permit Date 11/24/03

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet
No. 0912224

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD Mud Rotary FLUID water

DEPTH FROM SURFACE Ft. to Ft. — DESCRIPTION *Describe material, grain size, color, etc.*

Drilled To 125' bgs
Through Bottom of
existing Well.
Backfill with
Grout

TOTAL DEPTH OF BORING — (Feet)
TOTAL DEPTH OF COMPLETED WELL — (Feet)

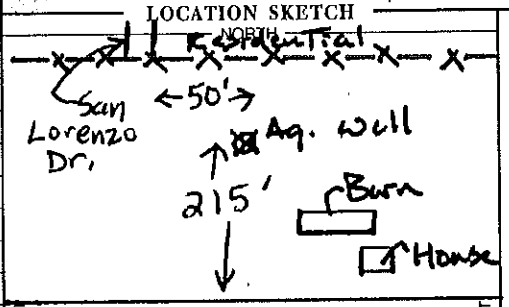
WELL OWNER

Name J.B. Howard Trust
Mailing Address P.O. Box 371
City Carmel Valley State CA ZIP 93924

WELL LOCATION

Address 1480 San Juan Road
City Hollister
County San Benito County
APN Book 052 Page 09 Parcel [redacted]0-043
Township ___ Range ___ Section ___
Lat ___ DEG. ___ MIN. ___ SEC. N
Long ___ DEG. ___ MIN. ___ SEC. W

LOCATION SKETCH



Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
✓ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

USES (✓)

WATER SUPPLY
___ Domestic ___ Public
✓ Irrigation ___ Industrial
MONITORING ___
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER — (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL — (Ft.) & DATE MEASURED —
ESTIMATED YIELD * — (GPM) & TEST TYPE —
TEST LENGTH — (Hrs.) TOTAL DRAWDOWN — (Ft.)
** May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE Ft. to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
						steel	12		

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft. to Ft.	TYPE: CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
✓ Other Site Plan

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Maggiora Bros. Drilling, Inc. (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
595 Airport Blvd ADDRESS Watsonville CITY CA STATE 95076 ZIP
Signed [signature] C-57 LICENSED WATER WELL CONTRACTOR
5/14/04 DATE SIGNED
249957 C-57 LICENSE NUMBER

ORIGINAL
File with DWR

Page 1 of 1

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No. 0912222

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Owner's Well No. DE-1
Date Work Began 4/6/04 Ended 4/6/04
Local Permit Agency San Benito County
Permit No. WP 04-033 Permit Date 3/12/04

GEOLOGIC LOG

ORIENTATION (✓) ___ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE Ft. to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
	Pressure Grout

TOTAL DEPTH OF BORING 40 (Feet)
TOTAL DEPTH OF COMPLETED WELL 40 (Feet)

WELL OWNER

Name Maria Eiro
Mailing Address 287 Vega Road
City Watsonville State CA ZIP 95076

WELL LOCATION

Address 1615 San Juan Road
City Hollister
County San Benito
APN Book 052 Page 09 Parcel 009
Township ___ Range ___ Section ___
Lat 36° 85308853 N (DEG. MIN. SEC.) Long 121° 42407808 W (DEG. MIN. SEC.)

LOCATION SKETCH

NORTH
San Juan Road
DE-1
WEST
1615
EAST
SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
X DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

USES (✓)

WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial
___ MONITORING
___ TEST WELL
___ CATHODIC PROTECTION
___ HEAT EXCHANGE
___ DIRECT PUSH
___ INJECTION
___ VAPOR EXTRACTION
___ SPARGING
___ REMEDIATION
___ OTHER (SPECIFY)

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___
ESTIMATED YIELD * ___ (GPM) & TEST TYPE ___
TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
* *May not be representative of a well's long-term yield.*

DEPTH FROM SURFACE Ft. to Ft.	BORE-HOLE DIA. (Inches)	CASING (S) TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

DEPTH FROM SURFACE Ft. to Ft.	ANNULAR MATERIAL TYPE CE-MENT (✓)	BEN-TONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
✓ Other Site Plan

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Exploration Geoservices, Inc.
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
ADDRESS 1535 Industrial Ave CITY San Jose STATE CA ZIP 95112
Signed for EGI
C-57 LICENSED WATER WELL CONTRACTOR
DATE SIGNED 5/11/04
C-57 LICENSE NUMBER 484288

ORIGINAL
File with DWR

Page 1 of 1

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet
No. 0912235

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Owner's Well No. VE-1
Date Work Began 4/6/04 Ended 4/6/04
Local Permit Agency San Benito County
Permit No. WP 04-034 Permit Date 3/12/04

GEOLOGIC LOG

ORIENTATION (✓) ___ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE Ft. to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
	Pressure Grout

TOTAL DEPTH OF BORING 15 (Feet)
TOTAL DEPTH OF COMPLETED WELL 15 (Feet)

WELL OWNER
Name Maria Ciro
Mailing Address 287 Vega Road
City Watsonville State CA Zip 95076

WELL LOCATION
Address 1615 San Juan Road
City Hollister
County San Benito
APN Book 052 Page 09 Parcel 0 09
Township ___ Range ___ Section ___
Lat ___ N DEG. MIN. SEC. Long ___ W DEG. MIN. SEC.

LOCATION SKETCH
NORTH
San Juan Road
WEST
VE-1
1615
EAST
SOUTH
Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)
___ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
X DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

USES (✓)
WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial
___ MONITORING
___ TEST WELL
___ CATHODIC PROTECTION
___ HEAT EXCHANGE
___ DIRECT PUSH
___ INJECTION
X VAPOR EXTRACTION
___ SPARGING
___ REMEDIATION
___ OTHER (SPECIFY)

WATER LEVEL & YIELD OF COMPLETED WELL
DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___
ESTIMATED YIELD * ___ (GPM) & TEST TYPE ___
TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
** May not be representative of a well's long-term yield.*

DEPTH FROM SURFACE Ft. to Ft.	BORE-HOLE DIA. (Inches)	CASING (S) TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

DEPTH FROM SURFACE Ft. to Ft.	ANNULAR MATERIAL TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)

ATTACHMENTS (✓)
___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
✓ Other Site Plan
ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT
I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.
NAME Exploration Geoservices, Inc.
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
ADDRESS 1535 Industrial Ave CITY San Jose STATE CA ZIP 95112
Signed [signature] for EGI 5/11/04
C-57 LICENSED WATER WELL CONTRACTOR DATE SIGNED
C-57 LICENSE NUMBER 484288

DWR 188 REV. 05-03 IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM OSP 03 78836

ORIGINAL
File with DWR

Page 1 of 1

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet
No. 0912234

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Owner's Well No. MW-1
Date Work Began 4/6/04, Ended 4/6/04
Local Permit Agency San Benito County
Permit No. WP-04-032 Permit Date 3/12/04

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE Ft. to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
	Pressure Grout

TOTAL DEPTH OF BORING 40 (Feet)
TOTAL DEPTH OF COMPLETED WELL 40 (Feet)

WELL OWNER
Name Maria Eiro
Mailing Address 287 Vega Road
City Watsonville State CA ZIP 95076

WELL LOCATION
Address 1615 San Juan Road
City Hollister
County San Benito County
APN Book 052 Page 09 Parcel 0 09
Township ___ Range ___ Section ___
Lat 36° 85309 5945 N (DEG. MIN. SEC.) Long 121° 42 41 10 980 W (DEG. MIN. SEC.)

LOCATION SKETCH
NORTH
San Juan Road
MW-1
WEST EAST
1615
SOUTH
Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)
___ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
✓ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

USES (✓)
WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial
MONITORING ✓
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL
DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___
ESTIMATED YIELD * ___ (GPM) & TEST TYPE ___
TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
** May not be representative of a well's long-term yield.*

DEPTH FROM SURFACE Ft. to Ft.	BORE-HOLE DIA. (Inches)	CASING (S) TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

DEPTH FROM SURFACE Ft. to Ft.	ANNULAR MATERIAL TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)

ATTACHMENTS (✓)
___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
✓ Other Site Plan
ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT
I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.
NAME Exploration Geoservices, Inc. (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
ADDRESS 1535 Industrial Ave CITY San Jose STATE CA ZIP 95112
Signed [signature] for EGI C-57 LICENSED WATER WELL CONTRACTOR
DATE SIGNED 5/11/04
C-57 LICENSE NUMBER 484288

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

OSP 03 7883

ORIGINAL
File with DWR

Page 1 of 1

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No. 0912233

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Owner's Well No. MW-2A
Date Work Began 4/6/04 Ended 4/6/04
Local Permit Agency San Benito County
Permit No. WP-04-036 Permit Date 3/12/04

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE Ft. to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
	Pressure Grout

TOTAL DEPTH OF BORING 40 (Feet) 40
TOTAL DEPTH OF COMPLETED WELL ___ (Feet)

WELL OWNER

Name Maria Elro
Mailing Address 287 Vega Road
City Watsonville State CA ZIP 95076

WELL LOCATION

Address 1615 San Juan Road
City Hollister
County San Benito
APN Book 052 Page 09 Parcel 0 09
Township ___ Range ___ Section ___
Lat 36° 85300 5956 (DEG. MIN. SEC.) Long 121° 42367 9495 W (DEG. MIN. SEC.)

LOCATION SKETCH

NORTH
San Juan Road
WEST
EAST
2A
1615
SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
✓ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

USES (✓)

WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial
MONITORING ✓
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___
ESTIMATED YIELD * ___ (GPM) & TEST TYPE ___
TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
** May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE Ft. to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft. to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
✓ Other Site Plan

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Exploration Geoservices, Inc. (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
ADDRESS 1535 Industrial Ave CITY San Jose STATE CA ZIP 95112
Signed for EGI (C-57 LICENSED WATER WELL CONTRACTOR) DATE SIGNED 5/11/04
C-57 LICENSE NUMBER 484288

DWR 188 REV. 05-03 IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM OSP 03 78838

ORIGINAL
File with DWR

Page 1 of 1

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No. 0912232

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Owner's Well No. MW-2B
Date Work Began 4/6/04 Ended 4/6/04
Local Permit Agency San Benito County
Permit No. WP 04-035 Permit Date 3/12/04

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE Ft. to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
	Pressure Grout

TOTAL DEPTH OF BORING 59 (Feet) 59
TOTAL DEPTH OF COMPLETED WELL ___ (Feet)

WELL OWNER

Name Maria Eiro
Mailing Address 287 Vega Road
City Watsonville State CA Zip 95076

WELL LOCATION

Address 1615 San Juan Road
City Hollister
County San Benito
APN Book 052 Page 09 Parcel 009
Township ___ Range ___ Section ___
Lat 36° 53' 06.1955" N (DEG. MIN. SEC.) Long 121° 42' 36.9408" W (DEG. MIN. SEC.)

LOCATION SKETCH

NORTH
San Juan Road
MW-2B
WEST
EAST
1615
SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
✓ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

USES (✓)

WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial
MONITORING ✓
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___
ESTIMATED YIELD * ___ (GPM) & TEST TYPE ___
TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
** May not be representative of a well's long-term yield.*

DEPTH FROM SURFACE Ft. to Ft.	BORE-HOLE DIA. (Inches)	CASING (S) TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

DEPTH FROM SURFACE Ft. to Ft.	ANNULAR MATERIAL TYPE CE-MENT (✓)	BEN-TONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
✓ Other Site Plan

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Exploration Geoservices, Inc. (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
ADDRESS 1535 Industrial Ave CITY San Jose STATE CA ZIP 95112
Signed [signature] for EGI C-57 LICENSED WATER WELL CONTRACTOR
DATE SIGNED 5/11/04
C-57 LICENSE NUMBER 484288

OSP 02 78926

ORIGINAL
File with DWR

Page 1 of 1

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No. 0912231

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Owner's Well No. MW-3A
Date Work Began 4/6/04 Ended 4/6/04
Local Permit Agency San Benito County
Permit No. WP 04 041 Permit Date 3/12/04

GEOLOGIC LOG

ORIENTATION (✓) ___ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE Ft. to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
	Pressure Grout

TOTAL DEPTH OF BORING 40 (Feet) 40
TOTAL DEPTH OF COMPLETED WELL ___ (Feet)

WELL OWNER

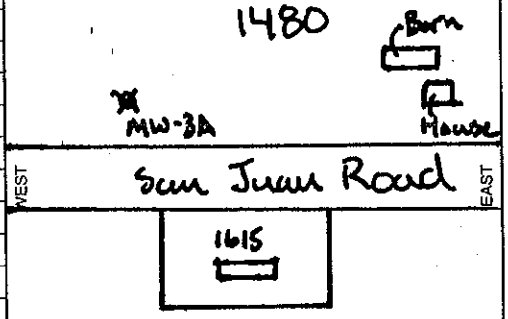
Name ~~Mel & Eva~~ J. Howard Trust
Mailing Address ~~281 Vega Road~~ P.O. Box 371
City ~~Watsonville~~ Carmel Valley State CA Zip 93924

WELL LOCATION

Address 1480 San Juan Road
City Hollister
County San Benito
APN Book 052 Page 09 Parcel 0 043
Township ___ Range ___ Section ___
Lat 36° 53' 42.530" N (DEG. MIN. SEC.) Long 121° 42' 29.725" W (DEG. MIN. SEC.)

LOCATION SKETCH

NORTH



SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
✓ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

USES (✓)
WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial
MONITORING ✓
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___
ESTIMATED YIELD * ___ (GPM) & TEST TYPE ___
TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
* *May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE Ft. to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft. to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
✓ Other Site Plan

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Exploration Geoservices, Inc. (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
ADDRESS 1535 Industrial Ave CITY San Jose STATE CA ZIP 95112
Signed [signature] for EGI C-57 LICENSED WATER WELL CONTRACTOR
DATE SIGNED 5/11/04
C-57 LICENSE NUMBER 484288

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

OSP 03 7883

ORIGINAL
File with DWR

Page 1 of 1

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No. 0912230

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Owner's Well No. MW-3B
Date Work Began 4/6/04, Ended 4/6/04
Local Permit Agency San Benito County
Permit No. WP 04-042 Permit Date 3/12/04

GEOLOGIC LOG

ORIENTATION (✓) ___ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE Ft. to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
	Pressure Grout

CONFIDENTIAL

TOTAL DEPTH OF BORING 55 (Feet) 55
TOTAL DEPTH OF COMPLETED WELL ___ (Feet)

WELL OWNER

Name J.B. Howard Trust
Mailing Address P.O. Box 371
City Carmel Valley State CA ZIP 93924

WELL LOCATION

Address 1480 San Juan Road
City Hollister
County San Benito
APN Book 052 Page 09 Parcel 0-043
Township ___ Range ___ Section ___
Lat 36.853411588 N (DEG. MIN. SEC.) Long 121.424300693 W (DEG. MIN. SEC.)

LOCATION SKETCH

NORTH
1480
Barn
MW-3B
House
San Juan Road
WEST EAST
1615
SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
✓ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

USES (✓)
WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial
MONITORING ✓
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___
ESTIMATED YIELD * ___ (GPM) & TEST TYPE ___
TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
** May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE Ft. to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft. to Ft.	TYPE: CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
✓ Other Site Plan

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Exploration Geoservices Inc. (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
ADDRESS 1535 Industrial Ave CITY San Jose STATE CA ZIP 95112
Signed Anderson for EGI C-57 LICENSED WATER WELL CONTRACTOR
DATE SIGNED 5/11/04
C-57 LICENSE NUMBER 484288

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

ORIGINAL
File with DWR

Page 1 of 1

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No. 0912229

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Owner's Well No. MW-4A
Date Work Began 4/6/04 Ended 4/6/04
Local Permit Agency San Benito County
Permit No. WP-04-039 Permit Date 3/12/04

GEOLOGIC LOG

ORIENTATION (✓) ___ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE Ft. to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
	Pressure Grout

TOTAL DEPTH OF BORING 40 (Feet 40)
TOTAL DEPTH OF COMPLETED WELL ___ (Feet)

WELL OWNER

Name J.B. Howard Trust
Mailing Address P.O. Box 371
City Carmel Valley State CA ZIP 93924

WELL LOCATION

Address 1480 San Juan Road
City Hollister
County San Benito
APN Book 052 Page 09 Parcel 0-043
Township ___ Range ___ Section ___
Lat 36.85354899° N (DEG. MIN. SEC.) Long 121.42387317 W (DEG. MIN. SEC.)

LOCATION SKETCH

NORTH
1480
Barn
MW-4A
House
WEST
EAST
1615
SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
✓ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

USES (✓)

WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial
MONITORING ✓
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___
ESTIMATED YIELD * ___ (GPM) & TEST TYPE ___
TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
** May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE Ft. to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft. to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
✓ Other Site plan

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Exploration Geoservices Inc (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
ADDRESS 1535 Industrial Ave CITY San Jose STATE CA ZIP 95112
Signed [signature] for EGI (C-57 LICENSED WATER WELL CONTRACTOR)
DATE SIGNED 5/11/04
C-57 LICENSE NUMBER 484288

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

OSP 03 7883E

ORIGINAL
File with DWR

Page 1 of 1

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No. 0912228

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Owner's Well No. MW-4B
Date Work Began 4/6/04, Ended 4/6/04
Local Permit Agency San Benito County
Permit No. WP 04-040 Permit Date 3/12/04

GEOLOGIC LOG

ORIENTATION (✓) ___ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE Ft. to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
	Pressure Grout

TOTAL DEPTH OF BORING 48.5 (Feet)
TOTAL DEPTH OF COMPLETED WELL 48.5 (Feet)

WELL OWNER

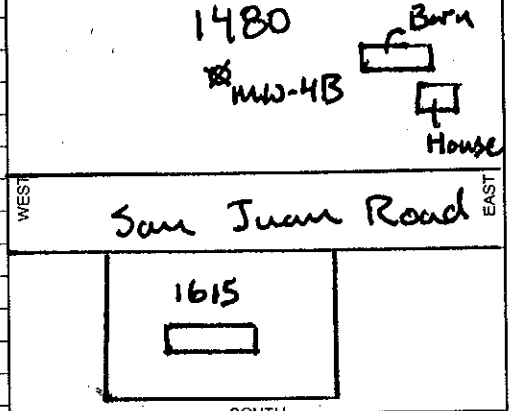
Name J.B. Howard Trust
Mailing Address P.O. Box 371
City Carmel Valley State CA ZIP 93924

WELL LOCATION

Address 1480 San Juan Road
City Hollister
County San Benito
APN Book 052 Page 09 Parcel 0-043
Township ___ Range ___ Section ___
Lat 36° 85' 35" N (DEG. MIN. SEC.) Long 121° 42' 38" W (DEG. MIN. SEC.)

LOCATION SKETCH

NORTH



Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
✓ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

USES (✓)

WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial
MONITORING ✓
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER — (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL — (Ft.) & DATE MEASURED —
ESTIMATED YIELD * — (GPM) & TEST TYPE —
TEST LENGTH — (Hrs.) TOTAL DRAWDOWN — (Ft.)
** May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE Ft. to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft. to Ft.	TYPE: CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)

ATTACHMENTS (✓)

✓ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
✓ Other Site Plan

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Exploration Geoservices, Inc.
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)

ADDRESS 1535 Industrial Ave CITY San Jose STATE CA ZIP 95112

Signed [signature] for EGI
C-57 LICENSED WATER WELL CONTRACTOR

DATE SIGNED 5/11/04

C-57 LICENSE NUMBER 484288

OSP 03 78836

ORIGINAL
File with DWR

Page 1 of 1

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No. 0912227

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Owner's Well No. MW-5A
Date Work Began 4/6/04 Ended 4/6/04
Local Permit Agency San Benito County
Permit No. WP-04-044 Permit Date 3/12/04

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE Ft. to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
	Pressure Grout

TOTAL DEPTH OF BORING 40 (Feet) 40
TOTAL DEPTH OF COMPLETED WELL ___ (Feet)

WELL OWNER

Name J.B. Howard Trust
Mailing Address P.O. Box 371
City Carmel Valley State CA Zip 93924

WELL LOCATION

Address 1480 San Juan Road
City Hollister
County San Benito
APN Book 052 Page 09 Parcel 0-043
Township ___ Range ___ Section ___
Lat 36° 85' 33" 7055 N (DEG. MIN. SEC.) Long 121° 42' 31" 9845 W (DEG. MIN. SEC.)

LOCATION SKETCH

NORTH
1480
Barn
House
MW-5A
San Juan Road
WEST
EAST
1615
SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
✓ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

USES (✓)

WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial
MONITORING ✓
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___
ESTIMATED YIELD * ___ (GPM) & TEST TYPE ___
TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
* *May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE Ft. to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft. to Ft.	TYPE CE-MENT (✓)	BEN-TONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
✓ Other Site Plan

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Exploration Geoservices Inc. (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
ADDRESS 1535 Industrial Ave CITY San Jose STATE CA ZIP 95112
Signed for EGI C-57 LICENSED WATER WELL CONTRACTOR
DATE SIGNED 5/11/04
C-57 LICENSE NUMBER 484288

OSP 03 78836

ORIGINAL
File with DWR

Page 1 of 1

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No. 0912226

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Owner's Well No. MW-5B
Date Work Began 4/6/04 Ended 4/6/04
Local Permit Agency San Benito County
Permit No. WP-04-043 Permit Date 3/12/04

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE Ft. to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
	Pressure Grout

TOTAL DEPTH OF BORING 50 (Feet) 50
TOTAL DEPTH OF COMPLETED WELL ___ (Feet)

WELL OWNER

Name J.B. Howard Trust
Mailing Address P.O. Box 371
City Carmel Valley State CA ZIP 93924

WELL LOCATION

Address 1480 San Juan Road
City Hollister
County San Benito
APN Book 052 Page 09 Parcel 043
Township ___ Range ___ Section ___
Lat 36°85337°0164" N (DEG. MIN. SEC.) Long 121°42320°5368" W (DEG. MIN. SEC.)

LOCATION SKETCH

NORTH
Barn
MW-5B
1480
House
WEST San Juan Road EAST
1615
SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
✓ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

USES (✓)

WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial
MONITORING ✓
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___
ESTIMATED YIELD * ___ (GPM) & TEST TYPE ___
TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
** May not be representative of a well's long-term yield.*

DEPTH FROM SURFACE Ft. to Ft.	BORE-HOLE DIA. (Inches)	CASING (S) TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

DEPTH FROM SURFACE Ft. to Ft.	ANNULAR MATERIAL TYPE CE-MENT (✓)	BEN-TONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
✓ Other Site Plan

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Exploration Geoservices, Inc.
(PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
ADDRESS 1535 Industrial Ave CITY San Jose STATE CA ZIP 95112
Signed Owen for EGI DATE SIGNED 5/11/04
C-57 LICENSED WATER WELL CONTRACTOR C-57 LICENSE NUMBER 484288

OSP 03 78836

ORIGINAL
File with DWR

Page 1 of 1

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No. 0912225

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Owner's Well No. MW-6A
Date Work Began 4/6/04 Ended 4/6/04
Local Permit Agency San Benito County
Permit No. WP-04-037 Permit Date 3/12/04

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE Ft. to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
	Pressure Grout

TOTAL DEPTH OF BORING 40 (Feet) 40
TOTAL DEPTH OF COMPLETED WELL — (Feet)

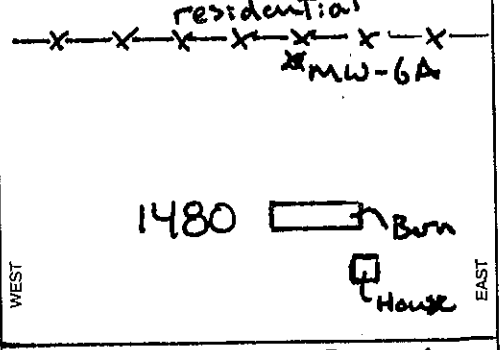
WELL OWNER

Name J.B. Howard Trust
Mailing Address P.O. Box 371
City Carmel Valley State CA ZIP 93924

WELL LOCATION

Address 1480 San Juan Road
City Hollister
County San Benito County
APN Book 052 Page 09 Parcel 0-043
Township — Range — Section —
Lat 36.85405831° N (DEG. MIN. SEC.) Long 121.42336429° W (DEG. MIN. SEC.)

LOCATION SKETCH



Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
✓ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

USES (✓)
WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial
MONITORING ✓
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER — (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL — (Ft.) & DATE MEASURED —
ESTIMATED YIELD * — (GPM) & TEST TYPE —
TEST LENGTH — (Hrs.) TOTAL DRAWDOWN — (Ft.)
** May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE Ft. to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CON-DUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft. to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
✓ Other Site Plan

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Exploration Geoservices Inc. (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
ADDRESS 1535 Industrial Ave CITY San Jose STATE CA ZIP 95112
Signed [signature] for EGI (C-57 LICENSED WATER WELL CONTRACTOR) DATE SIGNED 5/11/04
C-57 LICENSE NUMBER 484288

ORIGINAL
File with DWR

Page 1 of 1

STATE OF CALIFORNIA
WELL COMPLETION REPORT
Refer to Instruction Pamphlet

No. 0912223

DWR USE ONLY — DO NOT FILL IN
STATE WELL NO./STATION NO.
LATITUDE LONGITUDE
APN/TRS/OTHER

Owner's Well No. MW-6B
Date Work Began 4/6/04 Ended 4/6/04
Local Permit Agency San Benito County
Permit No. WP.04.038 Permit Date 3/12/04

GEOLOGIC LOG

ORIENTATION (✓) ✓ VERTICAL ___ HORIZONTAL ___ ANGLE ___ (SPECIFY)
DRILLING METHOD ___ FLUID ___

DEPTH FROM SURFACE Ft. to Ft.	DESCRIPTION *Describe material, grain size, color, etc.*
	Pressure Grout

TOTAL DEPTH OF BORING 47 (Feet) 47
TOTAL DEPTH OF COMPLETED WELL ___ (Feet)

WELL OWNER

Name J. B. Howard Trust
Mailing Address P.O. Box 371
City Carmel Valley State CA Zip 93924

WELL LOCATION

Address 1480 San Juan Road
City Hollister
County San Benito
APN Book 052 Page 09 Parcel 0.043
Township ___ Range ___ Section ___
Lat 36.85406531° N (DEG. MIN. SEC.) Long 121.42335575° W (DEG. MIN. SEC.)

LOCATION SKETCH

NORTH
residential
MW-6B
Barn
House
WEST
EAST
San Juan Road
SOUTH

Illustrate or Describe Distance of Well from Roads, Buildings, Fences, Rivers, etc. and attach a map. Use additional paper if necessary. PLEASE BE ACCURATE & COMPLETE.

ACTIVITY (✓)

___ NEW WELL
MODIFICATION/REPAIR
___ Deepen
___ Other (Specify)
✓ DESTROY *(Describe Procedures and Materials Under "GEOLOGIC LOG")*

USES (✓)

WATER SUPPLY
___ Domestic ___ Public
___ Irrigation ___ Industrial
MONITORING ✓
TEST WELL ___
CATHODIC PROTECTION ___
HEAT EXCHANGE ___
DIRECT PUSH ___
INJECTION ___
VAPOR EXTRACTION ___
SPARGING ___
REMEDIATION ___
OTHER (SPECIFY) ___

WATER LEVEL & YIELD OF COMPLETED WELL

DEPTH TO FIRST WATER ___ (Ft.) BELOW SURFACE
DEPTH OF STATIC WATER LEVEL ___ (Ft.) & DATE MEASURED ___
ESTIMATED YIELD * ___ (GPM) & TEST TYPE ___
TEST LENGTH ___ (Hrs.) TOTAL DRAWDOWN ___ (Ft.)
** May not be representative of a well's long-term yield.*

CASING (S)

DEPTH FROM SURFACE Ft. to Ft.	BORE-HOLE DIA. (Inches)	TYPE (✓) BLANK	SCREEN	CONDUCTOR	FILL PIPE	MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
0 42	8	✓				PVC	2	Sch 40	
42 47	8		✓			PVC	2	Sch 40	.020

ANNULAR MATERIAL

DEPTH FROM SURFACE Ft. to Ft.	TYPE CEMENT (✓)	BENTONITE (✓)	FILL (✓)	FILTER PACK (TYPE/SIZE)

ATTACHMENTS (✓)

___ Geologic Log
___ Well Construction Diagram
___ Geophysical Log(s)
___ Soil/Water Chemical Analyses
✓ Other Site Plan

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Exploration Geoservices, Inc. (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
ADDRESS 1535 Industrial Ave CITY San Jose STATE CA ZIP 95112
Signed [signature] for EGI C-57 LICENSED WATER WELL CONTRACTOR
DATE SIGNED 5/11/04
C-57 LICENSE NUMBER 484288

OSP 02 78821

TOXICHEM
Management Systems, Inc.
Environmental & Occupational Health Services
343 Soquel Avenue #180, Santa Cruz, CA 95062
(831) 423-7673 / (831) 401-2332 FAX

COPY

Transmittal

Date: Wednesday, November 27, 2002

Project: Victory Gas and Food, 1615 San Juan Road, Hollister, UST-04.1A

To: Maria Eíro
287 Vega Road
Watsonville, CA 95076

We have enclosed:

Copies	Description
4	Groundwater Investigation Report and Corrective Action Plan

For your:

☒ Use ☐ Approval ☐ Review ☐ Information

Comments:

cc: Burton Chadwick, RWQCB, 81 Higuera St., Ste 200, San Luis Obispo, CA 93401-5427
Michael O'Connor, City of Hollister Fire Department, 110 Fifth Street, Hollister, CA 95023
Harry Wiggins, 35 Secondo Way, Watsonville, CA 95076
Warren Woo, 4790 Geary Blvd., San Francisco, CA 94118
Jeffrey Lawson, Silicon Valley Law Group, 152 N. Third St., Ste 900, San Jose, CA 95112
J.B. Howard, John B. Howard Trust, Post Office Box 371, Carmel Valley, CA 93924

Christine Mead

Burton C.

California Regional Water Quality Control Board

Central Coast Region

Terry Tamminen
Secretary for Environmental Protection

Internet Address: http://www.swrcb.ca.gov
895 Aerovista Place, Suite 101, San Luis Obispo, California 93401-7906
Phone (805) 549-3147 • FAX (805) 543-0397

Arnold Schwarzenegger
Governor

May 28, 2004

Ms. Maria Eiro
Victory Gas and Food Corporation
287 Vega Road
Watsonville, CA 95076

Dear Ms. Eiro:

UGT: 1615 SAN JUAN ROAD, HOLLISTER, VICTORY GAS AND FOOD CORPORATION; CASE CLOSURE TRANSMITTAL (RWQCB CASE NO. 3319)

Regional Board staff have reviewed Toxichem Management System, Inc.'s May 18, 2004, *Well Destruction Summary* report and previously submitted *Case Closure Summary* form for the subject site. Thank you for submitting this information. The requirements for case closure have been met. This case is now closed as certified by the enclosed Case Closure letter.

This concludes the Regional Board's regulatory oversight for the investigation and cleanup of the former release. This letter does not relieve you of other agency's requirements, which may continue to have jurisdiction or require further work. As with any real property, additional or previously identified contamination at the site may require additional investigation and cleanup.

Thank you for your diligence in addressing water quality issues at the subject site and your continued commitment to the protection of water quality in the Central Coast Region. If you have any question regarding this matter, please call **Burton Chadwick at (805) 542-4786.**

Sincerely,

Roger W. Briggs
Executive Officer

S:\UST\Regulated Sites\San Benito Co\1516 San Juan Hollister Victory\case closure transm 0504.doc

Enclosures: Case Closure letter
Case Closure Summary form

cc: see page 2
(w/ Case Closure letter)

Ms. Christine Mead (w/ Closure Summary)
Toxichem Management Systems, Inc.
343 Soquel Ave, Ste. 180
Santa Cruz, CA 95062

Captain Michael O'Conner
Hollister Fire Department
110 Fifth Street
Hollister, CA 95023

Mr. Harry Wiggins
35 Secondo Way
Watsonville, CA 95076

Mr. Warren Woo
4790 Geary Blvd.
San Francisco, CA 94118

Mr. Jeff Lawson
Silicon Valley Law Group
152 N. Third St., Ste. 900
San Jose, CA 95112

Mr. J. B. Howard
John B. Howard Trust
P.O. Box 371
Carmel Valley, CA 93924

Mr. Virender Goswami
350 Sansome St., Ste. 1060
San Francisco, CA 94104

Mr. Michael Pekin
West Gateway, Inc.
270 Joe's Lane
Hollister, CA 95023

Mr. Mark Matranga
UST Cleanup Fund
P.O. Box 944212
Sacramento, CA
94244-2120

Ms. Nancy Callsen
UST Cleanup Fund
P.O. Box 944212
Sacramento, CA 94244-2120

California Regional Water Quality Control Board
Central Coast Region

Terry Tamminen
Secretary for Environmental Protection

Internet Address: http://www.swrcb.ca.gov
895 Aerovista Place, Suite 101, San Luis Obispo, California 93401-7906
Phone (805) 549-3147 • FAX (805) 543-0397

Arnold Schwarzenegger
Governor

May 28, 2004

Ms. Maria Eiro
Victory Gas and Food Corporation
287 Vega Road
Watsonville, CA 95076

Dear Ms. Eiro:

UGT: 1615 SAN JUAN ROAD, HOLLISTER, VICTORY GAS AND FOOD CORPORATION; CASE CLOSURE (RWQCB CASE NO. 3319)

This letter confirms the completion of site investigation and remedial action for the underground storage tanks located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the underground storage tanks are greatly appreciated.

Based on the information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, this agency finds that the site investigation and corrective action carried out at your underground storage tanks site is in compliance with the requirements of subdivisions (a) and (b) of Section 25296.10 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.3 of the Health and Safety Code and that no further action related to the petroleum release at the site is required.

This notice is issued pursuant to subdivision (g) of Section 25296.10 of the Health and Safety Code.

If you have any question regarding this matter, please call **Burton Chadwick at (805) 542-4786.**

Sincerely,

Roger W. Briggs
Executive Officer

S:\UST\Regulated Sites\San Benito Co\1516 San Juan Hollister Victory\case closure ltr 0504.doc

CASE CLOSURE SUMMARY

Leaking Underground Fuel Storage Tank Program

I. Agency Information

Agency Name: RWQCB - Central Coast Region	**Address:** 895 Aerovista Place, Suite 101
City/State/Zip: San Luis Obispo, CA 93401	**Phone:** (805) 542-4786
Responsible Staff person: Burton Chadwick, RG, CHG	**Title:** Associate Engineering Geologist

II. Case Information

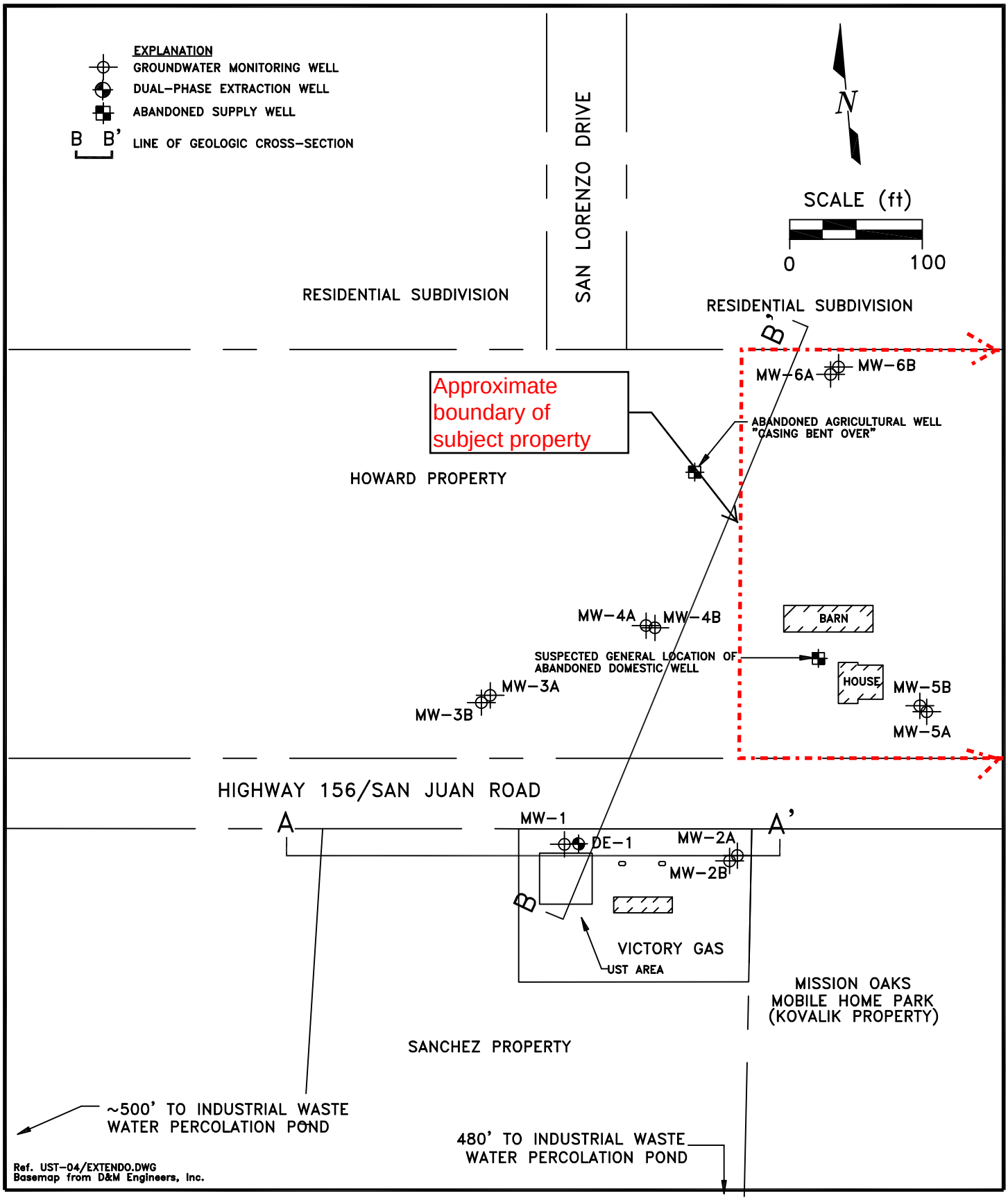
Site Facility Name: Victory Gas and Food, Inc.		**LUSTIS Case #:** 3319
Site Facility Address: 1615 San Juan Road, Hollister, California		
Responsible Parties	**Address**	**Phone Number**
Victory Gas and Food, Inc.	287 Vega Road, Watsonville, CA 95076	831-247-3166

III. Tank Information

Tank #	Size in Gallons	Contents	Closed in Place/Removed	Date
1	unknown	Gasoline	Removed	06/14/99
2	unknown	Gasoline	Removed	06/14/99
3				
4				
5				

IV. Release and Site Characterization Information

Cause and Type of Release: Gasoline release from former USTs and former westernmost dispenser		
Site Characterization Complete? Yes	**Date Approved by Oversight Agency:** 12/12/02	
Monitoring Wells Installed? Yes	**Number:** 12	**Proper Screened interval?** Yes
Highest GW Depth Below Ground Surface: 33.60'	**Lowest:** >50'	**Flow Direction:** Northeast – East
Most Sensitive Current GW Use: Former drinking water		
Are Drinking Water Wells Affected? No	**Aquifer Name:** Unconfined aquifer	
Is Surface Water Affected? No	**Nearest affected SW name:**	
Off-site Beneficial Use Impacts (addresses/locations): None		



PREPARED BY

TOXICHEM Management Systems, Inc.

