Attachment A: Air Quality Screening Analysis

CFCC Worship Facility Project--Air Quality and GHG Emissions Screening

Operational Air Quality (AQ) and Greenhouse Gas (GHG), and Construction AQ - Comparison to BAAQMD Screening Levels

		Operational AQ			Operational GHG			Construction AQ		
Development Type	**Project Proposal**	**Screening Size**	**% Screening Size**	**Over Threshold?**	**Screening Size**	**% Screening Size**	**Over Threshold?**	**Screening Size**	**% Screening Size**	**Over Threshold?**
Worship facility	16000	439000	4%	No	61000	26%	No	277000	6%	No
				No			No			No
				No			No			No
				No			No			No
				No			No			No
Total			4%	No		26%	No		6%	No

Screening sizes from Table 3-1 of BAAQMD's CEQA Air Quality Guidelines, May 2011 version.
It is not included in the current May 2012 version because they have removed the thresholds per the CBIA vs BAAQMD court case.

CFCC Worship Facility Project, TAC Screening Summary and Highway/Roadway Sources

Highway/High Volume Roadway 1000 ft Screening for 411 W. MacArthur Project

Highways	Side of Road	Distance Measured	Distance Rounded Down	Cancer Risk	PM 2.5	Hazard Index
none within 1000 ft						

Roadways	Direction	AADT	Side of Road	Distance	Cancer Risk	PM 2.5
Meekland	**N/S**	11000	E	10	2.93	0.057
W. MacArthur	E/W	13,925	S	265	7.33	0.14

Summary 1000 ft Screening for CFCC Worship Facility Project, Stationary and Highway/Roadway Sources

	Cancer Risk	PM 2.5	Hazard Index
Sum of Highways/Roadways	**10.3**	**0.19**	**0.000**
Sum of Stationary Sources	**60.9**	**0.00**	**0.10**
Sum of all Screening Sources	**71.2**	**0.19**	**0.10**
BAAQMD Cumulative Source Threshold	100.0	0.80	10.00

NOTES:
Highway Screening data is from BAAQMD Highway Screening Tool (6ft), Alameda County 2011
Roadway Cancer Risk and PM 2.5 concentrations were generated using BAAQMD's Roadway Screening Analysis Calculator, Alameda County, dated 4/16/15
Hazard Index is not generally exceeded by roadway sources so is not reported in all methodologies or here.
Stationary Source Screening is details on the following pages.
A St and Meekland Ave AADT is from the Eden Area Specific Plan Circulation Element

The red circle is 1000 feet. BAAQMD methodology requires screening of sources within 1000 feet of the Project.
Source #6904 (Pepe's Auto Body), which appears to be south of the radius, is actually within the 1000-ft radius.

Attachment B: Historic Architectural Assessment Report

HISTORIC ARCHITECTURAL ASSESSMENT REPORT
149 and 159 Smalley Avenue
Hayward, Alameda County, California

PREPARED FOR:
LAMPHIER-GREGORY
1944 Embarcadero
Oakland, CA 94606

PREPARED BY:

PO Box 2192
Orinda, CA 94563

March 2017

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HISTORIC ARCHITECTURAL ASSESSMENT REPORT
149 and 159 Smalley Avenue
Hayward, Alameda County, California

PREPARED BY:

Stacy Kozakavich, Ph.D. and Nazih Fino, M.A.,

SUBMITTED BY:

James Allan Ph.D. Principal Investigator

Project Number 2017-10

March 2017

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Introduction

WSA, Inc. (WSA) has been contracted by Lamphier-Gregory to prepare a Historic Architectural Assessment Report (HAAR) for two buildings within the Chinese for Christ Church Worship Facility, 149 Smalley Avenue (APN 431-16-51) and 159 Smalley Avenue (APN 431-16-52) in the unincorporated Cherryland area of Alameda County, CA. The project proposes to build a new worship structure on a portion of the Chinese for Christ Church (CFCC) property, with ground-floor administrative space and sanctuary for 325 congregants, and second-floor classrooms. The two permanent buildings currently occupying the property will be demolished for construction of the new facility and adjacent parking. Both buildings are more than 50 years old.

WSA has prepared this HAAR in compliance with the California Environmental Quality Act (CEQA) to evaluate the potential significance of cultural resources within the project area in accordance with the criteria in CEQA Section 15064.5, and as a means of evaluating the project's impacts to potentially significant cultural resources. This HAAR presents the results of research conducted to identify and evaluate potential cultural resources within the project area, including the results of the records search and historic building documentation and evaluation for 149 and 159 Smalley Avenue.

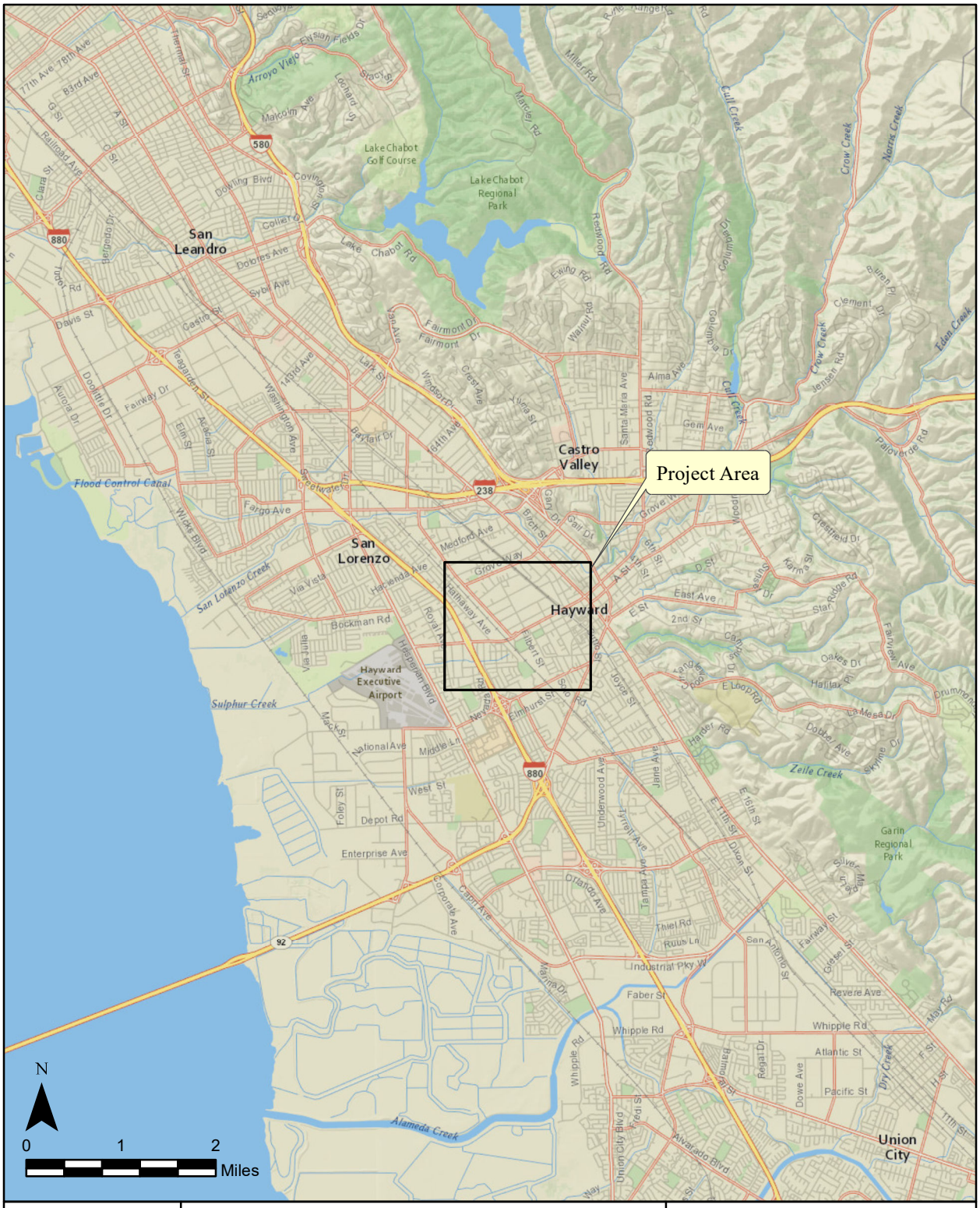
CEQA provides appropriate measures for the evaluation and protection of cultural resources in subsection §15064.5 of the *CEQA Guidelines*. For the purposes of CEQA, "historical resources" are those cultural resources that are: (1) listed in or eligible for listing in the California Register of Historical Resources (CRHR); (2) listed in a local register of historical resources (as defined in Public Resources Code (PRC) 5020.1(k)); (3) identified as significant in a historical resource survey meeting the requirements of PRC 5024.1(g); or (4) determined to be a historical resource by a project's lead agency (§15064.5(a)). The subsection further states that "A project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment" (§15064.5(b)).

The project is located within the southeast quarter of Section 17, Township 3 South, Range 2 West of the Mount Diablo Meridian, as shown on the 1993 Hayward U.S. Geological Survey 7.5 minute topographic quadrangle (Figures 1-3). The two project parcels, APNs 431-16-51 and 431-16-52, include a combined size of 0.601 acres that are part of the Chinese for Christ Church complex on the south side of Smalley Avenue just east of Meekland Avenue. Nearby properties on Smalley Avenue are primarily residential in nature, with residential, commercial and light industrial uses along Meekland Avenue to the west and A Street to the south.

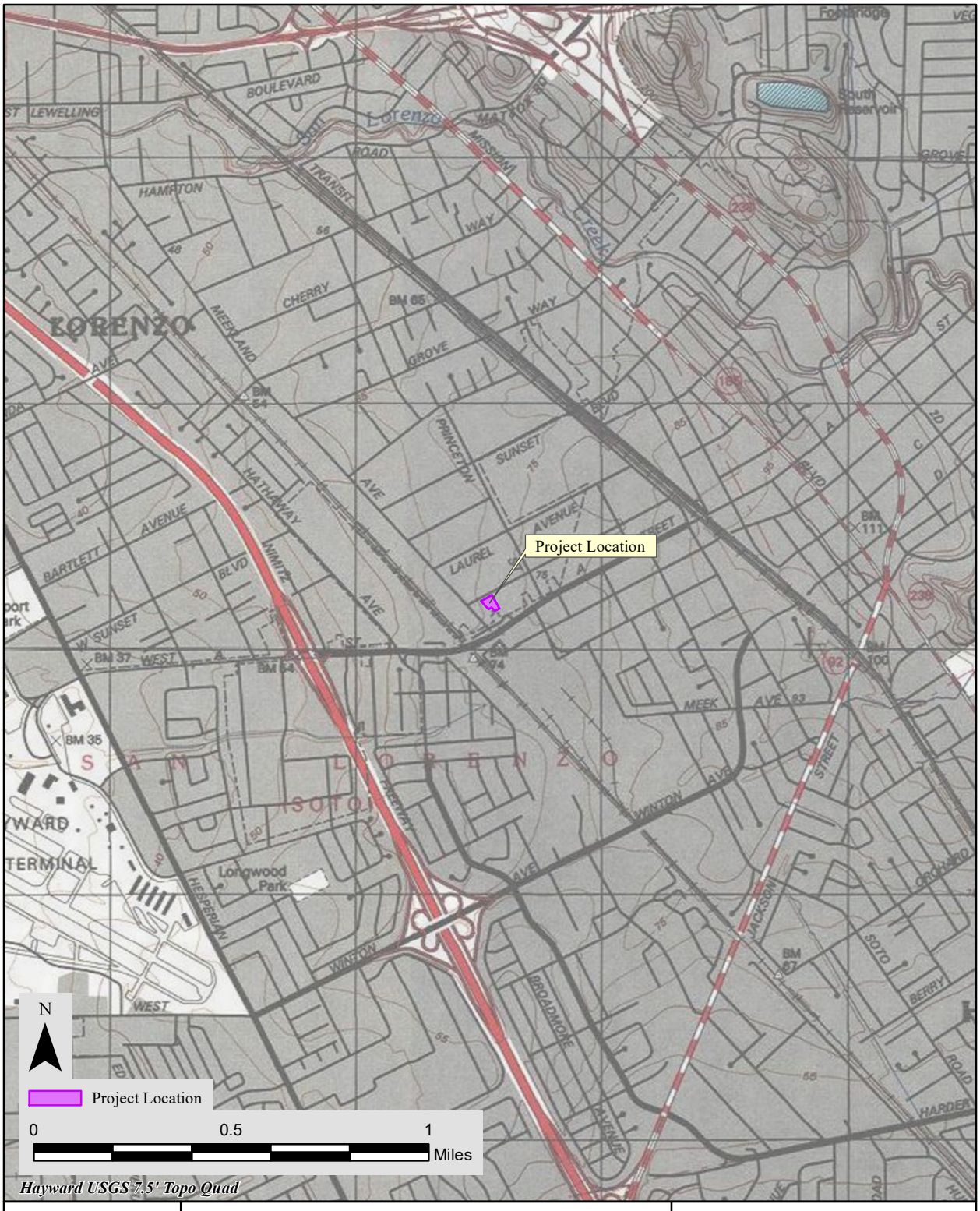
WSA

Project Vicinity Map

Figure 1
Lamphier-Gregory
149 &159 Smalley Ave Project
Alameda County, CA



WSA	Project Area Map	Figure 2 Lamphier-Gregory 149 &159 Smalley Ave Project Alameda County, CA



WSA

Project Location Map

Figure 3
Lamphier-Gregory
149 &159 Smalley Ave Project
Alameda County, CA

Research Methods

WSA architectural historian Stacy Kozakavich, Ph.D., conducted a site visit to survey the property on March 16, 2017. During the visit, Dr. Kozakavich documented the buildings' layout and architectural features with photographs (Appendix A) and field notes. Archival sources consulted to establish the building's specific history and local historical context include historical maps and aerial photos, city directories, 1930 and 1940 census schedules, records of the Alameda County Assessor and Clerk Recorder, and newspaper articles from the *Hayward Daily Review*, *Oakland Tribune* and other American newspapers.

On March 16, 2017 WSA contacted the Hayward Area Historical Society (HAHS) by e-mail to request information regarding the properties in the project area. On March 20, John Christian of the HAHS replied by e-mail, providing images of 1956 assessor's maps for the block. On March 23, 2017 WSA contacted the Alameda County Parks, Recreation, and Historical Commission by mail to request information regarding locally or regionally significant historical resources in the project area. They had not yet responded by March 31, 2017.

WSA reviewed the 1998 Preliminary Cultural Resources Survey for the Ashland and Cherryland Districts of San Lorenzo (Siegel & Strain 1998) and the City of Hayward Historic Context Statement (Circa 2010). The buildings within the project area are not listed in these documents.

Historical Overview

Regional Historic Context: Hayward and Western Alameda County

Captain Juan Manuel Ayala's expedition of 1775 opened the Spanish Period of settlement in the Bay Area as they ventured up the Sacramento and San Joaquin rivers in search of a suitable mission site. The first mission in the region, Mission San Francisco de Asis (Mission Dolores), situated near the shores of San Francisco Bay, was established the following year. A number of missions were subsequently established along the California coast. Mission San Jose, to the southeast of the current project area, was established in 1797. Cattle from Mission San Jose were grazed over the project vicinity and by 1829, areas within this portion of what was to become Alameda County were occupied by Native Americans who had formerly lived at Mission San Jose (Baker 1914:32).

The earliest non-Native American settlement in the project vicinity dates to 1836, when a Californian, Don Jose Joaquin Estudillo, petitioned to obtain a land grant of the Arroyo de San Leandro. Estudillo built his house along San Leandro Creek the following year (Baker 1914:32). Within a few years, Don Guillermo Castro settled within this area. Castro was granted *Rancho San Lorenzo* in 1841 by Governor Alvarado and in 1843 by Governor Micheltorena, and chose to settle near a spring on the western edge of San Lorenzo Creek canyon, in the area that would become downtown Hayward. Castro's adobe house was located on Mission Boulevard between C and D streets. His former land holdings make up the majority of the current City of Hayward. The westernmost portion of Hayward, including the current project area, was part of the "Little San Lorenzo" or *Rancho San Lorenzo Baja*, granted to Francisco Soto

in 1842 and 1844. Soto's adobe stood on the southwest side of Mission Boulevard opposite what is now Hayward Memorial Park (Kyle 1990:16; Sandoval 1991:19, 25).

A vision of Alameda County in the mid-1800s, before the entry of the railroad and growth of permanent towns, was described later that century in the following glowing terms:

> Wild cattle roamed in thousands. The hills were covered with wild oats. Wild mustard was abundant and grew luxuriantly. Deer and all kinds of wild game were plentiful. Such was the condition of the present Alameda County in 1850-51 (Lewis Publishing Co. 1892:359).

William Hayward purchased land from Castro in the early 1850s and opened a store housed in a tent near Castro's adobe. In the fall of 1852 he built a home and then a hotel/tavern. The site would soon be home to the well-known Hayward's Hotel, north of today's A Street on the east side of Mission Boulevard (Baker 1914:450; Grossinger and Brewster 2003:13). It was eventually destroyed by fire in 1923 (Kyle 1990:16). In 1854, Castro platted the town which he called San Lorenzo, and, with some changes he made two years later, established the basic layout of the modern city of Hayward. In 1856, William Hayward was appointed the town's first postmaster and his hotel functioned as the first post office. As a result, the town was nicknamed "Haywards" and shortly thereafter a petition was sent to Washington D.C. requesting the name be officially changed to Haywards. The post office would not allow towns to be named after living persons, and so the town was renamed Haywood. The name "Hayward" would not be decided on until 1911 (Grossinger and Brewster 2003:14; Hayward Area Historical Society 2010a). The name San Lorenzo was taken by the current city of San Lorenzo in 1854, before which it had been known as "squatterville" (Stock and Corbett 2000:7).

Hayward's location as a stage stop between Oakland and San Jose, as well as the development of the short-lived local rail line between Alameda and Hayward in 1865, spurred early growth within the community (Grossinger and Brewster 2003:16). Though the local rail line did not last long and the town experienced severe structural damage during the earthquake of 1868, the location continued to attract settlement. In addition to Hayward's natural location at a crossroads of sorts, its development was surely aided when William Hayward became road commissioner for Alameda County (Willard 1988:28). The town of "Haywards" was incorporated on March 11, 1876. The population of the town was about 1,300 in 1878 (Thompson & West 1878:24-25).

Located within Eden Township, one of Alameda County's six townships designated ca. 1852 to 1853, the project area was part of an agricultural district well into the early decades of the twentieth century. H. W. Crabb, the Assessor for Eden Township, recorded that in 1865, barley, wheat, apples and cucumbers were being cultivated in Eden Township, and extolled the suitability of the portion of land situated between the Bay and foothills for agricultural purposes. Salt was also being manufactured along the bayshore. Natural ponds filled up at high tide, and floodgates were used to retain the water. The water evaporated, leaving a sheet of salt that was then collected into piles and allowed to drain further before being packed up and shipped to market (California State Agricultural Society 1866:243). Two years later, Crabb recorded that currants and cherries were also being grown. The population of the township at that time was 1,972, and Crabb noted that that many improvements were being made within it, though no specifics were provided (Houghton 1867:98).

Through the 1860s and 1870s, landowners John Lewelling, William Meek, and others established extensive fruit orchards and nurseries on either side of San Lorenzo Creek to the west of the growing town of Hayward (Circa 2010:82; Siegel & Strain 1998:5). Those south of San Lorenzo Creek were known as "Meek Lands" according to an oblique perspective bird's eye view painting made by Charles Green in 1900 (Circa 2010:36). The growing rail networks serving the area beginning in the 1860s with the "San Francisco, Alameda, and Haywards Railroad" and the development of refrigerated rail cars in the 1880s allowed broad and lucrative distribution of orchard products from the area's growers.