Environmental & Occupational Health Services

Victory Gas and Food
1615 San Juan Road
Hollister, California

STUDY AREA PLAN

FIGURE: 3

PROJECT: UST-04

STATE WATER RESOURCES CONTROL BOARD
GEOTRACKER

VICTORY GAS & FOOD (T0606900054) - (MAP)

1615 SAN JUAN RD
HOLLISTER, CA 95023
SAN BENITO COUNTY
LUST CLEANUP SITE

CLEANUP OVERSIGHT AGENCIES
CENTRAL COAST RWQCB (REGION 3) *(LEAD)* - *CASE #: 3319*
SAN BENITO COUNTY - *CASE #: 3319*
CUF Claim #: 14789
CUF Priority Assigned: C
CUF Amount Paid: $200,086

Analytical Results - MW-6B - **BACK TO REPORT** DATA TO REPORT Groundwater Data Go

Plot Selected Chemicals | PLOT DEPTH-TO-WATER | LOGARITHMIC PLOT | EXPORT TO EXCEL

PLOT	NAME	DATE	PARAMETER	MATRIX	QUALIFIER	RESULT	UNITS	RL NOTE
☐	MW-6B	8/21/2003	BENZENE	W	ND	0	UG/L	
☐	MW-6B	8/21/2003	TOLUENE	W	ND	0	UG/L	
☐	MW-6B	8/21/2003	DI-ISOPROPYL ETHER (DIPE)	W	ND	0	UG/L	
☐	MW-6B	8/21/2003	ETHYLBENZENE	W	ND	0	UG/L	
☐	MW-6B	8/21/2003	ETHYL TERT-BUTYL ETHER (ETBE)	W	ND	0	UG/L	
☐	MW-6B	8/21/2003	ETHANOL (ETOH)	W	ND	0	UG/L	
☐	MW-6B	8/21/2003	GASOLINE RANGE ORGANICS (C6-C12)	W	ND	0	UG/L	
☐	MW-6B	8/21/2003	METHANOL (MEOH)	W	ND	0	UG/L	
☐	MW-6B	8/21/2003	METHYL-TERT-BUTYL ETHER (MTBE)	W	ND	0	UG/L	
☐	MW-6B	8/21/2003	METHYL-TERT-BUTYL ETHER (MTBE)	W	NR	0	UG/L	
☐	MW-6B	8/21/2003	TERT-AMYL METHYL ETHER (TAME)	W	ND	0	UG/L	
☐	MW-6B	8/21/2003	TERT-BUTYL ALCOHOL (TBA)	W	ND	0	UG/L	
☐	MW-6B	8/21/2003	XYLENES	W	ND	0	UG/L	

Plot Selected Chemicals | PLOT DEPTH-TO-WATER | LOGARITHMIC PLOT | EXPORT TO EXCEL

PLOT	NAME	DATE	PARAMETER	MATRIX	QUALIFIER	RESULT	UNITS	RL NOTE
☐	MW-6B	4/3/2003	BENZENE	W	ND	0	UG/L	
☐	MW-6B	5/14/2003	BENZENE	W	ND	0	UG/L	
☐	MW-6B	8/21/2003	BENZENE	W	ND	0	UG/L	
☐	MW-6B	4/3/2003	TOLUENE	W	ND	0	UG/L	
☐	MW-6B	5/14/2003	TOLUENE	W	ND	0	UG/L	
☐	MW-6B	8/21/2003	TOLUENE	W	ND	0	UG/L	
☐	MW-6B	4/3/2003	DI-ISOPROPYL ETHER (DIPE)	W	ND	0	UG/L	
☐	MW-6B	5/14/2003	DI-ISOPROPYL ETHER (DIPE)	W	ND	0	UG/L	
☐	MW-6B	8/21/2003	DI-ISOPROPYL ETHER (DIPE)	W	ND	0	UG/L	
☐	MW-6B	4/3/2003	ETHYLBENZENE	W	ND	0	UG/L	
☐	MW-6B	5/14/2003	ETHYLBENZENE	W	ND	0	UG/L	
☐	MW-6B	8/21/2003	ETHYLBENZENE	W	ND	0	UG/L	
☐	MW-6B	4/3/2003	ETHYL TERT-BUTYL ETHER (ETBE)	W	ND	0	UG/L	
☐	MW-6B	5/14/2003	ETHYL TERT-BUTYL ETHER (ETBE)	W	ND	0	UG/L	
☐	MW-6B	8/21/2003	ETHYL TERT-BUTYL ETHER (ETBE)	W	ND	0	UG/L	
☐	MW-6B	4/3/2003	ETHANOL (ETOH)	W	ND	0	UG/L	
☐	MW-6B	5/14/2003	ETHANOL (ETOH)	W	ND	0	UG/L	
☐	MW-6B	8/21/2003	ETHANOL (ETOH)	W	ND	0	UG/L	

MW-6B	4/3/2003	GASOLINE RANGE ORGANICS (C6-C12)	W	ND	0	UG/L	
MW-6B	5/14/2003	GASOLINE RANGE ORGANICS (C6-C12)	W	ND	0	UG/L	
MW-6B	8/21/2003	GASOLINE RANGE ORGANICS (C6-C12)	W	ND	0	UG/L	
MW-6B	4/3/2003	METHANOL (MEOH)	W	ND	0	UG/L	
MW-6B	5/14/2003	METHANOL (MEOH)	W	ND	0	UG/L	
MW-6B	8/21/2003	METHANOL (MEOH)	W	ND	0	UG/L	
MW-6B	4/3/2003	METHYL-TERT-BUTYL ETHER (MTBE)	W	ND	0	UG/L	
MW-6B	5/14/2003	METHYL-TERT-BUTYL ETHER (MTBE)	W	ND	0	UG/L	
MW-6B	5/14/2003	METHYL-TERT-BUTYL ETHER (MTBE)	W	NR	0	UG/L	
MW-6B	8/21/2003	METHYL-TERT-BUTYL ETHER (MTBE)	W	ND	0	UG/L	
MW-6B	8/21/2003	METHYL-TERT-BUTYL ETHER (MTBE)	W	NR	0	UG/L	
MW-6B	4/3/2003	TERT-AMYL METHYL ETHER (TAME)	W	ND	0	UG/L	
MW-6B	5/14/2003	TERT-AMYL METHYL ETHER (TAME)	W	ND	0	UG/L	
MW-6B	8/21/2003	TERT-AMYL METHYL ETHER (TAME)	W	ND	0	UG/L	
MW-6B	4/3/2003	TERT-BUTYL ALCOHOL (TBA)	W	ND	0	UG/L	
MW-6B	5/14/2003	TERT-BUTYL ALCOHOL (TBA)	W	ND	0	UG/L	
MW-6B	8/21/2003	TERT-BUTYL ALCOHOL (TBA)	W	ND	0	UG/L	
MW-6B	4/3/2003	XYLENES	W	ND	0	UG/L	
MW-6B	5/14/2003	XYLENES	W	ND	0	UG/L	
MW-6B	8/21/2003	XYLENES	W	ND	0	UG/L	

Plot Selected Chemicals | ☑ PLOT DEPTH-TO-WATER ☐ LOGARITHMIC PLOT | EXPORT TO EXCEL

PLOT	NAME	DATE	PARAMETER	MATRIX	QUALIFIER	RESULT	UNITS	RL NOTE
MW-6B	8/21/2003	BENZENE	W	ND	0	UG/L		
MW-6B	8/21/2003	TOLUENE	W	ND	0	UG/L		
MW-6B	8/21/2003	DI-ISOPROPYL ETHER (DIPE)	W	ND	0	UG/L		
MW-6B	8/21/2003	ETHYLBENZENE	W	ND	0	UG/L		
MW-6B	8/21/2003	ETHYL TERT-BUTYL ETHER (ETBE)	W	ND	0	UG/L		
MW-6B	8/21/2003	ETHANOL (ETOH)	W	ND	0	UG/L		
MW-6B	8/21/2003	GASOLINE RANGE ORGANICS (C6-C12)	W	ND	0	UG/L		
MW-6B	8/21/2003	METHANOL (MEOH)	W	ND	0	UG/L		
MW-6B	8/21/2003	METHYL-TERT-BUTYL ETHER (MTBE)	W	NR	0	UG/L		
MW-6B	8/21/2003	METHYL-TERT-BUTYL ETHER (MTBE)	W	ND	0	UG/L		
MW-6B	8/21/2003	TERT-AMYL METHYL ETHER (TAME)	W	ND	0	UG/L		
MW-6B	8/21/2003	TERT-BUTYL ALCOHOL (TBA)	W	ND	0	UG/L		
MW-6B	8/21/2003	XYLENES	W	ND	0	UG/L		

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STATE WATER RESOURCES CONTROL BOARD
GEOTRACKER

VICTORY GAS & FOOD (T0606900054) - (MAP)

1615 SAN JUAN RD
HOLLISTER, CA 95023
SAN BENITO COUNTY
LUST CLEANUP SITE

CLEANUP OVERSIGHT AGENCIES
CENTRAL COAST RWQCB (REGION 3) *(LEAD)* - *CASE #: 3319*
SAN BENITO COUNTY - *CASE #: 3319*
CUF Claim #: 14789
CUF Priority Assigned: C
CUF Amount Paid: $200,086

Analytical Results - MW-6A - **BACK TO REPORT** DATA TO REPORT Groundwater Data Go

Plot Selected Chemicals | PLOT DEPTH-TO-WATER | LOGARITHMIC PLOT | EXPORT TO EXCEL

PLOT	NAME	DATE	PARAMETER	MATRIX	QUALIFIER	RESULT	UNITS	RL NOTE
☐	MW-6A	8/21/2003	BENZENE	W	ND	0	UG/L	
☐	MW-6A	8/21/2003	TOLUENE	W	ND	0	UG/L	
☐	MW-6A	8/21/2003	DI-ISOPROPYL ETHER (DIPE)	W	ND	0	UG/L	
☐	MW-6A	8/21/2003	ETHYLBENZENE	W	ND	0	UG/L	
☐	MW-6A	8/21/2003	ETHYL TERT-BUTYL ETHER (ETBE)	W	ND	0	UG/L	
☐	MW-6A	8/21/2003	ETHANOL (ETOH)	W	ND	0	UG/L	
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☐	MW-6A	8/21/2003	TERT-AMYL METHYL ETHER (TAME)	W	ND	0	UG/L	
☐	MW-6A	8/21/2003	TERT-BUTYL ALCOHOL (TBA)	W	ND	0	UG/L	
☐	MW-6A	8/21/2003	XYLENES	W	ND	0	UG/L	

Plot Selected Chemicals | PLOT DEPTH-TO-WATER | LOGARITHMIC PLOT | EXPORT TO EXCEL

PLOT	NAME	DATE	PARAMETER	MATRIX	QUALIFIER	RESULT	UNITS	RL NOTE
☐	MW-6A	4/3/2003	BENZENE	W	ND	0	UG/L	
☐	MW-6A	5/14/2003	BENZENE	W	ND	0	UG/L	
☐	MW-6A	8/21/2003	BENZENE	W	ND	0	UG/L	
☐	MW-6A	4/3/2003	TOLUENE	W	ND	0	UG/L	
☐	MW-6A	5/14/2003	TOLUENE	W	ND	0	UG/L	
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☐	MW-6A	4/3/2003	ETHYLBENZENE	W	ND	0	UG/L	
☐	MW-6A	5/14/2003	ETHYLBENZENE	W	ND	0	UG/L	
☐	MW-6A	8/21/2003	ETHYLBENZENE	W	ND	0	UG/L	
☐	MW-6A	4/3/2003	ETHYL TERT-BUTYL ETHER (ETBE)	W	ND	0	UG/L	
☐	MW-6A	5/14/2003	ETHYL TERT-BUTYL ETHER (ETBE)	W	ND	0	UG/L	

☐	MW-6A	8/21/2003	ETHYL TERT-BUTYL ETHER (ETBE)	W	ND	0	UG/L	
☐	MW-6A	4/3/2003	ETHANOL (ETOH)	W	ND	0	UG/L	
☐	MW-6A	5/14/2003	ETHANOL (ETOH)	W	ND	0	UG/L	
☐	MW-6A	8/21/2003	ETHANOL (ETOH)	W	ND	0	UG/L	
☐	MW-6A	4/3/2003	GASOLINE RANGE ORGANICS (C6-C12)	W	ND	0	UG/L	
☐	MW-6A	5/14/2003	GASOLINE RANGE ORGANICS (C6-C12)	W	ND	0	UG/L	
☐	MW-6A	8/21/2003	GASOLINE RANGE ORGANICS (C6-C12)	W	ND	0	UG/L	
☐	MW-6A	4/3/2003	METHANOL (MEOH)	W	ND	0	UG/L	
☐	MW-6A	5/14/2003	METHANOL (MEOH)	W	ND	0	UG/L	
☐	MW-6A	8/21/2003	METHANOL (MEOH)	W	ND	0	UG/L	
☐	MW-6A	5/14/2003	METHYL-TERT-BUTYL ETHER (MTBE)	W	ND	0	UG/L	
☐	MW-6A	8/21/2003	METHYL-TERT-BUTYL ETHER (MTBE)	W	ND	0	UG/L	
☐	MW-6A	4/3/2003	TERT-AMYL METHYL ETHER (TAME)	W	ND	0	UG/L	
☐	MW-6A	5/14/2003	TERT-AMYL METHYL ETHER (TAME)	W	ND	0	UG/L	
☐	MW-6A	8/21/2003	TERT-AMYL METHYL ETHER (TAME)	W	ND	0	UG/L	
☐	MW-6A	4/3/2003	TERT-BUTYL ALCOHOL (TBA)	W	ND	0	UG/L	
☐	MW-6A	5/14/2003	TERT-BUTYL ALCOHOL (TBA)	W	ND	0	UG/L	
☐	MW-6A	8/21/2003	TERT-BUTYL ALCOHOL (TBA)	W	ND	0	UG/L	
☐	MW-6A	4/3/2003	XYLENES	W	ND	0	UG/L	
☐	MW-6A	5/14/2003	XYLENES	W	ND	0	UG/L	
☐	MW-6A	8/21/2003	XYLENES	W	ND	0	UG/L	

Plot Selected Chemicals ☑ PLOT DEPTH-TO-WATER ☐ LOGARITHMIC PLOT EXPORT TO EXCEL

PLOT	NAME	DATE	PARAMETER	MATRIX	QUALIFIER	RESULT	UNITS	RL NOTE
☐	MW-6A	8/21/2003	BENZENE	W	ND	0	UG/L	
☐	MW-6A	8/21/2003	TOLUENE	W	ND	0	UG/L	
☐	MW-6A	8/21/2003	DI-ISOPROPYL ETHER (DIPE)	W	ND	0	UG/L	
☐	MW-6A	8/21/2003	ETHYLBENZENE	W	ND	0	UG/L	
☐	MW-6A	8/21/2003	ETHYL TERT-BUTYL ETHER (ETBE)	W	ND	0	UG/L	
☐	MW-6A	8/21/2003	ETHANOL (ETOH)	W	ND	0	UG/L	
☐	MW-6A	8/21/2003	GASOLINE RANGE ORGANICS (C6-C12)	W	ND	0	UG/L	
☐	MW-6A	8/21/2003	METHANOL (MEOH)	W	ND	0	UG/L	
☐	MW-6A	8/21/2003	METHYL-TERT-BUTYL ETHER (MTBE)	W	ND	0	UG/L	
☐	MW-6A	8/21/2003	TERT-AMYL METHYL ETHER (TAME)	W	ND	0	UG/L	
☐	MW-6A	8/21/2003	TERT-BUTYL ALCOHOL (TBA)	W	ND	0	UG/L	
☐	MW-6A	8/21/2003	XYLENES	W	ND	0	UG/L	

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STATE WATER RESOURCES CONTROL BOARD
GEOTRACKER

VICTORY GAS & FOOD (T0606900054) - (MAP)

1615 SAN JUAN RD
HOLLISTER, CA 95023
SAN BENITO COUNTY
LUST CLEANUP SITE

CLEANUP OVERSIGHT AGENCIES
CENTRAL COAST RWQCB (REGION 3) *(LEAD)* - *CASE #: 3319*
SAN BENITO COUNTY - *CASE #: 3319*
CUF Claim #: 14789
CUF Priority Assigned: C
CUF Amount Paid: $200,086

Analytical Results - MW-5B - **BACK TO REPORT** DATA TO REPORT Groundwater Data Go

Plot Selected Chemicals | PLOT DEPTH-TO-WATER | LOGARITHMIC PLOT | EXPORT TO EXCEL

PLOT	NAME	DATE	PARAMETER	MATRIX	QUALIFIER	RESULT	UNITS	RL NOTE
☐	MW-5B	8/21/2003	BENZENE	W	ND	0	UG/L	
☐	MW-5B	8/21/2003	TOLUENE	W	ND	0	UG/L	
☐	MW-5B	8/21/2003	DI-ISOPROPYL ETHER (DIPE)	W	ND	0	UG/L	
☐	MW-5B	8/21/2003	DIESEL RANGE ORGANICS (C10-C23)	W	ND	0	UG/L	
☐	MW-5B	8/21/2003	ETHYLBENZENE	W	ND	0	UG/L	
☐	MW-5B	8/21/2003	ETHYL TERT-BUTYL ETHER (ETBE)	W	ND	0	UG/L	
☐	MW-5B	8/21/2003	ETHANOL (ETOH)	W	ND	0	UG/L	
☐	MW-5B	8/21/2003	GASOLINE RANGE ORGANICS (C6-C12)	W	ND	0	UG/L	
☐	MW-5B	8/21/2003	METHANOL (MEOH)	W	ND	0	UG/L	
☐	MW-5B	8/21/2003	METHYL-TERT-BUTYL ETHER (MTBE)	W	ND	0	UG/L	
☐	MW-5B	8/21/2003	TERT-AMYL METHYL ETHER (TAME)	W	ND	0	UG/L	
☐	MW-5B	8/21/2003	TERT-BUTYL ALCOHOL (TBA)	W	ND	0	UG/L	
☐	MW-5B	8/21/2003	XYLENES	W	ND	0	UG/L	

Plot Selected Chemicals | PLOT DEPTH-TO-WATER | LOGARITHMIC PLOT | EXPORT TO EXCEL

PLOT	NAME	DATE	PARAMETER	MATRIX	QUALIFIER	RESULT	UNITS	RL NOTE
☐	MW-5B	4/3/2003	BENZENE	W	ND	0	UG/L	
☐	MW-5B	5/14/2003	BENZENE	W	ND	0	UG/L	
☐	MW-5B	8/21/2003	BENZENE	W	ND	0	UG/L	
☐	MW-5B	4/3/2003	TOLUENE	W	ND	0	UG/L	
☐	MW-5B	5/14/2003	TOLUENE	W	ND	0	UG/L	
☐	MW-5B	8/21/2003	TOLUENE	W	ND	0	UG/L	
☐	MW-5B	4/3/2003	DI-ISOPROPYL ETHER (DIPE)	W	ND	0	UG/L	
☐	MW-5B	5/14/2003	DI-ISOPROPYL ETHER (DIPE)	W	ND	0	UG/L	
☐	MW-5B	8/21/2003	DI-ISOPROPYL ETHER (DIPE)	W	ND	0	UG/L	
☐	MW-5B	8/21/2003	DIESEL RANGE ORGANICS (C10-C23)	W	ND	0	UG/L	
☐	MW-5B	4/3/2003	ETHYLBENZENE	W	ND	0	UG/L	
☐	MW-5B	5/14/2003	ETHYLBENZENE	W	ND	0	UG/L	
☐	MW-5B	8/21/2003	ETHYLBENZENE	W	ND	0	UG/L	
☐	MW-5B	4/3/2003	ETHYL TERT-BUTYL ETHER (ETBE)	W	ND	0	UG/L	
☐	MW-5B	5/14/2003	ETHYL TERT-BUTYL ETHER (ETBE)	W	ND	0	UG/L	
☐	MW-5B	8/21/2003	ETHYL TERT-BUTYL ETHER (ETBE)	W	ND	0	UG/L	
☐	MW-5B	4/3/2003	ETHANOL (ETOH)	W	ND	0	UG/L	
☐	MW-5B	5/14/2003	ETHANOL (ETOH)	W	ND	0	UG/L	

MW-5B	8/21/2003	ETHANOL (ETOH)	W	ND	0	UG/L	
MW-5B	4/3/2003	GASOLINE RANGE ORGANICS (C6-C12)	W	ND	0	UG/L	
MW-5B	5/14/2003	GASOLINE RANGE ORGANICS (C6-C12)	W	ND	0	UG/L	
MW-5B	8/21/2003	GASOLINE RANGE ORGANICS (C6-C12)	W	ND	0	UG/L	
MW-5B	4/3/2003	METHANOL (MEOH)	W	ND	0	UG/L	
MW-5B	5/14/2003	METHANOL (MEOH)	W	ND	0	UG/L	
MW-5B	8/21/2003	METHANOL (MEOH)	W	ND	0	UG/L	
MW-5B	4/3/2003	METHYL-TERT-BUTYL ETHER (MTBE)	W	ND	0	UG/L	
MW-5B	4/3/2003	METHYL-TERT-BUTYL ETHER (MTBE)	W	NR	0	UG/L	
MW-5B	5/14/2003	METHYL-TERT-BUTYL ETHER (MTBE)	W	ND	0	UG/L	
MW-5B	8/21/2003	METHYL-TERT-BUTYL ETHER (MTBE)	W	ND	0	UG/L	
MW-5B	4/3/2003	TERT-AMYL METHYL ETHER (TAME)	W	ND	0	UG/L	
MW-5B	5/14/2003	TERT-AMYL METHYL ETHER (TAME)	W	ND	0	UG/L	
MW-5B	8/21/2003	TERT-AMYL METHYL ETHER (TAME)	W	ND	0	UG/L	
MW-5B	4/3/2003	TERT-BUTYL ALCOHOL (TBA)	W	ND	0	UG/L	
MW-5B	5/14/2003	TERT-BUTYL ALCOHOL (TBA)	W	ND	0	UG/L	
MW-5B	8/21/2003	TERT-BUTYL ALCOHOL (TBA)	W	ND	0	UG/L	
MW-5B	4/3/2003	XYLENES	W	ND	0	UG/L	
MW-5B	5/14/2003	XYLENES	W	ND	0	UG/L	
MW-5B	8/21/2003	XYLENES	W	ND	0	UG/L	

Plot Selected Chemicals | ☑ PLOT DEPTH-TO-WATER ☐ LOGARITHMIC PLOT | EXPORT TO EXCEL

PLOT	NAME	DATE	PARAMETER	MATRIX	QUALIFIER	RESULT	UNITS	RL NOTE
MW-5B	8/21/2003	BENZENE	W	ND	0	UG/L		
MW-5B	8/21/2003	TOLUENE	W	ND	0	UG/L		
MW-5B	8/21/2003	DI-ISOPROPYL ETHER (DIPE)	W	ND	0	UG/L		
MW-5B	8/21/2003	DIESEL RANGE ORGANICS (C10-C23)	W	ND	0	UG/L		
MW-5B	8/21/2003	ETHYLBENZENE	W	ND	0	UG/L		
MW-5B	8/21/2003	ETHYL TERT-BUTYL ETHER (ETBE)	W	ND	0	UG/L		
MW-5B	8/21/2003	ETHANOL (ETOH)	W	ND	0	UG/L		
MW-5B	8/21/2003	GASOLINE RANGE ORGANICS (C6-C12)	W	ND	0	UG/L		
MW-5B	8/21/2003	METHANOL (MEOH)	W	ND	0	UG/L		
MW-5B	4/3/2003	METHYL-TERT-BUTYL ETHER (MTBE)	W	NR	0	UG/L		
MW-5B	8/21/2003	METHYL-TERT-BUTYL ETHER (MTBE)	W	ND	0	UG/L		
MW-5B	8/21/2003	TERT-AMYL METHYL ETHER (TAME)	W	ND	0	UG/L		
MW-5B	8/21/2003	TERT-BUTYL ALCOHOL (TBA)	W	ND	0	UG/L		
MW-5B	8/21/2003	XYLENES	W	ND	0	UG/L		

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STATE WATER RESOURCES CONTROL BOARD
GEOTRACKER

VICTORY GAS & FOOD (T0606900054) - (MAP)

1615 SAN JUAN RD
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SAN BENITO COUNTY
LUST CLEANUP SITE

CLEANUP OVERSIGHT AGENCIES
CENTRAL COAST RWQCB (REGION 3) *(LEAD)* - *CASE #: 3319*
SAN BENITO COUNTY - *CASE #: 3319*
CUF Claim #: 14789
CUF Priority Assigned: C
CUF Amount Paid: $200,086

Analytical Results - MW-5A - BACK TO REPORT DATA TO REPORT Groundwater Data Go

Plot Selected Chemicals | PLOT DEPTH-TO-WATER | LOGARITHMIC PLOT | EXPORT TO EXCEL

PLOT	NAME	DATE	PARAMETER	MATRIX	QUALIFIER	RESULT	UNITS	RL NOTE
☐	MW-5A	8/21/2003	BENZENE	W	ND	0	UG/L	
☐	MW-5A	8/21/2003	TOLUENE	W	ND	0	UG/L	
☐	MW-5A	8/21/2003	DI-ISOPROPYL ETHER (DIPE)	W	ND	0	UG/L	
☐	MW-5A	8/21/2003	DIESEL RANGE ORGANICS (C10-C23)	W	ND	0	UG/L	
☐	MW-5A	8/21/2003	ETHYLBENZENE	W	ND	0	UG/L	
☐	MW-5A	8/21/2003	ETHYL TERT-BUTYL ETHER (ETBE)	W	ND	0	UG/L	
☐	MW-5A	8/21/2003	ETHANOL (ETOH)	W	ND	0	UG/L	
☐	MW-5A	8/21/2003	GASOLINE RANGE ORGANICS (C6-C12)	W	ND	0	UG/L	
☐	MW-5A	8/21/2003	METHANOL (MEOH)	W	ND	0	UG/L	
☐	MW-5A	8/21/2003	METHYL-TERT-BUTYL ETHER (MTBE)	W	ND	0	UG/L	
☐	MW-5A	8/21/2003	TERT-AMYL METHYL ETHER (TAME)	W	ND	0	UG/L	
☐	MW-5A	8/21/2003	TERT-BUTYL ALCOHOL (TBA)	W	ND	0	UG/L	
☐	MW-5A	8/21/2003	XYLENES	W	ND	0	UG/L	

Plot Selected Chemicals | PLOT DEPTH-TO-WATER | LOGARITHMIC PLOT | EXPORT TO EXCEL

PLOT	NAME	DATE	PARAMETER	MATRIX	QUALIFIER	RESULT	UNITS	RL NOTE
☐	MW-5A	4/3/2003	BENZENE	W	ND	0	UG/L	
☐	MW-5A	5/14/2003	BENZENE	W	ND	0	UG/L	
☐	MW-5A	8/21/2003	BENZENE	W	ND	0	UG/L	
☐	MW-5A	4/3/2003	TOLUENE	W	ND	0	UG/L	
☐	MW-5A	5/14/2003	TOLUENE	W	ND	0	UG/L	
☐	MW-5A	8/21/2003	TOLUENE	W	ND	0	UG/L	
☐	MW-5A	4/3/2003	DI-ISOPROPYL ETHER (DIPE)	W	ND	0	UG/L	
☐	MW-5A	5/14/2003	DI-ISOPROPYL ETHER (DIPE)	W	ND	0	UG/L	
☐	MW-5A	8/21/2003	DI-ISOPROPYL ETHER (DIPE)	W	ND	0	UG/L	
☐	MW-5A	8/21/2003	DIESEL RANGE ORGANICS (C10-C23)	W	ND	0	UG/L	
☐	MW-5A	4/3/2003	ETHYLBENZENE	W	ND	0	UG/L	
☐	MW-5A	5/14/2003	ETHYLBENZENE	W	ND	0	UG/L	
☐	MW-5A	8/21/2003	ETHYLBENZENE	W	ND	0	UG/L	

☐	MW-5A	4/3/2003	ETHYL TERT-BUTYL ETHER (ETBE)	W	ND	0	UG/L	
☐	MW-5A	5/14/2003	ETHYL TERT-BUTYL ETHER (ETBE)	W	ND	0	UG/L	
☐	MW-5A	8/21/2003	ETHYL TERT-BUTYL ETHER (ETBE)	W	ND	0	UG/L	
☐	MW-5A	4/3/2003	ETHANOL (ETOH)	W	ND	0	UG/L	
☐	MW-5A	5/14/2003	ETHANOL (ETOH)	W	ND	0	UG/L	
☐	MW-5A	8/21/2003	ETHANOL (ETOH)	W	ND	0	UG/L	
☐	MW-5A	4/3/2003	GASOLINE RANGE ORGANICS (C6-C12)	W	ND	0	UG/L	
☐	MW-5A	5/14/2003	GASOLINE RANGE ORGANICS (C6-C12)	W	ND	0	UG/L	
☐	MW-5A	8/21/2003	GASOLINE RANGE ORGANICS (C6-C12)	W	ND	0	UG/L	
☐	MW-5A	4/3/2003	METHANOL (MEOH)	W	ND	0	UG/L	
☐	MW-5A	5/14/2003	METHANOL (MEOH)	W	ND	0	UG/L	
☐	MW-5A	8/21/2003	METHANOL (MEOH)	W	ND	0	UG/L	
☐	MW-5A	4/3/2003	METHYL-TERT-BUTYL ETHER (MTBE)	W	ND	0	UG/L	
☐	MW-5A	5/14/2003	METHYL-TERT-BUTYL ETHER (MTBE)	W	ND	0	UG/L	
☐	MW-5A	8/21/2003	METHYL-TERT-BUTYL ETHER (MTBE)	W	ND	0	UG/L	
☐	MW-5A	4/3/2003	TERT-AMYL METHYL ETHER (TAME)	W	ND	0	UG/L	
☐	MW-5A	5/14/2003	TERT-AMYL METHYL ETHER (TAME)	W	ND	0	UG/L	
☐	MW-5A	8/21/2003	TERT-AMYL METHYL ETHER (TAME)	W	ND	0	UG/L	
☐	MW-5A	4/3/2003	TERT-BUTYL ALCOHOL (TBA)	W	ND	0	UG/L	
☐	MW-5A	5/14/2003	TERT-BUTYL ALCOHOL (TBA)	W	ND	0	UG/L	
☐	MW-5A	8/21/2003	TERT-BUTYL ALCOHOL (TBA)	W	ND	0	UG/L	
☐	MW-5A	4/3/2003	XYLENES	W	ND	0	UG/L	
☐	MW-5A	5/14/2003	XYLENES	W	ND	0	UG/L	
☐	MW-5A	8/21/2003	XYLENES	W	ND	0	UG/L	

Plot Selected Chemicals ☑ PLOT DEPTH-TO-WATER ☐ LOGARITHMIC PLOT EXPORT TO EXCEL

PLOT	NAME	DATE	PARAMETER	MATRIX	QUALIFIER	RESULT	UNITS	RL NOTE
☐	MW-5A	8/21/2003	BENZENE	W	ND	0	UG/L	
☐	MW-5A	8/21/2003	TOLUENE	W	ND	0	UG/L	
☐	MW-5A	8/21/2003	DI-ISOPROPYL ETHER (DIPE)	W	ND	0	UG/L	
☐	MW-5A	8/21/2003	DIESEL RANGE ORGANICS (C10-C23)	W	ND	0	UG/L	
☐	MW-5A	8/21/2003	ETHYLBENZENE	W	ND	0	UG/L	
☐	MW-5A	8/21/2003	ETHYL TERT-BUTYL ETHER (ETBE)	W	ND	0	UG/L	
☐	MW-5A	8/21/2003	ETHANOL (ETOH)	W	ND	0	UG/L	
☐	MW-5A	8/21/2003	GASOLINE RANGE ORGANICS (C6-C12)	W	ND	0	UG/L	
☐	MW-5A	8/21/2003	METHANOL (MEOH)	W	ND	0	UG/L	
☐	MW-5A	8/21/2003	METHYL-TERT-BUTYL ETHER (MTBE)	W	ND	0	UG/L	
☐	MW-5A	8/21/2003	TERT-AMYL METHYL ETHER (TAME)	W	ND	0	UG/L	
☐	MW-5A	8/21/2003	TERT-BUTYL ALCOHOL (TBA)	W	ND	0	UG/L	
☐	MW-5A	8/21/2003	XYLENES	W	ND	0	UG/L	

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http://iaspub.epa.gov/Cleanups/RcraProfile.jsp?handler_id=CAD981368392
Last updated on June 4, 2010

Cleanups in My Community

RCRA Corrective Action Site Progress Profile

Report an Error

PACSCI QUANTIC L L C
ID: (CAD981368392)

This profile is meant to provide you with basic information on EPA`s cleanup progress at this RCRA facility. Please use the links in the "More Details" box for additional information.

Data Disclaimer

More Details

- Facility Information (Facility Registry System)
- Waste Process Report
- Facility Classification Report
- Engineering/Institutional Controls and Industry Classification Report
- Other Names for this Site

Site Location Cleanup Progress Summary Environmental Impact Summary

Get an interactive map

EPA Region 9 implements and enforces the RCRA corrective action program for Arizona, California, Hawaii, Nevada, the Pacific Islands and Tribal Nations

Site Address:

PACSCI QUANTIC L L C

2751 SAN JUAN RD
HOLLISTER, CA 95023
County: SAN BENITO

US Congressional District: 17
Population within 1 mile: 3840

For further information on this corrective action site, contact region or state in which this site is located.

Hazardous wastes are managed under the Resource Conservation and Recovery Act. When these wastes contamnate the land, water or air they must undergo "corrective action."

A Remedy construction has been completed for this corrective action site

View detailed list of cleanup activities >>

View information on what controls are in place to protect human health and the environment >>

If this corrective action site has been examined to determine if human exposures to contaminants are under control and the migration of contaminated water is under control, that information is provided below.

Human Exposure Control

At this site, human exposures are under control.

Migration of Contaminated GW Control

At this site, there is currently insufficient information to determine whether migration of contaminated groundwater is under control.

Contamination & Exposure

Contamination:

Information on the contamination and the reason for the cleanup may be available. For further information, see the contact information provided above, or try the Statement of Basis Web Page to see if a Statement of Basis for the corrective action remedy has been provided to EPA.

Exposure:

Is human exposure to contamination at this site under control?	YES
Is the migration of contaminated groundwater at this site under control?	UNKNOWN

The Solution: Cleanup Process & Progress

Cleanup Activities at this site:

Cleanup Activities at this site:

Action	Date/Status
1. Site Assessed	06/30/1995
2. Site Identified for Corrective Action	NO
3. Solution for Cleanup Selected (Final Remedy Decision)	UNKNOWN
4. Solution for Cleanup is Implemented	01/01/2009
5. Cleanup Complete	UNKNOWN

Controls in Place at this site:

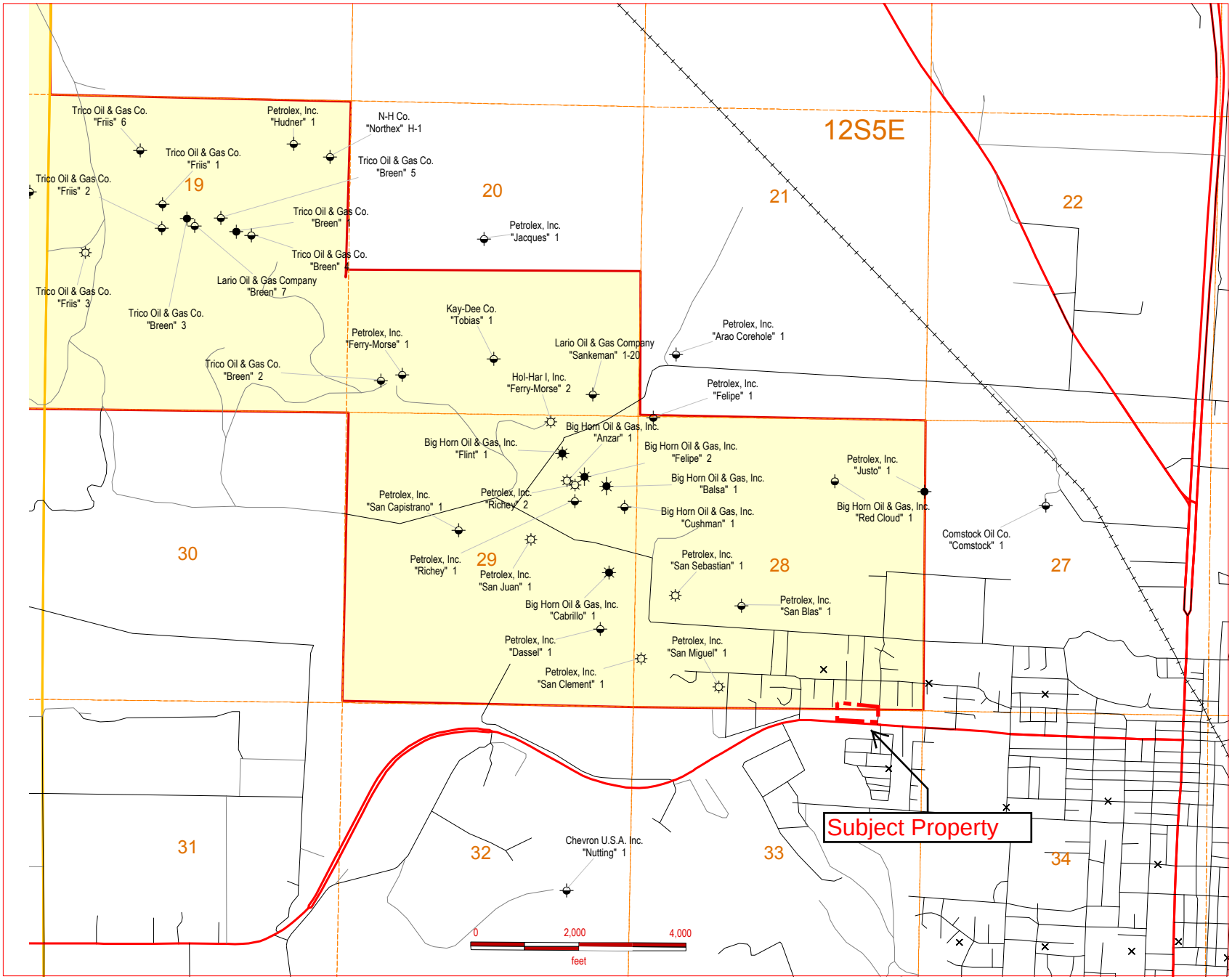
There are many types of controls that can be put in place to control human exposure to contaminants and the migration of contaminated groundwater from the site, and protect the effectiveness of cleanup remedies. Engineering Controls are mechanisms that work by physically controlling access to the land, the flow of water, etc. Examples include fences, cement caps over contaminated areas, and pumps. Institutional Controls (ICs) (also known as land use controls (LUCs) EXIT disclaimer, activity and use limitations (AULs), and environmental use restrictions (EURs) are administrative and/or legal controls, that work by limiting land or resource use. Private or (proprietary) examples include deed restrictions, covenants and easements. Public (or govenrmental) examples include zoning ordinances and groundwater permitting programs.

Are controls in place at this site?	Type of Control(s):
Institutional Controls: UNKNOWN	N/A
Engineering Controls: UNKNOWN	N/A

Government Performance & Results Act (GRPA) Milestones

EPA is required to report on the following milestones under the Government Performance & Results Act. More Information...

Milestone	Status
Human Exposure Under Control	YES
Contaminated Groundwater migration Under Control	UNKNOWN



MAP B

HOLLISTER FIELD

S.E. PORTION

APPENDIX F

TRAFFIC ENGINEERING STUDY AND EVALUATION

TRAFFIC IMPACT STUDY

HOLLISTER FAMILY APARTMENTS

THE PACIFIC COMPANIES

HOLLISTER, CALIFORNIA

PREPARED FOR:

PACIFIC WEST ARCHITECTURE

JANUARY 6, 2010

OUR PROJECT NUMBER: SES090511

902 Industrial Way ▪ Lodi, CA 95240 ▪ 209.367.3701 ▪ Fax 209.369.4228

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HOLLISTER FAMILY APARTMENTS
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TRAFFIC IMPACT STUDY

HOLLISTER FAMILY APARTMENTS

THE PACIFIC COMPANIES

HOLLISTER, CALIFORNIA

1.0 INTRODUCTION

Neil O. Anderson and Associates (NOA) have been retained by The Pacific Companies to conduct a Traffic Impact Study (TIS) for the new Hollister Family Apartments located at the corner of San Juan Road and Miller Road, in Hollister, California.

The purpose of a Traffic Impact Study is to provide sufficient information concerning the impacts of the project on the operational conditions of the transportation facilities in the project area. The TIS was prepared based on the California Department of Transportation "Guide for the Preparation of Traffic Impact Studies" dated December 2002. The area of study included the intersections of San Juan Road, Miller Road, and Live Oak Drive.

2.0 PROJECT DESCRIPTION

The project consists of a new 66 multi-family residential affordable housing complex to be located on the eastern portion of an existing 8.0 acre open lot. In the southeast corner of the lot an existing commercial business is currently operating. The subject property is located within the City of Hollister. **Appendix A - Plate 1** shows the general area of the subject property. **Appendix A - Plate 2** depicts the proposed architectural design improvements for the site.

The proposed residential traffic will access the project site through one side entrance off of Miller Road, and one back entrance off of Gonzalez Drive. The side entrance off of Miller Road is located on the eastern side of the project site. The other back entrance off of Gonzalez Drive is located on the northern side of the project site. Traffic to and from the site could potentially affect one (1) nearby intersection.

The study area included the offset intersection of San Juan Road, Miller Road, and Live Oak Drive. The geometry of the intersection is as follows:

- San Juan Road Eastbound – Consists of one thru lane, one right turn pocket, and one left turn pocket.
- San Juan Road Westbound – Consists of one thru lane, one right turn pocket, and one left turn pocket.
- Miller Road Southbound – Consists of one shared lane for thru, left, and right turning.
- Live Oak Drive Northbound – Consists of one shared lane for thru, left, and right turning.

The offset within the intersection occurs between the southbound and northbound lanes of Miller Road and Live Oak Drive. Miller Road is offset approximately 50 feet to the west of Live Oak Drive. Although this offset is significant, thru traffic along Miller Road and Live Oak Drive was not required to turn onto San Juan Road during traffic movement.

The City of Hollister Development Services Planning Division expressed concern about this intersection in their letter dated November 24, 2009. Our study was generally limited to the items of concern expressed within the City's letter for this intersection. The City's letter is attached in **Appendix D**.

3.0 SETTING

3.1 Significance Standards

A project would normally have a significant effect on the environment if it would cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system or change the condition of the existing street in a manner that would substantially affect the access or traffic load and capacity of the street system.

The specific criteria utilized for this analysis are as follows:

Intersection Level of Service (LOS) Criteria: A project-related or cumulative traffic impact is considered to be significant if the proposed project:

- Causes the existing baseline level of service to degrade to worse than LOS D at any intersection.
- Causes queues at an intersection to spill back out of their available storage or into adjacent intersections.

Site and Circulation Impact Criteria: A site and circulation impact is considered to be significant if the project:

- Results in interference with traffic flow on public streets at site access driveways;
- Results in potential internal circulation conflicts for pedestrians or motorists;
- Results in insufficient or inadequate accessibility for delivery or service vehicles that would interfere with traffic flow; or
- Results in circulation patterns that are inconsistent with General Plan policies.

LOS is defined by the Highway Capacity Manual[1] as a quality measure describing operational conditions within a traffic stream, generally in terms of such service measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. It is a qualitative, not quantitative, measure of service that allows the general reader to better understand the conditions that either exist at the site, or would exist at the site due to future uses. LOS classifications range from A to F (A being the best case of traffic flow and F being

[1] Highway Capacity Manual, 2000, Transportation Research Board, National Research Council, Washington, D.C., U.S.A.

the worst). There are no numerical comparisons that go along with the classifications, but rather a long string of variables that are summed and ultimately used to make a determination.

4.0 EXISTING CONDITIONS

The existing conditions were assessed by conducting a traffic count at the split intersection of San Juan Road, Miller Road, and Live Oak Drive. The traffic counts were conducted from 7 am to 9 am and 3 pm to 5 pm on a non-holiday weekday (December 15, 2009) in order to measure the peak morning hour and peak afternoon hour traffic conditions. The peak morning hour traffic conditions occurred between 7:15 and 8:15 AM. The peak afternoon hour traffic conditions occurred between 3:00 and 4:00 PM.

The Intersection geometry is illustrated on **Plate 3.** The Traffic count data is illustrated on **Plate 4 and 5.** The intersection LOS was estimated using the Highway Capacity Software (HCS+) developed by McTrans™. The traffic count summary is presented in **Appendix B.** Printouts of the HCS+ data are included in **Appendix C.** Table 1 identifies the existing LOS. The existing LOS for the study area intersections are operating at or below a LOS of A.

Table 1: Existing Intersection LOS as Calculated by HCS+

Intersection	Existing LOS
San Juan Road, Miller Road, and Live Oak Drive (**Peak Hour 715AM-815AM**)	San Juan Rd. (A), Miller Rd. & Live Oak Dr. (A)
San Juan Road, Miller Road, and Live Oak Drive (**Peak Hour 300PM-400PM**)	San Juan Rd. (A), Miller Rd. & Live Oak Dr. (A)

5.0 BACKGROUND (EXISTING PLUS APPROVED PROJECTS)

5.1 Cumulative Project Traffic

Cumulative project traffic includes existing conditions plus other pending or approved projects within the area and without the proposed project. The entire area surrounding the proposed project has been developed with the exception of roughly 24 acres of open undeveloped land. The 24 acres of open space is spread out across 5 separate parcels. Approximately half of the undeveloped land is within one half mile to the east of the site with the other half within one half mile to the west of the site, all of which are along San Juan Road. Conceivably, if future projects are intended for the surrounding open land they could add additional traffic load to the existing traffic system.

Primarily, these potential developments would have an effect on San Juan Road. Although, no known pending or future projects are expected at this time, our firm has provided an estimate based on commercial acreage versus added traffic load ratios. These estimated values of additional traffic are based on TIPS Trip Generation Software (TIPS)[2]. Since the PM traffic study totals were the higher of the two traffic count times, this data will be added to using the estimated traffic value increases. Based on TIPS, an additional **404 vehicle trips** over the peak hour existing conditions could occur. This estimate was made by assuming a commercial

[2] TIPS Trip Generation Software, Version 1.4.0, 2009, Department of Transportation, State of Florida

retail area of roughly 24 acres in size. TIPS' compares multiple real world quantitative data for existing traffic conditions at various locations throughout the country. It is based in part on the Institute of Transportation Engineers (ITE) Trip Generation Handbook 7th Edition[3]. Roughly 39 similar size commercial development case studies were analyzed in order to attain the above mentioned vehicles trips.

The intersection LOS was estimated using the Highway Capacity Software (HCS+) developed by McTrans™. Our methodology for distribution of additional vehicle trips to the study intersection (for all analysis performed) was based on the traffic count data for thru and turning vehicles. A proportionate number of vehicles were added to each lane movement over the peak hour based on the percentage of observed traffic movement. As an example, if 10 percent of the peak hour traffic went thru going eastbound along San Juan Road, then an extra 10 percent of the additional 404 vehicle trips were added to the analysis for thru going eastbound traffic along San Juan Road. Table 2 identifies the existing plus approved projects LOS estimation. The predicted LOS for the study area intersection would be operating at or below a LOS of A. As indicated this methodology was used for this analysis, as well as the following three analyses below.

Table 2: Existing Intersection plus Approved Projects LOS as Calculated by HCS+

Intersection	Existing plus Predicted Approved Projects LOS
San Juan Road, Miller Road, and Live Oak Drive (**Peak Hour 300PM-400PM**)	San Juan Rd. (A), Miller Rd. & Live Oak Dr. (A)

6.0 BUILD-OUT OF PROPOSED PROJECT

6.1 Project Traffic

TIPS software was also used to estimate the potential additional traffic load that would be generated by the sites use as a 66 multi-family residential affordable housing project. Based on TIPS an additional **55 vehicle trips** could be added to the peak hour traffic. Table 3 identifies the build-out of proposed project LOS. The predicted LOS for the study area intersection would be operating at or below a LOS of A.

Table 3: Build-out of Proposed Project LOS as Calculated by HCS+

Intersection	Existing plus Predicted Build-Out LOS
San Juan Road, Miller Road, and Live Oak Drive (**Peak Hour 300PM-400PM**)	San Juan Rd. (A), Miller Rd. & Live Oak Dr. (A)

[3] Institute of Transportation Engineers, 2003, Trip Generation, 7th Edition, Washington D.C.

7.0 BUILD-OUT OF PROSED PROJECT PLUS REMAINDER OF SITE

7.1 Build-out Plus Remainder of Site (Commercial Option)

Our study using TIPS estimated the potential additional traffic load that would be generated by the sites use as a 66 multi-family residential affordable housing project and the addition of the remaining approximate 4.0 acres of the parcel, assuming it was developed as commercial. Based on TIPS an additional **190 vehicle trips** could be added to the peak hour traffic due to further development of the remaining approximate 4 acres as commercial. Table 4 identifies the build-out of proposed project plus build-out of the remainder (approximately 4.0 acres) commercial LOS. The predicted LOS for the study area intersection would be operating at or below a LOS of A.

Table 4: Build-out plus Remainder (Commercial) LOS as Calculated by HCS+	
Intersection	Existing LOS
San Juan Road, Miller Road, and Live Oak Drive (**Peak Hour 300PM-400PM**)	San Juan Rd. (A), Miller Rd. & Live Oak Dr. (A)

7.2 Build-out Plus Remainder of Site (Mixed Use Option)

Our study using TIPS estimated the potential additional traffic load that would be generated by the sites use as a 66 multi-family residential affordable housing project and the addition of the remaining approximate 4.0 acres of the parcel, assuming it was developed as mixed use. Based on TIPS an additional **63 vehicle trips** could be added to the peak hour traffic due to further development of the remaining approximate 4 acres as mixed use. Table 5 identifies the build-out of proposed project plus build-out of the remainder (approximately 4.0 acres) mixed use LOS. The predicted LOS for the study area intersection would be operating at or below a LOS of A.

Table 5: Build-out plus Remainder (Mixed Use) LOS as Calculated by HCS+	
Intersection	Existing LOS
San Juan Road, Miller Road, and Live Oak Drive (**Peak Hour 300PM-400PM**)	San Juan Rd. (A), Miller Rd. & Live Oak Dr. (A)

8.0 CONCLUSIONS

The above stated conditions were assessed by Highway Capacity Software (HCS+) developed by McTrans™. Printouts of the HCS+ data are included in **Appendix C**. The predicted LOS for the study area intersection is operating below or at an LOS of A in all cases analyzed. As mentioned in section 3.1 Significance Standards, A project-related or cumulative traffic impact is considered to be significant if the proposed project causes the existing level of service to

degrade to worse than LOS D at any intersection. Since this did not occur our firm concludes that this project will not have a significant degradation impact to the surrounding traffic system.

9.0 MITIGATION MEASURES

The project does not appear to lower the surrounding streets or intersections to a Level of Service worse than the level of D. As illustrated in the above tables, all roads are currently running at an operational LOS of A, and all situations analyzed predicted an operational LOS of A. Based on this information, no mitigation measures are warranted.

10.0 LIMITATIONS

Care should be taken to understand that our office performed this original investigation using assumptions in part made by outside resources (i.e McTran's and TIPS Software). These outside resources used in part various real world case studies to conclude site specific data such as trip generation values. Consequently, we do not take any responsibility for reporting errors that could arise from misinformation obtained from these outside sources. This is a study of existing data and traffic only. It is not a more detailed traffic analysis including general planning for traffic engineering and/or modeling. A more encompassing traffic engineering report analysis was not required nor intended.

If there is a substantial lapse of time between the submission of our report and the start of work at the site, or if conditions have changed due to natural causes or construction operations at or adjacent to the site, we urge that our report be reviewed to determine the applicability of the conclusions and recommendations considering the changed conditions and time lapse. This report is applicable only for the project and site studied. **This report should not be used after 2 years, unless our office is afforded the opportunity to update our study.**

Our professional services were performed, our findings obtained, and our recommendations proposed in accordance with generally accepted engineering principles and practices. This warranty is in lieu of all other warranties either expressed or implied. Test findings and statements of professional opinion do not constitute a guarantee or warranty, expressed or implied.

Sincerely,
NEIL O. ANDERSON & ASSOCIATES, INC.

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Professional Geologist #8657

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Garret S.H. Hubbart, Principal
Civil Engineer 59010

REGISTERED PROFESSIONAL ENGINEER
GARRET S. H. HUBBART
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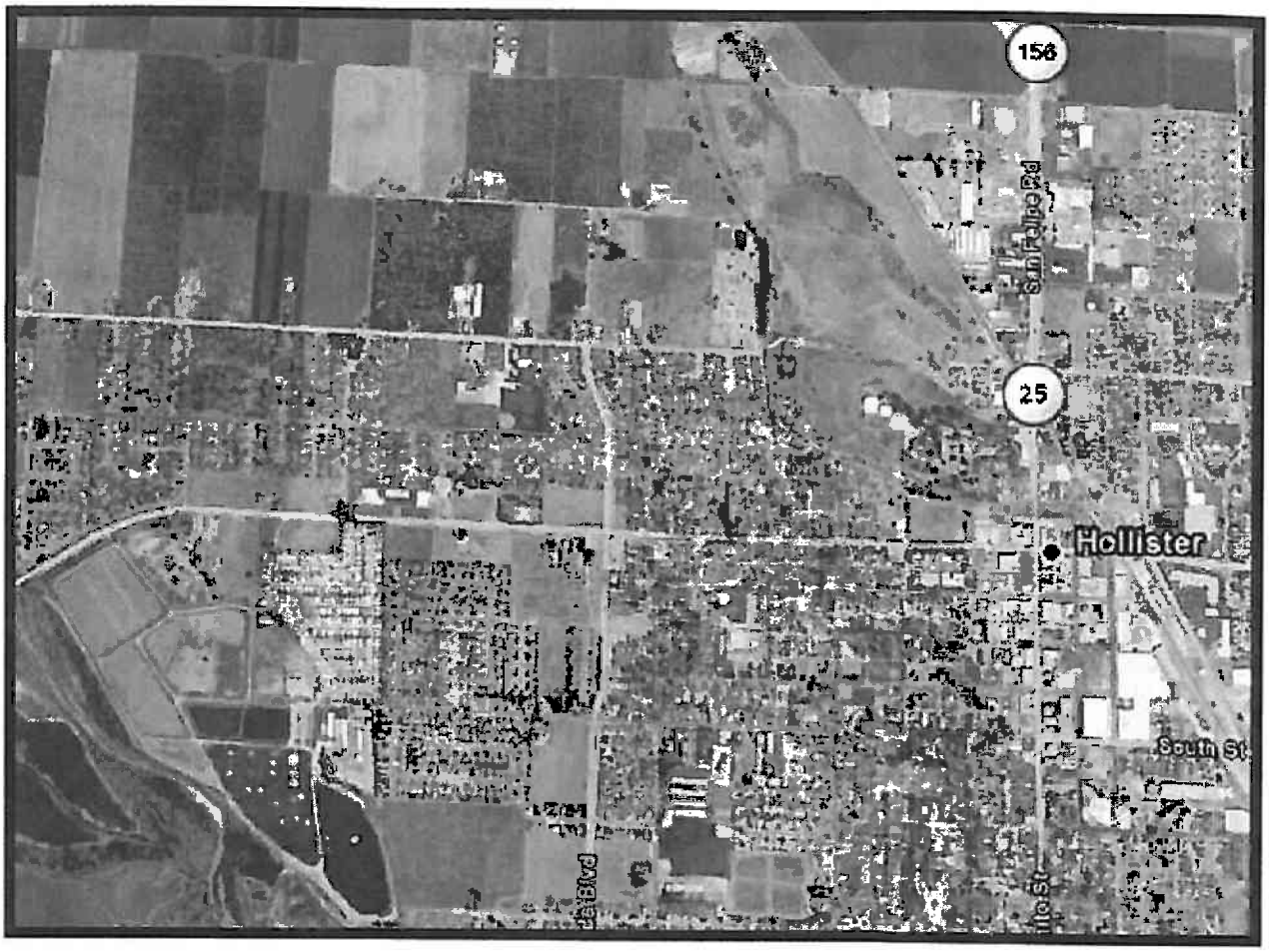
Exp 06-30-2011
CIVIL
STATE OF CALIFORNIA

1-6-10

APPENDIX A

SITE MAPS, SHEETS #1-5



Aerial Map: Taken from Google Maps, 2009

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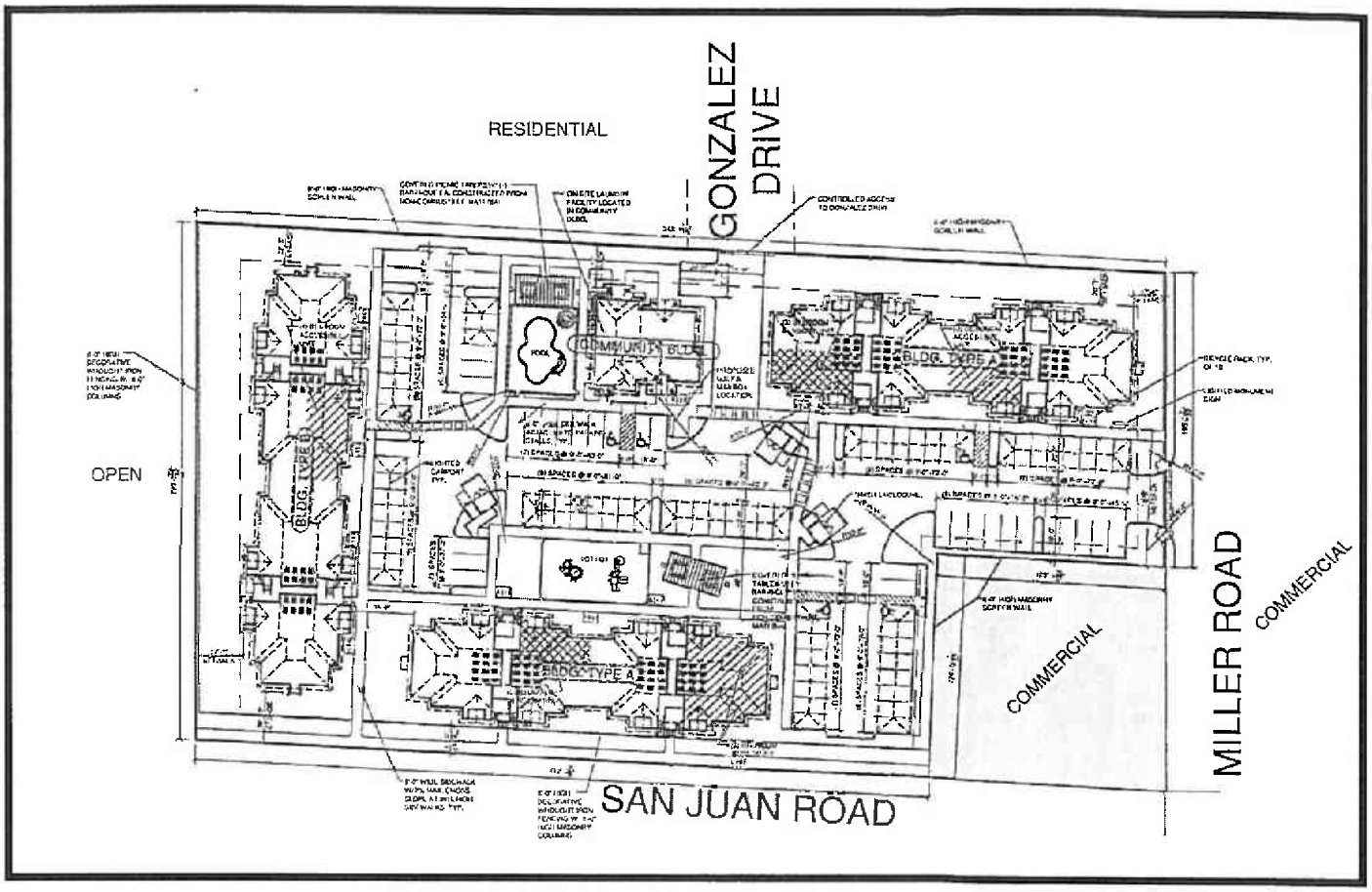
Vicinity Map

San Juan Rd, Miller Rd., and Live Oak Drive

Hollister, California

DATE: 01-06-10
JOB NUMBER: SES090511
SCALE: Not to scale
DRAWN BY: T.C.
CHECKED BY: D.K.
SHEET: 1



Base Map: Taken from Schematic Set Architectural Drawings, Pack West Architecture, Sheet A1.1

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Site Plan

San Juan Rd, Miller Rd., and Live Oak Drive

Hollister, California

DATE: 01-06-10
JOB NUMBER: SES090511
SCALE: Not to scale
DRAWN BY: T.C.
CHECKED BY: D.K.
SHEET: 2

Base Map: Undated Aerial photograph from Google Earth

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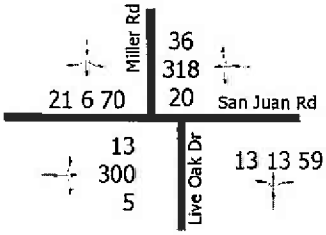
Intersection Geometry

San Juan Rd, Miller Rd., and Live Oak Drive

Hollister, California

DATE: 01-06-10
JOB NUMBER: SES090511
SCALE: Not to scale
DRAWN BY: T.C.
CHECKED BY: D.K.
SHEET: 3

Note: Thru traffic from Miller Road southbound went to Live Oak Drive
Thru traffic from Live Oak Drive northbound went to Miller Road



Base Map: Undated Aerial photograph from Google Earth

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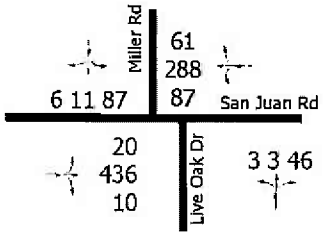
Exisiting AM Peak Hour Traffic Conditions
San Juan Rd, Miller Rd., and Live Oak Drive

Hollister, California

DATE: 01-06-10
JOB NUMBER: SES090511
SCALE: Not to scale
DRAWN BY: T.C.
CHECKED BY: D.K.
SHEET: 4

Note: Thru traffic from Miller Road southbound went to Live Oak Drive
Thru traffic from Live Oak Drive northbound went to Miller Road



Base Map: Undated Aerial photograph from Google Earth

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Exisiting PM Peak Hour Traffic Conditions

San Juan Rd, Miller Rd., and Live Oak Drive

Hollister, California

DATE: 01-06-10
JOB NUMBER: SES090511
SCALE: Not to scale
DRAWN BY: T.C.
CHECKED BY: D.K.
SHEET: 5

APPENDIX B

TRAFFIC COUNTS

Traffic Study Volume Count To	12/15/2009				
Time	San Juan & Miller/Live Oak				Totals
7:00:00 AM to 7:15:00 AM	156				156
7:15:00 AM to 7:30:00 AM	199				199
7:30:00 AM to 7:45:00 AM	266				266
7:45:00 AM to 8:00:00 AM	**220**				**220**
8:00:00 AM to 8:15:00 AM	189				189
8:15:00 AM to 8:30:00 AM	198				198
8:30:00 AM to 8:45:00 AM	175				175
8:45:00 AM to 9:00:00 AM	139				139
BOLD = Busiest Traffic Time					

TOTALS FOR 7am - 9am
San Juan & Miller/Live Oak

Approach	EASTBOUND			WESTBOUND		
Movement	L	T	R	L	T	R
Volume	19	572	10	41	522	65
Approach	NORTHBOUND			SOUTHBOUND		
Movement	L	T	R	L	T	R
Volume	25	19	101	127	11	30

TOTALS FOR BUSIEST PEAK HOUR
7:15am - 8:15am
San Juan & Miller/Live Oak

Approach	EASTBOUND			WESTBOUND		
Movement	L	T	R	L	T	R
Volume	13	300	5	20	318	36
Approach	NORTHBOUND			SOUTHBOUND		
Movement	L	T	R	L	T	R
Volume	13	13	59	70	6	21

7:00am - 7:15am

San Juan & Miller/Live Oak

Approach	EASTBOUND			WESTBOUND		
Movement	L	T	R	L	T	R
Volume	2	39	1	5	75	5
Approach	NORTHBOUND			SOUTHBOUND		
Movement	L	T	R	L	T	R
Volume	3	0	11	10	0	5

7:15am - 7:30am

San Juan & Miller/Live Oak

Approach	EASTBOUND			WESTBOUND		
Movement	L	T	R	L	T	R
Volume	2	61	4	2	77	10
Approach	NORTHBOUND			SOUTHBOUND		
Movement	L	T	R	L	T	R
Volume	4	3	11	17	1	7

7:30am - 7:45am

San Juan & Miller/Live Oak

Approach	EASTBOUND			WESTBOUND		
Movement	L	T	R	L	T	R
Volume	6	94	1	1	100	8
Approach	NORTHBOUND			SOUTHBOUND		
Movement	L	T	R	L	T	R
Volume	2	2	24	15	2	11

7:45am - 8:00am

San Juan & Miller/Live Oak

Approach	EASTBOUND			WESTBOUND		
Movement	L	T	R	L	T	R
Volume	4	77	0	11	85	11
Approach	NORTHBOUND			SOUTHBOUND		
Movement	L	T	R	L	T	R
Volume	2	5	10	13	1	1

8:00am - 8:15am

San Juan & Miller/Live Oak

Approach	EASTBOUND			WESTBOUND		
Movement	L	T	R	L	T	R
Volume	1	68	0	6	56	7
Approach	NORTHBOUND			SOUTHBOUND		
Movement	L	T	R	L	T	R
Volume	5	3	14	25	2	2

8:15am - 8:30am

San Juan & Miller/Live Oak

Approach	EASTBOUND			WESTBOUND		
Movement	L	T	R	L	T	R
Volume	2	83	2	8	50	8
Approach	NORTHBOUND			SOUTHBOUND		
Movement	L	T	R	L	T	R
Volume	3	4	11	23	2	2

8:30am - 8:45am

San Juan & Miller/Live Oak

Approach	EASTBOUND			WESTBOUND		
Movement	L	T	R	L	T	R
Volume	2	80	0	6	43	12
Approach	NORTHBOUND			SOUTHBOUND		
Movement	L	T	R	L	T	R
Volume	3	2	15	10	2	0

8:45am - 9:00am

San Juan & Miller/Live Oak

Approach	EASTBOUND			WESTBOUND		
Movement	L	T	R	L	T	R
Volume	0	70	2	2	36	4
Approach	NORTHBOUND			SOUTHBOUND		
Movement	L	T	R	L	T	R
Volume	3	0	5	14	1	2

Traffic Study Volume Count Tot	12/15/2009				
Time	San Juan & Miller/Live Oak				Totals
3:00:00 PM to 3:15:00 PM	279				279
3:15:00 PM to 3:30:00 PM	256				256
3:30:00 PM to 3:45:00 PM	**281**				**281**
3:45:00 PM to 4:00:00 PM	262				262
4:00:00 PM to 4:15:00 PM	237				237
4:15:00 PM to 4:30:00 PM	244				244
4:30:00 PM to 4:45:00 PM	258				258
4:45:00 PM to 5:00:00 PM	237				237
BOLD = Busiest Traffic Time					

TOTALS FOR 3pm - 5pm
San Juan & Miller/Live Oak

Approach	EASTBOUND			WESTBOUND		
Movement	L	T	R	L	T	R
Volume	42	933	25	125	483	100
Approach	NORTHBOUND			SOUTHBOUND		
Movement	L	T	R	L	T	R
Volume	15	8	86	213	17	7

TOTALS FOR BUSIEST PEAK HOUR
3:00pm - 4:00pm
San Juan & Miller/Live Oak

Approach	EASTBOUND			WESTBOUND		
Movement	L	T	R	L	T	R
Volume	20	436	10	87	288	61
Approach	NORTHBOUND			SOUTHBOUND		
Movement	L	T	R	L	T	R
Volume	3	3	46	107	11	6

3:00pm - 3:15pm

San Juan & Miller/Live Oak

Approach	EASTBOUND			WESTBOUND		
Movement	L	T	R	L	T	R
Volume	5	96	2	24	66	20
Approach	NORTHBOUND			SOUTHBOUND		
Movement	L	T	R	L	T	R
Volume	1	0	18	41	4	2

3:15pm - 3:30pm

San Juan & Miller/Live Oak

Approach	EASTBOUND			WESTBOUND		
Movement	L	T	R	L	T	R
Volume	2	101	0	18	88	14
Approach	NORTHBOUND			SOUTHBOUND		
Movement	L	T	R	L	T	R
Volume	1	0	8	20	2	2

3:30pm - 3:45pm

San Juan & Miller/Live Oak

Approach	EASTBOUND			WESTBOUND		
Movement	L	T	R	L	T	R
Volume	9	124	3	27	69	11
Approach	NORTHBOUND			SOUTHBOUND		
Movement	L	T	R	L	T	R
Volume	0	1	5	29	2	1

3:45pm - 4:00pm

San Juan & Miller/Live Oak

Approach	EASTBOUND			WESTBOUND		
Movement	L	T	R	L	T	R
Volume	4	115	5	18	65	16
Approach	NORTHBOUND			SOUTHBOUND		
Movement	L	T	R	L	T	R
Volume	1	2	15	17	3	1

4:00pm - 4:15pm

San Juan & Miller/Live Oak

Approach	EASTBOUND			WESTBOUND		
Movement	L	T	R	L	T	R
Volume	9	121	4	6	52	6
Approach	NORTHBOUND			SOUTHBOUND		
Movement	L	T	R	L	T	R
Volume	4	0	9	26	0	0

4:15pm - 4:30pm

San Juan & Miller/Live Oak

Approach	EASTBOUND			WESTBOUND		
Movement	L	T	R	L	T	R
Volume	4	138	7	7	31	8
Approach	NORTHBOUND			SOUTHBOUND		
Movement	L	T	R	L	T	R
Volume	3	1	15	30	0	0

4:30pm - 4:45pm

San Juan & Miller/Live Oak

Approach	EASTBOUND			WESTBOUND		
Movement	L	T	R	L	T	R
Volume	5	127	2	9	51	18
Approach	NORTHBOUND			SOUTHBOUND		
Movement	L	T	R	L	T	R
Volume	4	3	14	20	5	0

4:45pm - 5:00pm

San Juan & Miller/Live Oak

Approach	EASTBOUND			WESTBOUND		
Movement	L	T	R	L	T	R
Volume	4	111	2	16	61	7
Approach	NORTHBOUND			SOUTHBOUND		
Movement	L	T	R	L	T	R
Volume	1	1	2	30	1	1

APPENDIX C

HCS+ AM DATA

Existing Intersection LOS as Calculated by HCS+

HCS+: Signalized Intersections Release 5.21

Analyst: Daniel E. Kramer
Agency: NOA
Date: 1/5/2010
Period: 715am - 815am
Project ID: Hollister Family Apartments
E/W St: San Juan Road

Inter.: San Juan, Miller, and LIve Oak
Area Type: All other areas
Jurisd: City of Hollister
Year : 2010
N/S St: Miller Road and Live Oak Drive

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	0	1	0	0	1	0
LGConfig	L	T	R	L	T	R	LTR			LTR		
Volume	13	300	5	20	318	36	13	13	59	70	6	21
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0			12.0		
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
WB Left	A				SB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	1.0	0.0				1.0	0.0	
Yellow	0.0					0.0		
All Red	0.0					0.0		

Cycle Length: 2.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	3600	1881	0.00	0.50	0.3	A		
T	880	1759	0.38	0.50	0.6	A	0.6	A
R	800	1599	0.01	0.50	0.3	A		
Westbound								
L	3600	1881	0.01	0.50	0.3	A		
T	848	1696	0.42	0.50	0.6	A	0.6	A
R	792	1583	0.05	0.50	0.3	A		
Northbound								
LTR	860	1720	0.11	0.50	0.3	A	0.3	A
Southbound								
LTR	923	1845	0.12	0.50	0.3	A	0.3	A

Intersection Delay = 0.5 (sec/veh) Intersection LOS = A

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: Daniel E. Kramer
Agency/Co.: NOA
Date Performed: 1/5/2010
Analysis Time Period: 715am - 815am
Intersection: San Juan, Miller, and LIve Oak
Area Type: All other areas
Jurisdiction: City of Hollister
Analysis Year: 2010
Project ID: Hollister Family Apartments
E/W St: San Juan Road N/S St: Miller Road and Live Oak Drive

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	13	300	5	20	318	36	13	13	59	70	6	21
% Heavy Veh	1	8	1	1	12	2	0	0	0	0	0	
PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PK 15 Vol	4	83	2	6	88	10	4	4	16	19	2	6
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat	1900	1900	1900	1900	1900	1900		1900			1900	
ParkExist												
NumPark												
No. Lanes		1	1	1		1	1	1	0	0	1	0
LGConfig	L	T	R	L	T	R		LTR			LTR	
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0		12.0			12.0	
RTOR Vol			0			0			0			0
Adj Flow	14	333	6	22	353	40		94			108	
%InSharedLn												
Prop LTs	1.000	0.000		1.000	0.000			0.149			0.722	
Prop RTs		0.000	1.000		0.000	1.000		0.702			0.213	
Peds Bikes		0			0			0			0	
Buses	0	0	0	0	0	0		0			0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Arriv. Type	3	3	3	3	3	3		3			3	
Unit Ext.	3.0	3.0	3.0	3.0	3.0	3.0		3.0			3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time	2.0	2.0	2.0	2.0	2.0	2.0		2.0			2.0	
Ext of g	2.0	2.0	2.0	2.0	2.0	2.0		2.0			2.0	
Ped Min g		3.2			3.2			3.2			3.2	

PHASE DATA

Phase Combination		1	2	3	4	5	6	7	8
EB	Left	A				NB Left	A		
	Thru	A				Thru	A		
	Right	A				Right	A		
	Peds					Peds			
WB	Left	A				SB Left	A		
	Thru	A				Thru	A		
	Right	A				Right	A		
	Peds					Peds			
NB	Right					EB Right			
SB	Right					WB Right			
Green		1.0	0.0			1.0	0.0		
Yellow		0.0				0.0			
All Red		0.0				0.0			

Cycle Length: 2.0 secs

VOLUME ADJUSTMENT AND SATURATION FLOW WORKSHEET

Volume Adjustment

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume, V	13	300	5	20	318	36	13	13	59	70	6	21
PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj flow	14	333	6	22	353	40	14	14	66	78	7	23
No. Lanes		1	1	1		1	1	1	0	1	0	0	1	0
Lane group	L		T	R	L		T	R		LTR			LTR	
Adj flow	14	333	6	22	353	40		94			108	
Prop LTs	1.000	0.000		1.000	0.000			0.149			0.722	
Prop RTs		0.000	1.000		0.000	1.000		0.702			0.213	

Saturation Flow Rate (see Exhibit 16-7 to determine the adjustment factors)

	Eastbound			Westbound			Northbound			Southbound		
LG	L	T	R	L	T	R		LTR			LTR	
So	1900	1900	1900	1900	1900	1900		1900			1900	
Lanes	1	1	1	1	1	1	0	1	0	0	1	0
fW	1.000	1.000	1.000	1.000	1.000	1.000		1.000			1.000	
fHV	0.990	0.926	0.990	0.990	0.893	0.980		1.000			1.000	
fG	1.000	1.000	1.000	1.000	1.000	1.000		1.000			1.000	
fP	1.000	1.000	1.000	1.000	1.000	1.000		1.000			1.000	
fBB	1.000	1.000	1.000	1.000	1.000	1.000		1.000			1.000	
fA	1.000	1.000	1.000	1.000	1.000	1.000		1.000			1.000	
fLU	1.000	1.000	1.000	1.000	1.000	1.000		1.000			1.000	
fRT		1.000	0.850		1.000	0.850		0.905			0.971	
fLT	1.000	1.000		1.000	1.000			1.000			1.000	
Sec.												
fLpb	1.000	1.000		1.000	1.000			1.000			1.000	
fRpb		1.000	1.000		1.000	1.000		1.000			1.000	
S	1881	1759	1599	1881	1696	1583		1720			1845	
Sec.												