William Meek was an influential member of the community beyond his development of fruit production in the Bay Area. From 1861 to 1864 Meek served on the Alameda County Board of Surpervisors, was an early Regent at the University of California, and served on the first Board of Trustees for Mills College. He owned 2,800 acres of non-contiguous land throughout Eden Township. By 1875, Meek was the wealthiest man in Eden Township and his orchards had gained "almost a national reputation" (Baker 1914:100; Merritt 1928:147, 180, 189, 346; Thompson & West 1878:16, 24, 168).

In 1878, the Southern Pacific Railway Company began service between Santa Cruz and Oakland, passing via Mt. Eden and San Lorenzo. As a result, transporting goods by rail surpassed in importance the previous method of shipping by water. The Southern Pacific line also carried passengers as well as freight, and ran 15 passenger trains per day (Stock and Corbett 2000:8). The Western Pacific Railroad (WPRR) was established east of the Southern Pacific line in 1910. The Western Pacific's line was within close proximity to the former local line that ran between Alameda and Hayward.

By the 1890s, the array of cultivated produce had expanded. In a book produced by then California Governor Henry Markham the area was described in the following way: "From East Oakland to Mission San José is one series of vegetable gardens" and "From East Oakland to Niles, Sunol, and Livermore is an almost uninterrupted series of orchards of deciduous fruits, vineyards and berry gardens" (Markham 1893:6). Peas, potatoes, cabbages, cauliflower, celery, squash, onions, beets and cucumbers were all grown. Apricots were the most common fruit cultivated, followed by prunes, cherries, plums, pears, almonds, apples, nectarines, peaches, olives, English walnuts and figs. Raspberries, strawberries, gooseberries and currants were also grown in large numbers. By the early 1900s, the Hayward area was one of the country's largest producers of peas, rhubarb, apricots and tomatoes (Willard 1988:29).

The turn-of-the-century ushered in a new era for the region as chicken ranches joined the Valley's orchards and truck farms. In the early 1920s the neighborhood was subdivided from Meek's preexisting large orchards into smaller house lots and agricultural holdings. A 1923 advertisement in the *Oakland Tribune* calls attention to a "Farmette" for sale at 487 Smalley Avenue, with an asking price of $2500, including a three-room house, chicken house, as well as 23 full bearing apricot trees (22 November 1923:31).

World War II brought profound change to the Bay Area, as shipyards, food processing and packing plants, and other industries mobilized to support the war effort. Wartime workers and those hoping to become a part of the booming economy poured into the area, and the East Bay's population increased by half a million people between 1941 and 1945 (Willard 1988:80).

Modernization of area transportation systems soon began in order to meet the needs of the growing population. The Hayward-San Mateo Bridge was built in 1929, I-580 was constructed in the area in the

1960s, and planning for the Bay Area Rapid Transit (BART) system began soon after I-580 was completed.

Many long-standing communities that had not yet incorporated chose to do so in the middle decades of the 20th century (Willard 1988:82). Between 1955 and 1959 the cities of Newark, Fremont, and Union City were incorporated. They were created from the districts formerly known as Mission San Jose, Niles, Centerville, Irvington, Warm Springs, Alvarado, and Decoto (Willard 1988:82). Castro Valley and San Lorenzo opted to remain unincorporated, and the project area remains within unincorporated territory just north of the border of incorporated Hayward today.

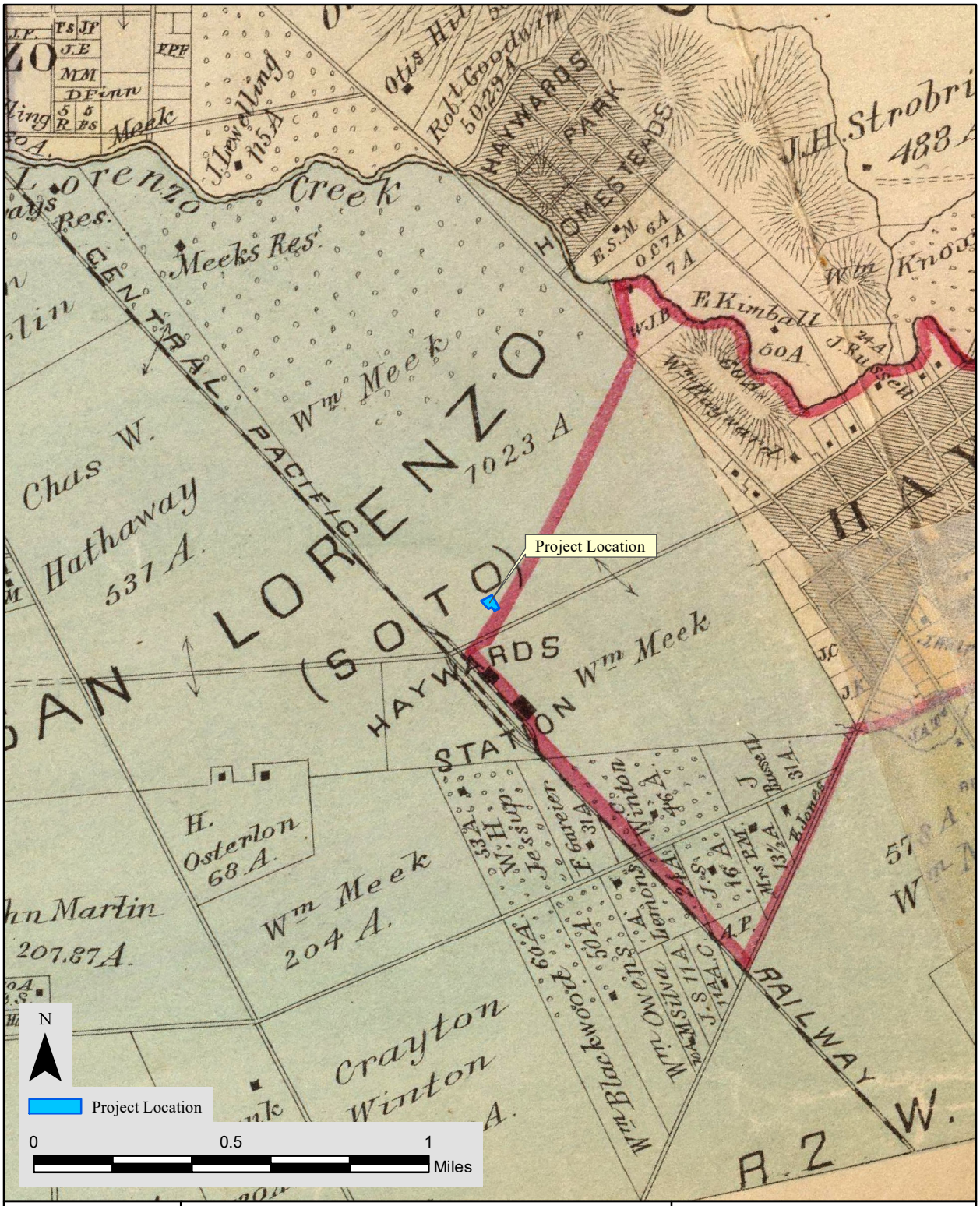
Project Area History

As part of the agricultural holdings west of Hayward and south of San Lorenzo Creek, the project vicinity was used primarily as farm and orchard land until the neighborhoods were subdivided and developed in the early 1920s. Thompson & West's 1878 atlas depicts the project area within a 1,023 acre parcel that was part of William Meeks' holdings east of the Central Pacific Railroad line (Figure 4). Meeks' residence was located within the holding near San Lorenzo Creek approximately 1.5 miles to the north.

Versions of the USGS 1:62500 quadrangles for Haywards, CA published between 1899 and 1915 show the project area east of the Southern Pacific Railway as undeveloped, with the nearest buildings bordering the rail lines several hundred feet to the west and adjacent to roads parallel with today's A Street.

The project block's residential development began in 1920, with its subdivision as Block D of the Meek Estate Orchards tract. Advertisements in the Oakland Tribune that year promise that each lot in the subdivision contained "from 8 to 10 big fine full bearing, fully matured fruit trees in prime condition" (*Oakland Tribune* 18 August 1920:13). Despite their advertised appeal, many lots were still available in 1927 when an advertisement for 100 remaining homes in the Meek Estate Orchards and Colonial Acres developments highlighted their agricultural potenial (Figure 5, *Oakland Tribune*, 16 January 1927:12-A). The home pictured in the advertisement is stylistically similar to the extant house at 149 Smalley Avenue, suggesting that the developing neighborhood consisted at this time of simple bungalows occupying ¼- and ½-acre lots..

The first recorded resident of the property at 149 Smalley (APN 431-16-51) was laborer and machinist John B. Dunn, who is listed in Hayward city directories at the address from 1925 until 1929. Short-term residents Michael J. Kelly, retired, and fireman John Schdmidt and wife Freda Schmidt occupied the address in 1930 and 1931 respectively. The house appears to have been vacant at the time the 1930 census enumeration took place. In the early 1930s, Kansas-born plumber Alexander E. Burney and his French-born wife, Josephine moved into the house and remained there until at least 1956, when Burney is listed on the Assessor's parcel map as the property's owner (USFCB 1940). In 1948, Burney's occupation is listed in the Hayward city directory as in "poultry," reflecting a relatively late hold-out of this area's early 20th-century florescence of small-scale poultry producers, as previously large orchard tracts were divided into smaller holdings. 1946 and 1947 aerial photographs, some taken as part of documentation for the Key System Transit Lines, show the orchard history of the now suburban area in regularly spaced sets of fruit trees throughout back yards and open spaces surrounding the project area (Figure 6, USGS 1946 and Sunderland 1947). The house now referred to by the Chinese for Christ Church as the "House of Joy" appears to be original to the property.



WSA

Project Location
on the 1878 Thompson and West Map

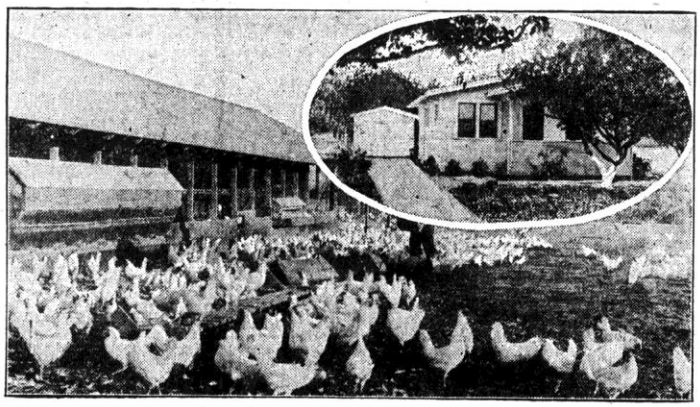
Figure 4
Lamphier-Gregory
149 &159 Smalley Ave Project
Alameda County, CA

If You Insist on Continuing to Live in a Cramped, High-Cost City Yourself, Tell a Friend About This Wonderful Opportunity in God's Great Outdoors!

Chicken Ranch for $95 down

Offer Includes:
¼ or ½ Acre Lot:
Your New Home,
Your New Garage,
and
Enough Lumber
Furnished Free
to Build
Your Chicken Coops
or Your
Rabbit Hutches

Monthly Payments
Less Than Usual
Rent



Right Now
Purchasers
Are Making
All Their
Monthly
Payments
Out of the
Actual
Earnings
of their
¼ or ½ acre
Homes!

Self-Supporting Homes at the Lowest Terms on Earth!

At "Colonial Acres" and "Meek Estate Orchards"—on East 14th Street at Hayward

Raise Chickens! Raise Rabbits! Raise Squabs! Raise a Family!

Quarter-Acre or Half-Acre Ranch! Lovely New 4 or 5 Room House! Large New Separate Garage! Free Lumber for Coops or Hutches!

All for $95 Down: Small Monthly Payments

Finest location in Bay Region—"Meek Estate Orchards" and "Colonial Acres"—East 14th St. at Hayward. Fast trolley and railroad transportation to Oakland and San Francisco. Schools, stores and every other city convenience—water, electricity, gas, sewers, streets—EVERYTHING!!! Fruit trees on many lots. Splendid land—finest climate—perfect independence—low taxes—minimum prices for all supplies—ranch pays for itself in short time.

One family can handle 1000 chickens on ¼-acre ranch and "live the life of Riley." From a Home standpoint!—from an Independence standpoint!—from a Business standpoint!—from a Family standpoint!—you can secure one of these Ranches and "sit on top of the world." Raise chickens! **It pays!** Raise rabbits! **It pays!** Raise fruit! **It pays!** Raise a family the right way! **It pays!** Here's YOUR chance for a self-supporting home!

100 Such Homes to Be Sold. Possession Inside 90 Days.

Alameda Investment Company

Tract Office:
Castro Valley Road at E. 14th
Phone Hayward 640R
(Mr. Burch)
Right at the Hayward Arch

1520 Franklin St.
OAKLAND
Phone Oakland 7820

Tract Office:
101 Castro Street
Phone Hayward 700
(Mr. Lusk)
"Meek Estate" Office

"We'll Help You Buy the Ranch"

Hurry! Send Coupon Right Away!

Alameda Investment Co.,
1520 Franklin St., Oakland.
Tell me all the details about your offer!

Name _____

Street _____

City _____ 1-T-16

"We'll Help You Buy the Ranch"

Figure 5. January 16, 1927 *Oakland Tribune* advertisement for properties in the Meek Estate Orchards.

WSA

Project Location on
USGS 1946 Aerial Photo

Figure 6
Lamphier-Gregory
149 &159 Smalley Ave Project
Alameda County, CA

The larger, approximately half-acre parcel that currently includes 159 Smalley Avenue was owned as early as 1929 by Emil and Mary Kotte, whose address was listed in city directories that year as simply Smalley Avenue near Meekland Avenue (1929-30:195).

Mary Kottke retained ownership of the property until the mid 1950s, as her name is listed on the 1956 Assessor's map, but the residences were occupied by a series of renters. At least two homes occupied the lot between 1930 and the 1950s, bearing the variable addresses 153, 155 and 159 Smalley Avenue. As the street addresses are inconsistently used in city directories and census schedules, attribution of specific residents is difficult. However, the following residents most likely occupied the lot, and help illustrate the character of the neighborhood between the 1930s and 1950s. In 1930, pickle factory grader Mrs. Anna De Witt lived at 153 Smalley Avenue with her 7-year-old son, George, and German-born boarder Paul Schroeder (USFCB 1930). Ten years later, owner Mary Kottke occupied a rear residence, after having spent some time living in Los Angeles, and renters Earl and Jewel Bates live in the front house (USFCB 1940). Residents in 1948 were M. K. Baumann at 155 Smalley Avenue and machinery dealer F.E. Short and O.E. Smith at 159 Smalley Avenue. The houses occupied by these residents appear to have been demolished, as their style and location in pre-1950 aerial photos differs from that of the "House of Peace" currently at 159 Smalley Avenue.

The Hayward Gospel Hall occupied the corner of Meekland and Smalley avenues at least as early as 1941, when the church's services were advertised regularly in the *Hayward Daily Review*. The Hayward Gospel Chapel expanded their ownership from the corner parcel at Meekland and Smalley avenues to include the project area in the late 1960s. In April of 1984, the Hayward Bible Chapel deeded three properties, including 149 and 159 Smalley Avenue to Chinese for Christ, Inc. (Alameda County Recorder).

Records Search Results

On March 14, 2017, WSA staff conducted a records search for the project at the Northwest Information Center at Sonoma State University (NWIC) (File No. 16-1365). The records search included a review of recorded cultural resources recorded within the project area as well as survey, and study reports for architectural and built environment resources within ¼ mile of the project area. The records search also included a review of the Office of Historic Preservation's Directory of Historic Property Data File for Alameda County and the California Inventory of Historic Resources (1976). No previously recorded cultural resources were identified within the project area.

A total of six cultural resources studies are recorded within 1/4 mile of the project area. The study areas of two reports, S-012923 and S-012924, overlap with the southern portion of the project area (Table 1)

.

Table 1. Cultural resource studies within 1/4 mile of the project area

Report #	Date	Author(s)	Title
S-008988	1977	Charles Hall Page and Associates, Inc.	Architectural, Historic and Cultural Significance of the "Pickle Works" and Other Properties in the Proposed "A" Street Project Area, Hayward, California
S-012923	1977	James R. McCarthy	Historical Inventory Study Report, "A" Street Widening and Grade Separation, City of Hayward, Alameda County, California, Projects FAU M-6109, 46-136, and 46-149
S-012924	1977	Charles Hall Page & Associates, Inc.	Historical Significance, a Supplement: Properties in the Proposed "A" Street Project Area, Hayward, California
S-014558	1978	James McCarthy	Historic Property Survey Report for "A" Street from Montgomery Street to Hesperian Boulevard, City of Hayward, Alameda County, California: FAU M-A008, City of Hayward Projects 46 136 and 46 149
S-022820	2000	Wendy J. Nelson, Tammara Norton, Larry Chiea, and Eugenia Mitsanis	Cultural Resources Survey for the Level (3) Communications Long Haul Fiber Optics Project, Segment WS07: Oakland to San Jose
S-033061	2007	Nancy E. Sikes	Final Report of Monitoring and Findings for the Qwest Network Construction Project

Architectural Survey and Documentation

WSA architectural historian Stacy Kozakavich, Ph.D. conducted the architectural survey and assessment of the project area on March 16, 2017. She documented two standing buildings on two parcels within the project area that are 45 years of age or older with measurements, field notes, and photographs (Appendix A). These include one residential building, currently used for administrative purposes and meeting space, and one office/classroom building. Department of Parks and Recreation forms were completed for the two buildings and are appended to this report in Appendix B.

149 Smalley Avenue, "House of Joy"

The "House of Joy" (Photos 1-4) is a rectangular, single-story building measuring 22 feet east-west and 38 feet north-south. It has a simple bungalow style with exterior stucco, and a small covered front porch with arched openings and a modern door with decorative beveled glass on the north-facing front facade. The shallow-pitched single gable roof has composition shingles, decorative, protruding eave brackets, and a complementary, slightly asymmetrical gable over front porch. The gables are north-south facing. With the exception of one small square window on the west side, windows are modern aluminum and/or vinyl replacements set in openings with painted wood exterior trim. The building's foundation is concrete where exposed (the stucco continues to the ground in most places), with approximately 1-2 feet of space between the floor and ground surface evidenced by vents near the ground on the exterior walls. Two entrance doors on the rear/south side are at different levels and heights above ground, with a lower door in a slight bump-out at the southwest corner and a slightly higher door more centered and at the level of a concrete platform reached by a concrete accessibility ramp at the building's southwest corner. A modern

corrugated metal and wood roof segment extends from the south wall of the house, over this central doorway, to the north wall of the adjacent modern church building. A fireplace protrusion with a stucco covered brick chimney on the east side is at about 1/3 the length of the building south of its northeast corner. A second, cylindrical metal chimney on the roof ridge is about 2/3 the length of the building south of its northern facade, and likely represents installation of central heating at some point after construction.

159 Smalley Avenue, "House of Peace"

The "House of Peace" (Photos 5-8) is a rectangular, single-story building with painted horizontal wood siding. The building is set on a concrete slab foundation that extends horizontally 11 inches outward from the base of the wall, with metal flashing between the concrete and the lowest row of wood siding. Set on a slight east-west slope, the foundation slab and lower portion of the building is constructed at a slight angle. The shallow-pitched roof has composition shingles and single north-south facing gables, with two rectangular overhangs extending from the west slope to shield the two entrance doors. These two modern, windowless entrance doors are placed symmetrically on the west side of the building, each flanked by a large, 4-lite rectangular window. A third entrance with a modern, windowless door is on the north side, in the northeast corner of the building, labeled with the address "161." The south/rear side of the building has two differently proportioned and asymmetrically placed windows. All windows have vinyl and/or aluminum frames with painted wood exterior trim.