CAPACITY AND LOS WORKSHEET

Capacity Analysis and Lane Group Capacity

Appr/ Mvmt	Lane Group	Adj Flow Rate (v)	Adj Sat Flow Rate (s)		Flow Ratio (v/s)	Green Ratio (g/C)	--Lane Group-- Capacity (c)	v/c Ratio
Eastbound								
Prot								
Perm								
Left	L	14	1881		0.01	0.50	3600	0.00
Prot								
Perm								
Thru	T	333	1759		0.19	0.50	880	0.38
Right	R	6	1599		0.00	0.50	800	0.01
Westbound								
Prot								
Perm								
Left	L	22	1881		0.01	0.50	3600	0.01
Prot								
Perm								
Thru	T	353	1696	#	0.21	0.50	848	0.42
Right	R	40	1583		0.03	0.50	792	0.05
Northbound								
Prot								
Perm								
Left								
Prot								
Perm								
Thru	LTR	94	1720		0.05	0.50	860	0.11
Right								
Southbound								
Prot								
Perm								
Left								
Prot								
Perm								
Thru	LTR	108	1845	#	0.06	0.50	923	0.12
Right								

Sum of flow ratios for critical lane groups, Yc = Sum (v/s) = 0.27
Total lost time per cycle, L = 0.00 sec
Critical flow rate to capacity ratio, Xc = (Yc)(C)/(C-L) = 0.27

Control Delay and LOS Determination

Appr/ Lane Grp	Ratios v/c	Ratios g/C	Unf Del d1	Prog Adj Fact	Lane Grp Cap	Incremental Factor k	Incremental Del d2	Res Del d3	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound												
L	0.00	0.50	0.3	1.000	3600	0.11	0.0	0.0	0.3	A		
T	0.38	0.50	0.3	1.000	880	0.11	0.3	0.0	0.6	A	0.6	A
R	0.01	0.50	0.3	1.000	800	0.11	0.0	0.0	0.3	A		
Westbound												
L	0.01	0.50	0.3	1.000	3600	0.11	0.0	0.0	0.3	A		
T	0.42	0.50	0.3	1.000	848	0.11	0.3	0.0	0.6	A	0.6	A
R	0.05	0.50	0.3	1.000	792	0.11	0.0	0.0	0.3	A		
Northbound												
LTR	0.11	0.50	0.3	1.000	860	0.11	0.1	0.0	0.3	A	0.3	A
Southbound												
LTR	0.12	0.50	0.3	1.000	923	0.11	0.1	0.0	0.3	A	0.3	A

Intersection delay = 0.5 (sec/veh) Intersection LOS = A

SUPPLEMENTAL PERMITTED LT WORKSHEET
for exclusive lefts

Input

	EB	WB	NB	SB
Opposed by Single(S) or Multiple(M) lane approach	M	M		
Cycle length, C 2.0 sec				
Total actual green time for LT lane group, G (s)	1.0	1.0		
Effective permitted green time for LT lane group, g(s)	1.0	1.0		
Opposing effective green time, go (s)	1.0	1.0		
Number of lanes in LT lane group, N	1	1		
Number of lanes in opposing approach, No	1	1		
Adjusted LT flow rate, VLT (veh/h)	14	22		
Proportion of LT in LT lane group, PLT	1.000	1.000		
Proportion of LT in opposing flow, PLTo	0.00	0.00		
Adjusted opposing flow rate, Vo (veh/h)	353	333		
Lost time for LT lane group, tL	0.00	0.00		
Computation				
LT volume per cycle, LTC=VLTC/3600	0.01	0.01		
Opposing lane util. factor, fLUo	1.000	1.000	1.000	1.000
Opposing flow, Volc=VoC/[3600(No)fLUo] (veh/ln/cyc)	0.20	0.19		
gf=G[exp(- a * (LTC ** b))]-tl, gf<=g	0.0	0.0		
Opposing platoon ratio, Rpo (refer Exhibit 16-11)	1.00	1.00		
Opposing Queue Ratio, qro=Max[1-Rpo(go/C),0]	0.50	0.50		
gq, (see Exhibit C16-4,5,6,7,8)	0.24	0.23		
gu=g-gq if gq>=gf, or = g-gf if gq<gf	0.76	0.77		
n=Max(gq-gf)/2,0)	0.12	0.11		
PTHo=1-PLTo	1.00	1.00		
PL*=PLT[1+(N-1)g/(gf+gu/EL1+4.24)]	1.00	1.00		
EL1 (refer to Exhibit C16-3)	1.82	1.79		
EL2=Max((1-Ptho**n)/Plto, 1.0)				
fmin=2(1+PL)/g or fmin=2(1+Pl)/g	4.00	4.00		
gdiff=max(gq-gf,0)	0.00	0.00		
fm=[gf/g]+[gu/g]/[1+PL(EL1-1)], (min=fmin;max=1.00)	1.00	1.00		
flt=fm=[gf/g]+[gu/g]/[1+PL(EL1-1)]+[gdiff/g]/[1+PL(EL2-1)],(fmin<=fm<=1.00)				
or flt=[fm+0.91(N-1)]/N**				
Left-turn adjustment, fLT	1.000	1.000		

For special case of single-lane approach opposed by multilane approach, see text.

* If Pl>=1 for shared left-turn lanes with N>1, then assume de-facto left-turn lane and redo calculations.

** For permitted left-turns with multiple exclusive left-turn lanes, flt=fm.

For special case of multilane approach opposed by single-lane approach or when gf>gq, see text.

SUPPLEMENTAL PERMITTED LT WORKSHEET
for shared lefts

Input

	EB	WB	NB	SB
Opposed by Single(S) or Multiple(M) lane approach			S	S
Cycle length, C 2.0 sec				
Total actual green time for LT lane group, G (s)			1.0	1.0
Effective permitted green time for LT lane group, g(s)			1.0	1.0
Opposing effective green time, go (s)			1.0	1.0
Number of lanes in LT lane group, N			1	1

Number of lanes in opposing approach, No				1	1
Adjusted LT flow rate, VLT (veh/h)				14	78
Proportion of LT in LT lane group, PLT	0.000	0.000	0.149	0.722	
Proportion of LT in opposing flow, PLTo				0.72	0.15
Adjusted opposing flow rate, Vo (veh/h)				108	94
Lost time for LT lane group, tL				0.00	0.00
Computation					
LT volume per cycle, LTC=VLTC/3600				0.01	0.04
Opposing lane util. factor, fLUo	1.000	1.000	1.000	1.000	
Opposing flow, Volc=VoC/[3600(No)fLUo] (veh/ln/cyc)				0.06	0.05
gf=G[exp(- a * (LTC ** b))]-tl, gf<=g				1.0	0.9
Opposing platoon ratio, Rpo (refer Exhibit 16-11)				1.00	1.00
Opposing Queue Ratio, qro=Max[1-Rpo(go/C),0]				0.50	0.50
gq, (see Exhibit C16-4,5,6,7,8)				0.28	0.25
gu=g-gq if gq>=gf, or = g-gf if gq<gf				0.04	0.11
n=Max(gq-gf)/2,0)				0.00	0.00
PTHo=1-PLTo				0.28	0.85
PL*=PLT[1+(N-1)g/(gf+gu/EL1+4.24)]				0.15	0.72
EL1 (refer to Exhibit C16-3)				1.54	1.52
EL2=Max((1-Ptho**n)/Plto, 1.0)				1.00	1.00
fmin=2(1+PL)/g or fmin=2(1+Pl)/g				2.30	3.44
gdiff=max(gq-gf,0)				0.00	0.00
fm=[gf/g]+[gu/g]/[1+PL(EL1-1)], (min=fmin;max=1.00)				1.00	1.00
flt=fm=[gf/g]+[gu/g]/[1+PL(EL1-1)]+[gdiff/g]/[1+PL(EL2-1)],(fmin<=fm<=1.00)					
or flt=[fm+0.91(N-1)]/N**					
Left-turn adjustment, fLT				1.000	1.000

For special case of single-lane approach opposed by multilane approach, see text.

* If Pl>=1 for shared left-turn lanes with N>1, then assume de-facto left-turn lane and redo calculations.

** For permitted left-turns with multiple exclusive left-turn lanes, flt=fm.

For special case of multilane approach opposed by single-lane approach or when gf>gq, see text.

SUPPLEMENTAL PEDESTRIAN-BICYCLE EFFECTS WORKSHEET

Permitted Left Turns	EB	WB	NB	SB
Effective pedestrian green time, gp (s)				
Conflicting pedestrian volume, Vped (p/h)				
Pedestrian flow rate, Vpedg (p/h)				
OCCpedg				
Opposing queue clearing green, gq (s)				
Eff. ped. green consumed by opp. veh. queue, gq/gp				
OCCpedu				
Opposing flow rate, Vo (veh/h)				
OCCr				
Number of cross-street receiving lanes, Nrec				
Number of turning lanes, Nturn				
ApbT				
Proportion of left turns, PLT				
Proportion of left turns using protected phase, PLTA				
Left-turn adjustment, fLpb				
Permitted Right Turns				
Effective pedestrian green time, gp (s)				
Conflicting pedestrian volume, Vped (p/h)				
Conflicting bicycle volume, Vbic (bicycles/h)				
Vpedg				
OCCpedg				
Effective green, g (s)				
Vbicg				

OCCbicg
OCCr
Number of cross-street receiving lanes, Nrec
Number of turning lanes, Nturn
ApbT
Proportion right-turns, PRT
Proportion right-turns using protected phase, PRTA
Right turn adjustment, fRpb

SUPPLEMENTAL UNIFORM DELAY WORKSHEET

	EBLT	WBLT	NBLT	SBLT
Cycle length, C	2.0 sec			
Adj. LT vol from Vol Adjustment Worksheet, v				
v/c ratio from Capacity Worksheet, X				
Protected phase effective green interval, g (s)				
Opposing queue effective green interval, gq				
Unopposed green interval, gu				
Red time r=(C-g-gq-gu)				
Arrival rate, qa=v/(3600(max[X,1.0]))				
Protected ph. departure rate, Sp=s/3600				
Permitted ph. departure rate, Ss=s(gq+gu)/(gu*3600)				
XPerm				
XProt				
Case				
Queue at beginning of green arrow, Qa				
Queue at beginning of unsaturated green, Qu				
Residual queue, Qr				
Uniform Delay, d1				

DELAY/LOS WORKSHEET WITH INITIAL QUEUE

Appr/ Lane Group	Initial Unmet Demand Q veh	Dur. Unmet Demand t hrs.	Uniform Delay		Initial Queue Param. u	Final Unmet Demand Q veh	Initial Queue Delay d3 sec	Lane Group Delay d sec
			Unadj. ds	Adj. d1 sec				
Eastbound								
L	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.3
T	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.6
R	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.3
Westbound								
L	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.3
T	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.6
R	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.3
Northbound								
	0.0						0.0	
LTR	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.3
	0.0						0.0	
Southbound								
	0.0						0.0	
LTR	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.3
	0.0						0.0	

Intersection Delay 0.5 sec/veh Intersection LOS A

BACK OF QUEUE WORKSHEET

	Eastbound			Westbound			Northbound	Southbound
LaneGroup	L	T	R	L	T	R	LTR	LTR
Init Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flow Rate	14	333	6	22	353	40	94	108
So	1900	1900	1900	1900	1900	1900	1900	1900
No.Lanes	1	1	1	1	1	1	0 1 0	0 1 0
SL	1881	1759	1599	1881	1696	1583	1720	1845
LnCapacity	3600	880	800	3600	848	792	860	923
Flow Ratio	0.0	0.2	0.0	0.0	0.2	0.0	0.1	0.1
v/c Ratio	0.00	0.38	0.01	0.01	0.42	0.05	0.11	0.12
Grn Ratio	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
I Factor		1.000			1.000		1.000	1.000
AT or PVG	3	3	3	3	3	3	3	3
Pltn Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF2	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0
kB	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Q2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Q Average	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.0
Q Spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Q Storage	0	0	0	0	0	0	0	0
Q S Ratio								
70th Percentile Output:								
fB%	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
BOQ	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.0
QSRatio								
85th Percentile Output:								
fB%	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
BOQ	0.0	0.2	0.0	0.0	0.3	0.0	0.1	0.1
QSRatio								
90th Percentile Output:								
fB%	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
BOQ	0.0	0.3	0.0	0.0	0.3	0.0	0.1	0.1
QSRatio								
95th Percentile Output:								
fB%	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
BOQ	0.0	0.3	0.0	0.0	0.4	0.0	0.1	0.1
QSRatio								
98th Percentile Output:								
fB%	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
BOQ	0.0	0.4	0.0	0.0	0.5	0.0	0.1	0.1
QSRatio								

ERROR MESSAGES

No errors to report.

APPENDIX C

HCS+ PM DATA

Existing Intersection LOS as Calculated by HCS+

HCS+: Signalized Intersections Release 5.21

Analyst: Daniel E. Kramer
Agency: NOA
Date: 1/5/2010
Period: 300pm - 400pm
Project ID: Hollister Family Apartments
E/W St: San Juan Road

Inter.: San Juan, Miller, and LIve Oak
Area Type: All other areas
Jurisd: City of Hollister
Year : 2010

N/S St: Miller Road and Live Oak Drive

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	0	1	0	0	1	0
LGConfig	L	T	R	L	T	R	LTR			LTR		
Volume	20	436	10	87	288	61	3	3	46	107	11	6
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0			12.0		
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left	A				NB Left	A			
Thru	A				Thru	A			
Right	A				Right	A			
Peds					Peds				
WB Left	A				SB Left	A			
Thru	A				Thru	A			
Right	A				Right	A			
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	1.0	0.0				1.0	0.0		
Yellow	0.0					0.0			
All Red	0.0					0.0			

Cycle Length: 2.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	3600	1881	0.01	0.50	0.3	A		
T	880	1759	0.55	0.50	1.1	A	1.0	A
R	800	1599	0.01	0.50	0.3	A		
Westbound								
L	3600	1881	0.03	0.50	0.3	A		
T	848	1696	0.38	0.50	0.6	A	0.5	A
R	792	1583	0.09	0.50	0.3	A		
Northbound								
LTR	836	1671	0.07	0.50	0.3	A	0.3	A
Southbound								
LTR	944	1887	0.15	0.50	0.3	A	0.3	A

Intersection Delay = 0.7 (sec/veh) Intersection LOS = A

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: Daniel E. Kramer
Agency/Co.: NOA
Date Performed: 1/5/2010
Analysis Time Period: 300pm - 400pm
Intersection: San Juan, Miller, and LIve Oak
Area Type: All other areas
Jurisdiction: City of Hollister
Analysis Year: 2010
Project ID: Hollister Family Apartments
E/W St: San Juan Road N/S St: Miller Road and Live Oak Drive

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	20	436	10	87	288	61	3	3	46	107	11	6
% Heavy Veh	1	8	1	1	12	2	0	0	0	0	0	0
PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PK 15 Vol	6	121	3	24	80	17	1	1	13	30	3	2
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat	1900	1900	1900	1900	1900	1900		1900			1900	
ParkExist												
NumPark												
No. Lanes		1	1	1		1	1	1	0	1	0	0	1	0
LGConfig	L		T	R	L		T	R		LTR			LTR	
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0		12.0			12.0	
RTOR Vol			0			0			0			0
Adj Flow	22	484	11	97	320	68		57			138	
%InSharedLn												
Prop LTs	1.000	0.000		1.000	0.000			0.053			0.862	
Prop RTs		0.000	1.000		0.000	1.000		0.895			0.051	
Peds Bikes		0			0			0			0	
Buses	0	0	0	0	0	0		0			0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Arriv. Type	3	3	3	3	3	3		3			3	
Unit Ext.	3.0	3.0	3.0	3.0	3.0	3.0		3.0			3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time	2.0	2.0	2.0	2.0	2.0	2.0		2.0			2.0	
Ext of g	2.0	2.0	2.0	2.0	2.0	2.0		2.0			2.0	
Ped Min g		3.2			3.2			3.2			3.2	

PHASE DATA

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
WB Left	A				SB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	1.0	0.0				1.0	0.0	
Yellow	0.0					0.0		
All Red	0.0					0.0		

Cycle Length: 2.0 secs

VOLUME ADJUSTMENT AND SATURATION FLOW WORKSHEET

Volume Adjustment

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume, V	20	436	10	87	288	61	3	3	46	107	11	6
PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj flow	22	484	11	97	320	68	3	3	51	119	12	7
No. Lanes	1	1	1	1	1	1	0	1	0	0	1	0
Lane group	L	T	R	L	T	R		LTR			LTR	
Adj flow	22	484	11	97	320	68		57			138	
Prop LTs	1.000	0.000		1.000	0.000			0.053			0.862	
Prop RTs		0.000	1.000		0.000	1.000		0.895			0.051	

Saturation Flow Rate (see Exhibit 16-7 to determine the adjustment factors)

	Eastbound			Westbound			Northbound			Southbound		
LG	L	T	R	L	T	R		LTR			LTR	
So	1900	1900	1900	1900	1900	1900		1900			1900	
Lanes	1	1	1	1	1	1	0	1	0	0	1	0
fW	1.000	1.000	1.000	1.000	1.000	1.000		1.000			1.000	
fHV	0.990	0.926	0.990	0.990	0.893	0.980		1.000			1.000	
fG	1.000	1.000	1.000	1.000	1.000	1.000		1.000			1.000	
fP	1.000	1.000	1.000	1.000	1.000	1.000		1.000			1.000	
fBB	1.000	1.000	1.000	1.000	1.000	1.000		1.000			1.000	
fA	1.000	1.000	1.000	1.000	1.000	1.000		1.000			1.000	
fLU	1.000	1.000	1.000	1.000	1.000	1.000		1.000			1.000	
fRT		1.000	0.850		1.000	0.850		0.879			0.993	
fLT	1.000	1.000		1.000	1.000			1.000			1.000	
Sec.												
fLpb	1.000	1.000		1.000	1.000			1.000			1.000	
fRpb		1.000	1.000		1.000	1.000		1.000			1.000	
S	1881	1759	1599	1881	1696	1583		1671			1887	
Sec.												

CAPACITY AND LOS WORKSHEET

Capacity Analysis and Lane Group Capacity

Appr/ Mvmt	Lane Group	Adj Flow Rate (v)	Adj Sat Flow Rate (s)		Flow Ratio (v/s)	Green Ratio (g/C)	--Lane Group-- Capacity (c)	v/c Ratio
Eastbound								
Prot								
Perm								
Left	L	22	1881		0.01	0.50	3600	0.01
Prot								
Perm								
Thru	T	484	1759	#	0.28	0.50	880	0.55
Right	R	11	1599		0.01	0.50	800	0.01
Westbound								
Prot								
Perm								
Left	L	97	1881		0.05	0.50	3600	0.03
Prot								
Perm								
Thru	T	320	1696		0.19	0.50	848	0.38
Right	R	68	1583		0.04	0.50	792	0.09
Northbound								
Prot								
Perm								
Left								
Prot								
Perm								
Thru	LTR	57	1671		0.03	0.50	836	0.07
Right								
Southbound								
Prot								
Perm								
Left								
Prot								
Perm								
Thru	LTR	138	1887	#	0.07	0.50	944	0.15
Right								

Sum of flow ratios for critical lane groups, Yc = Sum (v/s) = 0.35
Total lost time per cycle, L = 0.00 sec
Critical flow rate to capacity ratio, Xc = (Yc)(C)/(C-L) = 0.35

Control Delay and LOS Determination

Appr/ Lane Grp	Ratios v/c	Ratios g/C	Unf Del d1	Prog Adj Fact	Lane Grp Cap	Incremental Factor k	Incremental Del d2	Res Del d3	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound												
L	0.01	0.50	0.3	1.000	3600	0.11	0.0	0.0	0.3	A		
T	0.55	0.50	0.3	1.000	880	0.15	0.7	0.0	1.1	A	1.0	A
R	0.01	0.50	0.3	1.000	800	0.11	0.0	0.0	0.3	A		
Westbound												
L	0.03	0.50	0.3	1.000	3600	0.11	0.0	0.0	0.3	A		
T	0.38	0.50	0.3	1.000	848	0.11	0.3	0.0	0.6	A	0.5	A
R	0.09	0.50	0.3	1.000	792	0.11	0.0	0.0	0.3	A		
Northbound												
LTR	0.07	0.50	0.3	1.000	836	0.11	0.0	0.0	0.3	A	0.3	A
Southbound												
LTR	0.15	0.50	0.3	1.000	944	0.11	0.1	0.0	0.3	A	0.3	A

Intersection delay = 0.7 (sec/veh) Intersection LOS = A

SUPPLEMENTAL PERMITTED LT WORKSHEET
for exclusive lefts

Input

		EB	WB	NB	SB
Opposed by Single(S) or Multiple(M) lane approach		M	M		
Cycle length, C	2.0 sec				
Total actual green time for LT lane group, G (s)		1.0	1.0		
Effective permitted green time for LT lane group, g(s)		1.0	1.0		
Opposing effective green time, go (s)		1.0	1.0		
Number of lanes in LT lane group, N		1	1		
Number of lanes in opposing approach, No		1	1		
Adjusted LT flow rate, VLT (veh/h)		22	97		
Proportion of LT in LT lane group, PLT		1.000	1.000		
Proportion of LT in opposing flow, PLTo		0.00	0.00		
Adjusted opposing flow rate, Vo (veh/h)		320	484		
Lost time for LT lane group, tL		0.00	0.00		
Computation					
LT volume per cycle, LTC=VLTC/3600		0.01	0.05		
Opposing lane util. factor, fLUo		1.000	1.000	1.000	1.000
Opposing flow, Volc=VoC/[3600(No)fLUo] (veh/ln/cyc)		0.18	0.27		
gf=G[exp(- a * (LTC ** b))]-tl, gf<=g		0.0	0.0		
Opposing platoon ratio, Rpo (refer Exhibit 16-11)		1.00	1.00		
Opposing Queue Ratio, qro=Max[1-Rpo(go/C),0]		0.50	0.50		
gq, (see Exhibit C16-4,5,6,7,8)		0.22	0.37		
gu=g-gq if gq>=gf, or = g-gf if gq<gf		0.78	0.63		
n=Max(gq-gf)/2,0)		0.11	0.18		
PTHo=1-PLTo		1.00	1.00		
PL*=PLT[1+(N-1)g/(gf+gu/EL1+4.24)]		1.00	1.00		
EL1 (refer to Exhibit C16-3)		1.77	2.05		
EL2=Max((1-Ptho**n)/Plto, 1.0)					
fmin=2(1+PL)/g or fmin=2(1+Pl)/g		4.00	4.00		
gdiff=max(gq-gf,0)		0.00	0.00		
fm=[gf/g]+[gu/g]/[1+PL(EL1-1)], (min=fmin;max=1.00)		1.00	1.00		
flt=fm=[gf/g]+[gu/g]/[1+PL(EL1-1)]+[gdiff/g]/[1+PL(EL2-1)], (fmin<=fm<=1.00)					
or flt=[fm+0.91(N-1)]/N**					
Left-turn adjustment, fLT		1.000	1.000		

For special case of single-lane approach opposed by multilane approach, see text.
* If Pl>=1 for shared left-turn lanes with N>1, then assume de-facto left-turn lane and redo calculations.
** For permitted left-turns with multiple exclusive left-turn lanes, flt=fm.
For special case of multilane approach opposed by single-lane approach or when gf>gq, see text.

SUPPLEMENTAL PERMITTED LT WORKSHEET
for shared lefts

Input

		EB	WB	NB	SB
Opposed by Single(S) or Multiple(M) lane approach				S	S
Cycle length, C	2.0 sec				
Total actual green time for LT lane group, G (s)				1.0	1.0
Effective permitted green time for LT lane group, g(s)				1.0	1.0
Opposing effective green time, go (s)				1.0	1.0
Number of lanes in LT lane group, N				1	1

Number of lanes in opposing approach, No			1	1
Adjusted LT flow rate, VLT (veh/h)			3	119
Proportion of LT in LT lane group, PLT	0.000	0.000	0.053	0.862
Proportion of LT in opposing flow, PLTo			0.86	0.05
Adjusted opposing flow rate, Vo (veh/h)			138	57
Lost time for LT lane group, tL			0.00	0.00
Computation				
LT volume per cycle, LTC=VLTC/3600			0.00	0.07
Opposing lane util. factor, fLUo	1.000	1.000	1.000	1.000
Opposing flow, Volc=VoC/[3600(No)fLUo] (veh/ln/cyc)			0.08	0.03
gf=G[exp(- a * (LTC ** b))]-tl, gf<=g			1.0	0.9
Opposing platoon ratio, Rpo (refer Exhibit 16-11)			1.00	1.00
Opposing Queue Ratio, qro=Max[1-Rpo(go/C),0]			0.50	0.50
gq, (see Exhibit C16-4,5,6,7,8)			0.33	0.17
gu=g-gq if gq>=gf, or = g-gf if gq<gf			0.02	0.14
n=Max(gq-gf)/2,0)			0.00	0.00
PTHo=1-PLTo			0.14	0.95
PL*=PLT[1+(N-1)g/(gf+gu/EL1+4.24)]			0.05	0.86
EL1 (refer to Exhibit C16-3)			1.59	1.46
EL2=Max((1-Ptho**n)/Plto, 1.0)			1.00	1.00
fmin=2(1+PL)/g or fmin=2(1+Pl)/g			2.11	3.72
gdiff=max(gq-gf,0)			0.00	0.00
fm=[gf/g]+[gu/g]/[1+PL(EL1-1)], (min=fmin;max=1.00)			1.00	1.00
flt=fm=[gf/g]+[gu/g]/[1+PL(EL1-1)]+[gdiff/g]/[1+PL(EL2-1)],(fmin<=fm<=1.00)				
or flt=[fm+0.91(N-1)]/N**				
Left-turn adjustment, fLT			1.000	1.000

For special case of single-lane approach opposed by multilane approach, see text.

* If Pl>=1 for shared left-turn lanes with N>1, then assume de-facto left-turn lane and redo calculations.

** For permitted left-turns with multiple exclusive left-turn lanes, flt=fm.

For special case of multilane approach opposed by single-lane approach or when gf>gq, see text.

SUPPLEMENTAL PEDESTRIAN-BICYCLE EFFECTS WORKSHEET

Permitted Left Turns

	EB	WB	NB	SB
Effective pedestrian green time, gp (s)				
Conflicting pedestrian volume, Vped (p/h)				
Pedestrian flow rate, Vpedg (p/h)				
OCCpedg				
Opposing queue clearing green, gq (s)				
Eff. ped. green consumed by opp. veh. queue, gq/gp				
OCCpedu				
Opposing flow rate, Vo (veh/h)				
OCCr				
Number of cross-street receiving lanes, Nrec				
Number of turning lanes, Nturn				
ApbT				
Proportion of left turns, PLT				
Proportion of left turns using protected phase, PLTA				
Left-turn adjustment, fLpb				
Permitted Right Turns				
Effective pedestrian green time, gp (s)				
Conflicting pedestrian volume, Vped (p/h)				
Conflicting bicycle volume, Vbic (bicycles/h)				
Vpedg				
OCCpedg				
Effective green, g (s)				
Vbicg				

OCCbicg
OCCr
Number of cross-street receiving lanes, Nrec
Number of turning lanes, Nturn
ApbT
Proportion right-turns, PRT
Proportion right-turns using protected phase, PRTA
Right turn adjustment, fRpb

SUPPLEMENTAL UNIFORM DELAY WORKSHEET

	EBLT	WBLT	NBLT	SBLT
Cycle length, C	2.0 sec			
Adj. LT vol from Vol Adjustment Worksheet, v				
v/c ratio from Capacity Worksheet, X				
Protected phase effective green interval, g (s)				
Opposing queue effective green interval, gq				
Unopposed green interval, gu				
Red time r=(C-g-gq-gu)				
Arrival rate, qa=v/(3600(max[X,1.0]))				
Protected ph. departure rate, Sp=s/3600				
Permitted ph. departure rate, Ss=s(gq+gu)/(gu*3600)				
XPerm				
XProt				
Case				
Queue at beginning of green arrow, Qa				
Queue at beginning of unsaturated green, Qu				
Residual queue, Qr				
Uniform Delay, d1				

DELAY/LOS WORKSHEET WITH INITIAL QUEUE

Appr/ Lane Group	Initial Unmet Demand Q veh	Dur. Unmet Demand t hrs.	Uniform Delay		Initial Queue Param. u	Final Unmet Demand Q veh	Initial Queue Delay d3 sec	Lane Group Delay d sec
			Unadj. ds	Adj. d1 sec				
Eastbound								
L	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.3
T	0.0	0.00	0.5	0.3	0.00	0.0	0.0	1.1
R	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.3
Westbound								
L	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.3
T	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.6
R	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.3
Northbound								
	0.0						0.0	
LTR	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.3
	0.0						0.0	
Southbound								
	0.0						0.0	
LTR	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.3
	0.0						0.0	

Intersection Delay 0.7 sec/veh Intersection LOS A

BACK OF QUEUE WORKSHEET

	Eastbound			Westbound			Northbound			Southbound		
LaneGroup	L	T	R	L	T	R	LTR			LTR		
Init Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0		
Flow Rate	22	484	11	97	320	68	57			138		
So	1900	1900	1900	1900	1900	1900	1900			1900		
No.Lanes	1	1	1	1	1	1	0	1	0	0	1	0
SL	1881	1759	1599	1881	1696	1583	1671			1887		
LnCapacity	3600	880	800	3600	848	792	836			944		
Flow Ratio	0.0	0.3	0.0	0.1	0.2	0.0	0.0			0.1		
v/c Ratio	0.01	0.55	0.01	0.03	0.38	0.09	0.07			0.15		
Grn Ratio	0.50	0.50	0.50	0.50	0.50	0.50	0.50			0.50		
I Factor		1.000			1.000		1.000			1.000		
AT or PVG	3	3	3	3	3	3	3			3		
Pltn Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
PF2	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Q1	0.0	0.2	0.0	0.0	0.1	0.0	0.0			0.0		
kB	0.1	0.1	0.1	0.1	0.1	0.1	0.1			0.1		
Q2	0.0	0.1	0.0	0.0	0.0	0.0	0.0			0.0		
Q Average	0.0	0.3	0.0	0.0	0.1	0.0	0.0			0.1		
Q Spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0			25.0		
Q Storage	0	0	0	0	0	0	0			0		
Q S Ratio												
70th Percentile Output:												
fB%	1.2	1.2	1.2	1.2	1.2	1.2	1.2			1.2		
BOQ	0.0	0.3	0.0	0.0	0.2	0.0	0.0			0.1		
QSRatio												
85th Percentile Output:												
fB%	1.6	1.6	1.6	1.6	1.6	1.6	1.6			1.6		
BOQ	0.0	0.4	0.0	0.0	0.2	0.0	0.0			0.1		
QSRatio												
90th Percentile Output:												
fB%	1.8	1.8	1.8	1.8	1.8	1.8	1.8			1.8		
BOQ	0.0	0.5	0.0	0.1	0.3	0.0	0.0			0.1		
QSRatio												
95th Percentile Output:												
fB%	2.1	2.1	2.1	2.1	2.1	2.1	2.1			2.1		
BOQ	0.0	0.6	0.0	0.1	0.3	0.1	0.0			0.1		
QSRatio												
98th Percentile Output:												
fB%	2.7	2.7	2.7	2.7	2.7	2.7	2.7			2.7		
BOQ	0.0	0.7	0.0	0.1	0.4	0.1	0.1			0.1		
QSRatio												

ERROR MESSAGES

No errors to report.