Evaluation of CRHR Eligibility

Under the California Environment Quality Act (CEQA) both public and private projects with financing or approval from a public agency must assess the project's effects on cultural resources (Public Resources Code Section 21082, 21083.2 and 21084 and California Code of Regulations 10564.5).

Cultural resources are buildings, sites, humanly modified landscapes, traditional cultural properties, structures, or objects that may have historical, architectural, cultural, or scientific importance. CEQA states that if a project will have a significant impact on important cultural resources, then project alternatives and mitigation measures must be considered. However, only significant cultural resources need to be considered in the mitigation plans.

CEQA defines significant historical resources as "resources listed or eligible for listing in the California Register of Historical Resources (CRHR)" (Public Resources Code Section 5024.1). A property may be considered historically significant if it meets the following criteria for listing on the CRHR:

1. It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. It is associated with the lives of persons important to California's past;
3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. It has yielded or is likely to yield information important in prehistory or history (Public Resources Code Section 5024.1).

In addition to meeting one or more of the four specific criteria listed above, a historic property or historic resource must possess "integrity" to qualify for listing in the CRHR. Integrity is generally evaluated with

reference to qualities including location, design (i.e., site structure), materials, workmanship, setting, feeling, and association. Integrity refers both to the authenticity of a property's historic identity, as shown by the survival of physical characteristics that existed during its historical period of significance, and to the ability of the property to convey its significance. This is often not an all-or-nothing scenario (determinations can be subjective); however, the final judgment must be based on the relationship between a property's features and its significance.

Evaluation of 149 Smalley Avenue, "House of Joy"

Criterion 1. The ca. 1925 house at 149 Smalley Avenue represents the period of Eden Township's subdivision as a residential community intermediate between the region's large-scale agricultural history, from approximately the 1860s to the early 1920s; and the modern, post-Second World War development of Alameda County's unincorporated neighborhoods' suburban residential, commercial, and light industrial character. Through the 1920s, home sites carved from massive orchards of the Meek Estate were marketed and developed as small family agricultural holdings with the potential to support residents with the proceeds of their fruit and small livestock yields. Built in the mid 1920s with a simple bungalow style, 149 Smalley Avenue was part of this period of Alameda County's development. As a result, WSA recommends that the house is eligible for listing in the CRHR under Criterion 1.

Criterion 2. Based on the results of archival research discussed above, WSA found no evidence that the residence at 149 Smalley Avenue is associated with the lives of people considered important to California's past. As a result, WSA recommends that the building is not eligible for listing in the CRHR under Criterion 2.

Criterion 3. The house at 149 Smalley Avenue is a simple building typical of 1920s-era single-family residential architecture in the San Francisco Bay Area, and more broadly in California. While representative of its era of construction, this was a common building type and it does not embody the distinctive characteristics of a type, period, region, or method of construction, nor does it represent the work of an important creative individual or possess high artistic values. The house has been expediently remodeled over time with utilitarian features such as additional entrances. WSA recommends that the building is not eligible for listing in the CRHR under Criterion 3.

Criterion 4. Criterion 4 is not typically applied to built resources, and is not considered in relation to the potential eligibility of 149 Smalley Avenue.

Integrity. As discussed above, in order to be eligible for the CRHR, a resource must meet one or more of the criteria and must also possess "integrity," which includes consideration of the resource's location, design (i.e., site structure), materials, workmanship, setting, feeling, and association. Based on its historical associations, the house at 149 Smalley Avenue is recommended as eligible for the CRHR under Criterion 1. The building's integrity of location and design are good, as the house is in its original location and the building effectively communicates its original 1920s residential architectural style. 149 Smalley Avenue's integrity of materials and workmanship have been compromised by installation of modern doors and hardware, modern aluminum and/or vinyl framed windows, and the corrugated metal roof segment connecting the rear of this building to the adjacent church building to the south. The house's integrity of setting, association, and feeling are the most severely compromised aspects of integrity for

CRHR eligibility consideration. At the time of original neighborhood subdivision in the early 1920s, the project vicinity consisted of parcels containing single-family homes with garages, chicken coops and/or rabbit hutches and large yards with mature fruit trees remaining from the previous owners' orchards. Today, the building's parcel and adjoining lots are almost entirely paved, and include a large parking lot as well as modern administrative and church buildings. A few other 1920's-era houses along this block of Smalley Avenue are interspersed with later, mid-20th-century ranch-style inspired houses and late-20th-century apartment buildings. Overall, the building in its current setting does not effectively communicate the significance of its period of construction. Consequently, although recommended as eligible for the CRHR under Criterion 1, WSA finds that the building's integrity is insufficient to fully justify recommendation for listing in the CRHR.

Evaluation of 159 Smalley Avenue, "House of Peace"

Criterion 1. The building at 159 Smalley Avenue appears to have been constructed in the mid-20th century, decades after the neighborhood's initial residential and small-scale agricultural subdivision. It is not associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage. As a result, WSA recommends that 159 Smalley Avenue is not eligible for listing in the CRHR under Criterion 1.

Criterion 2. Based on the results of archival research discussed above, WSA found no evidence that the building at 159 Smalley Avenue is associated with the lives of people considered important to California's past. As a result, WSA recommends that the building is not eligible for listing in the CRHR under Criterion 2.

Criterion 3. 159 Smalley Avenue is a simple, utilitarian building with little discernible architectural style. While it may initially have been constructed for residential use, the building has been modified and maintained for classroom, meeting, and administrative space by the church congregation. It does not embody the distinctive characteristics of a type, period, region, or method of construction, nor does it represent the work of an important creative individual or possess high artistic values. WSA recommends that the building is not eligible for listing in the CRHR under Criterion 3.

Criterion 4. Criterion 4 is not typically applied to built resources, and is not considered in relation to the potential eligibility of 159 Smalley Avenue.

Integrity. As discussed above, in order to be eligible for the CRHR, a resource must meet one or more of the criteria and must also possess "integrity," which includes consideration of the resource's location, design (i.e., site structure), materials, workmanship, setting, feeling, and association. As 159 Smalley Avenue does not meet any of the criteria discussed above, any further discussion of integrity is not warranted. WSA recommends that 159 Smalley Avenue is not eligible for listing in the CRHR.

Conclusion

It is WSA's recommendation that, while 149 Smalley Avenue meets CRHR evaluation Criterion 1, its integrity of materials, workmanship, setting, feeling, and association are insufficient for eligibility for listing in the CRHR. As a result, neither building is recommended as a historical resource for the purposes of CEQA. WSA recommends no further action regarding historic-period built resources for the Chinese for Christ Church Worship Facility development project.

References Cited

Baker, Joseph E.
1914 *Past and Present of Alameda County, California*. The S. J. Clarke Publishing Company, Chicago, IL.

Circa Historic Property Development
2010 *City of Hayward Historic Context Statement*. Prepared for the City of Hayward, California by Circa: Historic Property Development, San Francisco.

Grossinger, Robin and Elise Brewster
2003 *A Geographic History of San Lorenzo Creek Watershed*. San Francisco Estuary Institute Regional Watershed Program. SFEI Contribution 85.

Hayward Area Historical Society
2010 A Short History of Hayward. Online at http://www.haywardareahistory.org/sup/docs/A%20Short%20History%20of%20Hayward.pdf. Accessed May 26, 2010.

Houghton, J. F.
1867 *Report of the Surveyor-General of California from November 1st, 1865, to November 1st, 1867*. D. W. Gelwicks, State Printer, Sacramento, CA.

Kyle, Douglas E. (revised by)
1990 *Historic Spots in California*. 4 edition, Stanford University Press, Stanford, CA.

Lorge, Lucille, Robert Phelps, and Devon Weston
2005 *Images of America: Castro Valley*. Arcadia Publishing, Charleston, SC, Chicago, IL, Portsmouth, NH, and San Francisco, CA.

Markham, Henry H.
1893 *Resources of California*. State Office, Sacramento, CA.

Pacific Telephone
1957 *Southern Alameda County Telephone Directory*, October 1957.

R.L. Polk & Co. Of California
1925 *Polk's Hayward Directory, 1925-1926*. R.L. Polk & Co. Publishers, San Francisco.
1927 *Polk's San Leandro and Hayward Directory, 1927-1928*. R.L. Polk & Co. of California, San Francisco.
1929 *Polk's San Leandro and Hayward Directory, 1929-1930*. R.L. Polk & Co. of California, San Francisco.
1931 *Polk's Hayward and San Leandro City Directory, 1931-1932*. R.L. Polk & Co. Of California, San Francisco.
1948 *Polk's Hayward and San Leandro City Directory, 1948*. R.L. Polk & Co. Publishers, San Francisco.

Siegel & Strain Architects
1998 Preliminary Cultural Resources Survey, Ashland & Cherryland Districts, San Lorenzo, California. Prepared for the Alameda County Planning Department and the Redevelopment Agency of the City of San Leandro by Siegel & Strain Architects.

State of California
1926 Great Register of Voters, Hayward Precinct No.1. Electronic resource, Ancestry.com, California Voter Registrations, 1900-1968.
1930 Great Register of Voters, Hayward Precinct No. 1. Electronic resource, Ancestry.com, California Voter Registrations, 1900-1968.
1934 Great Register of Voters, Hayward Park Precinct No 1. Electronic resource, Ancestry.com, California Voter Registrations, 1900-1968.
1936 Great Register of Voters, Hayward Park Precinct No. 3. Electronic resource, Ancestry.com, California Voter Registrations, 1900-1968.

Stock, Jody and Michael Corbett
2000 Unincorporated San Lorenzo Historic Building Survey, Alameda County, California. Prepared for the County of Alameda, CA. Available online at <http://www.acgov.org/cda/planning/sanlorenzosurvey.pdf>, accessed March 2017

Sunderland, Clyde
1947 Sheet AV-11 6-9, Key System Transit Lines: Aerial System Maps. Electronic source in David Rumsey Historical Map Collection at http://www.davidrumsey.com/luna/servlet/s/x3vq1k.

Thompson & West
1878 *Official Historical Atlas Map of Alameda County, California*. Thompson & West, Oakland, CA.

Willard, Ruth Hendricks
1988 *Alameda California Crossroads: An Illustrated History*. Windsor Publications, Inc. Northridge, CA.

United States Federal Census Bureau (USFCB)
1930 Fifteenth Census of the United States: Population Schedule, Eden Township, California, Enumeration District 1-255, Sheet 2B-3A.
1940 Sixteenth Census of the United States: Population Schedule, Eden Township, California, Enumeration District 1-57, Sheet 13B.

USGS
1899 *Haywards, CA* 1:62500 Topographic Quadrangle.
1915 *Haywards, CA* 1:62500 Topographic Quadrangle.
1946 Aerial Photo 1-112 GS-CP. July 29, 1946.

Appendix A

Photographs

Photo 1. 149 Smalley Avenue, north and east sides, view south.

Photo 2. 149 Smalley Avenue, front/north facade, view south.

Photo 3. 149 Smalley Avenue, west side, view northeast.

Photo 4. 149 Smalley Avenue, west and south sides, view northeast.

Photo 5. 159 Smalley Avenue, west side, view northeast.

Photo 6. 159 Smalley Avenue, south side, view northwest.

Photo 7. 159 Smalley Avenue, east side, view northwest.

Photo 8. 159 Smalley Avenue, north side, view southeast.

Appendix B

DPR Forms

State of California ♁ The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code
Other Listings
Review Code Reviewer Date

Page 1 **of** 8 ***Resource Name or #:** (Assigned by recorder) 149 Smalley Avenue, Hayward
P1. Other Identifier: "House of Joy"

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted**
***a. County** Alameda **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quad** Hayward **Date** 1993 (Revised 1997) **T** N/A ; **R** ; **of** **of Sec** **B.M.**
c. Address 149 Smalley Avenue. City Hayward Zip 94541
d. UTM: (Give more than one for large and/or linear resources) Zone 10S , 579422.79 mE/ 4169383.03 mN
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
The "House of Joy" is a rectangular, single-story building measuring 22 feet east-west and 38 feet north-south. It has a simple bungalow style with exterior stucco, and a small covered front porch with arched openings and a modern door with decorative beveled glass on the north-facing front facade. The shallow-pitched single gable roof has composition shingles, decorative, protruding eave brackets, and a complementary, slightly asymmetrical gable over front porch. The gables are north-south facing. With the exception of one small square window on the west side, windows are modern aluminum and/or vinyl replacements set in openings with painted wood exterior trim. The building's foundation is concrete where exposed (the stucco continues to the ground in most places), with approximately 1-2 feet of space between the floor and ground surface evidenced by vents near the ground on the exterior walls.
(see Continuation Sheet)

***P3b. Resource Attributes:** (List attributes and codes) HP2 (Single Family Property), HP16 (Religious Building)
***P4. Resources Present:**
☒ Building ☐ Structure ☐ Object
☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)
P5b. Description of Photo: (view, date, accession #) View SW, 03-16-2017
***P6. Date Constructed/Age and Source:**
☒ Historic ☐ Prehistoric ☐ Both
ca. 1925
***P7. Owner and Address:**
Chinese for Christ Church
22416 Meekland Avenue
Hayward, CA 94541
***P8. Recorded by:** (Name, affiliation, and address)
Stacy Kozakavich, WSA, Inc., 61D Avenida de Orinda, Orinda, CA 94563
***P9. Date Recorded:** March 2017
***P10. Survey Type:** (Describe)
Intensive field survey.

***P11. Report Citation**: (Cite survey report and other sources, or enter "none.")
2016, Historic Architectural Assessment Report, 149 & 159 Smalley Avenue, Hayward, CA Prepared by WSA, Inc. for Lamphier-Gregory,

***Attachments:** ☐NONE ☒Location Map ☒Continuation Sheet ☒Building, Structure, and Object Record
☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record
☐Artifact Record ☐Photograph Record ☐ Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

*** Resource Name or #** (Assigned by recorder) Fremont Elementary School, Salinas *** NRHP Status Code**

B1. Historic Name: 149 Smalley Avenue
B2. Common Name: 149 Smalley Avenue (House of Joy)
B3. Original Use: Single Family Residence B4. Present Use: Church Administration
*** B5. Architectural Style:** California Bungalow
*** B6. Construction History:** (Construction date, alterations, and date of alterations)
House was built ca. 1925. Later occupants replaced doors with modern unglazed and beveled glass replacements, and windows with aluminum/vinyl frame replacements, dates unknown.

*** B7. Moved?** ☒**No** ☐**Yes** ☐**Unknown** **Date:** N/A **Original Location:** N/A
*** B8. Related Features:**
Modern buildings belonging to church in same and adjoining parcels.
B9a. Architect: Unknown b. Builder: Unknown
*** B10. Significance: Theme** Small-farm residential subdivision **Area** Eden Twp./Alameda Co.
Period of Significance 1920-1927 **Property Type** HP2 (Single family), H16 (Religious building)
Applicable Criteria 1
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)
As part of the agricultural holdings west of Hayward and south of San Lorenzo Creek, the project vicinity was used primarily as farm and orchard land until the neighborhoods were subdivided and developed in the early 1920s. Thompson & West's 1878 atlas depicts the project area within at 1023 acre parcel that was part of William Meeks' holdings east of the Central Pacific Railroad line. Meeks' residence was located within the holding near San Lorenzo Creek approximately 1.5 miles to the north. The project block's residential development began in 1920, with its subdivision as Block D of the Meek Estate Orchards tract. Advertisements in the Oakland Tribune that year promise that each lot in the subdivision contained "from 8 to 10 big fine full bearing, fully matured fruit trees in prime condition" (Oakland Tribune 18 August 1920:13). Despite their advertised appeal, many lots were still available in 1927 when an advertisement for 100 remaining homes in the Meek Estate Orchards and Colonial Acres developments highlighted their agricultural potential (*Oakland Tribune*, 16 January 1927:12-A). The home pictured in the advertisement is stylistically similar to the extant house at 149 Smalley Avenue, suggesting that the developing neighborhood consisted at this time of simple bungalows occupying ¼- and ½-acre lots. The first recorded resident of the property at 149 Smalley (APN 431-16-51) was laborer and machinist John B. Dunn, who is listed in Hayward city directories at the address from 1925 until 1929. (See continuation sheets)

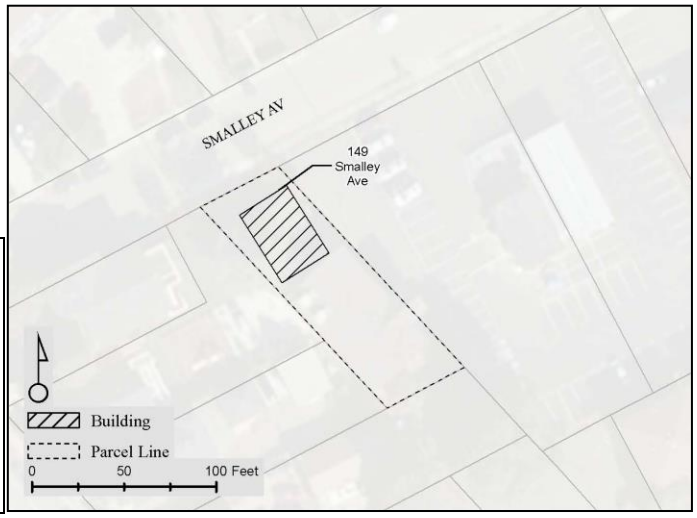
B11. Additional Resource Attributes: (List attributes and codes) N/A

*** B12. References:**
See continuation sheets.

B13. Remarks: It is WSA's recommendation that, while 149 Smalley Avenue meets CRHR evaluation Criterion 1, its integrity of materials, workmanship, setting, feeling, and association are insufficient for eligibility for listing in the CRHR.

*** B14. Evaluator:** Stacy Kozakavich, WSA, Inc.
*** Date of Evaluation:** December 5, 2016

(This space reserved for official comments.)



P3a. Description (cont'd): Two entrance doors on the rear/south side are at different levels and heights above ground, with a lower door in a slight bump-out at the southwest corner and a slightly higher door more centered and at the level of a concrete platform reached by a concrete accessibility ramp at the building's southwest corner. A modern corrugated metal and wood roof segment extends from the south wall of the house, over this central doorway, to the north wall of the adjacent modern church building. A fireplace protrusion with a stucco covered brick chimney on the east side is at about 1/3 the length of the building south of its northeast corner. A second, cylindrical metal chimney on the roof ridge is about 2/3 the length of the building south of its northern facade, and likely represents installation of central heating at some point after construction.

B10. Significance (cont'd): Short-term residents Michael J. Kelly, retired, and fireman John Schdmidt and wife Freda Schmidt occupied the address in 1930 and 1931 respectively. In the early 1930s, plumber Alexander E. Burney and his wife, Josephine moved into the house and remained there until at least 1956, when Burney is listed on the Assessor's parcel map as the property's owner. In 1948, Burney's occupation is listed in the Hayward city directory as in "poultry," reflecting a relatively late hold-out of this area's early 20th-century florescence of small-scale poultry producers as previously large orchard tracts were divided into smaller holdings. 1946 and 1947 aerial photographs, some taken as part of documentation for the Key System Transit Lines, show the orchard history of the now suburban area in regularly spaced sets of fruit trees throughout back yards and open spaces surrounding the Project area (Sunderland 1947). The Hayward Gospel Hall occupied the corner of Meekland and Smalley avenues at least as early as 1941, when the church's services were advertised regularly in the Hayward Daily Review. The Hayward Gospel Chapel expanded their ownership from the corner parcel at Meekland and Smalley avenues in the late 1960s. In April of 1984, the Hayward Bible Chapel deeded three properties, including 149 and 159 Smalley Avenue to Chinese for Christ, Inc. (Alameda County Recorder). The house now referred to by the Chinese for Christ Church as the "House of Joy" appears to be original to the property.

Criterion 1. The ca. 1925 house at 149 Smalley Avenue represents the period of Eden Township's subdivision as a residential community intermediate between the region's large-scale agricultural history, from approximately the 1860s to the early 1920s; and the modern, post-Second World War development of Alameda County's unincorporated neighborhoods' suburban residential, commercial, and light industrial character. Through the 1920s, home sites carved from massive orchards of the Meek Estate were marketed and developed as small family agricultural holdings with the potential to support residents with the proceeds of their fruit and small livestock yields. Built in the mid 1920s with a simple bungalow style, 149 Smalley Avenue was part of this period of Alameda County's development. As a result, WSA recommends that the house may be eligible for listing in the CRHR under Criterion 1.

Criterion 2. WSA found no evidence that the residence at 149 Smalley Avenue is associated with the lives of people considered important to California's past. As a result, WSA recommends that the building is not eligible for listing in the CRHR under Criterion 2.

Criterion 3. The house at 149 Smalley Avenue is a simple building typical of 1920s-era single-family residential architecture in the San Francisco Bay Area, and more broadly in California. While representative of its era of construction, this was a common building type and it does not embody the distinctive characteristics of a type, period, region, or method of construction, nor does it represent the work of an important creative individual or possess high artistic values. The house has been expediently remodeled over time with utilitarian features such as additional entrances. WSA recommends that the building is not eligible for listing in the CRHR under Criterion 3.

Criterion 4. Criterion 4 is not typically applied to built resources, and is not considered in relation to the potential eligibility of 149 Smalley Avenue.

Integrity. Based on its historical associations, the house at 149 Smalley Avenue may be eligible for the CRHR under Criterion 1. The building's integrity of location and design are good, as the house is in its original location and the building effectively communicates its original 1920s residential architectural style. 149 Smalley Avenue's integrity of materials and workmanship have been compromised by installation of modern doors and hardware, modern aluminum and/or vinyl framed windows, and the corrugated metal roof segment connecting the rear of this building to the adjacent church building to the south. The house's integrity of setting, association, and feeling are the most severely compromised aspects of integrity for CRHR eligibility consideration. At the time of original neighborhood subdivision in the early 1920s, the Project vicinity consisted of parcels containing single-family homes with garages, chicken coops and/or rabbit hutches and large yards with mature fruit trees remaining from the previous owners' orchards. Today, the building's parcel and adjoining lots are almost entirely paved, and include a large parking lot as well as modern administrative and church buildings. A few other 1920's-era houses along this block of Smalley Avenue are interspersed with later, mid-20th-century ranch-style inspired houses and late-20th-century apartment buildings. Overall, the building in its current setting does not effectively communicate the significance of its period of construction

B12. References:

R.L. Polk & Co. Of California

1925 *Polk's Hayward Directory, 1925-1926*. R.L. Polk & Co. Publishers, San Francisco.

1927 *Polk's San Leandro and Hayward Directory, 1927-1928*. R.L. Polk & Co. of California, San Francisco.

1929 *Polk's San Leandro and Hayward Directory, 1929-1930*. R.L. Polk & Co. of California, San Francisco.

1931 *Polk's Hayward and San Leandro City Directory, 1931-1932*. R.L. Polk & Co. Of California, San Francisco.
1948 *Polk's Hayward and San Leandro City Directory, 1948*. R.L. Polk & Co. Publishers, San Francisco.

Sunderland, Clyde
1947 Sheet AV-11 6-9, Key System Transit Lines: Aerial System Maps. Electronic source in David Rumsey Historical Map Collection at http://www.davidrumsey.com/luna/servlet/s/x3vq1k.

Thompson & West
1878 *Official Historical Atlas Map of Alameda County, California*. Thompson & West, Oakland, CA.

United States Federal Census Bureau (USFCB)
1940 Sixteenth Census of the United States: Population Schedule, Eden Township, California, Enumeration District 1-57, Sheet 13B.

149 Smalley Avenue, north and east sides, view south.

149 Smalley Avenue, front/north facade, view south.

149 Smalley Avenue, west side, view northeast.

149 Smalley Avenue, west and south sides, view northeast.

State of California - The Resources Agency | **Primary #**

DEPARTMENT OF PARKS AND RECREATION | **HRI #**

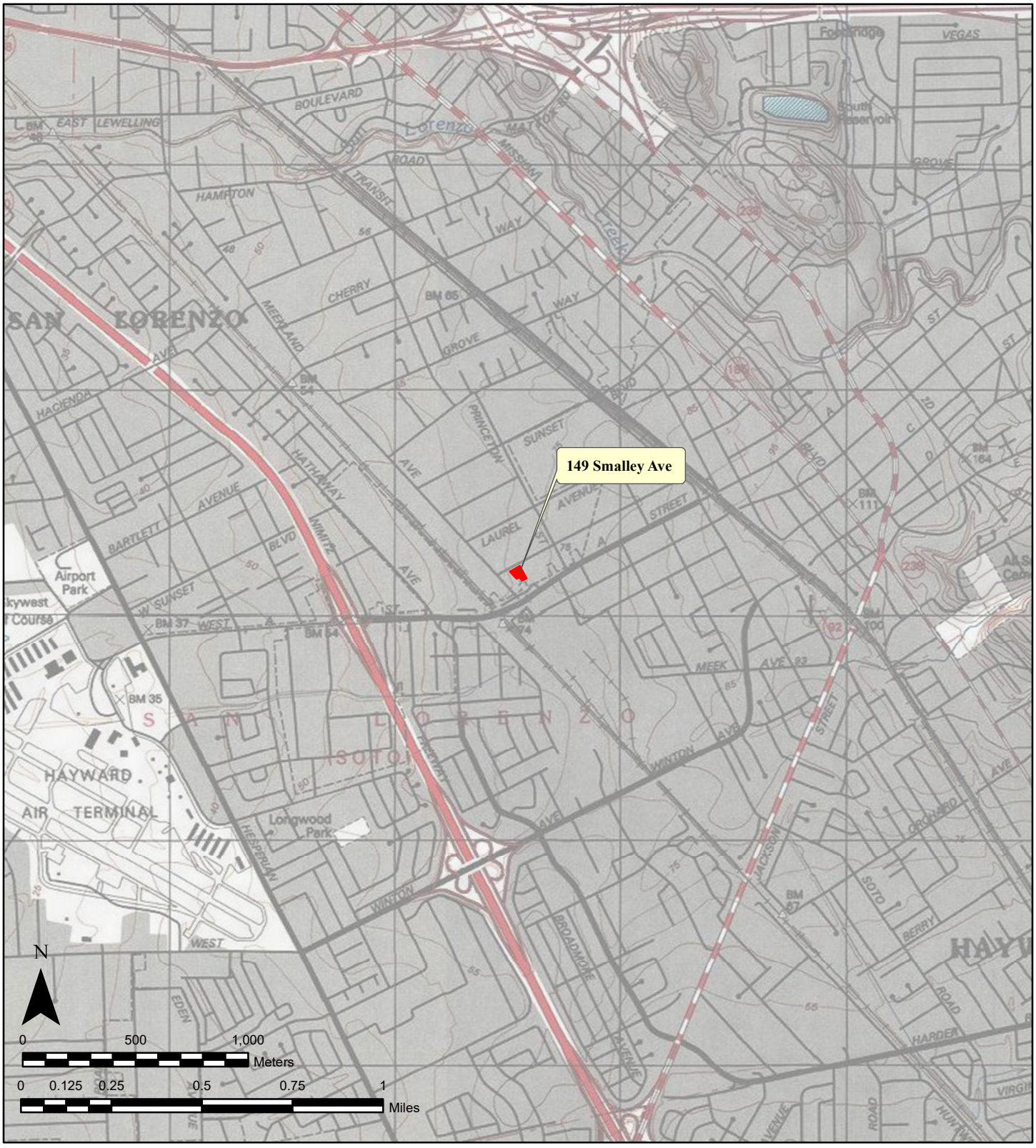
LOCATION MAP | **Trinomial:**

Resource Name or # (Assigned by Recorder): 149 Smalley Ave

*Map Name: Hayward

*Scale: 1:24000

*Date of MAP: 1995



*Required Information

State of California ♿ The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code Reviewer Date

Page 1 **of** 7 ***Resource Name or #:** (Assigned by recorder) 159 Smalley Avenue, Hayward
P1. Other Identifier: "House of Peace"

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted**

***a. County** Alameda **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Hayward **Date** 1993 (Revised 1997) **T** N/A ; **R** ; **of** **of Sec** **B.M.**

c. Address 159 Smalley Avenue. City Hayward Zip 94541

d. UTM: (Give more than one for large and/or linear resources) Zone 10S , 579463.87 mE/ 4169386.38 mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
The "House of Peace" is a rectangular, single-story building with painted horizontal wood siding. The building is set on a concrete slab foundation that extends horizontally 11 inches outward from the base of the wall, with metal flashing between the concrete and the lowest row of wood siding. Set on a slight east-west slope, the foundation slab and lower portion of the building is constructed at a slight angle. The shallow-pitched roof has composition shingles and single north-south facing gables, with two rectangular overhangs extending from the west slope to shield the two entrance doors. These two modern, windowless entrance doors are placed symmetrically on the west side of the building, each flanked by a large, 4-lite rectangular window. A third entrance with a modern, windowless door is on the north side, in the northeast corner of the building, labeled with the address "161." The south/rear side of the building has two differently proportioned and asymmetrically placed windows. All windows have vinyl and/or aluminum frames with painted wood exterior trim.

***P3b. Resource Attributes:** (List attributes and codes) HP16 (Religious Building)

***P4. Resources Present:**
☒ Building ☐ Structure ☐ Object
☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5b. Description of Photo: (view, date, accession #) View NE, 03-16-2017

***P6. Date Constructed/Age and Source:**
☒ Historic ☐ Prehistoric ☐ Both
ca. 1950

***P7. Owner and Address:**
Chinese for Christ Church
22416 Meekland Avenue
Hayward, CA 94541

***P8. Recorded by:** (Name, affiliation, and address)
Stacy Kozakavich, WSA, Inc., 61D Avenida de Orina, Orinda, CA 94563

***P9. Date Recorded:** March 2017

***P10. Survey Type:** (Describe)
Intensive field survey.

***P11. Report Citation**: (Cite survey report and other sources, or enter "none.")
2016, Historic Architectural Assessment Report, 149 & 159 Smalley Avenue, Hayward, CA Prepared by WSA, Inc. for Lamphier-Gregory,

***Attachments:** ☐NONE ☒Location Map ☒Continuation Sheet ☒Building, Structure, and Object Record
☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record
☐Artifact Record ☐Photograph Record ☐ Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

*** Resource Name or #** (Assigned by recorder) Fremont Elementary School, Salinas *** NRHP Status Code**

B1. Historic Name: 159 Smalley Avenue
B2. Common Name: 159 Smalley Avenue (House of Peace)
B3. Original Use: Unknown B4. Present Use: Church Administration
*** B5. Architectural Style:** Utilitarian
*** B6. Construction History:** (Construction date, alterations, and date of alterations)
Building constructed ca. 1950 following demolition of other buildings on parcel.

*** B7. Moved?** ☒**No** ☐**Yes** ☐**Unknown** **Date:** N/A **Original Location:** N/A
*** B8. Related Features:**
Ca. 1925 house (149 Smalley Ave.) and modern buildings belonging to church in same and adjoining parcels.
B9a. Architect: Unknown b. Builder: Unknown
*** B10. Significance: Theme** Small-farm residential subdivision **Area** Eden Twp./Alameda Co.
Period of Significance 1920-1927 **Property Type** H16 (Religious building)
Applicable Criteria 1
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)
As part of the agricultural holdings west of Hayward and south of San Lorenzo Creek, the project vicinity was used primarily as farm and orchard land until the neighborhoods were subdivided and developed in the early 1920s. Thompson & West's 1878 atlas depicts the project area within at 1023 acre parcel that was part of William Meeks' holdings east of the Central Pacific Railroad line. Meeks' residence was located within the holding near San Lorenzo Creek approximately 1.5 miles to the north. The project block's residential development began in 1920, with its subdivision as Block D of the Meek Estate Orchards tract. Advertisements in the *Oakland Tribune* that year promise that each lot in the subdivision contained "from 8 to 10 big fine full bearing, fully matured fruit trees in prime condition" (*Oakland Tribune* 18 August 1920:13). Despite their advertised appeal, many lots were still available in 1927 when an advertisement for 100 remaining homes in the Meek Estate Orchards and Colonial Acres developments highlighted their agricultural potential (*Oakland Tribune*, 16 January 1927:12-A). , approximately half-acre parcel which currently includes 159 Smalley Avenue was owned as early as 1929 by Emil and Mary Kotte, whose address was listed in city directories that year as simply Smalley Avenue near Meekland Avenue (1929-30:195). Mary Kottke retained ownership of the property until the mid-1950s, as her name is listed on the 1956 Assessor's map, but the residences were occupied by a series of renters. (See continuation sheets)

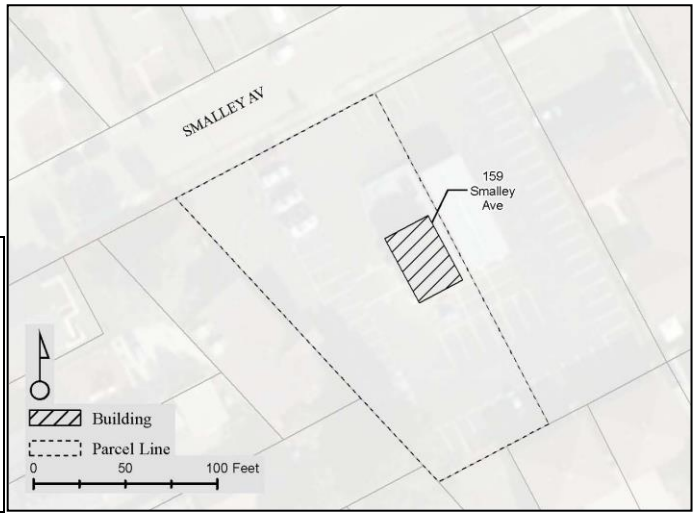
B11. Additional Resource Attributes: (List attributes and codes) N/A

*** B12. References:**
See continuation sheets.

B13. Remarks: WSA finds that 159 Smalley Avenue does not meet any CRHR eligibility evaluation criteria, and is therefore not recommended as a historical resource for the purposes of CEQA
.

*** B14. Evaluator:** Stacy Kozakavich, WSA, Inc.
*** Date of Evaluation:** December 5, 2016

(This space reserved for official comments.)



B10. Significance (cont'd): At least two homes occupied the lot between 1930 and the 1950s, bearing the variable addresses 153, 155 and 159 Smalley Avenue. As the street addresses are inconsistently used in city directories and census schedules, attribution of specific residents is difficult. However, the following residents most likely occupied the lot, and help illustrate the character of the neighborhood between the 1930s and 1950s. In 1930, pickle factory grader Mrs. Anna De Witt lived at 153 Smalley Avenue with her 7-year-old son, George, and German-born boarder Paul Schroeder (USFCB 1930). Ten years later, owner Mary Kottke occupied a rear residence, after having spent some time living in Los Angeles, and renters Earl and Jewel Bates lived in the front house (USFCB 1940). Residents in 1948 were M. K. Baumann at 155 Smalley Avenue and machinery dealer F.E. Short and O.E. Smith at 159 Smalley Avenue. The houses occupied by these residents appear to have been demolished, as their style and location in pre-1950 aerial photos differs from that of the "House of Peace" currently at 159 Smalley Avenue. The Hayward Gospel Hall occupied the corner of Meekland and Smalley avenues at least as early as 1941, when the church's services were advertised regularly in the *Hayward Daily Review*. The Hayward Gospel Chapel expanded their ownership from the corner parcel at Meekland and Smalley avenues to include the project area in the late 1960s. In April of 1984, the Hayward Bible Chapel deeded three properties, including 149 and 159 Smalley Avenue to Chinese for Christ, Inc. (Alameda County Recorder).

Criterion 1. The building at 159 Smalley Avenue appears to have been constructed in the mid-20th century, decades after the neighborhood's initial residential and small-scale agricultural subdivision. It is not associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage. As a result, WSA recommends that 159 Smalley Avenue is not eligible for listing in the CRHR under Criterion 1.

Criterion 2. WSA found no evidence that the building at 159 Smalley Avenue is associated with the lives of people considered important to California's past. As a result, WSA recommends that the building is not eligible for listing in the CRHR under Criterion 2.

Criterion 3. 159 Smalley Avenue is a simple, utilitarian building with little discernible architectural style. While it may initially have been constructed for residential use, the building has been modified and maintained for classroom, meeting, and administrative space by the church congregation. It does not embody the distinctive characteristics of a type, period, region, or method of construction, nor does it represent the work of an important creative individual or possess high artistic values. WSA recommends that the building is not eligible for listing in the CRHR under Criterion 3.

Criterion 4. Criterion 4 is not typically applied to built resources, and is not considered in relation to the potential eligibility of 159 Smalley Avenue.

Integrity. As 159 Smalley Avenue does not meet any of the criteria discussed above, any further discussion of integrity is not warranted. WSA recommends that 159 Smalley Avenue is not eligible for listing in the CRHR.

B12. References:

R.L. Polk & Co. Of California
1929 *Polk's San Leandro and Hayward Directory, 1929-1930*. R.L. Polk & Co. of California, San Francisco.

Thompson & West
1878 *Official Historical Atlas Map of Alameda County, California*. Thompson & West, Oakland, CA.

United States Federal Census Bureau (USFCB)
1930 Fifteenth Census of the United States: Population Schedule, Eden Township, California, Enumeration District 1-255, Sheet 2B-3A.
1940 Sixteenth Census of the United States: Population Schedule, Eden Township, California, Enumeration District 1-57, Sheet 13B.