APPENDIX C

HCS+ PM DATA

Existing Intersection plus Approved Projects LOS as Calculated by HCS+

HCS+: Signalized Intersections Release 5.21

Analyst: Daniel E. Kramer
Agency: NOA
Date: 1/5/2010
Period: 300pm - 400pm
Project ID: Hollister Family Apartments
E/W St: San Juan Road

Inter.: San Juan, Miller, and LIve Oak
Area Type: All other areas
Jurisd: City of Hollister
Year : 2010

N/S St: Miller Road and Live Oak Drive

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	0	1	0	0	1	0
LGConfig	L	T	R	L	T	R		LTR			LTR	
Volume	27	598	14	119	397	85	5	5	62	147	15	8
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0		12.0			12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	A				NB	Left	A			
	Thru	A					Thru	A			
	Right	A					Right	A			
	Peds						Peds				
WB	Left	A				SB	Left	A			
	Thru	A					Thru	A			
	Right	A					Right	A			
	Peds						Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		1.0	0.0					1.0	0.0		
Yellow		0.0						0.0			
All Red		0.0						0.0			

Cycle Length: 2.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	3600	1881	0.01	0.50	0.3	A		
T	880	1759	0.75	0.50	4.2	A	3.9	A
R	800	1599	0.02	0.50	0.3	A		
Westbound								
L	3600	1881	0.04	0.50	0.3	A		
T	848	1696	0.52	0.50	0.9	A	0.7	A
R	792	1583	0.12	0.50	0.3	A		
Northbound								
LTR	841	1681	0.10	0.50	0.3	A	0.3	A
Southbound								
LTR	944	1888	0.20	0.50	0.4	A	0.4	A

Intersection Delay = 2.0 (sec/veh) Intersection LOS = A

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: Daniel E. Kramer
Agency/Co.: NOA
Date Performed: 1/5/2010
Analysis Time Period: 300pm - 400pm
Intersection: San Juan, Miller, and LIve Oak
Area Type: All other areas
Jurisdiction: City of Hollister
Analysis Year: 2010
Project ID: Hollister Family Apartments
E/W St: San Juan Road N/S St: Miller Road and Live Oak Drive

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	27	598	14	119	397	85	5	5	62	147	15	8
% Heavy Veh	1	8	1	1	12	2	0	0	0	0	0	0
PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PK 15 Vol	8	166	4	33	110	24	2	2	17	41	4	2
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat	1900	1900	1900	1900	1900	1900		1900			1900	
ParkExist												
NumPark												
No. Lanes	1	1	1	1	1	1	0	1	0	0	1	0
LGConfig	L	T	R	L	T	R		LTR			LTR	
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0		12.0			12.0	
RTOR Vol			0			0			0			0
Adj Flow	30	664	16	132	441	94		81			189	
%InSharedLn												
Prop LTs	1.000	0.000		1.000	0.000			0.074			0.862	
Prop RTs		0.000	1.000		0.000	1.000		0.852			0.048	
Peds Bikes		0			0			0			0	
Buses	0	0	0	0	0	0		0			0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Arriv. Type	3	3	3	3	3	3		3			3	
Unit Ext.	3.0	3.0	3.0	3.0	3.0	3.0		3.0			3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time	2.0	2.0	2.0	2.0	2.0	2.0		2.0			2.0	
Ext of g	2.0	2.0	2.0	2.0	2.0	2.0		2.0			2.0	
Ped Min g		3.2			3.2			3.2			3.2	

PHASE DATA

Phase Combination		1	2	3	4		5	6	7	8
EB	Left	A				NB Left	A			
	Thru	A				Thru	A			
	Right	A				Right	A			
	Peds					Peds				
WB	Left	A				SB Left	A			
	Thru	A				Thru	A			
	Right	A				Right	A			
	Peds					Peds				
NB	Right					EB Right				
SB	Right					WB Right				
Green		1.0	0.0				1.0	0.0		
Yellow		0.0					0.0			
All Red		0.0					0.0			

Cycle Length: 2.0 secs

VOLUME ADJUSTMENT AND SATURATION FLOW WORKSHEET

Volume Adjustment

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume, V	27	598	14	119	397	85	5	5	62	147	15	8
PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj flow	30	664	16	132	441	94	6	6	69	163	17	9
No. Lanes	1	1	1	1	1	1	0	1	0	0	1	0
Lane group	L	T	R	L	T	R	LTR			LTR		
Adj flow	30	664	16	132	441	94	81			189		
Prop LTs	1.000	0.000		1.000	0.000		0.074			0.862		
Prop RTs	0.000	1.000		0.000	1.000		0.852			0.048		

Saturation Flow Rate (see Exhibit 16-7 to determine the adjustment factors)

	Eastbound			Westbound			Northbound			Southbound		
LG	L	T	R	L	T	R	LTR			LTR		
So	1900	1900	1900	1900	1900	1900	1900			1900		
Lanes	1	1	1	1	1	1	0 1	0	0	1	0	
fW	1.000	1.000	1.000	1.000	1.000	1.000	1.000			1.000		
fHV	0.990	0.926	0.990	0.990	0.893	0.980	1.000			1.000		
fG	1.000	1.000	1.000	1.000	1.000	1.000	1.000			1.000		
fP	1.000	1.000	1.000	1.000	1.000	1.000	1.000			1.000		
fBB	1.000	1.000	1.000	1.000	1.000	1.000	1.000			1.000		
fA	1.000	1.000	1.000	1.000	1.000	1.000	1.000			1.000		
fLU	1.000	1.000	1.000	1.000	1.000	1.000	1.000			1.000		
fRT		1.000	0.850		1.000	0.850	0.885			0.994		
fLT	1.000	1.000		1.000	1.000		1.000			1.000		
Sec.												
fLpb	1.000	1.000		1.000	1.000		1.000			1.000		
fRpb		1.000	1.000		1.000	1.000	1.000			1.000		
S	1881	1759	1599	1881	1696	1583	1681			1888		
Sec.												

CAPACITY AND LOS WORKSHEET

Capacity Analysis and Lane Group Capacity

Appr/ Mvmt	Lane Group	Adj Flow Rate (v)	Adj Sat Flow Rate (s)		Flow Ratio (v/s)	Green Ratio (g/C)	--Lane Group-- Capacity (c)	v/c Ratio
Eastbound								
Prot								
Perm								
Left	L	30	1881		0.02	0.50	3600	0.01
Prot								
Perm								
Thru	T	664	1759	#	0.38	0.50	880	0.75
Right	R	16	1599		0.01	0.50	800	0.02
Westbound								
Prot								
Perm								
Left	L	132	1881		0.07	0.50	3600	0.04
Prot								
Perm								
Thru	T	441	1696		0.26	0.50	848	0.52
Right	R	94	1583		0.06	0.50	792	0.12
Northbound								
Prot								
Perm								
Left								
Prot								
Perm								
Thru	LTR	81	1681		0.05	0.50	841	0.10
Right								
Southbound								
Prot								
Perm								
Left								
Prot								
Perm								
Thru	LTR	189	1888	#	0.10	0.50	944	0.20
Right								

Sum of flow ratios for critical lane groups, Yc = Sum (v/s) = 0.48
Total lost time per cycle, L = 0.00 sec
Critical flow rate to capacity ratio, Xc = (Yc)(C)/(C-L) = 0.48

Control Delay and LOS Determination

Appr/ Lane Grp	Ratios v/c	Ratios g/C	Unf Del d1	Prog Adj Fact	Lane Grp Cap	Incremental Factor k	Incremental Del d2	Res Del d3	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound												
L	0.01	0.50	0.3	1.000	3600	0.11	0.0	0.0	0.3	A		
T	0.75	0.50	0.4	1.000	880	0.31	3.8	0.0	4.2	A	3.9	A
R	0.02	0.50	0.3	1.000	800	0.11	0.0	0.0	0.3	A		
Westbound												
L	0.04	0.50	0.3	1.000	3600	0.11	0.0	0.0	0.3	A		
T	0.52	0.50	0.3	1.000	848	0.13	0.6	0.0	0.9	A	0.7	A
R	0.12	0.50	0.3	1.000	792	0.11	0.1	0.0	0.3	A		
Northbound												
LTR	0.10	0.50	0.3	1.000	841	0.11	0.1	0.0	0.3	A	0.3	A
Southbound												
LTR	0.20	0.50	0.3	1.000	944	0.11	0.1	0.0	0.4	A	0.4	A

Intersection delay = 2.0 (sec/veh) Intersection LOS = A

SUPPLEMENTAL PERMITTED LT WORKSHEET
for exclusive lefts

Input

	EB	WB	NB	SB
Opposed by Single(S) or Multiple(M) lane approach	M	M		
Cycle length, C 2.0 sec				
Total actual green time for LT lane group, G (s)	1.0	1.0		
Effective permitted green time for LT lane group, g(s)	1.0	1.0		
Opposing effective green time, go (s)	1.0	1.0		
Number of lanes in LT lane group, N	1	1		
Number of lanes in opposing approach, No	1	1		
Adjusted LT flow rate, VLT (veh/h)	30	132		
Proportion of LT in LT lane group, PLT	1.000	1.000		
Proportion of LT in opposing flow, PLTo	0.00	0.00		
Adjusted opposing flow rate, Vo (veh/h)	441	664		
Lost time for LT lane group, tL	0.00	0.00		
Computation				
LT volume per cycle, LTC=VLTC/3600	0.02	0.07		
Opposing lane util. factor, fLUo	1.000	1.000	1.000	1.000
Opposing flow, Volc=VoC/[3600(No)fLUo] (veh/ln/cyc)	0.25	0.37		
gf=G[exp(- a * (LTC ** b))]-tl, gf<=g	0.0	0.0		
Opposing platoon ratio, Rpo (refer Exhibit 16-11)	1.00	1.00		
Opposing Queue Ratio, qro=Max[1-Rpo(go/C),0]	0.50	0.50		
gq, (see Exhibit C16-4,5,6,7,8)	0.32	0.58		
gu=g-gq if gq>=gf, or = g-gf if gq<gf	0.68	0.42		
n=Max(gq-gf)/2,0)	0.16	0.29		
PTHo=1-PLTo	1.00	1.00		
PL*=PLT[1+(N-1)g/(gf+gu/EL1+4.24)]	1.00	1.00		
EL1 (refer to Exhibit C16-3)	1.97	2.42		
EL2=Max((1-Ptho**n)/Plto, 1.0)				
fmin=2(1+PL)/g or fmin=2(1+Pl)/g	4.00	4.00		
gdiff=max(gq-gf,0)	0.00	0.00		
fm=[gf/g]+[gu/g]/[1+PL(EL1-1)], (min=fmin;max=1.00)	1.00	1.00		
flt=fm=[gf/g]+[gu/g]/[1+PL(EL1-1)]+[gdiff/g]/[1+PL(EL2-1)],(fmin<=fm<=1.00)				
or flt=[fm+0.91(N-1)]/N**				
Left-turn adjustment, fLT	1.000	1.000		

For special case of single-lane approach opposed by multilane approach, see text.

* If Pl>=1 for shared left-turn lanes with N>1, then assume de-facto left-turn lane and redo calculations.

** For permitted left-turns with multiple exclusive left-turn lanes, flt=fm.

For special case of multilane approach opposed by single-lane approach or when gf>gq, see text.

SUPPLEMENTAL PERMITTED LT WORKSHEET
for shared lefts

Input

	EB	WB	NB	SB
Opposed by Single(S) or Multiple(M) lane approach			S	S
Cycle length, C 2.0 sec				
Total actual green time for LT lane group, G (s)			1.0	1.0
Effective permitted green time for LT lane group, g(s)			1.0	1.0
Opposing effective green time, go (s)			1.0	1.0
Number of lanes in LT lane group, N			1	1

Number of lanes in opposing approach, No			1	1
Adjusted LT flow rate, VLT (veh/h)			6	163
Proportion of LT in LT lane group, PLT	0.000	0.000	0.074	0.862
Proportion of LT in opposing flow, PLTo			0.86	0.07
Adjusted opposing flow rate, Vo (veh/h)			189	81
Lost time for LT lane group, tL			0.00	0.00
Computation				
LT volume per cycle, LTC=VLTC/3600			0.00	0.09
Opposing lane util. factor, fLUo	1.000	1.000	1.000	1.000
Opposing flow, Volc=VoC/[3600(No)fLUo] (veh/ln/cyc)			0.10	0.05
gf=G[exp(- a * (LTC ** b))]-tl, gf<=g			1.0	0.8
Opposing platoon ratio, Rpo (refer Exhibit 16-11)			1.00	1.00
Opposing Queue Ratio, qro=Max[1-Rpo(go/C),0]			0.50	0.50
gq, (see Exhibit C16-4,5,6,7,8)			0.43	0.22
gu=g-gq if gq>=gf, or = g-gf if gq<gf			0.02	0.17
n=Max(gq-gf)/2,0)			0.00	0.00
PTHo=1-PLTo			0.14	0.93
PL*=PLT[1+(N-1)g/(gf+gu/EL1+4.24)]			0.07	0.86
EL1 (refer to Exhibit C16-3)			1.68	1.50
EL2=Max((1-Ptho**n)/Plto, 1.0)			1.00	1.00
fmin=2(1+PL)/g or fmin=2(1+Pl)/g			2.15	3.72
gdiff=max(gq-gf,0)			0.00	0.00
fm=[gf/g]+[gu/g]/[1+PL(EL1-1)], (min=fmin;max=1.00)			1.00	1.00
flt=fm=[gf/g]+[gu/g]/[1+PL(EL1-1)]+[gdiff/g]/[1+PL(EL2-1)],(fmin<=fm<=1.00)				
or flt=[fm+0.91(N-1)]/N**				
Left-turn adjustment, fLT			1.000	1.000

For special case of single-lane approach opposed by multilane approach, see text.
* If Pl>=1 for shared left-turn lanes with N>1, then assume de-facto left-turn lane and redo calculations.
** For permitted left-turns with multiple exclusive left-turn lanes, flt=fm.
For special case of multilane approach opposed by single-lane approach or when gf>gq, see text.

SUPPLEMENTAL PEDESTRIAN-BICYCLE EFFECTS WORKSHEET

Permitted Left Turns

	EB	WB	NB	SB
Effective pedestrian green time, gp (s)				
Conflicting pedestrian volume, Vped (p/h)				
Pedestrian flow rate, Vpedg (p/h)				
OCCpedg				
Opposing queue clearing green, gq (s)				
Eff. ped. green consumed by opp. veh. queue, gq/gp				
OCCpedu				
Opposing flow rate, Vo (veh/h)				
OCCr				
Number of cross-street receiving lanes, Nrec				
Number of turning lanes, Nturn				
ApbT				
Proportion of left turns, PLT				
Proportion of left turns using protected phase, PLTA				
Left-turn adjustment, fLpb				
Permitted Right Turns				
Effective pedestrian green time, gp (s)				
Conflicting pedestrian volume, Vped (p/h)				
Conflicting bicycle volume, Vbic (bicycles/h)				
Vpedg				
OCCpedg				
Effective green, g (s)				
Vbicg				

OCCbicg
OCCr
Number of cross-street receiving lanes, Nrec
Number of turning lanes, Nturn
ApbT
Proportion right-turns, PRT
Proportion right-turns using protected phase, PRTA
Right turn adjustment, fRpb

SUPPLEMENTAL UNIFORM DELAY WORKSHEET

	EBLT	WBLT	NBLT	SBLT
Cycle length, C	2.0 sec			
Adj. LT vol from Vol Adjustment Worksheet, v				
v/c ratio from Capacity Worksheet, X				
Protected phase effective green interval, g (s)				
Opposing queue effective green interval, gq				
Unopposed green interval, gu				
Red time r=(C-g-gq-gu)				
Arrival rate, qa=v/(3600(max[X,1.0]))				
Protected ph. departure rate, Sp=s/3600				
Permitted ph. departure rate, Ss=s(gq+gu)/(gu*3600)				
XPerm				
XProt				
Case				
Queue at beginning of green arrow, Qa				
Queue at beginning of unsaturated green, Qu				
Residual queue, Qr				
Uniform Delay, d1				

DELAY/LOS WORKSHEET WITH INITIAL QUEUE

Appr/ Lane Group	Initial Unmet Demand Q veh	Dur. Unmet Demand t hrs.	Uniform Delay		Initial Queue Param. u	Final Unmet Demand Q veh	Initial Queue Delay d3 sec	Lane Group Delay d sec
			Unadj. ds	Adj. d1 sec				
Eastbound								
L	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.3
T	0.0	0.00	0.5	0.4	0.00	0.0	0.0	4.2
R	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.3
Westbound								
L	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.3
T	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.9
R	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.3
Northbound								
	0.0						0.0	
LTR	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.3
	0.0						0.0	
Southbound								
	0.0						0.0	
LTR	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.4
	0.0						0.0	

Intersection Delay 2.0 sec/veh Intersection LOS A

BACK OF QUEUE WORKSHEET

	Eastbound			Westbound			Northbound	Southbound
LaneGroup	L	T	R	L	T	R	LTR	LTR
Init Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flow Rate	30	664	16	132	441	94	81	189
So	1900	1900	1900	1900	1900	1900	1900	1900
No.Lanes	1	1	1	1	1	1	0 1 0	0 1 0
SL	1881	1759	1599	1881	1696	1583	1681	1888
LnCapacity	3600	880	800	3600	848	792	841	944
Flow Ratio	0.0	0.4	0.0	0.1	0.3	0.1	0.0	0.1
v/c Ratio	0.01	0.75	0.02	0.04	0.52	0.12	0.10	0.20
Grn Ratio	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
I Factor		1.000			1.000		1.000	1.000
AT or PVG	3	3	3	3	3	3	3	3
Pltn Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF2	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1	0.0	0.3	0.0	0.0	0.2	0.0	0.0	0.1
kB	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Q2	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.0
Q Average	0.0	0.5	0.0	0.0	0.2	0.0	0.0	0.1
Q Spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Q Storage	0	0	0	0	0	0	0	0
Q S Ratio								
70th Percentile Output:								
fB%	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
BOQ	0.0	0.6	0.0	0.0	0.3	0.0	0.0	0.1
QSRatio								
85th Percentile Output:								
fB%	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
BOQ	0.0	0.8	0.0	0.1	0.4	0.1	0.0	0.1
QSRatio								
90th Percentile Output:								
fB%	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
BOQ	0.0	0.9	0.0	0.1	0.4	0.1	0.1	0.1
QSRatio								
95th Percentile Output:								
fB%	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
BOQ	0.0	1.0	0.0	0.1	0.5	0.1	0.1	0.2
QSRatio								
98th Percentile Output:								
fB%	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
BOQ	0.0	1.3	0.0	0.1	0.6	0.1	0.1	0.2
QSRatio								

ERROR MESSAGES

No errors to report.

APPENDIX C

HCS+ PM DATA

Build-out of Proposed Project
LOS as Calculated by HCS+

HCS+: Signalized Intersections Release 5.21

Analyst: Daniel E. Kramer
Agency: NOA
Date: 1/5/2010
Period: 300pm - 400pm
Project ID: Hollister Family Apartments
E/W St: San Juan Road

Inter.: San Juan, Miller, and LIve Oak
Area Type: All other areas
Jurisd: City of Hollister
Year : 2010
N/S St: Miller Road and Live Oak Drive

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	0	1	0	0	1	0
LGConfig	L	T	R	L	T	R		LTR			LTR	
Volume	21	458	11	91	303	64	4	4	48	112	12	7
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0		12.0			12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	P				NB	Left	P			
	Thru	P					Thru	P			
	Right	P					Right	P			
	Peds						Peds				
WB	Left	P				SB	Left	P			
	Thru	P					Thru	P			
	Right	P					Right	P			
	Peds						Peds				
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		1.0	0.0					1.0	0.0		
Yellow		0.0						0.0			
All Red		0.0						0.0			

Cycle Length: 2.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	3600	1881	0.01	0.50	0.3	A		
T	880	1759	0.58	0.50	3.1	A	2.9	A
R	800	1599	0.01	0.50	0.3	A		
Westbound								
L	3600	1881	0.03	0.50	0.3	A		
T	848	1696	0.40	0.50	1.7	A	1.2	A
R	792	1583	0.09	0.50	0.5	A		
Northbound								
LTR	839	1677	0.07	0.50	0.4	A	0.4	A
Southbound								
LTR	943	1886	0.15	0.50	0.6	A	0.6	A

Intersection Delay = 1.9 (sec/veh) Intersection LOS = A

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: Daniel E. Kramer
Agency/Co.: NOA
Date Performed: 1/5/2010
Analysis Time Period: 300pm - 400pm
Intersection: San Juan, Miller, and LIve Oak
Area Type: All other areas
Jurisdiction: City of Hollister
Analysis Year: 2010
Project ID: Hollister Family Apartments
E/W St: San Juan Road N/S St: Miller Road and Live Oak Drive

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	21	458	11	91	303	64	4	4	48	112	12	7
% Heavy Veh	1	8	1	1	12	2	0	0	0	0	0	0
PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PK 15 Vol	6	127	3	25	84	18	1	1	13	31	3	2
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat	1900	1900	1900	1900	1900	1900		1900			1900	
ParkExist												
NumPark												
No. Lanes	1	1	1	1	1	1	0	1	0	0	1	0
LGConfig	L	T	R	L	T	R		LTR			LTR	
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0		12.0			12.0	
RTOR Vol			0			0			0			0
Adj Flow	23	509	12	101	337	71		61			145	
%InSharedLn												
Prop LTs	1.000	0.000		1.000	0.000			0.066			0.855	
Prop RTs		0.000	1.000		0.000	1.000		0.869			0.055	
Peds Bikes		0			0			0			0	
Buses	0	0	0	0	0	0		0			0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Arriv. Type	3	3	3	3	3	3		3			3	
Unit Ext.	3.0	3.0	3.0	3.0	3.0	3.0		3.0			3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time	2.0	2.0	2.0	2.0	2.0	2.0		2.0			2.0	
Ext of g	2.0	2.0	2.0	2.0	2.0	2.0		2.0			2.0	
Ped Min g		3.2			3.2			3.2			3.2	

PHASE DATA

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds					Peds			
WB Left	P				SB Left	P		
Thru	P				Thru	P		
Right	P				Right	P		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	1.0	0.0				1.0	0.0	
Yellow	0.0					0.0		
All Red	0.0					0.0		

Cycle Length: 2.0 secs

VOLUME ADJUSTMENT AND SATURATION FLOW WORKSHEET

Volume Adjustment

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume, V	21	458	11	91	303	64	4	4	48	112	12	7
PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj flow	23	509	12	101	337	71	4	4	53	124	13	8
No. Lanes	1	1	1	1	1	1	0	1	0	0	1	0
Lane group	L	T	R	L	T	R		LTR			LTR	
Adj flow	23	509	12	101	337	71		61			145	
Prop LTs	1.000	0.000		1.000	0.000			0.066			0.855	
Prop RTs		0.000	1.000		0.000	1.000		0.869			0.055	

Saturation Flow Rate (see Exhibit 16-7 to determine the adjustment factors)

	Eastbound			Westbound			Northbound			Southbound		
LG	L	T	R	L	T	R		LTR			LTR	
So	1900	1900	1900	1900	1900	1900		1900			1900	
Lanes	1	1	1	1	1	1	0	1	0	0	1	0
fW	1.000	1.000	1.000	1.000	1.000	1.000		1.000			1.000	
fHV	0.990	0.926	0.990	0.990	0.893	0.980		1.000			1.000	
fG	1.000	1.000	1.000	1.000	1.000	1.000		1.000			1.000	
fP	1.000	1.000	1.000	1.000	1.000	1.000		1.000			1.000	
fBB	1.000	1.000	1.000	1.000	1.000	1.000		1.000			1.000	
fA	1.000	1.000	1.000	1.000	1.000	1.000		1.000			1.000	
fLU	1.000	1.000	1.000	1.000	1.000	1.000		1.000			1.000	
fRT		1.000	0.850		1.000	0.850		0.883			0.993	
fLT	1.000	1.000		1.000	1.000			1.000			1.000	
Sec.												
fLpb	1.000	1.000		1.000	1.000			1.000			1.000	
fRpb		1.000	1.000		1.000	1.000		1.000			1.000	
S	1881	1759	1599	1881	1696	1583		1677			1886	
Sec.												

CAPACITY AND LOS WORKSHEET

Capacity Analysis and Lane Group Capacity

Appr/ Mvmt	Lane Group	Adj Flow Rate (v)	Adj Sat Flow Rate (s)		Flow Ratio (v/s)	Green Ratio (g/C)	--Lane Group-- Capacity (c)	v/c Ratio
Eastbound								
Prot								
Perm								
Left	L	23	1881		0.01	0.50	3600	0.01
Prot								
Perm								
Thru	T	509	1759	#	0.29	0.50	880	0.58
Right	R	12	1599		0.01	0.50	800	0.01
Westbound								
Prot								
Perm								
Left	L	101	1881		0.05	0.50	3600	0.03
Prot								
Perm								
Thru	T	337	1696		0.20	0.50	848	0.40
Right	R	71	1583		0.04	0.50	792	0.09
Northbound								
Prot								
Perm								
Left								
Prot								
Perm								
Thru	LTR	61	1677		0.04	0.50	839	0.07
Right								
Southbound								
Prot								
Perm								
Left								
Prot								
Perm								
Thru	LTR	145	1886	#	0.08	0.50	943	0.15
Right								

Sum of flow ratios for critical lane groups, Yc = Sum (v/s) = 0.37
Total lost time per cycle, L = 0.00 sec
Critical flow rate to capacity ratio, Xc = (Yc)(C)/(C-L) = 0.37

Control Delay and LOS Determination

Appr/ Lane Grp	Ratios v/c	Ratios g/C	Unf Del d1	Prog Adj Fact	Lane Grp Cap	Incremental Factor k	Incremental Del d2	Res Del d3	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound												
L	0.01	0.50	0.3	1.000	3600	0.50	0.0	0.0	0.3	A		
T	0.58	0.50	0.4	1.000	880	0.50	2.8	0.0	3.1	A	2.9	A
R	0.01	0.50	0.3	1.000	800	0.50	0.0	0.0	0.3	A		
Westbound												
L	0.03	0.50	0.3	1.000	3600	0.50	0.0	0.0	0.3	A		
T	0.40	0.50	0.3	1.000	848	0.50	1.4	0.0	1.7	A	1.2	A
R	0.09	0.50	0.3	1.000	792	0.50	0.2	0.0	0.5	A		
Northbound												
LTR	0.07	0.50	0.3	1.000	839	0.50	0.2	0.0	0.4	A	0.4	A
Southbound												
LTR	0.15	0.50	0.3	1.000	943	0.50	0.3	0.0	0.6	A	0.6	A

Intersection delay = 1.9 (sec/veh) Intersection LOS = A

SUPPLEMENTAL PERMITTED LT WORKSHEET
for exclusive lefts

Input

		EB	WB	NB	SB
Opposed by Single(S) or Multiple(M) lane approach		M	M		
Cycle length, C	2.0 sec				
Total actual green time for LT lane group, G (s)		1.0	1.0		
Effective permitted green time for LT lane group, g(s)		1.0	1.0		
Opposing effective green time, go (s)		1.0	1.0		
Number of lanes in LT lane group, N		1	1		
Number of lanes in opposing approach, No		1	1		
Adjusted LT flow rate, VLT (veh/h)		23	101		
Proportion of LT in LT lane group, PLT		1.000	1.000		
Proportion of LT in opposing flow, PLTo		0.00	0.00		
Adjusted opposing flow rate, Vo (veh/h)		337	509		
Lost time for LT lane group, tL		0.00	0.00		
Computation					
LT volume per cycle, LTC=VLTC/3600		0.01	0.06		
Opposing lane util. factor, fLUo		1.000	1.000	1.000	1.000
Opposing flow, Volc=VoC/[3600(No)fLUo] (veh/ln/cyc)		0.19	0.28		
gf=G[exp(- a * (LTC ** b))]-tl, gf<=g		0.0	0.0		
Opposing platoon ratio, Rpo (refer Exhibit 16-11)		1.00	1.00		
Opposing Queue Ratio, qro=Max[1-Rpo(go/C),0]		0.50	0.50		
gq, (see Exhibit C16-4,5,6,7,8)		0.23	0.39		
gu=g-gq if gq>=gf, or = g-gf if gq<gf		0.77	0.61		
n=Max(gq-gf)/2,0)		0.12	0.20		
PTHo=1-PLTo		1.00	1.00		
PL*=PLT[1+(N-1)g/(gf+gu/EL1+4.24)]		1.00	1.00		
EL1 (refer to Exhibit C16-3)		1.79	2.10		
EL2=Max((1-Ptho**n)/Plto, 1.0)					
fmin=2(1+PL)/g or fmin=2(1+Pl)/g		4.00	4.00		
gdiff=max(gq-gf,0)		0.00	0.00		
fm=[gf/g]+[gu/g]/[1+PL(EL1-1)], (min=fmin;max=1.00)		1.00	1.00		
flt=fm=[gf/g]+[gu/g]/[1+PL(EL1-1)]+[gdiff/g]/[1+PL(EL2-1)], (fmin<=fm<=1.00)					
or flt=[fm+0.91(N-1)]/N**					
Left-turn adjustment, fLT		1.000	1.000		

For special case of single-lane approach opposed by multilane approach, see text.

* If Pl>=1 for shared left-turn lanes with N>1, then assume de-facto left-turn lane and redo calculations.

** For permitted left-turns with multiple exclusive left-turn lanes, flt=fm.

For special case of multilane approach opposed by single-lane approach or when gf>gq, see text.

SUPPLEMENTAL PERMITTED LT WORKSHEET
for shared lefts

Input

		EB	WB	NB	SB
Opposed by Single(S) or Multiple(M) lane approach				S	S
Cycle length, C	2.0 sec				
Total actual green time for LT lane group, G (s)				1.0	1.0
Effective permitted green time for LT lane group, g(s)				1.0	1.0
Opposing effective green time, go (s)				1.0	1.0
Number of lanes in LT lane group, N				1	1

Number of lanes in opposing approach, No			1	1
Adjusted LT flow rate, VLT (veh/h)			4	124
Proportion of LT in LT lane group, PLT	0.000	0.000	0.066	0.855
Proportion of LT in opposing flow, PLTo			0.86	0.07
Adjusted opposing flow rate, Vo (veh/h)			145	61
Lost time for LT lane group, tL			0.00	0.00
Computation				
LT volume per cycle, LTC=VLTC/3600			0.00	0.07
Opposing lane util. factor, fLUo	1.000	1.000	1.000	1.000
Opposing flow, Volc=VoC/[3600(No)fLUo] (veh/ln/cyc)			0.08	0.03
gf=G[exp(- a * (LTC ** b))]-tl, gf<=g			1.0	0.9
Opposing platoon ratio, Rpo (refer Exhibit 16-11)			1.00	1.00
Opposing Queue Ratio, qro=Max[1-Rpo(go/C),0]			0.50	0.50
gq, (see Exhibit C16-4,5,6,7,8)			0.35	0.18
gu=g-gq if gq>=gf, or = g-gf if gq<gf			0.02	0.15
n=Max(gq-gf)/2,0)			0.00	0.00
PTHo=1-PLTo			0.14	0.93
PL*=PLT[1+(N-1)g/(gf+gu/EL1+4.24)]			0.07	0.86
EL1 (refer to Exhibit C16-3)			1.60	1.47
EL2=Max((1-Ptho**n)/Plto, 1.0)			1.00	1.00
fmin=2(1+PL)/g or fmin=2(1+Pl)/g			2.13	3.71
gdiff=max(gq-gf,0)			0.00	0.00
fm=[gf/g]+[gu/g]/[1+PL(EL1-1)], (min=fmin;max=1.00)			1.00	1.00
flt=fm=[gf/g]+[gu/g]/[1+PL(EL1-1)]+[gdiff/g]/[1+PL(EL2-1)],(fmin<=fm<=1.00)				
or flt=[fm+0.91(N-1)]/N**				
Left-turn adjustment, fLT			1.000	1.000

For special case of single-lane approach opposed by multilane approach, see text.

* If Pl>=1 for shared left-turn lanes with N>1, then assume de-facto left-turn lane and redo calculations.

** For permitted left-turns with multiple exclusive left-turn lanes, flt=fm.

For special case of multilane approach opposed by single-lane approach or when gf>gq, see text.

SUPPLEMENTAL PEDESTRIAN-BICYCLE EFFECTS WORKSHEET

Permitted Left Turns

	EB	WB	NB	SB
Effective pedestrian green time, gp (s)				
Conflicting pedestrian volume, Vped (p/h)				
Pedestrian flow rate, Vpedg (p/h)				
OCCpedg				
Opposing queue clearing green, gq (s)				
Eff. ped. green consumed by opp. veh. queue, gq/gp				
OCCpedu				
Opposing flow rate, Vo (veh/h)				
OCCr				
Number of cross-street receiving lanes, Nrec				
Number of turning lanes, Nturn				
ApbT				
Proportion of left turns, PLT				
Proportion of left turns using protected phase, PLTA				
Left-turn adjustment, fLpb				
Permitted Right Turns				
Effective pedestrian green time, gp (s)				
Conflicting pedestrian volume, Vped (p/h)				
Conflicting bicycle volume, Vbic (bicycles/h)				
Vpedg				
OCCpedg				
Effective green, g (s)				
Vbicg				

OCCbicg
OCCr
Number of cross-street receiving lanes, Nrec
Number of turning lanes, Nturn
ApbT
Proportion right-turns, PRT
Proportion right-turns using protected phase, PRTA
Right turn adjustment, fRpb

SUPPLEMENTAL UNIFORM DELAY WORKSHEET

	EBLT	WBLT	NBLT	SBLT
Cycle length, C	2.0 sec			
Adj. LT vol from Vol Adjustment Worksheet, v				
v/c ratio from Capacity Worksheet, X				
Protected phase effective green interval, g (s)				
Opposing queue effective green interval, gq				
Unopposed green interval, gu				
Red time r=(C-g-gq-gu)				
Arrival rate, qa=v/(3600(max[X,1.0]))				
Protected ph. departure rate, Sp=s/3600				
Permitted ph. departure rate, Ss=s(gq+gu)/(gu*3600)				
XPerm				
XProt				
Case				
Queue at beginning of green arrow, Qa				
Queue at beginning of unsaturated green, Qu				
Residual queue, Qr				
Uniform Delay, d1				

DELAY/LOS WORKSHEET WITH INITIAL QUEUE

Appr/ Lane Group	Initial Unmet Demand Q veh	Dur. Unmet Demand t hrs.	Uniform Delay: Unadj. ds	Uniform Delay: Adj. d1 sec	Initial Queue Param. u	Final Unmet Demand Q veh	Initial Queue Delay d3 sec	Lane Group Delay d sec
Eastbound								
L	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.3
T	0.0	0.00	0.5	0.4	0.00	0.0	0.0	3.1
R	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.3
Westbound								
L	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.3
T	0.0	0.00	0.5	0.3	0.00	0.0	0.0	1.7
R	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.5
Northbound								
	0.0						0.0	
LTR	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.4
	0.0						0.0	
Southbound								
	0.0						0.0	
LTR	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.6
	0.0						0.0	

Intersection Delay 1.9 sec/veh Intersection LOS A

BACK OF QUEUE WORKSHEET

	Eastbound			Westbound			Northbound	Southbound
LaneGroup	L	T	R	L	T	R	LTR	LTR
Init Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flow Rate	23	509	12	101	337	71	61	145
So	1900	1900	1900	1900	1900	1900	1900	1900
No.Lanes	1	1	1	1	1	1	0 1 0	0 1 0
SL	1881	1759	1599	1881	1696	1583	1677	1886
LnCapacity	3600	880	800	3600	848	792	839	943
Flow Ratio	0.0	0.3	0.0	0.1	0.2	0.0	0.0	0.1
v/c Ratio	0.01	0.58	0.01	0.03	0.40	0.09	0.07	0.15
Grn Ratio	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
I Factor		1.000			1.000		1.000	1.000
AT or PVG	3	3	3	3	3	3	3	3
Pltn Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF2	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.0
kB	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Q2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Q Average	0.0	0.3	0.0	0.0	0.2	0.0	0.0	0.1
Q Spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Q Storage	0	0	0	0	0	0	0	0
Q S Ratio								
70th Percentile Output:								
fB%	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
BOQ	0.0	0.4	0.0	0.0	0.2	0.0	0.0	0.1
QSRatio								
85th Percentile Output:								
fB%	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
BOQ	0.0	0.5	0.0	0.1	0.3	0.0	0.0	0.1
QSRatio								
90th Percentile Output:								
fB%	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
BOQ	0.0	0.6	0.0	0.1	0.3	0.1	0.0	0.1
QSRatio								
95th Percentile Output:								
fB%	2.6	2.5	2.6	2.6	2.6	2.6	2.6	2.6
BOQ	0.0	0.8	0.0	0.1	0.4	0.1	0.1	0.1
QSRatio								
98th Percentile Output:								
fB%	3.2	3.1	3.2	3.2	3.2	3.2	3.2	3.2
BOQ	0.0	0.9	0.0	0.1	0.5	0.1	0.1	0.2
QSRatio								

ERROR MESSAGES

No errors to report.