159 Smalley Avenue, west side, view northeast.

159 Smalley Avenue, south side, view northwest.

159 Smalley Avenue, east side, view northwest.

159 Smalley Avenue, north side, view southeast.

State of California - The Resources Agency | **Primary #**

DEPARTMENT OF PARKS AND RECREATION | **HRI #**

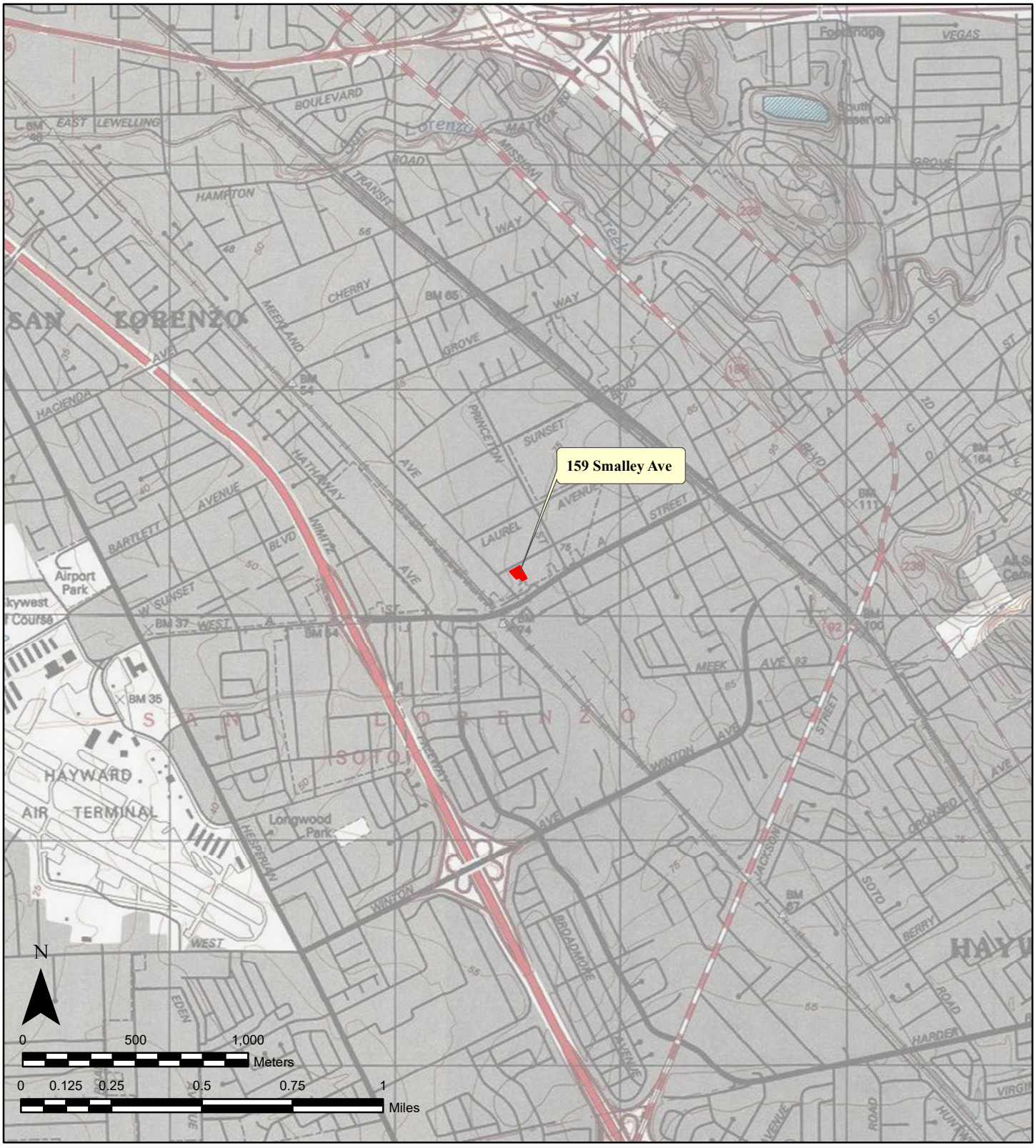
LOCATION MAP | **Trinomial:**

Resource Name or # (Assigned by Recorder): 159 Smalley Ave

*Map Name: Hayward

*Scale: 1:24000

*Date of MAP: 1995



*Required Information

Attachment C: Geotechnical Investigation (Original and Update)

GEOTECHNICAL INVESTIGATION
PROPOSED CHURCH AND MOBILE CLASSROOM STRUCTURES
100 A STREET
HAYWARD, CALIFORNIA

REPORT TO:
MR. JOE CHAN
CHINESE FOR CHRIST CHURCH OF HAYWARD
22416 MEEKLAND AVENUE
HAYWARD, CA 94541

BY:
WAYNE TING AND ASSOCIATES, INC.
42329 OSGOOD ROAD, UNIT A
FREMONT, CA 94539

PROJECT NO. 2492
APRIL 2007

WAYNE TING & ASSOCIATES, INC.
GEOTECHNICAL CONSULTANTS

Project No. 2492
11 April 2007

Mr. Joe Chan
Chinese for Christ Church of Hayward
22416 Meekland Avenue
Hayward, CA 94541

Subject: **GEOTECHNICAL INVESTIGATION**
Proposed Church and Mobile Classroom Structures
100 A Street
Hayward, California

References:
1. Guidelines for Evaluating and Mitigating Seismic Hazards in California Special Publication 117, Division of Mines and Geology, 1997
2. Seismic Hazard Zone Report 091 for the Hayward 7.5 Minute Quadrangle, Alameda County, California.
3. Ishihara, K (1985). "Stability of Natural Deposits During Earthquake. Proceeding, 11th International Conference on Soil Mechanics and Foundation," 1985.

Dear Mr. Chan:

In accordance with your authorization, **Wayne Ting & Associates, Inc. (WTAI)** has completed a geotechnical investigation for the proposed church and mobile classroom structures at the subject site. The purpose of this study was to investigate the site conditions and to obtain geotechnical data for use in the design and construction of the proposed development. The scope of this investigation included the following:

a. Site and area reconnaissance by the Project Engineer.
b. Drilled five borings on 22 January 2007 to a maximum depth of 50 feet to obtain samples for laboratory tests. In addition, two 50-foot deep Cone Penetration Tests were performed by Gregg In Situ, Inc. The locations of the drilled borings and CPT borings are shown on Appendix A, Figure 1, "Site Plan."
c. Laboratory testing of selected soil samples.
d. Analysis of soil samples and information obtained.
e. Preparation and writing of this report which presents our findings, conclusions, and recommendations.

Our findings indicate that the proposed development is feasible from a geotechnical engineering standpoint provided the recommendations in this report are carefully followed.

42329 Osgood Road, Unit A • Fremont, CA 94539 • Tel: (510) 623-7768 • Fax: (510) 623-7861 • wayneting@sbcglobal.net

Project No. 2492
11 April 2007

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22416 Meekland Avenue
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Subject: **GEOTECHNICAL INVESTIGATION**
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References:
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SITE LOCATION AND DESCRIPTION

The proposed church lot is relatively flat and located at the 100 A Street in the City of Hayward, California. It is bounded to the south by A Street, west by Meekland Avenue, north by a retail store. During our site visit, the proposed church site is presently used for parking lots and covered with asphaltic concrete.

The proposed classroom site located near Smalley Avenue is presently used for parking lots of a church. It is located approximately 750 to 800 feet north east of the proposed church.

PLANNED DEVELOPMENT

We anticipate the proposed structure will utilize wood frame construction with concrete slab-on-grade floors. Light to moderate building loads are typically associated with this type of construction.

FIELD INVESTIGATION

The field investigation consisted of a site reconnaissance by the Project Engineer and an excavation of five exploratory borings to maximum 50 feet below the existing ground surface. The borings were excavated using a truck mounted drill-rig with a 4.5-inch solid stem auger. The locations of the drilled borings and CPT borings are shown on Appendix A, Figure 1, "Site Plan."

Soils encountered during the excavation operations were continuously logged in the field. Relatively undisturbed samples were obtained by dynamically driving 18 inches using a 3.0-inch outside diameter Modified California Sampler with a 140-pound hammer free falling 30 inches. Blow counts were recorded for every 6-inch penetration interval, and reported corresponding to the last 12 inches of penetration. These samples were then sealed and returned to the laboratory for testing. The classifications, descriptions, natural moisture contents, dry densities and depths from which the samples were obtained, are shown in the Boring Logs, Figures 2 through 6 of Appendix A.

In addition, two 50-foot deep Cone Penetration Tests were performed on 8 January 2007, by Gregg In Situ, Inc. The sounding of CPT are presented graphically on Figures 7 through 10 of Appendix A.

LABORATORY TESTING

CLASSIFICATION

The field classifications of the samples were visually verified in the laboratory in accordance with the Unified Soil Classification System. These classifications are presented in the Boring Logs.

MOISTURE-DENSITY

The natural moisture contents and/or dry weights were determined for selected samples obtained during our field investigation. These data are presented in the aforementioned Boring Logs.

UNCONFINED COMPRESSION

Unconfined Compression Tests were performed on three relatively undisturbed samples to evaluate the ultimate compressive strength of the soils. The test results are presented in the Boring Logs.

ATTERBERG LIMITS

The Atterberg Limits Test was determined for the selected soil sample to classify, as well as to obtain an indication of the expansion and shrinkage potential with respect to moisture content variations. The Atterberg Limits Test is also used as one of screening tests to evaluate the liquefaction susceptibility of the silty soils. The test results are summarized as follows:

Sample	*Depth*	*Classification*	*Liquid Limit*	*Plasticity Index*
B1-1	2 feet	Dark brown silty clay (CH)	50.0%	29
B4-6	30 feet	Brown sandy clay (CL)	31.0%	17
B4-9	44feet	Gray silty clay (CL)	29.0%	16
B5-6	30 feet	Brown silty clay (CL)	30.0%	15

SUBSURFACE SOIL CONDITIONS

The following soil descriptions were derived from our site reconnaissance and the information obtained from our exploratory boring samples. Detailed description of the materials encountered in the exploratory borings and the results of laboratory testing are presented in the Boring Logs.

In boring 1, subsurface soil consisted of approximately 1.5 feet of asphaltic concrete and baserock, followed by dark brown and brown silty clay, stiff to very stiff, silty clay, to 12.5 feet. Below the silty clay, brown sandy silt, moist and stiff was encountered to 14.0 feet, followed by sandy gravel, moist and medium dense to the maximum depth explored of 18.5 feet.

In boring 2, subsurface soil consisted of approximately 1.5 feet of asphaltic concrete and baserock, followed by dark brown and brown silty clay, stiff to very stiff, silty clay, to 12.5 feet. Below the silty clay, brown sandy silt, very moist and stiff was encountered to 13.0 feet, followed by brown silty sand to 15.5 feet. Below silty sand, brown sandy silt, moist and stiff was encountered to 18.0 feet, followed by sandy clay, very moist and stiff, to the maximum depth explored of 22.0 feet.

In boring 3, subsurface soil consisted of approximately 1.5 feet of asphaltic concrete and baserock, followed by dark brown and brown silty clay, stiff to very stiff, silty clay, to 7.0 feet. Below the clay, brown sandy silt, moist and firm was encountered to 9.0 feet, followed by brown sand and sandy gravel, moist and medium dense to 16.0 feet. Below the gravel, brown sandy silt was encountered to 17.0 feet, followed by brown sandy clay to the maximum depth explored of 20.0 feet.

In boring 4, subsurface soil consisted of approximately 1.5 feet of asphaltic concrete and baserock, followed by dark brown and brown silty clay, stiff to very stiff, silty clay, to 7.0 feet, followed by brown sandy silt, moist and firm to 10.0 feet. Below the silt, brown sand and sandy gravel, moist and medium dense was encountered to 20.0 feet, followed by brown and gray, sandy clay and silty clay, moist and stiff, to the maximum depth explored of 50.0 feet.

In boring 5, subsurface soil consisted of approximately 1.5 feet of asphaltic concrete and baserock, followed by dark brown and brown silty clay, stiff to very stiff, silty clay, to 10.0 feet, followed by brown sandy silt, moist and firm to 12.0 feet, followed by brown silty clay, moist and stiff to 15.0 feet, followed by brown clayey silt, moist, firm to 18.0 feet, followed by brown silty clay, very moist, firm to stiff to 35.0 feet. Below the clay, brown silty fine sand, very moist and medium dense was encountered to 41.0 feet, followed by brown clayey silt, very moist and stiff, to the maximum depth explored of 50.0 feet.

Based on our CPT-1 sounding, silt and sand deposits (soil behavior types) located below the ground water table for potential liquefaction may be encountered below 30.0 from the existing ground surface. In CPT-2, sandy silt for potential liquefaction may be encountered at 47.0 feet deep.

In boring 4, groundwater was encountered at 24.0 feet below the ground surface at the time of the field study. In boring 5, groundwater was encountered at 34.0 feet. However, according to the ground water data presented on Plate 1.2 of Reference 2, the historic ground water may be approximately 24 feet below the ground surface. It is noted that fluctuations in the groundwater table are anticipated to vary with respect to seasonal rainfall. Ground water at 24.0 feet will be used for the following liquefaction analysis.

LIQUEFACTION EVALUATION

Soil liquefaction is a phenomenon in which saturated (submerged) cohesionless soils can be subjected to a temporary loss of strength due to the buildup pore water pressures, especially as a result of cyclic loadings such as induced by earthquakes. In the process, the soil acquires a mobility sufficient to permit both horizontal and vertical deformations, if not confined. Soils that are most susceptible to liquefaction are clean, loose, saturated, uniformly graded, fine sands.

We have conducted a liquefaction for the site based on procedures outline in Special Publication 117 (SP117) (Reference 1), Guideline for Evaluating and mitigating Seismic Hazards in California, Department of Conservation, Division of Mines and Geology. The evaluation procedure is a semi-empirical method for a moment magnitude Mw 7.9 earthquake (Reference 2), a peak horizontal ground acceleration of 0.6g (Reference 2), and a groundwater depth of 24.0 feet. Safety factor of 1.3 is used. Testing results from CPT 1 and CPT 2 are used for the liquefaction analysis. We analyze the site liquefaction potential utilizing a computer program call Liquefypro by CivilTech; this program is based on the procedure outline in SP117.

A factor of safety against liquefaction greater than 1.3 indicates that the level of risk associated with a liquefaction hazard is acceptable. The result of the analysis is presented in Appendix D.

A factor of Safety Against Liquefaction (FS) is defined as FS=CRR/CSR
CRR: Cyclic Resistance Ratio represents the liquefaction resistance of the in situ soil.
CSR: A Cyclic Stress Ratio represents the loads induced in the soil by an earthquake.

Our evaluation indicates that the potential of liquefaction occurring in this sand layer below the groundwater table is relatively high. Empirical research by Ishihara (1985)(Reference 3) indicates that for level ground, liquefaction is not likely to result in visible damage at the ground surface as long as the cover of the liquefiable soil is equal to at least 10 feet. After the analysis, the layers of potential liquefiable soils were encountered at 27.0 feet and 31.0 feet deep in CPT-1. However, no potential liquefiable soils are founded in CPT-2. Therefore, based on Ishihara's research and our local experience, we expect ground surface rupture is unlikely. However, one likely consequence is liquefaction induced settlement. We estimate the total settlement of the ground surface due to liquefaction to be on the order of 1.34 inches. Differential settlements may be estimated to be 0.87 inches. The results of our analysis graphically are presented in Appendix D.

It is also noted that soils encountered in our borings are slightly different from the Soil Behavior Type (SBT) provided in CPT 1 and 2. In our boring 4, no potential liquefiable soils below the ground water were encountered. In addition, in our boring 5, potential liquefiable soils may be encountered at 35 feet below the ground surface. Due to a high strength of the soils (blow count larger than 22) and the depth of soils, the soils may not be liquefied during the earthquake or will not cause surface rupture.

Based on our analysis, it is the opinion of WTAI that the potential settlement from the liquefaction causing structures distress underlying this site is low.

UNIFORM BUILDING CODE SITE CHARACTERIZATION

According to the published maps by International Conference of Building Officials (I.C.B.O.), in February 1998, the controlling nearest active fault to the subject site is the Hayward Fault which is located approximately 0.5 kilometers northeast. Therefore, the potential for surface fault trace rupture is considered to be negligible.

Based on the geologic information and the distance to the seismic source, the Hayward Fault is the controlling fault of the property. Therefore, according to chapter 16 of the 2001 California Building Code (CBC), the site seismic design values have been provided as follows:

CBC Category/Coefficient		Design Value
(Figure 16-2)	Seismic Zone	4
(Table 16-I)	Seismic Zone Factor	0.4
(Table 16-J)	Soil Profile Type	S_D
(Table 16-U)	Seismic Source Type	A
(Table 16-S)	Near Source Factor, Na	1.5
(Table 16-T)	Near Source Factor, Nv	2.0

DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

1. Based on the results of our investigation, WTAI concludes that the subject site is geotechnically suitable for the proposed church and mobile classroom structures development. The proposed building can be constructed provided the recommendations presented in this report are incorporated into the project plans and specifications.

2. It is recommended that WTAI should review the grading and foundation plans and specifications so that comments can be made regarding the interpretation and implementation of our geotechnical recommendations in the design and specifications.

3. It is further recommended that WTAI be retained for testing and observation during grading and foundation construction phases to help determine that the design requirements are fulfilled. Our firm should be notified at least two working days prior to grading and/or foundation operations on the property. Any work related to the grading and/or foundation operations performed without the direct observation of WTAI will invalidate the recommendations of this report.

4. The recommendations given in this report are applicable only for the design of the previously described structures and only at the location indicated on the site plan. They should not be used for any other purpose.

SITE PREPARATION AND GRADING

5. Prior to grading, the existing pavement located at the proposed structure areas should be removed. After removal of the asphaltic concrete and baserock, the top 12 inches of exposed native highly expansive clay located under and extending 5.0 feet beyond the proposed structure should be scarified and treated with approximately 6 percent hydrated lime by dry unit weight of soil to reduce its plasticity index to 12 or less. Processing of the lime stabilized material should be in accordance with "Standard Specifications, State of California, Department of Transportation, Section 24, 1999 Edition." The lime stabilized soil should then be uniformly compacted to a minimum of 95% of ASTM D1557-02 maximum density at a moisture content within 2% of optimum.

6. As alternative to lime treating soil, the upper three feet of expansive clay should be removed and replaced with imported low plasticity (PI<12) sandy type of soils. The exposed native subgrade soils will be watered or aerated as necessary to bring the soils to a moisture content 5.0 percent above the optimum moisture amount. The subgrade should then be uniformly recompacted to a minimum degree of relative compaction of between 85 and 90 percent of the maximum dry density as determined by ASTM D1557-02 Laboratory Test Procedure. The imported engineered fills should also be compacted to a minimum relative compaction of 90%.

FOUNDATION RECOMMENDATIONS

7. Due to highly expansive on-site clay, the proposed structures can be satisfactorily supported on a pier and grade beam foundation or post-tensioned slabs.

Pier and grade beams

8. The proposed structure may be supported on a straight walled, auger excavated, cast-in-place, concrete friction pier and grade beam foundation. The drilled piers should have a minimum diameter of 16 inches and a minimum embedment of 12 feet below the lowest adjacent grade. These piers should be designed for an allowable skin friction value of 400 pounds per square foot for dead plus live loads. This value can be increased by one-third for total loads which include wind or seismic forces. This value is only applicable after a minimum penetration of 4 feet below the lowest adjacent finished grade has been achieved. The validity of this value is based on a minimum pier spacing of 3 piers diameter measured center-to-center. In addition, the bottom of grade beam should be designed to resist swelling pressure of 1,000 p.s.f.

9. Resistance to lateral force may be provided by passive earth pressures mobilized along the pier length in the firm natural ground below a depth of 4 feet. Passive earth pressures may be computed as an equivalent fluid weighing of 250 pounds per cubic foot.

10. After completion of the pier drilling, the bottom of the pier excavations should be cleaned of excessive loose materials prior to placing the reinforcing steel and concrete.

11. Care should be exercised during concrete placement of the piers to prevent the concrete from spilling around the pier shaft and creating an area greater than desired upon which the heaving soil may exert excessive pressure. If excess spillage occurs, the fresh concrete should be removed.

Post-Tension Slabs

12. The proposed structure can be supported on a post-tensioned slab foundation. The design of the post-tensioned slabs should conform with the recommendations provided in the "Design and Construction of Post-Tensioned Slab-on-Ground," Post-Tensioning Institute, 1996. The slabs should be designed based on the following soil parameters:

Liquid Limits	= 50%
Plasticity Index	= 29
Coefficient of Friction	= 1.0
Allowable Bearing Capacity (dead plus live load)	= 1,500 p.s.f.
Depth to Constant Moisture	= 7.0 feet
Edge Moisture Variation Distance:	
Edge Lift	= 3.5 feet
Center Lift	= 5.0 feet
Differential Movement:	
Ym (Edge Lift)	= 1.5 inches
Ym (Center Lift)	= 3.6 inches

13. A plastic membrane of 10-mil minimum thickness, serving as a vapor retarder, should be placed on top of the subgrade and then covered with two inches of wetted clean sand or pea gravel.

14. To reduce the potential of slab movement, presoaking the top 12 inches of the foundation subgrade with water is recommended. The subgrade should be soaked for at least 5 days prior to concrete placement. This presoaking must be verified by WTAI in the field.

15. It is noted that if the post-tension slabs are used, the previously recommended lime treating subgrade or imported soils mentioned in Items 5 and 6 are not required. However, the subgrade should be scarified and recompacted to a minimum degree of relative compaction of between 85 and 90 percent with a moisture content 5.0 percent above the optimum moisture amount.