APPENDIX C

HCS+ PM DATA

Build-out plus Remainder (Commercial)
LOS as Calculated by HCS+

HCS+: Signalized Intersections Release 5.21

Analyst: Daniel E. Kramer
Agency: NOA
Date: 1/5/2010
Period: 300pm - 400pm
Project ID: Hollister Family Apartments
E/W St: San Juan Road

Inter.: San Juan, Miller, and LIve Oak
Area Type: All other areas
Jurisd: City of Hollister
Year : 2010
N/S St: Miller Road and Live Oak Drive

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	0	1	0	0	1	0
LGConfig	L	T	R	L	T	R		LTR			LTR	
Volume	24	534	12	107	354	76	4	4	61	133	13	7
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0		12.0			12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
WB Left	A				SB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	1.0	0.0				1.0	0.0	
Yellow	0.0					0.0		
All Red	0.0					0.0		

Cycle Length: 2.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	3600	1881	0.01	0.50	0.3	A		
T	880	1759	0.67	0.50	2.4	A	2.3	A
R	800	1599	0.02	0.50	0.3	A		
Westbound								
L	3600	1881	0.03	0.50	0.3	A		
T	848	1696	0.46	0.50	0.7	A	0.6	A
R	792	1583	0.11	0.50	0.3	A		
Northbound								
LTR	836	1671	0.09	0.50	0.3	A	0.3	A
Southbound								
LTR	944	1888	0.18	0.50	0.4	A	0.4	A

Intersection Delay = 1.3 (sec/veh) Intersection LOS = A

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: Daniel E. Kramer
Agency/Co.: NOA
Date Performed: 1/5/2010
Analysis Time Period: 300pm - 400pm
Intersection: San Juan, Miller, and LIve Oak
Area Type: All other areas
Jurisdiction: City of Hollister
Analysis Year: 2010
Project ID: Hollister Family Apartments
E/W St: San Juan Road N/S St: Miller Road and Live Oak Drive

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	24	534	12	107	354	76	4	4	61	133	13	7
% Heavy Veh	1	8	1	1	12	2	0	0	0	0	0	0
PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PK 15 Vol	7	148	3	30	98	21	1	1	17	37	4	2
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat	1900	1900	1900	1900	1900	1900		1900			1900	
ParkExist												
NumPark												
No. Lanes		1	1	1		1	1	1	0	1	0	0	1	0
LGConfig	L		T	R	L		T	R		LTR			LTR	
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0		12.0			12.0	
RTOR Vol			0			0			0			0
Adj Flow	27	593	13	119	393	84		76			170	
%InSharedLn												
Prop LTs	1.000	0.000		1.000	0.000			0.053			0.871	
Prop RTs		0.000	1.000		0.000	1.000		0.895			0.047	
Peds Bikes		0			0			0			0	
Buses	0	0	0	0	0	0		0			0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Arriv. Type	3	3	3	3	3	3		3			3	
Unit Ext.	3.0	3.0	3.0	3.0	3.0	3.0		3.0			3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time	2.0	2.0	2.0	2.0	2.0	2.0		2.0			2.0	
Ext of g	2.0	2.0	2.0	2.0	2.0	2.0		2.0			2.0	
Ped Min g		3.2			3.2			3.2			3.2	

PHASE DATA

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
WB Left	A				SB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	1.0	0.0				1.0	0.0	
Yellow	0.0					0.0		
All Red	0.0					0.0		

Cycle Length: 2.0 secs

VOLUME ADJUSTMENT AND SATURATION FLOW WORKSHEET

Volume Adjustment

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume, V	24	534	12	107	354	76	4	4	61	133	13	7
PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj flow	27	593	13	119	393	84	4	4	68	148	14	8
No. Lanes	1	1	1	1	1	1	0	1	0	0	1	0
Lane group	L	T	R	L	T	R		LTR			LTR	
Adj flow	27	593	13	119	393	84		76			170	
Prop LTs	1.000	0.000		1.000	0.000			0.053			0.871	
Prop RTs		0.000	1.000		0.000	1.000		0.895			0.047	

Saturation Flow Rate (see Exhibit 16-7 to determine the adjustment factors)

	Eastbound			Westbound			Northbound			Southbound		
LG	L	T	R	L	T	R		LTR			LTR	
So	1900	1900	1900	1900	1900	1900		1900			1900	
Lanes	1	1	1	1	1	1	0	1	0	0	1	0
fW	1.000	1.000	1.000	1.000	1.000	1.000		1.000			1.000	
fHV	0.990	0.926	0.990	0.990	0.893	0.980		1.000			1.000	
fG	1.000	1.000	1.000	1.000	1.000	1.000		1.000			1.000	
fP	1.000	1.000	1.000	1.000	1.000	1.000		1.000			1.000	
fBB	1.000	1.000	1.000	1.000	1.000	1.000		1.000			1.000	
fA	1.000	1.000	1.000	1.000	1.000	1.000		1.000			1.000	
fLU	1.000	1.000	1.000	1.000	1.000	1.000		1.000			1.000	
fRT		1.000	0.850		1.000	0.850		0.879			0.994	
fLT	1.000	1.000		1.000	1.000			1.000			1.000	
Sec.												
fLpb	1.000	1.000		1.000	1.000			1.000			1.000	
fRpb		1.000	1.000		1.000	1.000		1.000			1.000	
S	1881	1759	1599	1881	1696	1583		1671			1888	
Sec.												

CAPACITY AND LOS WORKSHEET

Capacity Analysis and Lane Group Capacity

Appr/ Mvmt	Lane Group	Adj Flow Rate (v)	Adj Sat Flow Rate (s)		Flow Ratio (v/s)	Green Ratio (g/C)	--Lane Group-- Capacity (c)	v/c Ratio
Eastbound								
Prot								
Perm								
Left	L	27	1881		0.01	0.50	3600	0.01
Prot								
Perm								
Thru	T	593	1759	#	0.34	0.50	880	0.67
Right	R	13	1599		0.01	0.50	800	0.02
Westbound								
Prot								
Perm								
Left	L	119	1881		0.06	0.50	3600	0.03
Prot								
Perm								
Thru	T	393	1696		0.23	0.50	848	0.46
Right	R	84	1583		0.05	0.50	792	0.11
Northbound								
Prot								
Perm								
Left								
Prot								
Perm								
Thru	LTR	76	1671		0.05	0.50	836	0.09
Right								
Southbound								
Prot								
Perm								
Left								
Prot								
Perm								
Thru	LTR	170	1888	#	0.09	0.50	944	0.18
Right								

Sum of flow ratios for critical lane groups, Yc = Sum (v/s) = 0.43
Total lost time per cycle, L = 0.00 sec
Critical flow rate to capacity ratio, Xc = (Yc)(C)/(C-L) = 0.43

Control Delay and LOS Determination

Appr/ Lane Grp	Ratios v/c	Ratios g/C	Unf Del d1	Prog Adj Fact	Lane Grp Cap	Incremental Factor k	Incremental Del d2	Res Del d3	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound												
L	0.01	0.50	0.3	1.000	3600	0.11	0.0	0.0	0.3	A		
T	0.67	0.50	0.4	1.000	880	0.25	2.0	0.0	2.4	A	2.3	A
R	0.02	0.50	0.3	1.000	800	0.11	0.0	0.0	0.3	A		
Westbound												
L	0.03	0.50	0.3	1.000	3600	0.11	0.0	0.0	0.3	A		
T	0.46	0.50	0.3	1.000	848	0.11	0.4	0.0	0.7	A	0.6	A
R	0.11	0.50	0.3	1.000	792	0.11	0.1	0.0	0.3	A		
Northbound												
LTR	0.09	0.50	0.3	1.000	836	0.11	0.0	0.0	0.3	A	0.3	A
Southbound												
LTR	0.18	0.50	0.3	1.000	944	0.11	0.1	0.0	0.4	A	0.4	A

Intersection delay = 1.3 (sec/veh) Intersection LOS = A

SUPPLEMENTAL PERMITTED LT WORKSHEET
for exclusive lefts

Input

	EB	WB	NB	SB
Opposed by Single(S) or Multiple(M) lane approach	M	M		
Cycle length, C 2.0 sec				
Total actual green time for LT lane group, G (s)	1.0	1.0		
Effective permitted green time for LT lane group, g(s)	1.0	1.0		
Opposing effective green time, go (s)	1.0	1.0		
Number of lanes in LT lane group, N	1	1		
Number of lanes in opposing approach, No	1	1		
Adjusted LT flow rate, VLT (veh/h)	27	119		
Proportion of LT in LT lane group, PLT	1.000	1.000		
Proportion of LT in opposing flow, PLTo	0.00	0.00		
Adjusted opposing flow rate, Vo (veh/h)	393	593		
Lost time for LT lane group, tL	0.00	0.00		
Computation				
LT volume per cycle, LTC=VLTC/3600	0.02	0.07		
Opposing lane util. factor, fLUo	1.000	1.000	1.000	1.000
Opposing flow, Volc=VoC/[3600(No)fLUo] (veh/ln/cyc)	0.22	0.33		
gf=G[exp(- a * (LTC ** b))]-tl, gf<=g	0.0	0.0		
Opposing platoon ratio, Rpo (refer Exhibit 16-11)	1.00	1.00		
Opposing Queue Ratio, qro=Max[1-Rpo(go/C),0]	0.50	0.50		
gq, (see Exhibit C16-4,5,6,7,8)	0.28	0.49		
gu=g-gq if gq>=gf, or = g-gf if gq<gf	0.72	0.51		
n=Max(gq-gf)/2,0)	0.14	0.25		
PTHo=1-PLTo	1.00	1.00		
PL*=PLT[1+(N-1)g/(gf+gu/EL1+4.24)]	1.00	1.00		
EL1 (refer to Exhibit C16-3)	1.89	2.27		
EL2=Max((1-Ptho**n)/Plto, 1.0)				
fmin=2(1+PL)/g or fmin=2(1+Pl)/g	4.00	4.00		
gdiff=max(gq-gf,0)	0.00	0.00		
fm=[gf/g]+[gu/g]/[1+PL(EL1-1)], (min=fmin;max=1.00)	1.00	1.00		
flt=fm=[gf/g]+[gu/g]/[1+PL(EL1-1)]+[gdiff/g]/[1+PL(EL2-1)], (fmin<=fm<=1.00)				
or flt=[fm+0.91(N-1)]/N**				
Left-turn adjustment, fLT	1.000	1.000		

For special case of single-lane approach opposed by multilane approach, see text.

* If Pl>=1 for shared left-turn lanes with N>1, then assume de-facto left-turn lane and redo calculations.

** For permitted left-turns with multiple exclusive left-turn lanes, flt=fm.

For special case of multilane approach opposed by single-lane approach or when gf>gq, see text.

SUPPLEMENTAL PERMITTED LT WORKSHEET
for shared lefts

Input

	EB	WB	NB	SB
Opposed by Single(S) or Multiple(M) lane approach			S	S
Cycle length, C 2.0 sec				
Total actual green time for LT lane group, G (s)			1.0	1.0
Effective permitted green time for LT lane group, g(s)			1.0	1.0
Opposing effective green time, go (s)			1.0	1.0
Number of lanes in LT lane group, N			1	1

Number of lanes in opposing approach, No			1	1
Adjusted LT flow rate, VLT (veh/h)			4	148
Proportion of LT in LT lane group, PLT	0.000	0.000	0.053	0.871
Proportion of LT in opposing flow, PLTo			0.87	0.05
Adjusted opposing flow rate, Vo (veh/h)			170	76
Lost time for LT lane group, tL			0.00	0.00
Computation				
LT volume per cycle, LTC=VLTC/3600			0.00	0.08
Opposing lane util. factor, fLUo	1.000	1.000	1.000	1.000
Opposing flow, Volc=VoC/[3600(No)fLUo] (veh/ln/cyc)			0.09	0.04
gf=G[exp(- a * (LTC ** b))]-tl, gf<=g			1.0	0.8
Opposing platoon ratio, Rpo (refer Exhibit 16-11)			1.00	1.00
Opposing Queue Ratio, qro=Max[1-Rpo(go/C),0]			0.50	0.50
gq, (see Exhibit C16-4,5,6,7,8)			0.39	0.21
gu=g-gq if gq>=gf, or = g-gf if gq<gf			0.02	0.16
n=Max(gq-gf)/2,0)			0.00	0.00
PTHo=1-PLTo			0.13	0.95
PL*=PLT[1+(N-1)g/(gf+gu/EL1+4.24)]			0.05	0.87
EL1 (refer to Exhibit C16-3)			1.65	1.49
EL2=Max((1-Ptho**n)/Plto, 1.0)			1.00	1.00
fmin=2(1+PL)/g or fmin=2(1+Pl)/g			2.11	3.74
gdiff=max(gq-gf,0)			0.00	0.00
fm=[gf/g]+[gu/g]/[1+PL(EL1-1)], (min=fmin;max=1.00)			1.00	1.00
flt=fm=[gf/g]+[gu/g]/[1+PL(EL1-1)]+[gdiff/g]/[1+PL(EL2-1)],(fmin<=fm<=1.00)				
or flt=[fm+0.91(N-1)]/N**				
Left-turn adjustment, fLT			1.000	1.000

For special case of single-lane approach opposed by multilane approach, see text.

* If Pl>=1 for shared left-turn lanes with N>1, then assume de-facto left-turn lane and redo calculations.

** For permitted left-turns with multiple exclusive left-turn lanes, flt=fm.

For special case of multilane approach opposed by single-lane approach or when gf>gq, see text.

SUPPLEMENTAL PEDESTRIAN-BICYCLE EFFECTS WORKSHEET

Permitted Left Turns

	EB	WB	NB	SB
Effective pedestrian green time, gp (s)				
Conflicting pedestrian volume, Vped (p/h)				
Pedestrian flow rate, Vpedg (p/h)				
OCCpedg				
Opposing queue clearing green, gq (s)				
Eff. ped. green consumed by opp. veh. queue, gq/gp				
OCCpedu				
Opposing flow rate, Vo (veh/h)				
OCCr				
Number of cross-street receiving lanes, Nrec				
Number of turning lanes, Nturn				
ApbT				
Proportion of left turns, PLT				
Proportion of left turns using protected phase, PLTA				
Left-turn adjustment, fLpb				
Permitted Right Turns				
Effective pedestrian green time, gp (s)				
Conflicting pedestrian volume, Vped (p/h)				
Conflicting bicycle volume, Vbic (bicycles/h)				
Vpedg				
OCCpedg				
Effective green, g (s)				
Vbicg				

OCCbicg
OCCr
Number of cross-street receiving lanes, Nrec
Number of turning lanes, Nturn
ApbT
Proportion right-turns, PRT
Proportion right-turns using protected phase, PRTA
Right turn adjustment, fRpb

SUPPLEMENTAL UNIFORM DELAY WORKSHEET

	EBLT	WBLT	NBLT	SBLT
Cycle length, C	2.0 sec			
Adj. LT vol from Vol Adjustment Worksheet, v				
v/c ratio from Capacity Worksheet, X				
Protected phase effective green interval, g (s)				
Opposing queue effective green interval, gq				
Unopposed green interval, gu				
Red time r=(C-g-gq-gu)				
Arrival rate, qa=v/(3600(max[X,1.0]))				
Protected ph. departure rate, Sp=s/3600				
Permitted ph. departure rate, Ss=s(gq+gu)/(gu*3600)				
XPerm				
XProt				
Case				
Queue at beginning of green arrow, Qa				
Queue at beginning of unsaturated green, Qu				
Residual queue, Qr				
Uniform Delay, d1				

DELAY/LOS WORKSHEET WITH INITIAL QUEUE

Appr/ Lane Group	Initial Unmet Demand Q veh	Dur. Unmet Demand t hrs.	Uniform Delay: Unadj. ds	Uniform Delay: Adj. d1 sec	Initial Queue Param. u	Final Unmet Demand Q veh	Initial Queue Delay d3 sec	Lane Group Delay d sec
Eastbound								
L	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.3
T	0.0	0.00	0.5	0.4	0.00	0.0	0.0	2.4
R	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.3
Westbound								
L	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.3
T	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.7
R	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.3
Northbound								
	0.0						0.0	
LTR	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.3
	0.0						0.0	
Southbound								
	0.0						0.0	
LTR	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.4
	0.0						0.0	

Intersection Delay 1.3 sec/veh Intersection LOS A

BACK OF QUEUE WORKSHEET

	Eastbound			Westbound			Northbound	Southbound
LaneGroup	L	T	R	L	T	R	LTR	LTR
Init Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flow Rate	27	593	13	119	393	84	76	170
So	1900	1900	1900	1900	1900	1900	1900	1900
No.Lanes	1	1	1	1	1	1	0 1 0	0 1 0
SL	1881	1759	1599	1881	1696	1583	1671	1888
LnCapacity	3600	880	800	3600	848	792	836	944
Flow Ratio	0.0	0.3	0.0	0.1	0.2	0.1	0.0	0.1
v/c Ratio	0.01	0.67	0.02	0.03	0.46	0.11	0.09	0.18
Grn Ratio	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
I Factor		1.000			1.000		1.000	1.000
AT or PVG	3	3	3	3	3	3	3	3
Pltn Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF2	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.1
kB	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Q2	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0
Q Average	0.0	0.4	0.0	0.0	0.2	0.0	0.0	0.1
Q Spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Q Storage	0	0	0	0	0	0	0	0
Q S Ratio								
70th Percentile Output:								
fB%	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
BOQ	0.0	0.5	0.0	0.0	0.2	0.0	0.0	0.1
QSRatio								
85th Percentile Output:								
fB%	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
BOQ	0.0	0.6	0.0	0.1	0.3	0.1	0.0	0.1
QSRatio								
90th Percentile Output:								
fB%	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
BOQ	0.0	0.7	0.0	0.1	0.4	0.1	0.1	0.1
QSRatio								
95th Percentile Output:								
fB%	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
BOQ	0.0	0.8	0.0	0.1	0.4	0.1	0.1	0.1
QSRatio								
98th Percentile Output:								
fB%	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
BOQ	0.0	1.0	0.0	0.1	0.5	0.1	0.1	0.2
QSRatio								

ERROR MESSAGES

No errors to report.

APPENDIX C

HCS+ PM DATA

Build-out plus Remainder (Mixed Use)
LOS as Calculated by HCS+

HCS+: Signalized Intersections Release 5.21

Analyst: Daniel E. Kramer
Agency: NOA
Date: 1/5/2010
Period: 300pm - 400pm
Project ID: Hollister Family Apartments
E/W St: San Juan Road

Inter.: San Juan, Miller, and LIve Oak
Area Type: All other areas
Jurisd: City of Hollister
Year : 2010

N/S St: Miller Road and Live Oak Drive

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	1	1	1	1	0	1	0	0	1	0
LGConfig	L	T	R	L	T	R		LTR			LTR	
Volume	22	483	11	96	320	68	4	4	51	119	12	7
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0		12.0			12.0	
RTOR Vol			0			0			0			0

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left	A				NB	Left	A			
Thru	A					Thru	A			
Right	A					Right	A			
Peds						Peds				
WB Left	A				SB	Left	A			
Thru	A					Thru	A			
Right	A					Right	A			
Peds						Peds				
NB Right					EB	Right				
SB Right					WB	Right				
Green	1.0	0.0					1.0	0.0		
Yellow	0.0						0.0			
All Red	0.0						0.0			

Cycle Length: 2.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	3600	1881	0.01	0.50	0.3	A		
T	880	1759	0.61	0.50	1.6	A	1.5	A
R	800	1599	0.01	0.50	0.3	A		
Westbound								
L	3600	1881	0.03	0.50	0.3	A		
T	848	1696	0.42	0.50	0.7	A	0.5	A
R	792	1583	0.10	0.50	0.3	A		
Northbound								
LTR	838	1675	0.08	0.50	0.3	A	0.3	A
Southbound								
LTR	944	1887	0.16	0.50	0.4	A	0.4	A

Intersection Delay = 0.9 (sec/veh) Intersection LOS = A

Phone: Fax:
E-Mail:

OPERATIONAL ANALYSIS

Analyst: Daniel E. Kramer
Agency/Co.: NOA
Date Performed: 1/5/2010
Analysis Time Period: 300pm - 400pm
Intersection: San Juan, Miller, and LIve Oak
Area Type: All other areas
Jurisdiction: City of Hollister
Analysis Year: 2010
Project ID: Hollister Family Apartments
E/W St: San Juan Road N/S St: Miller Road and Live Oak Drive

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	22	483	11	96	320	68	4	4	51	119	12	7
% Heavy Veh	1	8	1	1	12	2	0	0	0	0	0	0
PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PK 15 Vol	6	134	3	27	89	19	1	1	14	33	3	2
Hi Ln Vol												
% Grade		0			0			0			0	
Ideal Sat	1900	1900	1900	1900	1900	1900		1900			1900	
ParkExist												
NumPark												
No. Lanes	1	1	1	1	1	1	0	1	0	0	1	0
LGConfig	L	T	R	L	T	R		LTR			LTR	
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0		12.0			12.0	
RTOR Vol			0			0			0			0
Adj Flow	24	537	12	107	356	76		65			153	
%InSharedLn												
Prop LTs	1.000	0.000		1.000	0.000			0.062			0.863	
Prop RTs		0.000	1.000		0.000	1.000		0.877			0.052	
Peds Bikes	0			0			0			0		
Buses	0	0	0	0	0	0		0			0	
%InProtPhase												

Duration 0.25 Area Type: All other areas

OPERATING PARAMETERS

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Init Unmet	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Arriv. Type	3	3	3	3	3	3		3			3	
Unit Ext.	3.0	3.0	3.0	3.0	3.0	3.0		3.0			3.0	
I Factor		1.000			1.000			1.000			1.000	
Lost Time	2.0	2.0	2.0	2.0	2.0	2.0		2.0			2.0	
Ext of g	2.0	2.0	2.0	2.0	2.0	2.0		2.0			2.0	
Ped Min g		3.2			3.2			3.2			3.2	

PHASE DATA

Phase Combination	1	2	3	4	5	6	7	8
EB Left	A				NB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
WB Left	A				SB Left	A		
Thru	A				Thru	A		
Right	A				Right	A		
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	1.0	0.0			1.0	0.0		
Yellow	0.0				0.0			
All Red	0.0				0.0			

Cycle Length: 2.0 secs

VOLUME ADJUSTMENT AND SATURATION FLOW WORKSHEET

Volume Adjustment

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume, V	22	483	11	96	320	68	4	4	51	119	12	7
PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj flow	24	537	12	107	356	76	4	4	57	132	13	8
No. Lanes	1	1	1	1	1	1	0	1	0	0	1	0
Lane group	L	T	R	L	T	R		LTR			LTR	
Adj flow	24	537	12	107	356	76		65			153	
Prop LTs	1.000	0.000		1.000	0.000			0.062			0.863	
Prop RTs		0.000	1.000		0.000	1.000		0.877			0.052	

Saturation Flow Rate (see Exhibit 16-7 to determine the adjustment factors)

	Eastbound			Westbound			Northbound			Southbound		
LG	L	T	R	L	T	R		LTR			LTR	
So	1900	1900	1900	1900	1900	1900		1900			1900	
Lanes	1	1	1	1	1	1	0	1	0	0	1	0
fW	1.000	1.000	1.000	1.000	1.000	1.000		1.000			1.000	
fHV	0.990	0.926	0.990	0.990	0.893	0.980		1.000			1.000	
fG	1.000	1.000	1.000	1.000	1.000	1.000		1.000			1.000	
fP	1.000	1.000	1.000	1.000	1.000	1.000		1.000			1.000	
fBB	1.000	1.000	1.000	1.000	1.000	1.000		1.000			1.000	
fA	1.000	1.000	1.000	1.000	1.000	1.000		1.000			1.000	
fLU	1.000	1.000	1.000	1.000	1.000	1.000		1.000			1.000	
fRT		1.000	0.850		1.000	0.850		0.882			0.993	
fLT	1.000	1.000		1.000	1.000			1.000			1.000	
Sec.												
fLpb	1.000	1.000		1.000	1.000			1.000			1.000	
fRpb		1.000	1.000		1.000	1.000		1.000			1.000	
S	1881	1759	1599	1881	1696	1583		1675			1887	
Sec.												

CAPACITY AND LOS WORKSHEET

Capacity Analysis and Lane Group Capacity

Appr/ Mvmt	Lane Group	Adj Flow Rate (v)	Adj Sat Flow Rate (s)		Flow Ratio (v/s)	Green Ratio (g/C)	--Lane Group-- Capacity (c)	v/c Ratio
Eastbound								
Prot								
Perm								
Left	L	24	1881		0.01	0.50	3600	0.01
Prot								
Perm								
Thru	T	537	1759	#	0.31	0.50	880	0.61
Right	R	12	1599		0.01	0.50	800	0.01
Westbound								
Prot								
Perm								
Left	L	107	1881		0.06	0.50	3600	0.03
Prot								
Perm								
Thru	T	356	1696		0.21	0.50	848	0.42
Right	R	76	1583		0.05	0.50	792	0.10
Northbound								
Prot								
Perm								
Left								
Prot								
Perm								
Thru	LTR	65	1675		0.04	0.50	838	0.08
Right								
Southbound								
Prot								
Perm								
Left								
Prot								
Perm								
Thru	LTR	153	1887	#	0.08	0.50	944	0.16
Right								

Sum of flow ratios for critical lane groups, Yc = Sum (v/s) = 0.39
Total lost time per cycle, L = 0.00 sec
Critical flow rate to capacity ratio, Xc = (Yc)(C)/(C-L) = 0.39

Control Delay and LOS Determination

Appr/ Lane Grp	Ratios v/c	Ratios g/C	Unf Del d1	Prog Adj Fact	Lane Grp Cap	Incremental Factor k	Incremental Del d2	Res Del d3	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound												
L	0.01	0.50	0.3	1.000	3600	0.11	0.0	0.0	0.3	A		
T	0.61	0.50	0.4	1.000	880	0.20	1.2	0.0	1.6	A	1.5	A
R	0.01	0.50	0.3	1.000	800	0.11	0.0	0.0	0.3	A		
Westbound												
L	0.03	0.50	0.3	1.000	3600	0.11	0.0	0.0	0.3	A		
T	0.42	0.50	0.3	1.000	848	0.11	0.3	0.0	0.7	A	0.5	A
R	0.10	0.50	0.3	1.000	792	0.11	0.1	0.0	0.3	A		
Northbound												
LTR	0.08	0.50	0.3	1.000	838	0.11	0.0	0.0	0.3	A	0.3	A
Southbound												
LTR	0.16	0.50	0.3	1.000	944	0.11	0.1	0.0	0.4	A	0.4	A

Intersection delay = 0.9 (sec/veh) Intersection LOS = A

SUPPLEMENTAL PERMITTED LT WORKSHEET
for exclusive lefts

Input

		EB	WB	NB	SB
Opposed by Single(S) or Multiple(M) lane approach		M	M		
Cycle length, C	2.0 sec				
Total actual green time for LT lane group, G (s)		1.0	1.0		
Effective permitted green time for LT lane group, g(s)		1.0	1.0		
Opposing effective green time, go (s)		1.0	1.0		
Number of lanes in LT lane group, N		1	1		
Number of lanes in opposing approach, No		1	1		
Adjusted LT flow rate, VLT (veh/h)		24	107		
Proportion of LT in LT lane group, PLT		1.000	1.000		
Proportion of LT in opposing flow, PLTo		0.00	0.00		
Adjusted opposing flow rate, Vo (veh/h)		356	537		
Lost time for LT lane group, tL		0.00	0.00		
Computation					
LT volume per cycle, LTC=VLTC/3600		0.01	0.06		
Opposing lane util. factor, fLUo		1.000	1.000	1.000	1.000
Opposing flow, Volc=VoC/[3600(No)fLUo] (veh/ln/cyc)		0.20	0.30		
gf=G[exp(- a * (LTC ** b))]-tl, gf<=g		0.0	0.0		
Opposing platoon ratio, Rpo (refer Exhibit 16-11)		1.00	1.00		
Opposing Queue Ratio, qro=Max[1-Rpo(go/C),0]		0.50	0.50		
gq, (see Exhibit C16-4,5,6,7,8)		0.25	0.43		
gu=g-gq if gq>=gf, or = g-gf if gq<gf		0.75	0.57		
n=Max(gq-gf)/2,0)		0.12	0.21		
PTHo=1-PLTo		1.00	1.00		
PL*=PLT[1+(N-1)g/(gf+gu/EL1+4.24)]		1.00	1.00		
EL1 (refer to Exhibit C16-3)		1.82	2.15		
EL2=Max((1-Ptho**n)/Plto, 1.0)					
fmin=2(1+PL)/g or fmin=2(1+Pl)/g		4.00	4.00		
gdiff=max(gq-gf,0)		0.00	0.00		
fm=[gf/g]+[gu/g]/[1+PL(EL1-1)], (min=fmin;max=1.00)		1.00	1.00		
flt=fm=[gf/g]+[gu/g]/[1+PL(EL1-1)]+[gdiff/g]/[1+PL(EL2-1)], (fmin<=fm<=1.00)					
or flt=[fm+0.91(N-1)]/N**					
Left-turn adjustment, fLT		1.000	1.000		

For special case of single-lane approach opposed by multilane approach, see text.

* If Pl>=1 for shared left-turn lanes with N>1, then assume de-facto left-turn lane and redo calculations.

** For permitted left-turns with multiple exclusive left-turn lanes, flt=fm.

For special case of multilane approach opposed by single-lane approach or when gf>gq, see text.

SUPPLEMENTAL PERMITTED LT WORKSHEET
for shared lefts

Input

		EB	WB	NB	SB
Opposed by Single(S) or Multiple(M) lane approach				S	S
Cycle length, C	2.0 sec				
Total actual green time for LT lane group, G (s)				1.0	1.0
Effective permitted green time for LT lane group, g(s)				1.0	1.0
Opposing effective green time, go (s)				1.0	1.0
Number of lanes in LT lane group, N				1	1

Number of lanes in opposing approach, No			1	1
Adjusted LT flow rate, VLT (veh/h)			4	132
Proportion of LT in LT lane group, PLT	0.000	0.000	0.062	0.863
Proportion of LT in opposing flow, PLTo			0.86	0.06
Adjusted opposing flow rate, Vo (veh/h)			153	65
Lost time for LT lane group, tL			0.00	0.00
Computation				
LT volume per cycle, LTC=VLTC/3600			0.00	0.07
Opposing lane util. factor, fLUo	1.000	1.000	1.000	1.000
Opposing flow, Volc=VoC/[3600(No)fLUo] (veh/ln/cyc)			0.09	0.04
gf=G[exp(- a * (LTC ** b))]-tl, gf<=g			1.0	0.8
Opposing platoon ratio, Rpo (refer Exhibit 16-11)			1.00	1.00
Opposing Queue Ratio, qro=Max[1-Rpo(go/C),0]			0.50	0.50
gq, (see Exhibit C16-4,5,6,7,8)			0.36	0.19
gu=g-gq if gq>=gf, or = g-gf if gq<gf			0.02	0.15
n=Max(gq-gf)/2,0)			0.00	0.00
PTHo=1-PLTo			0.14	0.94
PL*=PLT[1+(N-1)g/(gf+gu/EL1+4.24)]			0.06	0.86
EL1 (refer to Exhibit C16-3)			1.62	1.47
EL2=Max((1-Ptho**n)/Plto, 1.0)			1.00	1.00
fmin=2(1+PL)/g or fmin=2(1+Pl)/g			2.12	3.73
gdiff=max(gq-gf,0)			0.00	0.00
fm=[gf/g]+[gu/g]/[1+PL(EL1-1)], (min=fmin;max=1.00)			1.00	1.00
flt=fm=[gf/g]+[gu/g]/[1+PL(EL1-1)]+[gdiff/g]/[1+PL(EL2-1)],(fmin<=fm<=1.00) or flt=[fm+0.91(N-1)]/N**				
Left-turn adjustment, fLT			1.000	1.000

For special case of single-lane approach opposed by multilane approach, see text.
* If Pl>=1 for shared left-turn lanes with N>1, then assume de-facto left-turn lane and redo calculations.
** For permitted left-turns with multiple exclusive left-turn lanes, flt=fm.
For special case of multilane approach opposed by single-lane approach or when gf>gq, see text.

SUPPLEMENTAL PEDESTRIAN-BICYCLE EFFECTS WORKSHEET

	EB	WB	NB	SB
Permitted Left Turns				
Effective pedestrian green time, gp (s)				
Conflicting pedestrian volume, Vped (p/h)				
Pedestrian flow rate, Vpedg (p/h)				
OCCpedg				
Opposing queue clearing green, gq (s)				
Eff. ped. green consumed by opp. veh. queue, gq/gp				
OCCpedu				
Opposing flow rate, Vo (veh/h)				
OCCr				
Number of cross-street receiving lanes, Nrec				
Number of turning lanes, Nturn				
ApbT				
Proportion of left turns, PLT				
Proportion of left turns using protected phase, PLTA				
Left-turn adjustment, fLpb				
Permitted Right Turns				
Effective pedestrian green time, gp (s)				
Conflicting pedestrian volume, Vped (p/h)				
Conflicting bicycle volume, Vbic (bicycles/h)				
Vpedg				
OCCpedg				
Effective green, g (s)				
Vbicg				

OCCbicg
OCCr
Number of cross-street receiving lanes, Nrec
Number of turning lanes, Nturn
ApbT
Proportion right-turns, PRT
Proportion right-turns using protected phase, PRTA
Right turn adjustment, fRpb

SUPPLEMENTAL UNIFORM DELAY WORKSHEET

	EBLT	WBLT	NBLT	SBLT
Cycle length, C	2.0 sec			
Adj. LT vol from Vol Adjustment Worksheet, v				
v/c ratio from Capacity Worksheet, X				
Protected phase effective green interval, g (s)				
Opposing queue effective green interval, gq				
Unopposed green interval, gu				
Red time r=(C-g-gq-gu)				
Arrival rate, qa=v/(3600(max[X,1.0]))				
Protected ph. departure rate, Sp=s/3600				
Permitted ph. departure rate, Ss=s(gq+gu)/(gu*3600)				
XPerm				
XProt				
Case				
Queue at beginning of green arrow, Qa				
Queue at beginning of unsaturated green, Qu				
Residual queue, Qr				
Uniform Delay, d1				

DELAY/LOS WORKSHEET WITH INITIAL QUEUE

Appr/ Lane Group	Initial Unmet Demand Q veh	Dur. Unmet Demand t hrs.	Uniform Delay		Initial Queue Param. u	Final Unmet Demand Q veh	Initial Queue Delay d3 sec	Lane Group Delay d sec
			Unadj. ds	Adj. d1 sec				
Eastbound								
L	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.3
T	0.0	0.00	0.5	0.4	0.00	0.0	0.0	1.6
R	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.3
Westbound								
L	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.3
T	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.7
R	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.3
Northbound								
	0.0						0.0	
LTR	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.3
	0.0						0.0	
Southbound								
	0.0						0.0	
LTR	0.0	0.00	0.5	0.3	0.00	0.0	0.0	0.4
	0.0						0.0	

Intersection Delay 0.9 sec/veh Intersection LOS A

BACK OF QUEUE WORKSHEET

	Eastbound			Westbound			Northbound	Southbound
LaneGroup	L	T	R	L	T	R	LTR	LTR
Init Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flow Rate	24	537	12	107	356	76	65	153
So	1900	1900	1900	1900	1900	1900	1900	1900
No.Lanes	1	1	1	1	1	1	0 1 0	0 1 0
SL	1881	1759	1599	1881	1696	1583	1675	1887
LnCapacity	3600	880	800	3600	848	792	838	944
Flow Ratio	0.0	0.3	0.0	0.1	0.2	0.0	0.0	0.1
v/c Ratio	0.01	0.61	0.01	0.03	0.42	0.10	0.08	0.16
Grn Ratio	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
I Factor		1.000			1.000		1.000	1.000
AT or PVG	3	3	3	3	3	3	3	3
Pltn Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF2	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.0
kB	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Q2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Q Average	0.0	0.3	0.0	0.0	0.2	0.0	0.0	0.1
Q Spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Q Storage	0	0	0	0	0	0	0	0
Q S Ratio								
70th Percentile Output:								
fB%	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
BOQ	0.0	0.4	0.0	0.0	0.2	0.0	0.0	0.1
QSRatio								
85th Percentile Output:								
fB%	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
BOQ	0.0	0.5	0.0	0.1	0.3	0.0	0.0	0.1
QSRatio								
90th Percentile Output:								
fB%	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
BOQ	0.0	0.6	0.0	0.1	0.3	0.1	0.0	0.1
QSRatio								
95th Percentile Output:								
fB%	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
BOQ	0.0	0.7	0.0	0.1	0.4	0.1	0.1	0.1
QSRatio								
98th Percentile Output:								
fB%	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
BOQ	0.0	0.8	0.0	0.1	0.5	0.1	0.1	0.2
QSRatio								

ERROR MESSAGES

No errors to report.

APPENDIX D

LETTER DATED NOVEMBER 24, 2009

CITY OF HOLLISTER DEVELOPMENT SERVICES

City of Hollister
Development Services
Planning Division

375 Fifth Street, Hollister, CA 95023 Ph (831) 636-4360 Fax (831) 636-4364

November 24, 2009

Mr. Mike Kelley
The Pacific Companies

Dear Mr. Kelley,

Thank you for forwarding a copy of a preliminary site plan for a possible affordable housing project in the City of Hollister. This enabled the City of Hollister Development Review Committee to review a pre-application site plan for a 66 multi-family residential affordable housing project on the eastern portion of an eight acre property fronting San Juan Road (APN 052-090-043) at the meeting of November 24, 2009. Sewer, water and storm drainage facilities are located in the project area. Maps of the location and size of the facilities are attached for your information.

The Development Review Committee identified the following issues related to the site plan.

1) Traffic Study: A traffic engineering study will be required to evaluate the impacts of build-out of the eight acre parcel to the intersection of San Juan Road and Miller Road. The traffic engineering report must evaluate the traffic impacts at the intersection during the morning and afternoon peak hours for the following scenarios: 1) Existing conditions; 2) Background (Existing plus approved projects); 3) Build-out of the 66 units multi-family residential development; 4) Buildout of the proposed residential project plus the remainder of the eight acre site with two options – a) commercial development and b) a mixed use development. Please contact David Rubcic, City of Hollister Engineering for further information on the traffic report at (831) 636-4340.
2) Circulation:
   a. Redesign vehicular access to the project.
      i. Unsafe dead-end on Gonzales Drive: The proposed site plan would limit access to Gonzales Drive to a pedestrian connection. The Development Review Committee cannot support this concept because it impedes turnaround for emergency response vehicles, deliveries and garbage trucks. The DRC recommends that you consider an alternative design that eliminates the dead-end. Three possible options are listed below
         - Option 1: Extend a cul-de-sac at the end of Gonzales Drive constructed to City of Hollister standards.

- Option 2: Extension of Gonzales Drive to Miller Road through the project site.
- Option 3: Loop connection of a 50 foot wide street between San Lorenzo and Gonzales Drive with a intersection approach at San Juan Road near the mid-point between the two streets. Please contact David Rubcic of the Engineering Department to review the conceptual street patterns. With option three the traffic engineering study would be required to evaluate the impacts on left turns from the project site onto San Juan Road and recommend traffic calming measures.