CONCRETE SLAB-ON-GRADE

16. To reduce the cracking potential of the concrete slabs under the parking garage the following recommendations are made:

a. Concrete slabs-on-grade should be underlain by at least 4.0 inches of 3/4-inch crushed rock.

b. The concrete slabs should be reinforced using at least No. 4 bars at 18-inch on centers to reduce cracking and should not be tied into the foundation.

c. Slabs at garage door openings should be constructed with a thickened edge extending a minimum of 8 inches into the native ground or compacted fill.

PARKING LOTS

17. If new parking lots are proposed, the subgrade soils should be scarified, moisture-conditioned and recompacted to at least 90 percent at 3 percent above the optimum moisture content, as determined by ASTM D1557-02 Laboratory Test Procedure.

18. After the compaction of the subgrade has been achieved, aggregate baserock should then be placed on top of the subgrade and compacted to at least 95 percent. Class II aggregate baserock should conform to the requirement of Standard Specifications of Caltrans, Section 26-1.02A

19. Pavement Section: A pavement section of 3.0 inches of asphalt concrete over 12.0 inches of aggregate baserock may be utilized.

GENERAL CONSTRUCTION REQUIREMENTS

20. All finish grading must be adjusted to provide positive drainage away from the building structure to prevent ponding of water in or near the building.

21. Roof drainage should be collected by a system of gutters and downspouts and discharged by adequate piping to carry storm water away from the building structure.

22. Landscape mounds or concrete flatwork should not be constructed to block or obstruct the surface drainage measures.

23. Flowerbeds and planting should not be constructed along the building perimeter. Sprinkler systems should not be installed where they may cause ponding or saturation of the foundation soil.

24. Backfill of utility trenches under the building and driveway areas should properly be compacted to ensure against water migration underneath the foundation structure.

LIMITATIONS AND UNIFORMITY OF CONDITIONS

25. Our client should recognize that every effort made to evaluate the subsurface conditions at this site is based on the samples recovered from the test borings and the results of laboratory tests on these samples. The conclusions reached in this report were based on the conditions at the test boring locations. The owner or his representative should be reminded that unanticipated subsurface conditions are commonly encountered and cannot be fully determined by taking subsurface samples, and frequently require that additional expenditures be made to attain a properly constructed project. Therefore, some contingency fund is recommended to accommodate these required extra costs.

26. The conclusions and recommendations contained in this report will not be considered valid after a period of two years unless the changes are reviewed, and the conclusions of this report are modified or verified in writing. In the event that a geotechnical consultant firm other than WTAI is engaged in providing geotechnical services, WTAI must receive a letter of indemnification releasing us of any responsibility on the subject project.

27. This report is issued with the understanding that it is the responsibility of the owner or his representative, to ensure the information and recommendations contained in this report are brought to the attention of the architect, engineer, and contractor. In all cases, the contractor shall retain responsibility for the quality of the work and for repairing defects regardless of when they are found. It is also the responsibility of the contractor for conforming to the project plans and specifications.

Should you have any questions relating to the contents of this report, please contact our office at your convenience.

Very truly yours,

WAYNE TING & ASSOCIATES, INC.

Wayne Ting

Wayne L. Ting, C.E.
Principal Engineer

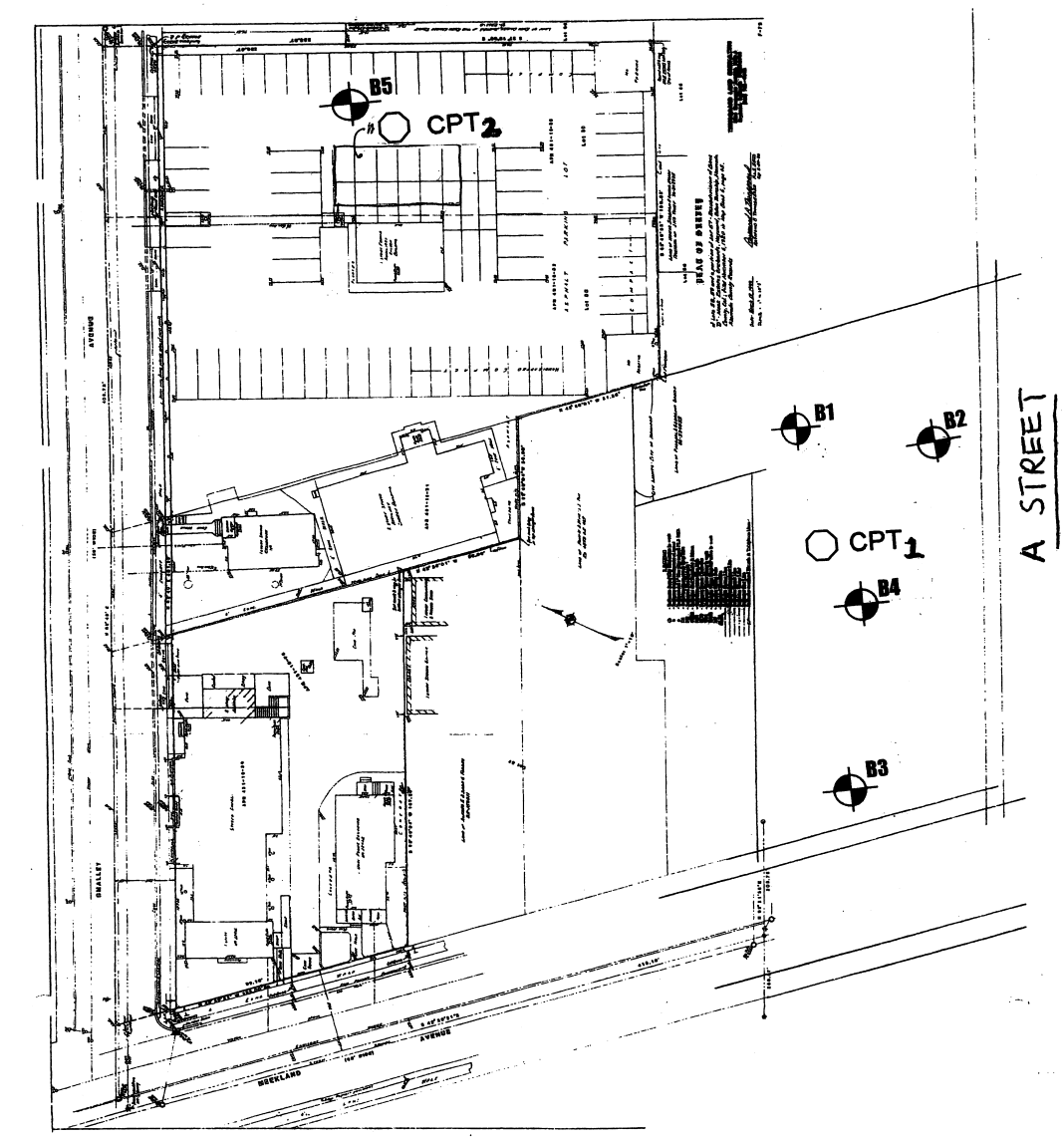
Copies: 3 to Chinese for Christ Church of Hayward

APPENDIX A

Site Plan, Figure 1

Boring Log, Figures 2 through 6

The Sounding of CPT, Figures 7 through 10



WAYNE TING & ASSOCIATES, INC.
GEOTECHNICAL ENGINEERS

SITE PLAN

Figure No. 1

Scale 1" : 40'

100 A street, Hayward, California | Project No. 2492 | 11 April 2007

Depth (Feet)	Description	Sample No.	Unified Soil Classification	Blows/Foot (350 Ft.-Lbs)	Dry Density (P.C.F)	Moisture (% Dry Density)	Pocket Penet. (T.S.F)	Remarks
1	Asphalt concrete and base rock							
2	Dark brown silty clay, moist and very stiff							
3		1-1	CH	24	110.2	16.3	4	LL =50% PI = 29 Qu = 6,800 psf
4								
5	brown silty clay with sand		CL					
6								
7								
8		1-2		16	107.0	12.3	4	Qu = 3,000 psf
9								
10								
11								
12								
13	Brown sandy silt, moist and stiff	1-3	ML	17	104.6	11.0	3	
14	Brown sandy gravel, moist and medium dense		GW					
15								
16								
17								
18		1-4		28	118.6	5.6		
19	Boring terminated at 18.5 feet No groundwater encountered							
20								
21								
22								
23								
24								
25								

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GEOTECHNICAL ENGINEERS

BORING LOG NO. 1

Figure No. 2

Date Drilled: 22 January 2007 *By:* R.W.

Page No. 13

100 A street, Hayward, California | Project No. 2492 | 11 April 2007

Depth (Feet)	Description	Sample No.	Unified Soil Classification	Blows/Foot (350 Ft.-Lbs)	Dry Density (P.C.F)	Moisture (% Dry Density)	Pocket Penet. (T.S.F)	Remarks
1	Asphalt and baserock							
2	Dark brown silty clay, moist and very stiff	2-1	CH	23	108.7	16.5	4	
3								
4								
5	brown silty clay, stiff and vey mosit		CL					
6								
7								
8	Brown sandy silt, very moist and stiff	2-2	ML	17	106.8	13.2	3.5	
9								
10								
11								
12								
13		2-3						
14	Brown silty sand, very moist		SM			11.7		
15								
16	Brown sandy silt, moist and stiff		ML					
17								
18								
19	Brown sandy clay, very moist and stiff		CL			19.0		
20								
21								
22								
23	Boring terminated at 22 feet No groundwater encountered							
24								
25								

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GEOTECHNICAL ENGINEERS

BORING LOG NO. 2

Figure No. 3

Date Drilled: 22 January 2007 By: R.W.

Page No. 14

100 A street, Hayward, California | Project No. 2492 | 11 April 2007

Depth (Feet)	Description	Sample No.	Unified Soil Classification	Blows/Foot (350 Ft.-Lbs)	Dry Density (P.C.F)	Moisture (% Dry Density)	Pocket Penet. (T.S.F)	Remarks
1	Asphalt concrete and baserock							
2	Dark brown silty clay, moist and very stiff		CH					
5	Brown silty clay		CL					
7	Brown sandy silt, moist and firm		ML					
9	Brown sand, mosit and medium dense		SP					
10	Brown sandy gravel, mosit and medium dense		GW-GP					
16	Brown sandy silt, moist and firm		ML					
17	Brown sandy clay, moist and stiff		CL					
20	Boring terminated at 20.0 feet No groundwater encountered							

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BORING LOG NO. 3

Figure No. 4

Date Drilled: 22 January 2007 *By:* R.W.

Page No. 15

Depth (Feet)	Description	Sample No.	Unified Soil Classification	Blows/Foot (350 Ft.-Lbs)	Dry Density (P.C.F)	Moisture (% Dry Density)	Pocket Penet. (T.S.F)	Remarks
	Asphalt and Agregate Base							
2	Dark brown silty clay, moist and stiff		CH					
4	brown silty clay, mosit and very stiff							
6		4-1		28	113.8	16.1	4.5	Qu = 7,150 psf
8	Brown sandy silt, moist and firm		ML					
10	Brown sand, mosit and medium dense	4-2	SM	14	99.6	10.9		
12								
14								
16	Brown sandy gravel, moist and medium dense	4-3	GM	25	110.9	7.6		
18								
20	Brown sandy clay, very moist and stiff	4-4	CL	14	110.2	18.9		
22								
24	(Water at 24.0 feet)							
26		4-5	CL	19				
28								
30		4-6	CL					LL=31% PI=17
32								
34								
36		4-7	CL					
38	gray silty clay							
40		4-8	CL					
42								
44	brown silty clay	4-9	CL					LL=29% PI=16
46								
48								
50	Boring terminated at 50.0 feet							

WAYNE TING & ASSOCIATES, INC.
GEOTECHNICAL ENGINEERS

BORING LOG NO. 4

Figure No. 5

Date Drilled: 22 January 2007 *By:* R.W.

Page No. 16

Depth (Feet)	Description	Sample No.	Unified Soil Classification	Blows/Foot (350 Ft.-Lbs)	Dry Density (P.C.F)	Moisture (% Dry Density)	Pocket Penet. (T.S.F)	Remarks
	Asphalt and Agregate Base							
2	Dark brown silty clay, moist and stiff		CH					
4	medium brown silty clay, mosit and stiff							
6	brown silty clay, mosit and stiff	5-1		22	108.9	16.3	4	LL = 42% PI = 25 Qu = 3,200 psf
8								
10	Brown sandy silt, mosit and firm	5-2	ML	16	101.6	15.9	2	
12	Brown silty clay, moist and stiff		CL					
14								
16	Brown clayey silt, very moist and firm	5-3	ML	13	107.4	17.3	2	
18	Brown silty clay, very moist and firm		CL					
20		5-4	CL	18	105.5	21.3	2.5	
22	very moist and stiff							
24								
26		5-5	CL	30	109.1	20.4	3.5	
28								
30		5-6	CL	17	104	22	1.5	LL = 30% PI = 15
32								
34	(Water at 34.0 feet)							
36	Brown silty fine sand, very moist and medium dense	5-7	SM	22	104	23		
38								
40		5-8		30	104	19		
42	Brown clayey silt with sand, very moist and stiff		ML					
44								
46								
48								
50	Boring terminated at 50.0 feet							

WAYNE TING & ASSOCIATES, INC.
GEOTECHNICAL ENGINEERS

BORING LOG NO. 5

Figure No. 6

Date Drilled: 22 January 2007 *By:* R.W.

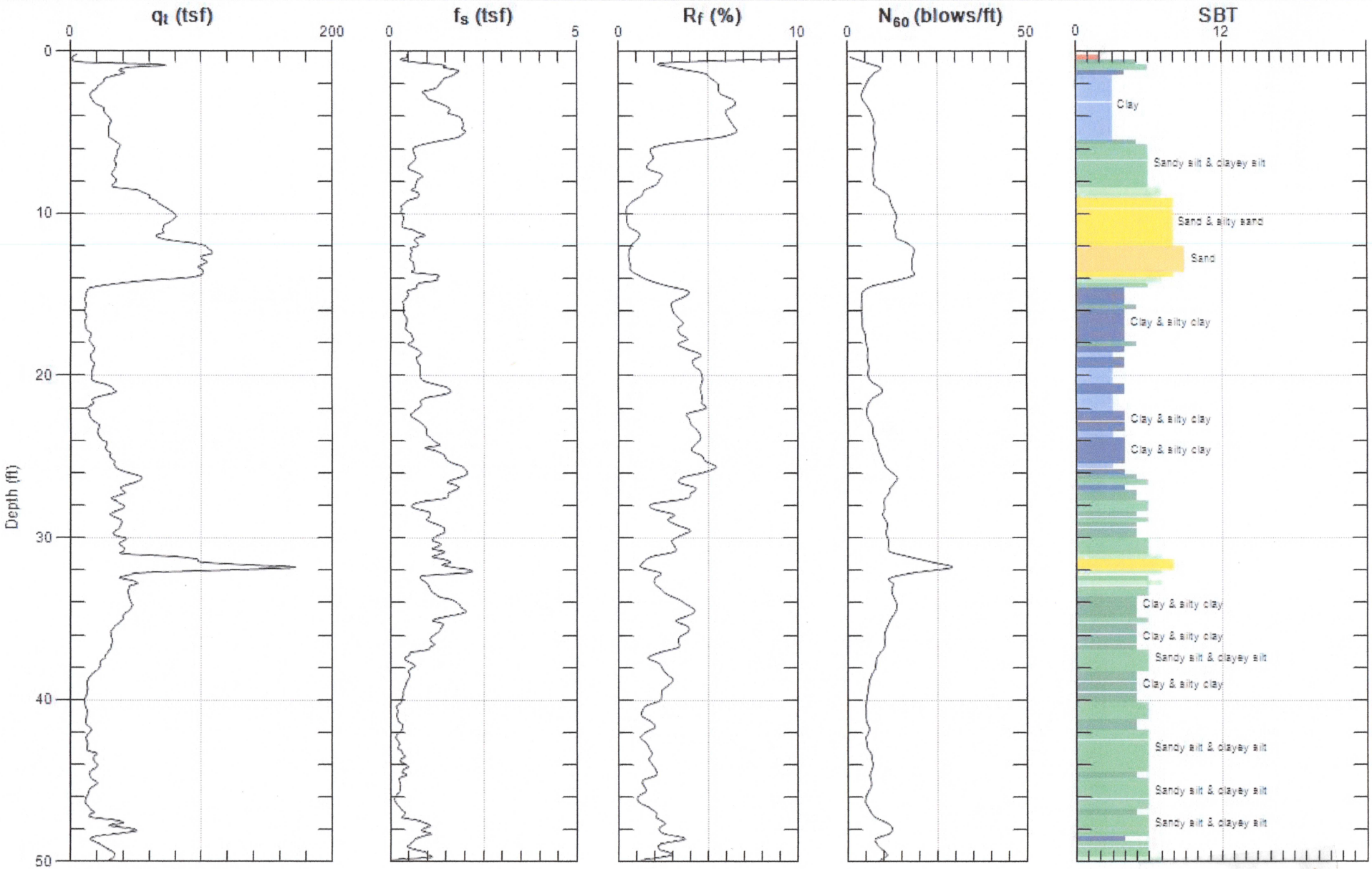
Page No. 17

GREGG

WAYNE TING & ASSOC.

Site: CHINESE CHURCH
Sounding: CPT-01

Engineer: R.WU
Date: 2/8/2007 10:12



Max. Depth: 50.030 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)

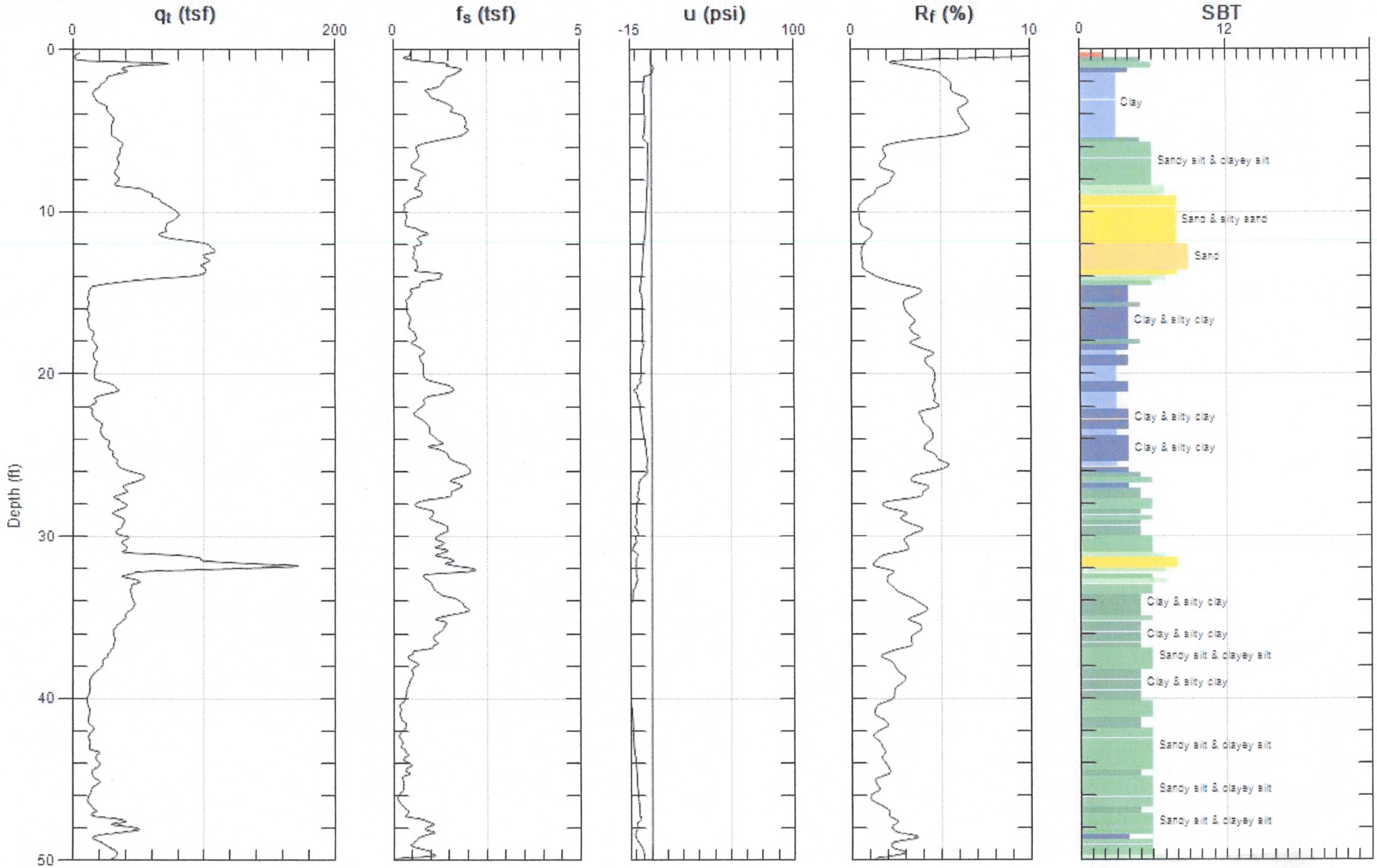
Figure No.7

GREGG

WAYNE TING & ASSOC.