3) Policy in the City of Hollister General Plan for the West Gateway Special Planning and standards in the City of Hollister zoning ordinance require entrances to new development in this mixed use district to be oriented toward the street with parking oriented to the rear. Buildings A and B are not oriented to the street. Building B would also partially face the wall of an existing convenience store which conflicts with City standards.
4) Please review the standards for mixed use developments in our zoning ordinance (attached).
5) As required by Section 17.18.030 A. of the City of Hollister zoning ordinance, please include a circulation plan that factors multi-modal connections between the project site and adjoining properties and land uses and internal pedestrian connections.
5) Include speed bumps on the project site as a traffic calming measure.

I expect that we will be discussing these comments within the next few days. I will be out of the office on Wednesday, November 23, 2009 but Abraham Prado in our Planning Division will be available to discuss this with you.

Sincerely,

Mary M. Paxton
Planning Manager
City of Hollister Development Services, Planning Division

17.18.030 - General Pedestrian, Bicycle and Parking Regulations

A. Circulation Plan. A circulation plan for vehicular and pedestrian access and parking facilities shall be required for new development, a building addition(s) or a change of use that the Engineering Department determines substantially increases the off-street parking requirements. The plan shall include the following:

1. Parking facilities as required in this chapter.
2. A shaded (deciduous trees are acceptable) pedestrian path with an American with Disabilities Act (ADA) accessible paving surface that contrasts with and can be clearly distinguished from paved areas for vehicles. Paint shall not be allowed to provide contrast. The pedestrian paths shall be separated from internal roads and parking aisles with landscaping, building orientation or other strategies.
3. Pedestrian paths shall be designed to provide a continuous series of connections between sidewalks, buildings and adjoining properties. The plans shall show a minimum of one pedestrian path per street frontage and one path for every three parking aisles. Crossings through internal roads shall have contrasting paving (paint shall not be used for contrast).
4. The circulation plan shall incorporate any approved Bicycle and Pedestrian Master Plan or guidelines adopted to implement the City of Hollister General Plan policies and programs for multi-modal access.
5. All paved surfaces shall provide a continuous, smooth, vibration-free surface that complies with ADA requirements and ensures safe access for bicycles.
6. On site signs shall have a minimum clearance of seven feet between the sign and the ground.
7. All on-site grates and similar storm water facilities shall be suitable for crossing on a bicycle.
8. Transit facilities based on consultation with the San Benito County Local Transportation Authority.
9. Outdoor seating shall be integrated into the plan with a variety of strategies including raised planters and/or fountains with seating and benches that are designed to deter the use of skateboards.

17.18.040 Commercial vehicle parking - Residential areas.

No commercial vehicle exceeding eight feet in height or twenty (20) feet in combined total length, or tow truck or tow equipment, shall park between the hours of 6:00 p.m., and 6:00 a.m. on private property or public rights-of-way within residential zoning

NEIL O. ANDERSON
AND ASSOCIATES

GEOTECHNICAL
ENVIRONMENTAL
INSPECTIONS & TESTING
LABORATORY SERVICES
POOL ENGINEERING
POST TENSION DESIGN

June 28, 2010

Project Number: SES090511 – Addendum #1
Transmitted via e-mail: mikek@tpchousing.com

Mr. Mike Kelley
Pacific West Communities

Subject: Traffic Engineering Study and Evaluation Addendum
Intersection of San Juan Road and Miller Road
Hollister, California

Dear Mr. Kelley:

Neil O. Anderson and Associates (NOA) have been retained by The Pacific West Communities to conduct a Traffic Impact Study (TIS) for the new Hollister Family Apartments located at the corner of San Juan Road and Miller Road, in Hollister, California. Our original report dated January 6, 2010 was performed for the site in order to conduct a full analysis on the existing and proposed traffic loads. On March 25, 2010 a public meeting was held in the City Council Chambers of the City of Hollister to address public and City staff concerns. The City of Hollister reviewed the potential impacts to the site from the subject project and felt that further analysis was needed. This report addendum addresses the concerns and additional analysis that the City requested in their most recent letter to Pacific West Communities dated May 10, 2010.

The City identified the following issues as needing further analysis:

1) The supplemental traffic study should focus on strategies for vehicles and pedestrians to efficiently and safely enter and exit the project site from any proposed ingress or egress. As noted in the April 7, 2010 memo from the City Engineering Department, the study needs to evaluate the interaction between the project driveway, the east driveway into the shopping center and the intersection of San Juan Road/Miller Road so the intersections function as efficiently and safely as possible. The Planning Commission comments and request summarized in the April 7, 2010 memo from the Engineering Department should be factored into the supplemental traffic report, see attached City of Hollister letter.

The purpose of a Traffic Impact Study is to provide sufficient information concerning the impacts of the project on the operational conditions of the transportation facilities in the project area. The TIS was prepared based on the California Department of Transportation "Guide for the Preparation of Traffic Impact Studies" dated December 2002. The area of study for our initial TIS included the intersections of San Juan Road, Miller Road, and Live Oak Drive. This addendum addresses the comments provided in the City's May 10, 2010 letter.

From our initial TIS, the project did not appear to lower the surrounding streets or intersections to a Level of Service worse than the level of D. As illustrated in our report, all roads were currently running at an operational LOS of A, and all situations analyzed predicted an operational LOS of A. Based on this information, no mitigation measures were warranted.

Discussion and Analysis

Two main items of concern were brought up by the planning commission in our meeting: pedestrian safety at the northeast ingress/egress at Miller Road and traffic impacts at the southwestern ingress/egress access at San Jaun Road and northeast ingress/egress at Miller Road.

Pedestrian Safety at NE Ingress/Egress

Pedestrian safety concerns were raised during the March 25, 2010 City Council meeting as well as within their letters dated April 7th and May 10th 2010. There are currently 3 crosswalks within the intersection of San Juan and Miller/Live Oak Road. Specific concerns were raised about pedestrians having to walk to the intersection to use these crosswalks. One idea was raised that could aid in more accessible pedestrian usage for those pedestrians that would wish to cross farther north along Miller Road from the intersection. The idea would be to add an additional crosswalk 200 to 300 feet north of the intersection. One question was raised in that this option could potentially cause additional queue for traffic that is heading from San Juan Road and northbound onto Miller Road.

After reviewing the effects of all of the different project components (i.e. ingress/egress, road segment and intersection LOS, and right of way safety issues) it has become clear that an additional crosswalk to be located 200 to 300 feet north of the intersection would have little to no effect on queue as it pertains to either LOS or intersection spill over. The actual vehicle counts and level of service at this time are at a Level of Service of A for Miller Road. The queue times would likely not impact the site or road segment to a great extent due to the limited number of vehicles that currently (as well as proposed additional vehicle usage) use this road. The distance from the

intersection to the proposed access point at this point is approximately 170 feet. The proposed crosswalk in this area ideally would be an additional 50 feet to the north along Miller Road from the proposed northeastern entrance. If we assume an average vehicle length plus spacing of 22 feet this would allow for a build-up of about 8 vehicles before traffic would spill into the nearest intersection of San Juan and Miller/Live Oak Road for the proposed northeastern entrance. During the peak 15 minute PM traffic period (3:30 to 3:45 PM) the total number of cars moving from the intersection north along Miller Road was 20 cars in total. Therefore, a total of 1.33 cars per minute access this area. There is significant data here that supports the limited effect of this ingress and egress point to a Level of Service A after this project is finished and site being utilized.

An alternative option to a cross walk would be to place vegetative barriers along the western border of Miller Road to help funnel pedestrians to the existing cross walk. Because the distance is roughly 170 feet from the northeastern ingress/egress point (a relatively small and walk able distance) this may be another option, however there may be additional concerns for line of site for automobiles when considering a real vegetated barrier. And from our experience a low profile vegetative barrier would be crossed. Consequently of the two options, the former would be the most effective and economical.

NE and SW Ingress/Egress

Additional analysis was requested for both the ingress and egress points that are proposed at the site. Each access point was analyzed using a Two Way Stop Control analysis (TWSC). These access points essentially become two way stopping points for the project traffic that is leaving from the site. Meanwhile these access points are considered non-stop controlled and non-stopping points for arterial traffic movement that is bypassing the site. McTrans software was used in this analysis and the peak fifteen minute period of traffic was used as a basis for background traffic. An analysis using only proposed project traffic additions was used to imply the greatest value of potential traffic movement and represent a worst case scenario for ingress/egress affects on the street Level of Service (LOS).

As stated in Section 5.1 of our initial report potential developments could have an effect on San Juan Road. Although, no known pending or future projects are expected at this time, our firm has provided an estimate based on commercial acreage versus added traffic load ratios. These estimated values of additional traffic are based on TIPS Trip Generation Software (TIPS)[1]. Since the PM traffic study totals were the higher of the two traffic count times, this data will be added to using the estimated traffic value increases. Based on TIPS, an additional **404 vehicle trips** over the peak hour existing conditions could occur. This estimate was made by assuming a commercial retail area

[1] TIPS Trip Generation Software, Version 1.4.0, 2009, Department of Transportation, State of Florida

of roughly 24 acres in size. TIPS' compares multiple real world quantitative data for existing traffic conditions at various locations throughout the country. It is based in part on the Institute of Transportation Engineers (ITE) Trip Generation Handbook 7th Edition[2]. Roughly 39 similar size commercial development case studies were analyzed in order to attain the above mentioned vehicles trips.

The ingress and egress access points affects on the main street LOS was estimated using the Highway Capacity Software (HCS+) developed by McTrans™. Our methodology for distribution of additional vehicle trips to the study intersection (for all analysis performed) was based on the traffic count data for thru traffic as well as any potential project related vehicles that were either accessing the site through entrance or exit movements. Table 1 identifies the Ingress and Egress access points LOS estimation. The predicted LOS for these points would be operating at or below a LOS of B.

Table 1: Ingress and Egress Access Points LOS as Calculated by HCS+	
Intersection	Predicted LOS for Future Developments
San Juan Road, Miller Road, and Live Oak Drive (**Peak Hour 300PM-400PM**)	San Juan Rd. (B), Miller Rd. & Live Oak Dr. (A)

Conclusions and Recommendations

The effect of the ingress and egress points from a planning standpoint exhibit Levels of Service that indicate a limited impact. However, the City of Hollister has expressed concern over the traffic turning movements and the potential queue times that could occur in an operational mode. Further, due to the intersection geometry, pedestrian safety issues raised in the March 25, 2010 meeting, and potential cross lane movement from the site while exiting (especially from the southwestern access point onto San Juan Road), the City suggested that some safety elements be further considered. After reviewing the data for pedestrian LOS and Ingress/Egress Access point LOS our firm has come up with some additional conclusions/recommendations:

Pedestrian Safety Modifications and Considerations

The potential addition of a new cross walk ideally located about 50 feet north of the northeastern proposed ingress/egress access point (along Miller Road) would help to alleviate "J" walking, while having little to no effect on the LOS or queue times for vehicles. An alternative option would be to add a vegetative barrier to

[2] Institute of Transportation Engineers, 2003, Trip Generation, 7th Edition, Washington D.C.

the western border of Miller Road to help funnel pedestrians to the existing crosswalks at the intersection of San Juan and Miller/Live Oak Roads.

Southwestern Ingress/Egress Access Point

The southwestern access point for the site may still be used for both ingress and egress. However, based on a vehicle delay of 0.7 seconds from our McTrans Analysis and the semi-actuated nature of the signal at the intersection of San Juan Road and Miller/Live Oak Road, a turning pocket capable of holding a minimum of three cars should be allowed for all traffic entering the site that is heading westbound along San Juan Road. The three car turning pocket plus a car at the gate would allow for 4 cars waiting to enter the site. The average time for a user opening the gate through an access code box would be approximately 4 to 5 seconds. In our professional opinion, this should be adequate space and time for cars to access the site.

In order to keep cross lane vehicle movement from occurring at the southwestern access point, a center divider may be placed at the western edge of the intersection between San Juan Road's east and west bound lanes. Based on the vehicle usage data from our traffic survey the left turning lane heading eastbound on San Juan and turning left onto Miller would need a vehicle turn pocket length of no less than 70 feet in length. This is based on a 3.0 minute light cycle with a peak 15 minute left turn usage of 27 cars. This value is three times larger than the actual current usage of 9 cars per the peak fifteen minute period. This would allow ample space and limit queue time and/or traffic buildup in the adjacent eastbound through lane along San Juan.

The effects of this turning lane and center median would have little effect on the street system in its current form because a center turning lane is already configured and has enough width to allow for this raised concrete or grass median to be placed without affecting over all movement. This will affect the ability of the traffic coming to and from the neighboring gas station/mini mart. However, the City requested this analysis and further made recommendations for such a median to alleviate safety concerns. In doing so it should be assumed that there are already safety concerns about the intersection. As such, the effect would be for a greater general safety, and although this would affect the gas station/mini mart, it would be in good practice to have this intersection altered regardless of our subject project. Based on the traffic accident reports that the City issued in its letter dated April 7, 2010, most of the incidents were due to right of way yield errors or excess speed. Although this median addition will not necessarily aid in speed reduction, it certainly will aid to make right of way and yield operations much safer coming from the gas station/mini mart onto eastbound San Juan Road.

It is our professional opinion that a better alternative for the project in-lieu of a median would be to put a sign at the ingress/egress that states no left turn into or out of the project. In addition to a sign a concrete "T" curb with optional bollards would be constructed at the ingress/egress point to prohibit this undesired traffic movement, see Sheet 2 for more detailed information. This would also allow for more future planning options for the City at the median area, these could be in the form of additional lanes along San Juan Road, etc. This alternative can also easily be installed at the neighboring gas station San Juan ingress/egress.

Northeastern Ingress/Egress Access Point

All eastbound traffic would need to access the site by way of the northeast access point along Miller Road. As stated above, the actual vehicle counts and level of service at this time are at a Level of Service of A. The queue times would likely not impact the site or road segment to a great extent due to the limited number of vehicles that currently use this road. The distance from the intersection to the proposed access point at this point is approximately 170 feet. With an average vehicle length plus spacing of 22 feet this would allow for a build-up of about 8 vehicles before traffic would spill into the nearest intersection of San Juan and Miller/Live Oak Road. During the peak 15 minute PM Traffic period (3:30 to 3:45 PM) the total number of cars moving from the intersecting north along Miller Road was 20 cars in total. Therefore a total of 1.33 cars per minute access this area. There is significant data here that supports the limited effect of this ingress and egress point to a Level of Service A after this project is finished and site being utilized.

Limitations

Care should be taken to understand that our office performed this original investigation using assumptions in part made by outside resources (i.e McTran's and TIPS Software). These outside resources used in part various real world case studies to conclude site specific data such as trip generation values. Consequently, we do not take any responsibility for reporting errors that could arise from misinformation obtained from these outside sources. This is a study of existing data and traffic only. It is not a more detailed traffic analysis including general planning for traffic engineering and/or modeling. A more encompassing traffic engineering report analysis was not required nor intended.

If there is a substantial lapse of time between the submission of our report and the start of work at the site, or if conditions have changed due to natural causes or construction operations at or adjacent to the site, we urge that our report be reviewed to determine the applicability of the conclusions and recommendations considering the changed conditions and time lapse. This report is applicable only for the project and

site studied. **This report should not be used after 2 years, unless our office is afforded the opportunity to update our study.**

Our professional services were performed, our findings obtained, and our recommendations proposed in accordance with generally accepted engineering principles and practices. This warranty is in lieu of all other warranties either expressed or implied. Test findings and statements of professional opinion do not constitute a guarantee or warranty, expressed or implied.

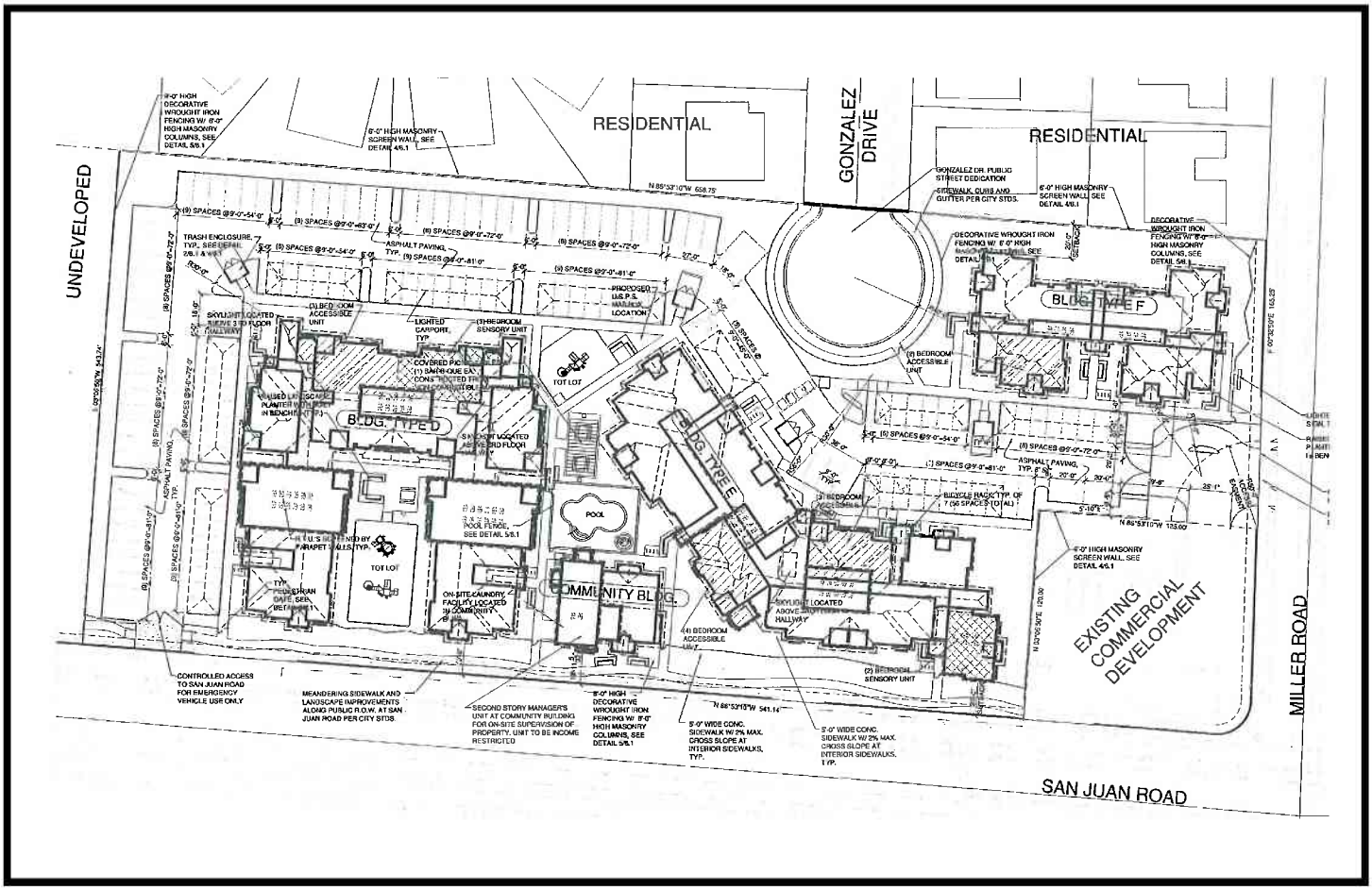
Sincerely,
NEIL O. ANDERSON & ASSOCIATES, INC.

Daniel E. Kramer, Project Geologist
Professional Geologist #8657

Garret S.H. Hubbart, Principal
Civil Engineer 59010

Attachments:

Site Map, Sheet 1
"T" Curb Detail, Sheet 2
McTrans Analysis Sheets
City of Hollister Planning Letter Dated April 7th and May 10th, 2010



Base Map: Taken from Schematic Set Architectural Drawings, Pack West Architecture, Sheet A1.1

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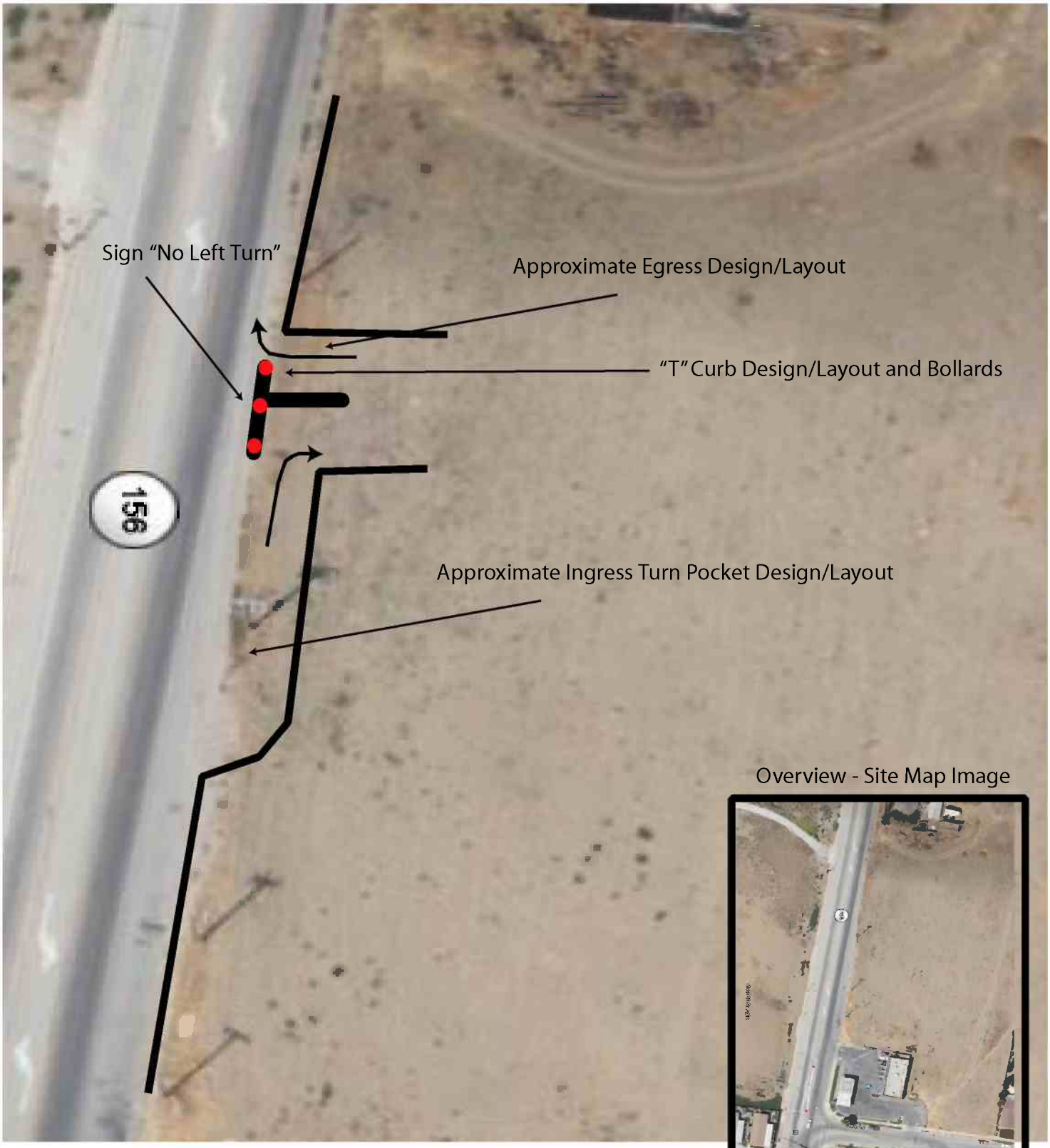
Updated Site Plan - Addendum

San Juan Rd, Miller Rd., and Live Oak Drive

Hollister, California

DATE: 06-28-10
JOB NUMBER: SES090511
SCALE: Not to scale
DRAWN BY: T.C.
CHECKED BY: D.K.
SHEET: 1



Aerial Map: Taken from Google Maps, 2009

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"T" Curb Detail - Typical

San Juan Rd, Miller Rd., and Live Oak Drive

Hollister, California

DATE: 06-28-10
JOB NUMBER: SES090511
SCALE: Not to scale
DRAWN BY: T.C.
CHECKED BY: D.K.
SHEET: 2

HCS+: Unsignalized Intersections Release 5.21

TWO-WAY STOP CONTROL SUMMARY

Analyst: Daniel Kramer
Agency/Co.: NOA
Date Performed: 6/28/2010
Analysis Time Period: 3:00 to 4:00 PM
Intersection: Ingress/Egress & Miller Road
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2010
Project ID: Hollister
East/West Street: Site Road Ingress Egress
North/South Street: Miller Road
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	5		15			
Peak-Hour Factor, PHF	1.00		1.00			
Hourly Flow Rate, HFR	5		15			
Percent Heavy Vehicles	0	--	--		--	--
Median Type/Storage	TWLTL			/ 1		
RT Channelized?			No			
Lanes	1		1			
Configuration	L		R			
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	0	8	0	0	30	0
Peak Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR	0	8	0	0	30	0
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			No /			No /
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L			LTR			LTR	
v (vph)	5			8			30	
C(m) (vph)	1636			810			798	
v/c	0.00			0.01			0.04	
95% queue length	0.01			0.03			0.12	
Control Delay	7.2			9.5			9.7	
LOS	A			A			A	
Approach Delay				9.5			9.7	
Approach LOS				A			A	

HCS+: Unsignalized Intersections Release 5.21

Phone: Fax:
E-Mail:

TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: Daniel Kramer
Agency/Co.: NOA
Date Performed: 6/28/2010
Analysis Time Period: 3:00 to 4:00 PM
Intersection: Ingress/Egress & Miller Road
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2010
Project ID: Hollister
East/West Street: Site Road Ingress Egress
North/South Street: Miller Road
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	5		15			
Peak-Hour Factor, PHF	1.00		1.00			
Peak-15 Minute Volume	1		4			
Hourly Flow Rate, HFR	5		15			
Percent Heavy Vehicles	0	--	--		--	--
Median Type/Storage	TWLTL			/ 1		
RT Channelized?			No			
Lanes	1		1			
Configuration	L		R			
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume	0	8	0	0	30	0
Peak Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Peak-15 Minute Volume	0	2	0	0	8	0
Hourly Flow Rate, HFR	0	8	0	0	30	0
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			No /			No /
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0

Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:		
Shared ln volume, major rt vehicles:		
Sat flow rate, major th vehicles:		
Sat flow rate, major rt vehicles:		
Number of major street through lanes:		

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)	4.1		7.1	6.5	6.2	7.1	6.5	6.2
t(c,hv)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(hv)	0		0	0	0	0	0	0
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)	0.00		0.00	0.00	0.00	0.00	0.00	0.00
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage	4.1		7.1	6.5	6.2	7.1	6.5	6.2
2-stage	4.1		6.1	5.5	6.2	6.1	5.5	6.2

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)	2.20		3.50	4.00	3.30	3.50	4.00	3.30
t(f,HV)	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
P(HV)	0		0	0	0	0	0	0
t(f)	2.2		3.5	4.0	3.3	3.5	4.0	3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2		Movement 5	
	V(t)	V(l,prot)	V(t)	V(l,prot)
V prog				

Total Saturation Flow Rate, s (vph)	
Arrival Type	
Effective Green, g (sec)	
Cycle Length, C (sec)	
Rp (from Exhibit 16-11)	
Proportion vehicles arriving on green P	
g(q1)	
g(q2)	
g(q)	

Computation 2-Proportion of TWSC Intersection Time blocked	Movement 2		Movement 5	
	V(t)	V(l,prot)	V(t)	V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p	0.000		0.000	

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5 Single-Stage Process								
Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x	0		25	10	0	22	25	0
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process				
	7	8	10	11

	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2
V(c,x)	10	15	10	0	0	22	0	25
s		0		0		0		0
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	0	0
Potential Capacity	1091	1091
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1091	1091
Probability of Queue free St.	1.00	1.00

Step 2: LT from Major St.	4	1
Conflicting Flows		0
Potential Capacity		1636
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity		1636
Probability of Queue free St.	1.00	1.00
Maj L-Shared Prob Q free St.		

Step 3: TH from Minor St.	8	11
Conflicting Flows	10	25
Potential Capacity	889	872
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity	886	869
Probability of Queue free St.	0.99	0.96

Step 4: LT from Minor St.	7	10
Conflicting Flows	25	22
Potential Capacity	991	995
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	0.96	0.99
Maj. L, Min T Adj. Imp Factor.	0.97	0.99
Cap. Adj. factor due to Impeding mvmnt	0.97	0.99
Movement Capacity	960	985

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows	10	0
Potential Capacity	891	900
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity	888	900
Probability of Queue free St.	0.99	0.97

Part 2 - Second Stage		
Conflicting Flows	0	25
Potential Capacity	900	878
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity	900	875
Part 3 - Single Stage		
Conflicting Flows	10	25
Potential Capacity	889	872
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity	886	869
Result for 2 stage process:		
a	0.91	0.91
y	0.22	5.17
C t	810	798
Probability of Queue free St.	0.99	0.96
Step 4: LT from Minor St.	7	10
Part 1 - First Stage		
Conflicting Flows	10	0
Potential Capacity	1016	1029
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	1.00	1.00
Movement Capacity	1013	1029
Part 2 - Second Stage		
Conflicting Flows	15	22
Potential Capacity	1010	1002
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.97	0.99
Movement Capacity	976	990
Part 3 - Single Stage		
Conflicting Flows	25	22
Potential Capacity	991	995
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	0.96	0.99
Maj. L, Min T Adj. Imp Factor.	0.97	0.99
Cap. Adj. factor due to Impeding mvmnt	0.97	0.99
Movement Capacity	960	985
Results for Two-stage process:		
a	0.91	0.91
y	4.82	8.80
C t	885	903

Worksheet 8-Shared Lane Calculations

Movement	7 L	8 T	9 R	10 L	11 T	12 R
Volume (vph)	0	8	0	0	30	0
Movement Capacity (vph)	885	810	1091	903	798	1091
Shared Lane Capacity (vph)		810			798	

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7 L	8 T	9 R	10 L	11 T	12 R
C sep	885	810	1091	903	798	1091
Volume	0	8	0	0	30	0
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh		810			798	
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config	L			LTR			LTR	
v (vph)	5			8			30	
C(m) (vph)	1636			810			798	
v/c	0.00			0.01			0.04	
95% queue length	0.01			0.03			0.12	
Control Delay	7.2			9.5			9.7	
LOS	A			A			A	
Approach Delay				9.5			9.7	
Approach LOS				A			A	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	1.00	1.00
v(il), Volume for stream 2 or 5		
v(i2), Volume for stream 3 or 6		
s(il), Saturation flow rate for stream 2 or 5		
s(i2), Saturation flow rate for stream 3 or 6		
P*(oj)		
d(M,LT), Delay for stream 1 or 4	7.2	
N, Number of major street through lanes		
d(rank,1) Delay for stream 2 or 5		

HCS+: Unsignalized Intersections Release 5.21

TWO-WAY STOP CONTROL SUMMARY

Analyst: Daniel Kramer
Agency/Co.: NOA
Date Performed: 6/28/2010
Analysis Time Period: 3:00 to 4:00 PM
Intersection: Ingress and Egress at San Juan
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2010
Project ID: Hollister
East/West Street: San Juan Road
North/South Street: Ingress/Egress
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	9	124	3	27	69	11
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR	9	124	3	27	69	11
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type/Storage	Undivided /					
RT Channelized?						No
Lanes	0	2	0	1	1	1
Configuration		LT	TR	L	T	R
Upstream Signal?		No			No	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume			20	20	0	
Peak Hour Factor, PHF			1.00	1.00	1.00	1.00
Hourly Flow Rate, HFR			20	20	0	0
Percent Heavy Vehicles			0	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			/		No	/
Lanes			1	0	1	0
Configuration			R		LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT	L			R		LTR	
v (vph)	9	27			20		20	
C(m) (vph)	1531	1472			994		715	
v/c	0.01	0.02			0.02		0.03	
95% queue length	0.02	0.06			0.06		0.09	
Control Delay	7.4	7.5			8.7		10.2	
LOS	A	A			A		B	
Approach Delay				8.7			10.2	
Approach LOS				A			B	

HCS+: Unsignalized Intersections Release 5.21

Phone: Fax:
E-Mail:

TWO-WAY STOP CONTROL(TWSC) ANALYSIS

Analyst: Daniel Kramer
Agency/Co.: NOA
Date Performed: 6/28/2010
Analysis Time Period: 3:00 to 4:00 PM
Intersection: Ingress and Egress at San Juan
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2010
Project ID: Hollister
East/West Street: San Juan Road
North/South Street: Ingress/Egress
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street Movements	1 L	2 T	3 R	4 L	5 T	6 R
Volume	9	124	3	27	69	11
Peak-Hour Factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Peak-15 Minute Volume	2	31	1	7	17	3
Hourly Flow Rate, HFR	9	124	3	27	69	11
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type/Storage	Undivided		/			
RT Channelized?						No
Lanes	0	2	0	1	1	1
Configuration	LT	TR		L	T	R
Upstream Signal?		No			No	

Minor Street Movements	7 L	8 T	9 R	10 L	11 T	12 R
Volume			20	20	0	
Peak Hour Factor, PHF			1.00	1.00	1.00	1.00
Peak-15 Minute Volume			5	5	0	0
Hourly Flow Rate, HFR			20	20	0	0
Percent Heavy Vehicles			0	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage				/		No /
RT Channelized?			No			
Lanes			1	0	1	0
Configuration			R		LTR	

Pedestrian Volumes and Adjustments

Movements	13	14	15	16
Flow (ped/hr)	0	0	0	0

Lane Width (ft)	12.0	12.0	12.0	12.0
Walking Speed (ft/sec)	4.0	4.0	4.0	4.0
Percent Blockage	0	0	0	0

Upstream Signal Data

	Prog. Flow vph	Sat Flow vph	Arrival Type	Green Time sec	Cycle Length sec	Prog. Speed mph	Distance to Signal feet
S2 Left-Turn							
Through							
S5 Left-Turn							
Through							

Worksheet 3-Data for Computing Effect of Delay to Major Street Vehicles

	Movement 2	Movement 5
Shared ln volume, major th vehicles:	0	
Shared ln volume, major rt vehicles:	0	
Sat flow rate, major th vehicles:	1700	
Sat flow rate, major rt vehicles:	1700	
Number of major street through lanes:	2	

Worksheet 4-Critical Gap and Follow-up Time Calculation

Critical Gap Calculation

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(c,base)	4.1	4.1			6.9	7.5	6.5	6.9
t(c,hv)	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
P(hv)	0	0			0	0	0	0
t(c,g)			0.20	0.20	0.10	0.20	0.20	0.10
Grade/100			0.00	0.00	0.00	0.00	0.00	0.00
t(3,lt)	0.00	0.00			0.00	0.00	0.00	0.00
t(c,T): 1-stage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2-stage	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
t(c) 1-stage	4.1	4.1			6.9	7.5	6.5	6.9
2-stage								

Follow-Up Time Calculations

Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
t(f,base)	2.20	2.20			3.30	3.50	4.00	3.30
t(f,HV)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
P(HV)	0	0			0	0	0	0
t(f)	2.2	2.2			3.3	3.5	4.0	3.3

Worksheet 5-Effect of Upstream Signals

Computation 1-Queue Clearance Time at Upstream Signal

	Movement 2		Movement 5	
	V(t)	V(l,prot)	V(t)	V(l,prot)
V prog				

Total Saturation Flow Rate, s (vph)	
Arrival Type	
Effective Green, g (sec)	
Cycle Length, C (sec)	
Rp (from Exhibit 16-11)	
Proportion vehicles arriving on green P	
g(q1)	
g(q2)	
g(q)	

Computation 2-Proportion of TWSC Intersection Time blocked	Movement 2		Movement 5	
	V(t)	V(l,prot)	V(t)	V(l,prot)
alpha				
beta				
Travel time, t(a) (sec)				
Smoothing Factor, F				
Proportion of conflicting flow, f				
Max platooned flow, V(c,max)				
Min platooned flow, V(c,min)				
Duration of blocked period, t(p)				
Proportion time blocked, p		0.000		0.000

Computation 3-Platoon Event Periods	Result
p(2)	0.000
p(5)	0.000
p(dom)	
p(subo)	
Constrained or unconstrained?	