Site: CHINESE CHURCH
Sounding: CPT-01

Engineer: R.WU
Date: 2/8/2007 10:12



Max. Depth: 50.030 (ft)
Avg. Interval: 0.328 (ft)

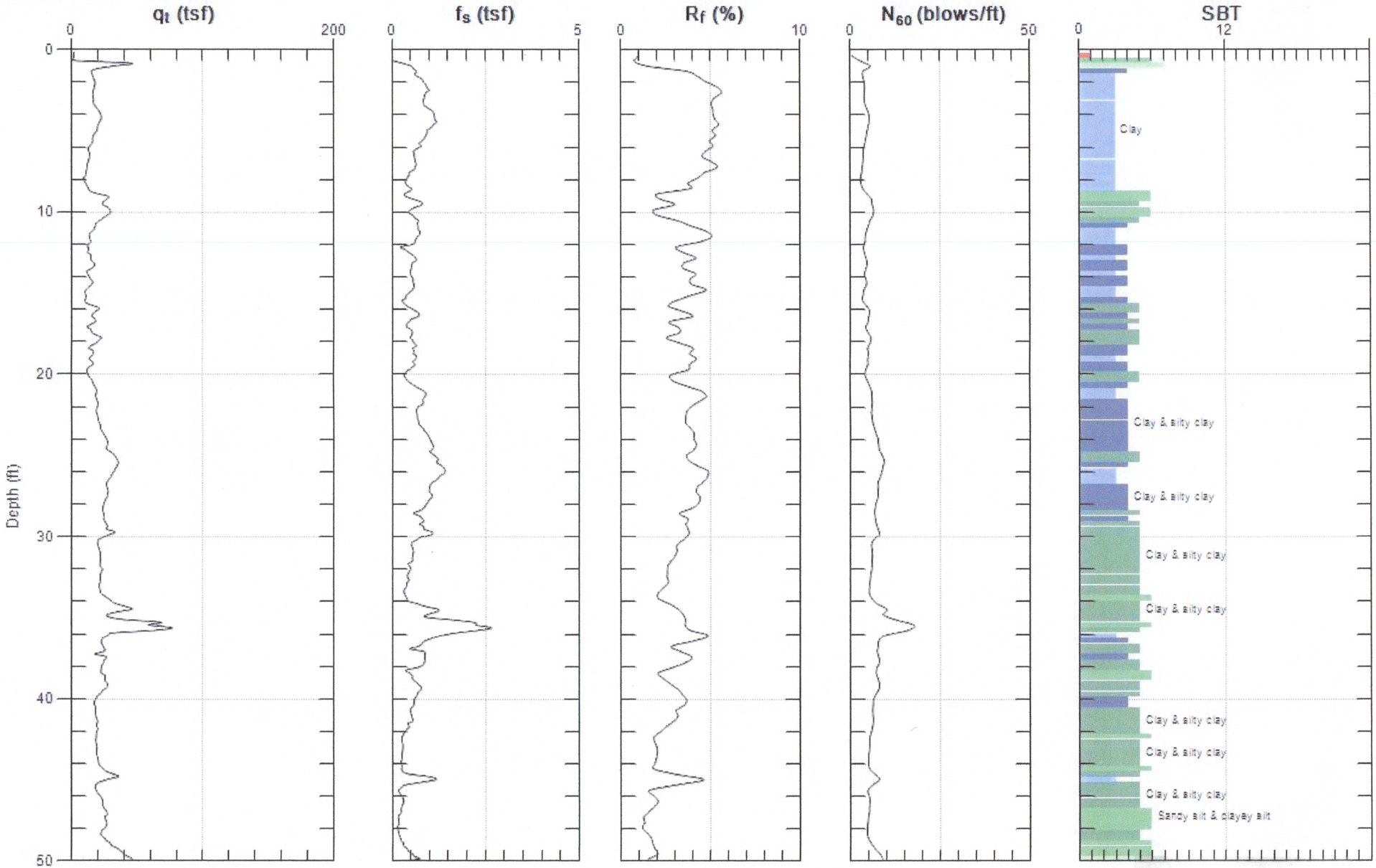
SBT: Soil Behavior Type (Robertson 1990)

GREGG

WAYNE TING & ASSOC.

Site: CHINESE CHURCH
Sounding: CPT-02

Engineer: R.WU
Date: 2/8/2007 11:32



Max. Depth: 50.200 (ft)
Avg. Interval: 0.328 (ft)

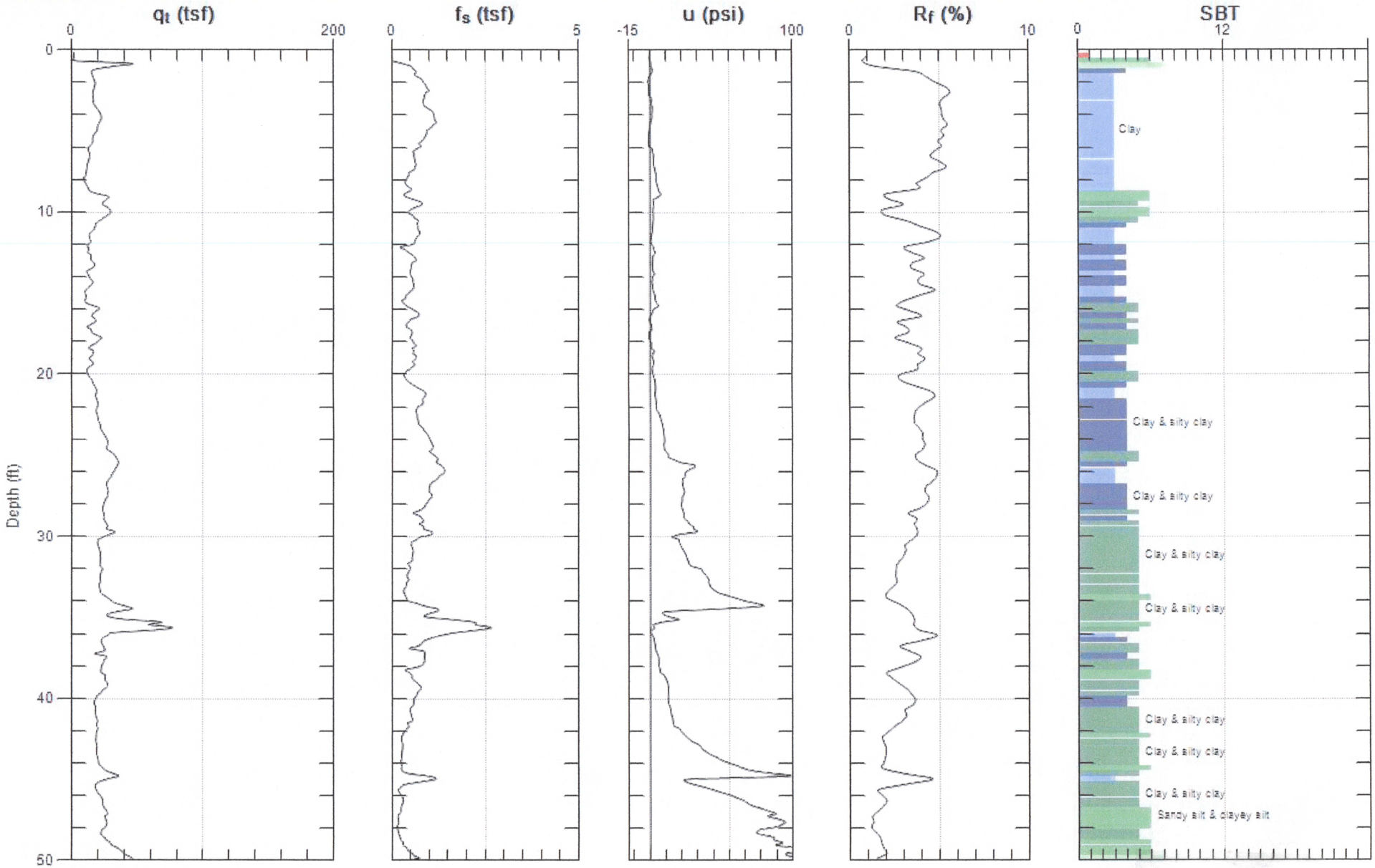
SBT: Soil Behavior Type (Robertson 1990)

GREGG

WAYNE TING & ASSOC.

Site: CHINESE CHURCH
Sounding: CPT-02

Engineer: R.WU
Date: 2/8/2007 11:32



Max. Depth: 50.200 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)

APPENDIX B

Liquefaction Analysis

A street

****

LIQUEFACTION ANALYSIS CALCULATION SHEET

(425) 453-6488 Fax (425) 453-5848

****

Licensed to , 4/11/2007 5:28:02 PM

Input File Name: C:\Documents and Settings\All Users\Documents\liquefy\A street.liq
Title: 100 A street, Hayward, California
Subtitle: 2492

Surface Elev.=
Hole No.=CPT-01
Depth of Hole= 50.0 ft
Water Table during Earthquake= 24.0 ft
Water Table during In-Situ Testing= 24.0 ft
Max. Acceleration= 0.6 g
Earthquake Magnitude= 7.1

Input Data:
Surface Elev.=
Hole No.=CPT-01
Depth of Hole=50.0 ft
Water Table during Earthquake= 24.0 ft
Water Table during In-Situ Testing= 24.0 ft
Max. Acceleration=0.6 g
Earthquake Magnitude=7.1

1. CPT Calculation Method: Modified Robertson*
2. Settlement Analysis Method: Ishihara / Yoshimine*
3. Fines Correction for Liquefaction: Idriss/Seed (SPT only)
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1
7. Borehole Diameter, Cb= 1
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1.3
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	qc tsf	fs tsf	gamma pcf	Fines %	D50 mm
0.0	3.1	0.4	122.4	50.0	0.5
0.7	27.8	0.8	122.4	50.0	0.5
1.0	51.4	1.6	122.4	50.0	0.5
1.3	37.3	1.8	122.4	50.0	0.5
1.6	29.1	1.5	122.4	50.0	0.5
2.0	24.2	1.3	122.4	50.0	0.5
2.3	20.0	1.1	122.4	50.0	0.5
2.6	16.4	0.9	122.4	50.0	0.5
3.0	17.5	1.1	122.4	50.0	0.5
3.3	22.3	1.4	122.4	50.0	0.5

A street

49.05	2.00	0.53	5.00	0.00	0.00	0.00
49.10	2.00	0.53	5.00	0.00	0.00	0.00
49.15	2.00	0.53	5.00	0.00	0.00	0.00
49.20	2.00	0.53	5.00	0.00	0.00	0.00
49.25	2.00	0.53	5.00	0.00	0.00	0.00
49.30	2.00	0.53	5.00	0.00	0.00	0.00
49.35	2.00	0.53	5.00	0.00	0.00	0.00
49.40	2.00	0.53	5.00	0.00	0.00	0.00
49.45	2.00	0.53	5.00	0.00	0.00	0.00
49.50	2.00	0.53	5.00	0.00	0.00	0.00
49.55	2.00	0.53	5.00	0.00	0.00	0.00
49.60	2.00	0.53	5.00	0.00	0.00	0.00
49.65	2.00	0.53	5.00	0.00	0.00	0.00
49.70	2.00	0.53	5.00	0.00	0.00	0.00
49.75	2.00	0.53	5.00	0.00	0.00	0.00
49.80	2.00	0.53	5.00	0.00	0.00	0.00
49.85	2.00	0.53	5.00	0.00	0.00	0.00
49.90	2.00	0.53	5.00	0.00	0.00	0.00
49.95	2.00	0.53	5.00	0.00	0.00	0.00
50.00	2.00	0.53	5.00	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units Depth = ft, Stress or Pressure = tsf (atm), Unit Weight = pcf, Settlement = in.

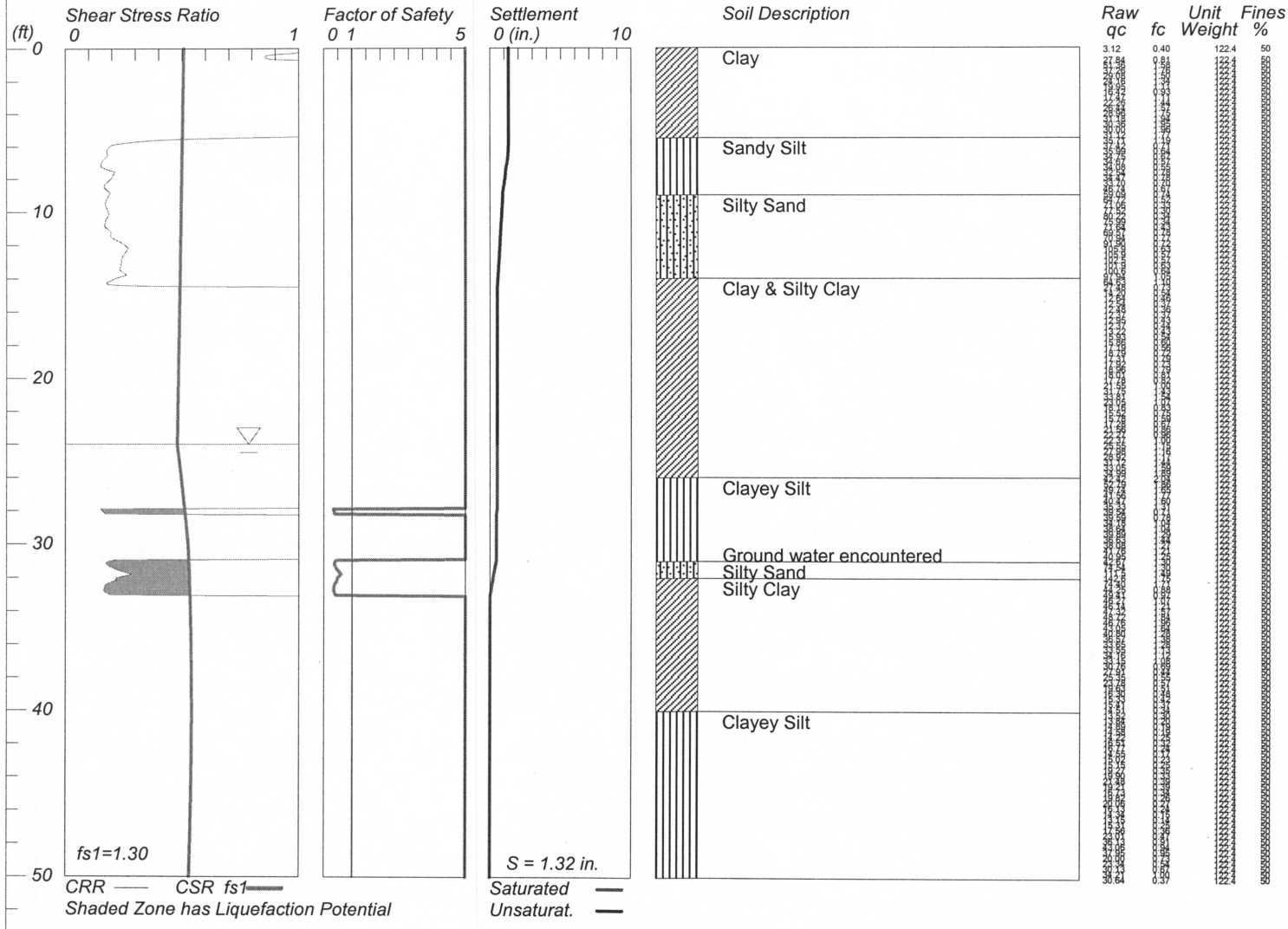
CRRv Cyclic resistance ratio from soils
CSRm Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S. Factor of Safety against liquefaction, F.S.=CRRv/CSRm
S_sat Settlement from saturated sands
S_dry Settlement from Unsaturated Sands
S_all Total Settlement from Saturated and Unsaturated Sands
NoLiq No-Liquefy Soils