Proportion unblocked for minor movements, p(x)	(1) Single-stage Process	(2) Two-Stage Process Stage I	(3) Stage II
p(1)			
p(4)			
p(7)			
p(8)			
p(9)			
p(10)			
p(11)			
p(12)			

Computation 4 and 5 Single-Stage Process								
Movement	1 L	4 L	7 L	8 T	9 R	10 L	11 T	12 R
V c,x	80	127			64	203	268	69
s								
Px								
V c,u,x								
C r,x								
C plat,x								

Two-Stage Process				
	7	8	10	11

	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2	Stage1	Stage2
V(c,x)								
s						3000		3000
P(x)								
V(c,u,x)								
C(r,x)								
C(plat,x)								

Worksheet 6-Impedance and Capacity Equations

Step 1: RT from Minor St.	9	12
Conflicting Flows	64	69
Potential Capacity	994	986
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	994	986
Probability of Queue free St.	0.98	1.00
Step 2: LT from Major St.	**4**	**1**
Conflicting Flows	127	80
Potential Capacity	1472	1531
Pedestrian Impedance Factor	1.00	1.00
Movement Capacity	1472	1531
Probability of Queue free St.	0.98	0.99
Maj L-Shared Prob Q free St.		0.99
Step 3: TH from Minor St.	**8**	**11**
Conflicting Flows		268
Potential Capacity		641
Pedestrian Impedance Factor	1.00	1.00
Cap. Adj. factor due to Impeding mvmnt	0.98	0.98
Movement Capacity		626
Probability of Queue free St.	1.00	1.00
Step 4: LT from Minor St.	**7**	**10**
Conflicting Flows		203
Potential Capacity		743
Pedestrian Impedance Factor	1.00	1.00
Maj. L, Min T Impedance factor	0.98	0.98
Maj. L, Min T Adj. Imp Factor.	0.98	0.98
Cap. Adj. factor due to Impeding mvmnt	0.98	0.96
Movement Capacity		715

Worksheet 7-Computation of the Effect of Two-stage Gap Acceptance

Step 3: TH from Minor St.	8	11
Part 1 - First Stage		
Conflicting Flows		
Potential Capacity		
Pedestrian Impedance Factor		
Cap. Adj. factor due to Impeding mvmnt		
Movement Capacity		
Probability of Queue free St.		

Part 2 - Second Stage			
Conflicting Flows			
Potential Capacity			
Pedestrian Impedance Factor			
Cap. Adj. factor due to Impeding mvmnt			
Movement Capacity			
Part 3 - Single Stage			
Conflicting Flows			268
Potential Capacity			641
Pedestrian Impedance Factor		1.00	1.00
Cap. Adj. factor due to Impeding mvmnt		0.98	0.98
Movement Capacity			626
Result for 2 stage process:			
a			
y			
C t			626
Probability of Queue free St.		1.00	1.00
Step 4: LT from Minor St.		7	10
Part 1 - First Stage			
Conflicting Flows			
Potential Capacity			
Pedestrian Impedance Factor			
Cap. Adj. factor due to Impeding mvmnt			
Movement Capacity			
Part 2 - Second Stage			
Conflicting Flows			
Potential Capacity			
Pedestrian Impedance Factor			
Cap. Adj. factor due to Impeding mvmnt			
Movement Capacity			
Part 3 - Single Stage			
Conflicting Flows			203
Potential Capacity			743
Pedestrian Impedance Factor		1.00	1.00
Maj. L, Min T Impedance factor		0.98	0.98
Maj. L, Min T Adj. Imp Factor.		0.98	0.98
Cap. Adj. factor due to Impeding mvmnt		0.98	0.96
Movement Capacity			715
Results for Two-stage process:			
a			
y			
C t			715

Worksheet 8-Shared Lane Calculations

Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (vph)			20	20	0	0
Movement Capacity (vph)			994	715	626	986
Shared Lane Capacity (vph)					715	

Worksheet 9-Computation of Effect of Flared Minor Street Approaches

Movement	7	8	9	10	11	12
	L	T	R	L	T	R
C sep			994	715	626	986
Volume			20	20	0	0
Delay						
Q sep						
Q sep +1						
round (Qsep +1)						
n max						
C sh					715	
SUM C sep						
n						
C act						

Worksheet 10-Delay, Queue Length, and Level of Service

Movement	1	4	7	8	9	10	11	12
Lane Config	LT	L			R		LTR	
v (vph)	9	27			20		20	
C(m) (vph)	1531	1472			994		715	
v/c	0.01	0.02			0.02		0.03	
95% queue length	0.02	0.06			0.06		0.09	
Control Delay	7.4	7.5			8.7		10.2	
LOS	A	A			A		B	
Approach Delay				8.7			10.2	
Approach LOS				A			B	

Worksheet 11-Shared Major LT Impedance and Delay

	Movement 2	Movement 5
p(oj)	0.99	0.98
v(il), Volume for stream 2 or 5	0	
v(i2), Volume for stream 3 or 6	0	
s(il), Saturation flow rate for stream 2 or 5	1700	
s(i2), Saturation flow rate for stream 3 or 6	1700	
P*(oj)	0.99	
d(M,LT), Delay for stream 1 or 4	7.4	7.5
N, Number of major street through lanes	2	
d(rank,1) Delay for stream 2 or 5		

City of Hollister
Development Services
Planning Division

375 Fifth Street, Hollister, CA 95023 Ph (831) 636-4360 Fax (831) 636-4364

April 7, 2010

Pacific West Communities
Mike Kelley
430 E.State Street, Ste. 100
Eagle, Idaho 83616

Dear Mr. Kelley:

The City of Hollister Development Services Department deemed the application for Site and Architectural Review No. 2009-11, Minor Subdivision No. 2009-2 and Conditional Use Permit No. 2010-3 complete on March 1, 2010.

A special planning commission meeting was held on March 16, 2010 for the project. Staff provided the planning commission with an oral report on the development proposal and the commission took comments from the applicant and the public. The planning commission continued the meeting to March 25, 2010 and directed staff to provide a copy of the traffic impact study prepared for the project by Neil O. Anderson & Associates, Inc.

Revised elevations for S&A 2009-11 were delivered to the Development Services Department on March 25, 2010 and were submitted to the planning commission at the meeting that evening. The planning commission discussed the traffic engineering report and reviewed the elevations. The commission requested additional modifications to the architectural design of the proposed project and also directed engineering staff to evaluate modifications to traffic improvements related to the project and changes to the traffic report.

The requested modifications to traffic improvements and to the traffic report are attached to this letter in a memo provided by the engineering department. Please note that revisions to the traffic study must clearly explain whether there are potentially significant traffic impacts and if so, determine whether any recommended improvements will reduce the impacts to an insignificant level.

In addition to the modifications of the traffic mitigations, the planning commission has requested the following changes to the elevations:

1. *Provide more window variation.* The planning commission requested that the elevation plans be revised to provide additional window variations that include

features such as recessed windows to provide a shadow. Other window features can include trellises, and an eyebrow window architectural design, which can embellish the style of the window.

2. *Architectural features*. Include architectural features resembling the southwestern architectural style. The addition of more corbels to the building entries is indicative of a southwestern architectural style.

The revised project plans must be submitted as eight (8) individual and complete plan sets and one (1) electronic pdf set. The traffic report must be submitted as three (3) individual and complete sets and one (1) electronic pdf set. As explained in the Memo from the Engineering Department, peer review of the revised engineering report will be necessary. We will advise you of the consulting fee. You will be required to submit a deposit for the consulting fee prior to completion of the peer review.

The initial study for the project will be revised after the revised traffic engineering report is submitted, peer review is conducted and the traffic engineering report is accepted.

Please give me a call at 831-636-4360 if you have any questions or you can stop by at 420 Hill Street, Building A. Hours of operation are Monday through Thursday 8:00am to 12:00pm and 1:00pm to 5:00pm.

Sincerely,

M. Abraham Prado
Assistant Planner
Development Services Department

April 7, 2010

Memo to: Development Services Department

From: Engineering Department
David Rubcic, Associate Civil Engineer

Subject; Hollister Family Apartments
Review of items as requested by Planning Commission on March 25, 2010

On April 1, 2010 Mary Paxton, and Abraham Prado met with this department to discuss the subject project. At the March 25, 2010 Planning Commission Meeting a discussion took place that included a request for the Engineering Department evaluate a number of items. Below you will find the issues and this department's response.

PLANNING COMMISSION COMMENTS AND REQUESTS

1. PAINTING A RED-CURB ON THE WEST SIDE OF MILLER NORTH OF SAN JUAN-HOLLISTER ROAD.

This is a possible action that will require City Council action to Modify section 10.24 of the Hollister Municipal Code prohibiting parking at this location. Doing so will provide space that will allow the creation of a left turn lane from south bound Miller to East bound San Juan-Hollister Road. The addition of this lane will provide storage for cars wanting to make a left turn and a dedicated lane for a right turn. It will require additional work on the traffic signal equipment and possibly the curb returns to allow truck and trailer combination room to make the turn. All this would have to be designed by a licensed engineer.

2. ELIMINATION OF WHEEL STOPS ON THE PROPERTY AT THE NORTHEAST CORNER OF MILLER AND SAN JUAN-HOLLISTER ROAD.

This may provide additional movement possibilities on this property. It will decrease marked parking on this site. As stated by the City Attorney our ability to require this action is prohibited as it is private property and the City has no authority with this action.

3. PLACEMENT OF "KEEP CLEAR" ZONE ON MILLER ROAD AT DRIVEWAY

"Keep Clear" zones are a traffic control strategy that can be used effectively at certain locations. This department does not recommend this location. In discussion with the Hollister Police Department they stated that enforcement would be spotty, as their staffing level will not allow an officer to be at that location. The zone will give the motoring public a false sense of hope for enforcement at that location which will increase the frequency of complaints from the public. There would be a false sense of perceived right-of-way that could lead to traffic collisions.

4. UPDATE SHEET 2 OF APPENDIX "A" TO SHOW GONZALEZ DRIVE.

This department cannot change the Traffic Impact Study. The traffic engineer should be required to make this change.

5. CONVERTING THE EMERGENCY ACCESS POINT ON SAN JUAN-HOLLISTER ROAD TO A RIGHT-TURN IN/RIGHT-TURN OUT DRIVEWAY

The City of Hollister's Engineering Department requirement for a driveway on San Juan-Hollister Road is that it must align in a location that will serve not only the project site but also the neighboring site to the west and the properties on the South side of San Juan-Hollister Road. This would not be the case for an entrance designated for emergency access only. Converting this driveway to a right-turn in/out would require that the driveway entrance be redesigned so that a minimum of a two-car queue is provided prior to the gate. This will allow for the keypad use by one car and an additional car to wait off the street. In addition, a raised landscaped center median in San Juan-Hollister Road will be required in order to prevent the left turn out of the driveway. This median will cause a secondary affect to the gas station on the south side of the roadway. This solution would result in the loss of parking and an additional condition being placed to require the property owner to cooperate with the newly created "remainder" parcel to provide a joint access to both properties.

Converting the driveway to an exit driveway only will require the same improvements as stated above with the exception of the queue. The fence would have to be a sliding electric gate with a sensing loop to open the gate to exit. Otherwise parking would be eliminated.

Regardless of the chosen solution a fire department Knox Box will be required in order to open the gate during emergency fire response to the project site.

6. PEDESTRIAN SAFETY - NOT USING THE CROSSWALKS AT THE SAN JUAN-HOLLISTER ROAD/MILLER ROAD INTERSECTION

Pedestrian safety is always an issue during development of any project site. The General Plan encourages, and the Zoning Ordinance requires the implementation of a walkable project. This project satisfies the requirement by design. However, the problem of pedestrians that are "J-walking" exists and the solution would be outside of the nexus of the project and would be an enforcement issue by the Hollister Police Department.

The signalized intersection at San Juan-Hollister Road/Miller Road includes crosswalks for both Miller Road and San Juan-Hollister Road. In order to encourage or force the pedestrians to use the crosswalks a physical barrier will have to be constructed in San Juan-Hollister Road. This could include the use of a low fence, landscaping or other barrier.

7. TRAFFIC ACCIDENTS AT SAN JUAN-HOLLISTER ROAD

The engineering department requested a listing of reported traffic accidents at the San Juan-Hollister Road for the previous three years. The report shows 9 reported accidents since 2007 that resulted in 2 injuries. When the Primary Collision Factor was reported it was either speed or failure to yield the right-of-way. These accidents were either reported at the intersection or along San Juan-Hollister Road in close proximity to the intersection.

RECOMMENDATIONS

The Planning Commission has concerns about the projects that were included in the report and asked the Engineering Department to modify the report by including certain projects in the analysis. This is not possible, as this department cannot change the Traffic Impact Study, which is an engineering study. The traffic engineer should be required to make this change.

This department also recommends that an independent third party traffic engineer be consulted to provide a peer review of the report after revisions have been completed. The third party traffic engineer shall provide their opinion on the adequacy and completeness of the revised document. Once this is completed the project's traffic engineer would be directed to address the comments. The cost of this review shall be the responsibility of the applicant for this project.

Based on the requirements of the Planning Commission and subsequent staff level meetings this department recommends the following:

- The traffic impact study shall include all background projects as listed by the Development Services Department (see the attached list).
- Provide a corrected site plan showing the revised layout of the Gonzalez drive cul-de-sac (Sheet 2 of Appendix A)
- Study the interaction between the project driveway, east driveway into the shopping center and the San Juan-Hollister Road/Miller Road Intersection and provide all potential options to make this section of Miller Road and the intersection function as efficiently and safely as possible.
- Study the optional main entrance to the project site at the San Juan-Hollister Road emergency access driveway while conforming to the constraints as identified in item 5 above.
- Utilize the current General Plan study data as a starting basis to the traffic analysis.
- Re evaluate the peak hour so that it falls in line with the general plan to be between 4-6 pm

City of Hollister -Engineering Department
375 Fifth St.
Hollister, CA 95023
(831) 636-4340

Site Code: 1020
Station ID: Fourth St.
w/o Felice Dr.
Line to San Benito River
Latitude: 0' 0.000 Undefined

Start Time	10-Aug-09 Direction 1	10-Aug-09 Direction 2	Tue Direction 1	Tue Direction 2	Wed Direction 1	Wed Direction 2	Thu Direction 1	Thu Direction 2	Fri Direction 1	Fri Direction 2	Weekday Average Direction 1	Weekday Average Direction 2	Sat Direction 1	Sat Direction 2	Sun Direction 1	Sun Direction 2
12:00 AM	*	*	*	*	*	*	*	*	200	217	200	217	*	*	*	*
01:00	*	*	*	*	*	*	*	*	123	131	123	131	*	*	*	*
02:00	*	*	*	*	*	*	*	*	73	67	73	67	*	*	*	*
03:00	*	*	*	*	*	*	*	*	39	27	39	27	*	*	*	*
04:00	*	*	*	*	*	*	*	*	32	17	32	17	*	*	*	*
05:00	*	*	*	*	*	*	*	*	38	26	38	26	*	*	*	*
06:00	*	*	*	*	*	*	*	*	82	52	82	52	*	*	*	*
07:00	*	*	*	*	*	*	*	*	204	112	204	112	*	*	*	*
08:00	*	*	*	*	*	*	*	*	370	202	370	202	*	*	*	*
09:00	*	*	*	*	*	*	*	*	383	272	383	272	*	*	*	*
10:00	*	*	*	*	*	*	*	*	397	343	397	343	*	*	*	*
11:00	*	*	*	*	*	*	*	*	376	320	376	320	*	*	*	*
12:00 PM	*	*	*	*	*	*	*	*	413	338	413	338	*	*	*	*
01:00	*	*	*	*	*	*	*	*	439	350	439	350	*	*	*	*
02:00	*	*	*	*	*	*	435	373	518	366	476	370	*	*	*	*
03:00	*	*	*	*	*	*	486	387	0	0	~~446~~ 249	~~494~~	*	*	*	*
04:00	*	*	*	*	*	*	502	392	*	*	502	392	*	*	*	*
05:00	*	*	*	*	*	*	542	422	*	*	542	422	*	*	*	*
06:00	*	*	*	*	*	*	560	487	*	*	560	487	*	*	*	*
07:00	*	*	*	*	*	*	624	516	*	*	624	516	*	*	*	*
08:00	*	*	*	*	*	*	478	536	*	*	478	536	*	*	*	*
09:00	*	*	*	*	*	*	403	428	*	*	403	428	*	*	*	*
10:00	*	*	*	*	*	*	394	380	*	*	394	380	*	*	*	*
11:00	*	*	*	*	*	*	341	295	*	*	341	295	*	*	*	*
Total	0	0	0	0	0	0	4765	4216	3687	2840	7732	6494	0	0	0	0
Day	0		0		0		8981		6527		14226		0		0	
AM Peak									10:00	10:00	10:00	10:00				
Vol.									397	343	397	343				
PM Peak							19:00	20:00	14:00	14:00	19:00	20:00				
Vol.							624	536	518	366	624	536				
Comb. Total	0		0		0		8981		6527		14226		0		0	
ADT	Not Calculated															

397

7975

6687

14,662 — 2009

15,762 — 2008

City of Hollister -Engineering Department
375 Fifth St.
Hollister, CA 95023
(831) 636-4340

Site Code: 4010
Station ID: San Juan Hollister
w/o Graff
City Limits to Graff
Latitude: 0' 0.000 Undefined

Start	10-Aug-09		Tue		Wed		Thu		Fri		Weekday Average		Sat		Sun	
Time	Direction 1	Direction 2	Direction 1	Direction 2	Direction 1	Direction 2	Direction 1	Direction 2	Direction 1	Direction 2	Direction 1	Direction 2	Direction 1	Direction 2	Direction 1	Direction 2
12:00 AM	*	*	*	*	*	*	73	123	*	*	73	123	*	*	*	*
01:00	*	*	*	*	*	*	56	63	*	*	56	63	*	*	*	*
02:00	*	*	*	*	*	*	28	59	*	*	28	59	*	*	*	*
03:00	*	*	*	*	*	*	20	29	*	*	20	29	*	*	*	*
04:00	*	*	*	*	*	*	21	18	*	*	21	18	*	*	*	*
05:00	*	*	*	*	*	*	37	25	*	*	37	25	*	*	*	*
06:00	*	*	*	*	*	*	79	23	*	*	79	23	*	*	*	*
07:00	*	*	*	*	*	*	219	69	*	*	219	69	*	*	*	*
08:00	*	*	*	*	*	*	440	110	*	*	440	110	*	*	*	*
09:00	*	*	*	*	*	*	409	131	*	*	409	131	*	*	*	*
10:00	*	*	*	*	*	*	292	212	*	*	292	212	*	*	*	*
11:00	*	*	*	*	*	*	229	200	*	*	229	200	*	*	*	*
12:00 PM	*	*	*	*	*	*	261	199	*	*	261	199	*	*	*	*
01:00	*	*	*	*	234	213	0	0	*	*	117	106	*	*	*	*
02:00	*	*	*	*	284	270	*	*	*	*	284	270	*	*	*	*
03:00	*	*	*	*	231	246	*	*	*	*	231	246	*	*	*	*
04:00	*	*	*	*	274	312	*	*	*	*	274	312	*	*	*	*
05:00	*	*	*	*	277	360	*	*	*	*	277	360	*	*	*	*
06:00	*	*	*	*	282	467	*	*	*	*	282	467	*	*	*	*
07:00	*	*	*	*	287	547	*	*	*	*	287	547	*	*	*	*
08:00	*	*	*	*	241	475	*	*	*	*	241	475	*	*	*	*
09:00	*	*	*	*	197	289	*	*	*	*	197	289	*	*	*	*
10:00	*	*	*	*	175	206	*	*	*	*	175	206	*	*	*	*
11:00	*	*	*	*	144	172	*	*	*	*	144	172	*	*	*	*
Total	0	0	0	0	2626	3557	2164	1261	0	0	4673	4711	0	0	0	0
Day	0		0		6183		3425		0		9384		0		0	
AM Peak							08:00	10:00			08:00	10:00				
Vol.							440	212			440	212				
PM Peak					19:00	19:00	12:00	12:00			19:00	19:00				
Vol.					287	547	261	199			287	547				

Comb. Total	0	0	6183	3425	0	9384	0	0
ADT	Not Calculated							

9,608 - 2009
11,829 - 2006

HOLLISTER POLICE DEPARTMENT

395 Apollo Way, Hollister, CA 95023
Ph: 831-636-4330 Fax: 831-636-4339

FAX COVER PAGE

TO: Engineering FAX: 636-4349

ATTN: David Rubcic

RE: 2007, 2008 & 2009

COMMENTS: Please see the attached reports
We Have None for 2010
San Juan Rd @ Miller

SENDER: Janie Cruz DATE: 4/2/10

REPLY REQUESTED: YES (NO) (CIRCLE ONE)

NUMBER OF PAGES SENT: 4 (INCLUDING COVER PAGE)

	# Accidents	INJ/Killed
2010	0	
2009	2	
2008	4	2/0
2007	3	

Traffic Accident Report

Grouped and Sorted By Date and Time

Date	Time	Day	Location	Intersection/Distance	Cross Street	Area	PCF	Incident No.	Number Inj\Killed	
02/06/07	1833	TUE	1300 B SAN JUAN RD	94 FEET WEST	MILLER RD		22350	HA0700394	\	Speed
06/23/07	1654	SAT	1200 B SAN JUAN RD		MILLER RD			HA0701957	\	?
11/04/07	2002	SUN	1200 SAN JUAN RD		MILLER RD		23152(A)	HA0703571	\	DUI

Record Count 3

Traffic Accident Report

Grouped and Sorted By Date and Time

Date	Time	Day		Location		Intersection/Distance			Cross Street	Area	PCF	Incident No.	Number Inj\Killed	
06/11/08	1033	WED	1280	SAN JUAN RD		186	FEET	EAST	MILLER RD			HA0801743	\	?
11/11/08	2037	TUE		SAN JUAN RD	X	74	FEET	WEST	MILLER RD		22350	HA0803640	01\	speed
11/20/08	1707	THU		SAN JUAN RD		440	FEET	EAST	MILLER RD		22350	HA0803774	01\	speed
12/24/08	1728	WED	1300 B	SAN JUAN RD		91	FEET	WEST	MILLER RD		21804(A)	HA0804188	\	YIELD VIOLATION

Record Count 4

Traffic Accident Report

Grouped and Sorted By Date and Time

Date	Time	Day	Location	Intersection/Distance			Cross Street	Area	PCF	Incident No.	Number Inj/Killed	
09/18/09	1845	FRI	1200 B SAN JUAN RD	300	FEET	EAST	MILLER RD		21804(A)	HA0903059	\	Hit and Speed
11/03/09	0730	TUE	SAN JUAN DR	X			MILLER RD		22350	HA0903572	\	

Record Count 2

Residential Projects in the City of Hollister

Rev. August 2009

Map#	Project Name	APN	Total Units	Units Remaining	Permits Issued 2009	Approval Needed	Housing Type
	PROJECTS EXEMPT FROM GROWTH MANAGEMENT PER MEASURE Y						
1	Del Curto duplex		2	2		Site & Archictural	Duplex
	PRE-MEASURE U ALLOCATIONS						
2	Walnut Park 13	57-37-16	20	20	0	Pending Tentative Map	Makert SFD
3	Eden West - 0 constructed	58-050-43	55	55	0	Tentative Map	Makert SFD
		58-050-42					Makert SFD
4	Hillock Ranch - 67 built	57-page 67	108	41	0	Building Permit	Makert SFD
5	La Baig 5 (Koch)	54 page 58	48	27	12	Building Permit	Makert SFD
6	Las Brisas 7 - 20 built	60-page 24	23	3	0	Building Permit	Makert SFD
6	Las Brisas 8 - 9 built	60-page 24	23	14	0	Building Permit	Makert SFD
7	Palmtag Subdivision - 8 built	57-page 57	10	2	0	Building Permit	Makert SFD
8	Walnut Park 8A - 26 built	57-page 38	31	5	0	Building Permit	Makert SFD
8	Walnut Park 8B - 0 constructed	57-page38	27	21	6	Building Permit	Makert SFD
10	Vista Meadows Senior Apartment	56-29-01	72	72	0	Condition Compliance	Low income
	Ordinance 950 Special 2002 Growth Management Allocation						
11	Annoti (Miller Ferriera) Senior Project	57-page	166	166	0	Final Map	Market SFD
12	Intravia Duplex	56-20-28	2	2	0	Site & Architectural	Duplex
13	Hillview Subdivision	52-32-07	25	25	0	Final Map	Affordable SFD
14	Westside Apartments	52-30-02	11*	11*	0	Condition Compliance	Affordable rental
	Hardship Allocations 16.64.5 Subdivision Ordinance						
15	Brigantino	54-49-43	14	6	8	Building Permit	Market SFD
	Development Agreement						
16	West of Fairview	57-71-02,03	667	667	0	Final Map	100 Affordable Apts
		05,06 & 07					60 Duettes
							507 Marktet SFD
	TOTAL UNITS PRE-MEASURE U UNITS		1291	1126	26		

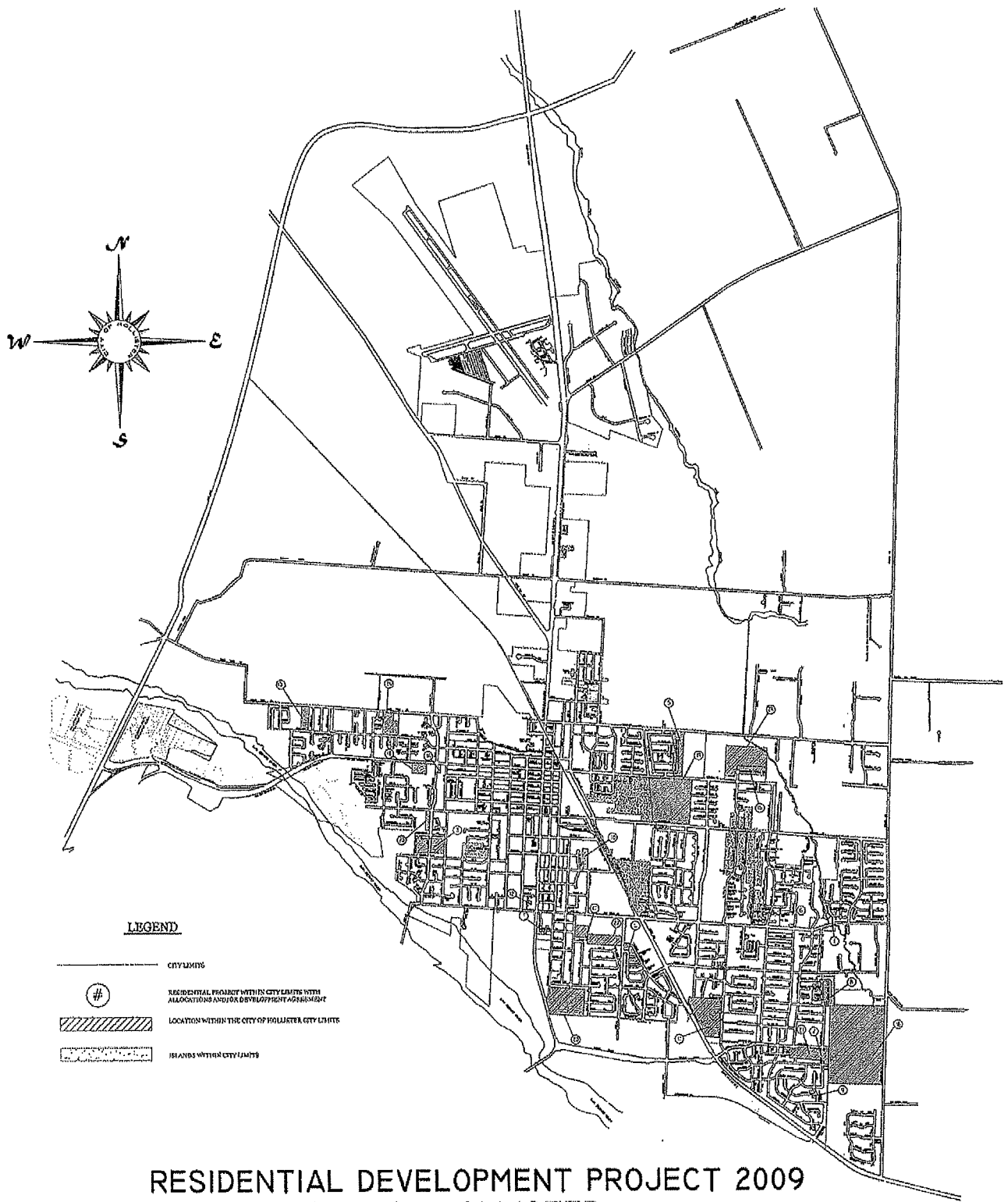
Residential Projects in the City of Hollister

Rev. August 2009

Map#	Project Name	APN	Total Units	Units Remaining	Permits Issued 2009	Approval Needed	Housing Type
	2008-2009-2010 ALLOCATIONS PER MEASURE U						
17	Valles	57-23-19	74	74		Site and Architectural	Aprts. Mixed Use
18	Thorning - Probable future request for 124	52-08-01 52-09-52	74	74		Tentative Map /Site & Architectural	10 row house 60 Mix Use Apts.
19	Cerrato Estates Probable future request for 269	54-35-31	95	95		Tentative Map	Small lots, Apts Condos
20	KT Orchard Park	52-32-02	91	91		Tentative Map	Small lots
21	Walnut Park 13	57-37-16	22	22		Tentative Map	Market SFD
22	Ladd Lane requested 91 allocated 54) Probable future request for 37	57-23-13	54	54		Tentative Map /Site & Architectural	Market SFD Apts
23	Rajkovich	20-18-08 20-18-09	175	175		Tentative Map /Site & Architectural	100 Affordable Apts 75 Market SFD
24	Brigantino - Probable future request for 64	19-31-59 19-31-61	85	85		Tentative Map	Market SFD Market SFD
25	Sywak - requested 8 - allocated 8	58-60-10	8	8		Tentative Map	Market SFD
9	PacificWest Properties	52-09-43	65	65		Site & Architecural	Affordable Apts
			743	743			
	2011-2012 Allocations Measure U Future - unknown locations		480**				

* Project also includes 11 relocated units and 11 reconstructed affordable rental apartments.

** Forty five affordable units have been reserved from the 480 units allocation for the Pacific West Properties (#9)



RESIDENTIAL DEVELOPMENT PROJECT 2009
CITY OF HOLLISTER
COUNTY OF SAN BENITO

City of Hollister
Current Commercial and Industrial Projects

December 2009

Project	Applicant	Property Location	Assessor Parcel	Application Date	Parcel Size by acre	Building Type	Project Description	Status
S&A 2006-3	Robert Enz	1900 Aerostar Way	534200010	01/17/2006	3.62	Industrial	10,800 sq. ft. building (first of 3 proposed buildings)	Approved
S&A 2007-1/CUP-2007-1	Carlisle Office Park	Bert Drive	511400020	01/16/2007	1.5	Office	Five buildings for office and professional use. Two single story buildings (2,400 sq. ft) and 2 two story (4,046 and 5,056 sq. ft.)	Three built -
S&A 2007-1Ext	Nadar	Airline/Sunnyslope	57007060		0.38	Commercial	4,039 addition	Building Permit Pending
S&A 2008-1	Best Western	San Felipe Road	53038008		1.02	Motel	4,583 sq ft addition	Approved 2/28/08
S&A 2008-6	Ausonio Incorporated	1850 Airway Dr. Lot 10	534200220		1.2	Industrial	New single story 13,654 sq. ft. warehouse building	Building Permit Pending
S&A 2008-12	Long Reach	Ladd Lane	5723013		2.5	Commercial	12,410 Medical Office b	Approved 10/30/08
S&A 2008-11	Marriott	Gateway Drive, Lot 3	53410003		1.48	Industrial	88 room hotel	Approved
S&A 2009-4	Bolsa	Lana Way	51162002		1	Industrial	2,007 sq. ft. lab and RV	Approved 6/24/09

City of Hollister
Development Services
Planning Division

375 Fifth Street, Hollister, CA 95023 Ph (831) 636-4360 Fax (831) 636-4364

May 10, 2010

Pacific West Communities
Mike Kelley
430 E.State Street, Ste. 100
Eagle, Idaho 83616

Dear Mr. Kelley:

The City of Hollister Development Services Department sent Pacific West Communities, Inc. a letter dated April 7, 2010 requesting changes to the traffic report, an evaluation to modifications of traffic improvements, and changes to the proposed elevations of the Hollister Family Apartments project. These requests were made by the City of Hollister Planning Commission during the March 25, 2010 Planning Commission meeting. The requested modifications to traffic improvements and to the traffic report were attached to the letter in a memo provided by the City of Hollister Engineering Department.

On Wednesday April 14, 2010 the Development Services Department received a letter from Pacific West Communities, Inc. traffic analyst Neil O. Anderson & Associates, Inc. in regards to the memo that was sent by the City. The City of Hollister reviewed the letter provided by the traffic analyst and after careful consideration the City of Hollister has determined the following:

- *Supplemental traffic counts:* The City of Hollister is no longer requesting an evaluation of background projects included in a list attached to the April 7, 2010 letter or requesting a supplemental re-evaluation of the peak hour traffic between 4 – 6 p.m.

- The supplemental traffic study should focus on strategies for vehicles and pedestrians to efficiently and safely enter and exit the project site from any proposed ingress or egress. As noted in the April 7, 2010 Memo from the Engineering Department, the study needs to evaluate the interaction between the project driveway, the east driveway into the shopping center and the intersection of San Juan Road/Miller Road so the intersections function as efficiently and safely as possible. The Planning Commission comments and request summarized in the April 7, 2010 memo from the Engineering Department should be factored into the supplemental traffic report.

Please provide all other information requested on the letter and memo dated April 7, 2010. The revised project plans must be submitted as eight (8) individual and complete plan sets and one (1) electronic pdf set. The traffic report must be submitted as one (1) individual and complete set and one (1) electronic pdf set. The initial study for the project will be revised after the revised traffic engineering report is submitted and the traffic engineering report is accepted.

Please submit your revised plan sets to the Development Services, Planning Department. Please give me a call at 831-636-4360 if you have any questions or you can stop by at 420 Hill Street, Building A. Hours of operation are Monday through Thursday 8:00am to 12:00pm and 1:00pm to 5:00pm.

Sincerely,

M. Abraham Prado
Assistant Planner
Development Services Department

HCS2000: Signalized Intersections Release 4.1

Phone: Fax:
E-Mail:

PLANNING ANALYSIS

Analyst:	Brent Moore
Intersection:	San Juan, Graf
Agency/Co.:	Stantec
Area Type:	All other areas
Date Performed:	3/15/2015
Jurisdiction:	City of Hollister
Analysis Time Period:	7:15 am - 8:15 am
Analysis Year:	2015
Project ID:	Vista De Oro Multi-Use Project
	East/West Street: San Juan Road
	North/South Street: Graf Road

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Num. Lanes	1	1	0	0	1	1	0	0	0	1	0	1
Volume	10	315	0	0	333	30				24		11
Parking		N			N						N	
Coord.		N			N						N	
LT Treat.	P			U						P		

Peak hour factor: 0.90 Area Type: All other areas

LANE VOLUME WORKSHEET

	EAST BOUND	WEST BOUND	NORTH BOUND	SOUTH BOUND
LEFT TURN MOVEMENT				
1. LT volume	10	0		24
2. Opposing mainline volume	363	315		0
3. Number of exclusive LT lanes	1	0		1
Cross Product [2] * [1]	3630	0		0
Left Lane Configuration (E=Excl, S=Shrd):	E	S		E
Left Turn Treatment Type:	P	U		P
4. LT adjustment factor	0.950			0.950
5. LT lane vol	11	0		25
RIGHT TURN MOVEMENT				
Right Lane Configuration (E=Excl, S=Shrd)	S	E		E
6. RT volume	0	30		11
7. Exclusive lanes	0	1		1
8. RT adjustment factor	0.850	0.850		0.850
9. Exclusive RT lane volume		35		13
10. Shared lane vol	0			
THROUGH MOVEMENT				
11. Thru volume	315	333		0
12. Parking adjustment factor	1.00	1.00		1.00
13. No. of thru lanes including shared	1	1		0
14. Total approach volume	315	333		0
15. Prop. of left turns in lane group	0.00	0.00		0.00
16. Left turn equivalence		1.91		
17. LT adj. factor:		1.000		
18. Through lane volume	315	333		0
19. Critical lane volume	315	333		13
Left Turn Check (if [16] > 3.5)				
20. Permitted left turn sneaker capacity: 7200/Cmax		60		

SIGNAL OPERATIONS

WORKSHEET

	EAST BOUND	WEST BOUND	NORTH BOUND	SOUTH BOUND
Phase Plan Selection from Lane Volume Worksheet				
Critical through-RT vol: [19]	315	333		13
LT lane vol: [5]	11	0		25
Left turn protection: (P/U/N)	P	U		P
Dominant left turn: (Indicate by '<')				

Selection Criteria based on the specified left turn protection

< Indicates the dominant left turn for each opposing pair

Plan 1:	U	U	U	U
Plan 2a:	U	P	U	P
Plan 2b:	P	U	P	U
Plan 3a:	<P	P	<P	P
Plan 3b:	P	<P	P	<P
Plan 4:	N	N	N	N

Phase plan selected (1 to 4) 2b 2a

Min. cycle (Cmin) 60 Max. cycle (Cmax) 120

Timing Plan	Value	EAST-WEST Ph 1	EAST-WEST Ph 2	EAST-WEST Ph 3	NORTH-SOUTH Ph 1	NORTH-SOUTH Ph 2	NORTH-SOUTH Ph 3
Movement codes		ETL	EWT		STL	NST	
Critical phase vol [CV]		11	333	0	25	0	0
Critical sum [CS]	369						
CBD adjustment [CBD]	1.00						
Reference sum [RS]	1539						
Lost time/phase [PL]		4	4	0	4	4	0
Lost time/cycle [TL]	16						
Cycle length [CYC]	60.0						
Phase time		5.3	43.7	0.0	7.0	4.0	0.0
Critical v/c Ratio [Xcm]	0.33						
Status	Under capacity						