LIQUEFACTION ANALYSIS

100 A street, Hayward, California

Hole No.=CPT-01 ***Water Depth=24 ft***

Magnitude=7.1
Acceleration=0.6g

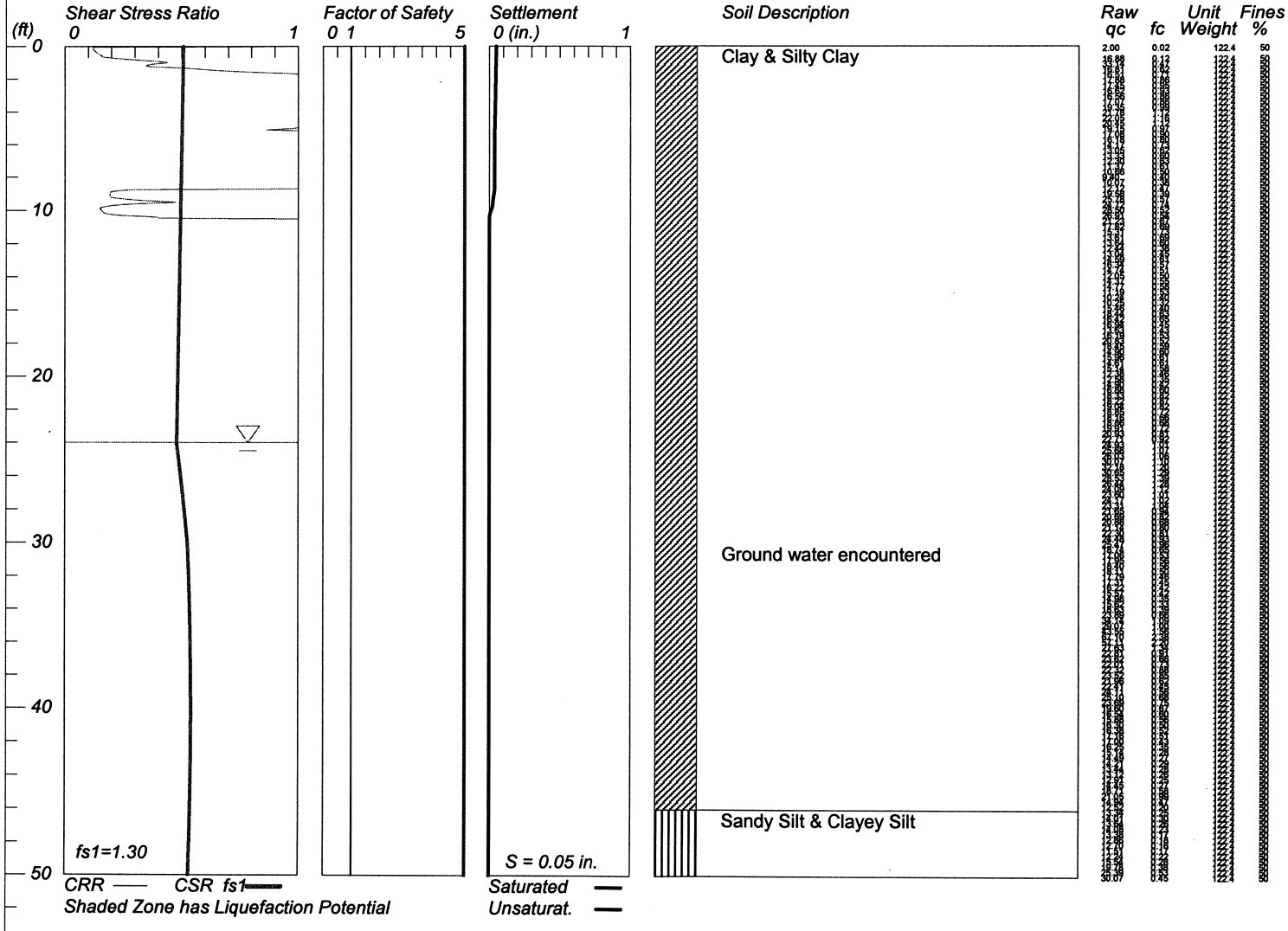


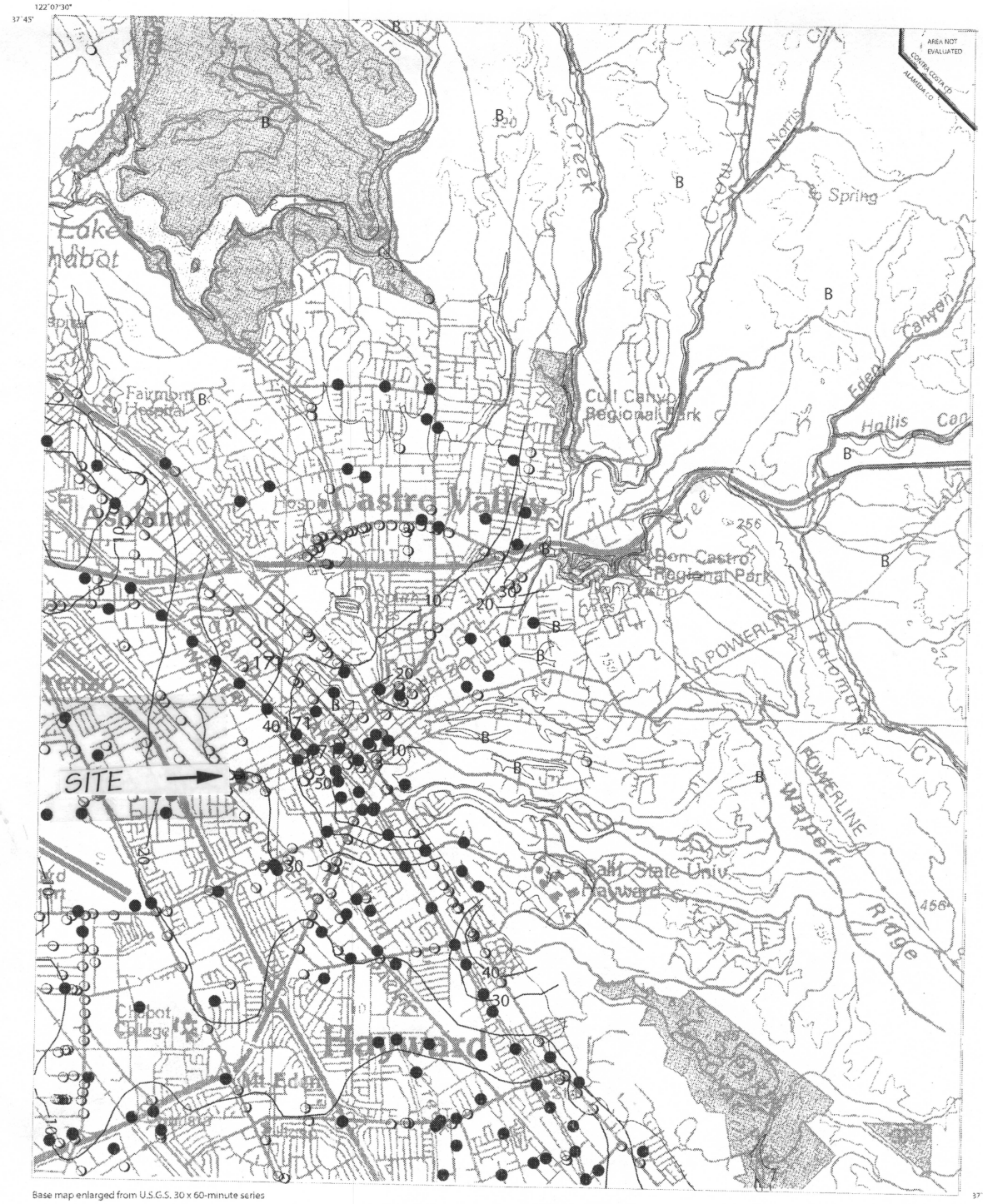
LIQUEFACTION ANALYSIS

100 A street, Hayward, California

Hole No.=CPT-02 ***Water Depth=24 ft***

Magnitude=7.1
Acceleration=0.6g





Base map enlarged from U.S.G.S. 30 x 60-minute series

37°37'30"

122°00'

HAYWARD QUADRANGLE

SCALE

N

Historical Ground Failures (modified from Knudsen and others, 2000)

- Miscellaneous effects
- Sand boil
- 171 — Number assigned to ground failure site (adapted from Youd and Hoose (1978) and Tinsley and others (1998) by Knudsen and others (2000))

- B — Pre-Quaternary bedrock. See "Bedrock and Surficial Geology" in Section 1 of report for descriptions of units.
- 10 — Depth to ground water, in feet (5, 10, 20 foot contours)
- Geotechnical boreholes used in liquefaction evaluation
- Ground-water level data provided by the California State Water Resources Control Board

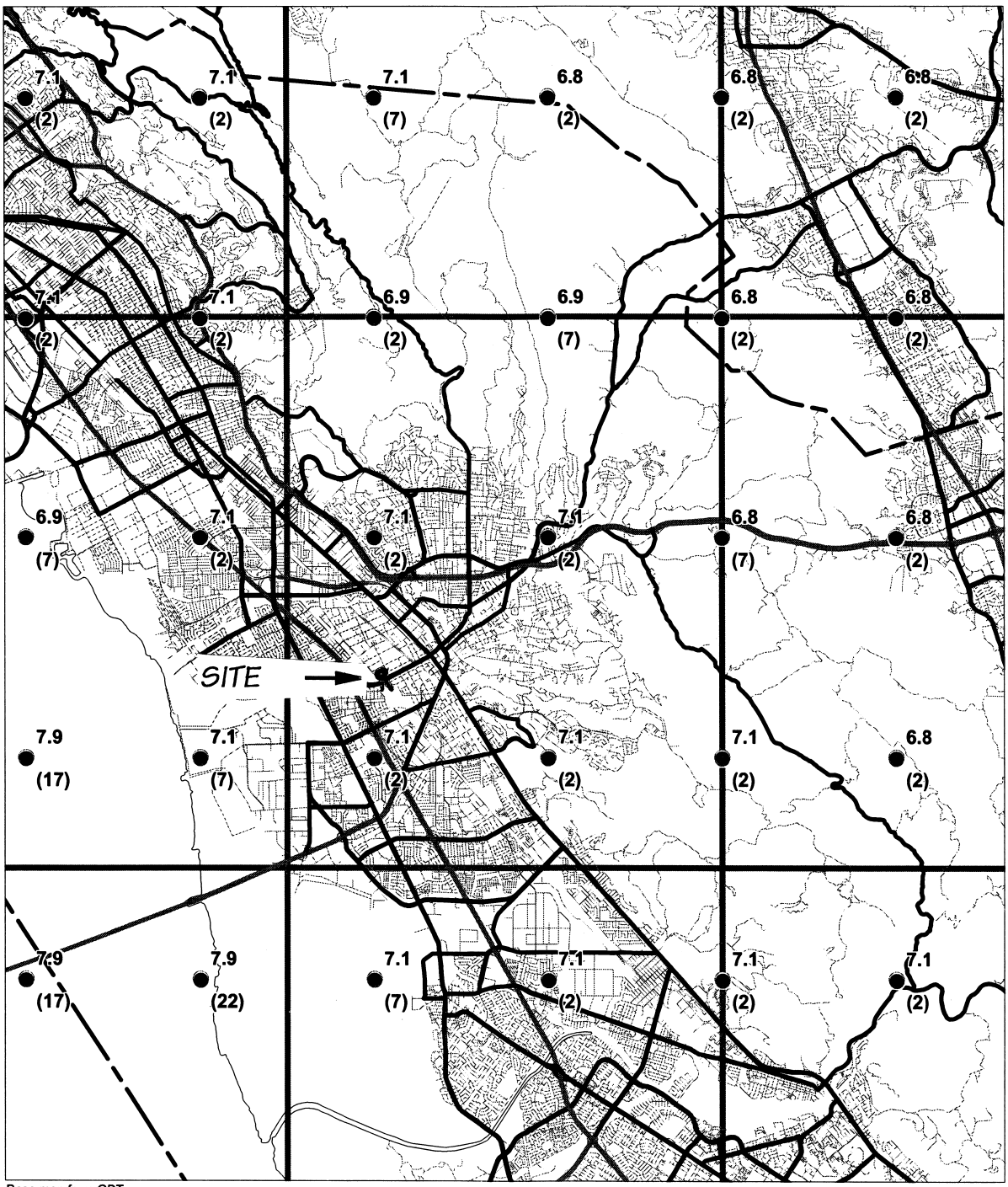
Plate 1.2 Historical liquefaction sites, depth to historically high ground water, and locations of boreholes used in this study, Hayward 7.5-Minute Quadrangle, California

HAYWARD 7.5 MINUTE QUADRANGLE AND PORTIONS OF ADJACENT QUADRANGLES

10% EXCEEDANCE IN 50 YEARS PEAK GROUND ACCELERATION

1998

PREDOMINANT EARTHQUAKE
Magnitude (Mw)
(Distance (km))



Base map from GDT

0 1.5 3
Miles

Department of Conservation
California Geological Survey

Figure 3.4

Project No. 2492
21 July 2016

WAYNE TING & ASSOCIATES, INC.

GEOTECHNICAL CONSULTANTS
42329 Osgood Road, Unit A, Fremont, CA 94539
Phone (510) 623-7768 E-Mail: tingwayne@yahoo.com

Mr. Joe Bo
Chinese for Christ Church of Hayward
22416 Meekland Avenue
Hayward, CA 94541

Subject: **UPDATE FOUNDATION RECOMMENDATIONS**
Proposed Sanctuary
187 Smalley Avenue, Hayward California (APN 431001605300)
159 Smalley Avenue, Hayward California (APN 431001605200).

Reference: 1) Geotechnical Investigation
By Wayne Ting & Associates, Inc.
Dated 11 April 2007

Dear Mr. Bo:

At your request, Wayne Ting & Associates, Inc. (WTAI) has reviewed the referenced material to determine if the geotechnical recommendations provided in Reference 1 may apply to construction of the proposed sanctuary at the subject site. Based on our review, it is the opinion of WTAI that the referenced report (Reference 1) presents acceptable data and geotechnical recommendations for the design and construction of the subject project. WTAI also provides a revised seismic design code as follows:

CALIFORNIA BUILDING CODE SITE CHARACTERIZATION

1. The following design values are base on the geologic information, longitude and latitude of the site, and the USGS computer program. Furthermore, in accordance with Chapter 16 of the 2013 California Building Code (CBC), the site seismic design values are provided as follow:

CBC Category/Coefficient 2010 ASCE 7 (with July 2013 errata)	Design Value
Short-Period MCE at 0.2s, Ss	2.284
1.0s Period MCE, S1	0.948
Soil Profile Type, Site Class	Sd
Site Coefficient, Fa	1.0
Site Coefficient, Fv	1.5
S_{MS} = Fa x S_s Spectral Response Accelerations	2.284
S_{M1} = Fv x S_1Spectral Response Accelerations	1.422
S_{DS} = 2/3 x S_{MS} Design Spectral Response Accelerations	1.523
S_{D1} = 2/3 x S_{M1} Design Spectral Response Accelerations	0.948
** Latitude: 37.66732. Longitude: -122.09899	

FOUNDATION

2. The proposed sanctuary structure can be supported on a mat slab or post-tensioned slab foundation.

Mat Slab Foundation

3. Modulus of subgrade reaction of 50 k.c.f. may be used in the mat slab foundation design.

4. The slabs should be designed based on the allowable bearing capacity of 1,500 p.s.f. due to dead loads plus design live loads, and 2,000 p.s.f. due to all loads which include wind or seismic forces.

5. The available resistance to lateral loads when utilizing structural slabs is limited to the sliding resistance along the base of the slab. Sliding resistance between the bottom of the slab and the underlying soil should be based on a friction value of 0.30.

Post-tension Slab Foundation

6. The soil design parameters presented below assume that post-tensioned mats are designed according to the method recommended in "Design of Post-Tensioned Slabs-On-Ground" (Post-Tensioning Institute, 2004, 3rd Edition).

Allowable Bearing Capacity (dead plus live load)	= 1,500 p.s.f.
Edge Moisture Variation Distance:	
Edge Lift	= 4.5 feet
Center Lift	= 9.0 feet
Differential Movement:	
Ym (Edge Lift)	= 2.1 inches
Ym (Center Lift)	= 1.4 inches

CONCRETE SLAB-ON-GRADE

7. To reduce the cracking potential of the concrete slabs under the parking garage the following recommendations are made:

a. After the compaction of the subgrade has been achieved, 12-inch of Class II aggregate baserock should then be placed on top of the subgrade and compacted to at least 95 percent. Above the baserock, 4.0 inches of 3/4-inch crushed rock should be placed.

b. A plastic membrane of 15-mil minimum thickness, serving as a vapor retarder, should be placed on top of the crushed rock. It is recommended that a better waterproofing membrane of such as, Buthuteme, Paraseal or equal should be placed according to the instruction of the manufacture and the specification of foundation plans. Design waterproofing for the slab is not within the purview of WTAI. Waterproofing should be designed by a professional waterproofing designer

INFILTRATION RATE

It is noted that infiltration rate 0.06 inches per hour can be used for this site.

ALL OTHER RECOMMENDATIONS CONTAINED IN THE ORIGINAL REFERENCED REPORTS MUST BE STRICTLY FOLLOWED.

Should you have any questions or require additional information, please contact our office at your convenience.

Very truly yours,

WAYNE TING & ASSOCIATES, INC.

Wayne L. Ting, C.E.
Principal Civil Engineer

Copy: 1 to Mr. Bo

Attachment D: Transportation Impact Analysis

Memorandum

Date: April 13, 2017

Project: ALX029

To: Mr. Bruce Kaplan
Lamphier-Gregory
1944 Embarcadero
Oakland, CA 94606

From: Mark Spencer
mspencer@w-trans.com
Nick Bleich
nbleich@w-trans.com

Subject: Transportation Impact Analysis for the Chinese for Christ Church Project

---

As requested, W-Trans has prepared a transportation impact analysis of the proposed Chinese for Christ Church redevelopment located at 159 Smalley Avenue in unincorporated Alameda County, within the Planning Area Boundary for the City of Hayward.

Project Description

The proposed project includes the demolition of two existing structures and the construction of a 2-story 15,758 sq. ft. multipurpose house of worship with sanctuary seating for 325 persons, as well as classrooms to host small group classes and offices to support church activities. The proposed project includes a total of 83 parking spaces, including 33 standard parking spaces and three handicap accessible parking spaces to be located on the same parcel as the proposed building, 15 standard parking spaces to be located on the parcel directly adjacent to the proposed building, and 32 standard parking spaces to be located at the corner of Meekland Avenue and A Street, approximately one-tenth of a mile away from the project site.

Study Roadways

Smalley Avenue is an east-west local roadway with one travel lane in each direction and on-street parking. Pedestrian sidewalks and ramps are provided within the vicinity of the project.

Meekland Avenue is a north-south collector with one travel lane in each direction and a posted speed limit of 25 miles per hour (mph). Intermittent sidewalks are provided in the vicinity of the project. Meekland Avenue has Class II bike lanes in both directions.

A Street Ramp is an east-west local roadway. A Street Ramp has one travel lane in each direction and on-street parking. Pedestrian sidewalks and ramps are provided along the A Street Ramp. A Street is grade separated over Meekland Avenue and the adjacent railroad tracks.

Princeton Street is a north-south local roadway with one travel lane in each direction and a posted speed limit of 25 mph. Princeton Street has fronting residences and on-street parking. Pedestrian sidewalks are provided within the vicinity of the project.

Collision History

The collision history for the study area was reviewed to determine any trends or patterns that may indicate a safety issue. Collision rates were calculated based on records available from the California Highway Patrol as

published in their Statewide Integrated Traffic Records System (SWITRS) reports. The most current five-year period available is January 1, 2012 through December 31, 2016.

As presented in Table 1, the calculated collision rates for the intersections near the project site were compared to average collision rates for similar facilities statewide, as indicated in *2013 Collision Data on California State Highways*, California Department of Transportation. The collision rate was higher than the statewide average for similar facilities at the intersection of Princeton Street and Smalley Avenue. Half of the collisions during the review period were broadside collisions involving vehicles traveling northbound on Princeton Street. The collision rate calculations are enclosed.

Table 1 – Collision Rates at Nearby Intersections

Study Intersection	Number of Collisions (2012-2016)	Calculated Collision Rate (c/mve)	Statewide Average Collision Rate (c/mve)
1. Meekland Avenue/Smalley Avenue	2	0.10	0.14
2. Meekland Avenue/A Street	3	0.14	0.32
3. Princeton Street/Smalley Avenue	4	**0.37**	0.26

Note: c/mve = collisions per million vehicles entering

Collision rates for the roadway segments near the project are compared to statewide averages for similar facilities in Table 2. All three segments have collision rates higher than the statewide average during the five-year review period. Along Meekland Avenue there was one collision involving a pedestrian and one collision involving a bicycle during the review period. In addition to the pedestrian and bicycle collisions, six of the14 collisions involved a parked vehicle on Meekland Avenue. Along Smalley Avenue there was one collision involving a pedestrian near Princeton Street. On Princeton Street, half of the collisions reported during the review period were broadside collisions.

Table 2 – Collision Rates for Nearby Roadway Segments

Study Roadway Segments	Number of Collisions (2012-2016)	Calculated Collision Rate (c/mvm)	Statewide Average Collision Rate (c/mvm)
1. Meekland Avenue between A Street and Laurel Avenue	14	**3.84**	2.39
2. Smalley Avenue between Meekland Avenue and Princeton Street	3	**9.13**	2.39
3. Princeton Street between A Street and Laurel Avenue	14	**7.67**	2.39

Note: c/mvm = collisions per million vehicles miles

Alternative Modes

Pedestrian Facilities

Pedestrian facilities include sidewalks, crosswalks and enhanced crosswalk treatments, curb ramps, and various streetscape amenities such as lighting, benches, etc. In general, a network of sidewalks, asphalt-concrete (AC) paths, crosswalks, and curb ramps provide access for pedestrians in the vicinity of the project site; however, poor sidewalks and obstacles can be found along some of the roadways connecting to the project site. Existing gaps

and obstacles along the connecting roadways impact convenient and continuous access for pedestrians and present safety concerns in those locations where appropriate pedestrian infrastructure would address potential conflict points.

- **Smalley Avenue** – Continuous sidewalks are provided on both sides of Smalley Avenue between Princeton Street and Meekland Avenue, with curb ramps and overhead lighting provided at intersections.
- **Meekland Avenue** – Existing sidewalks on Meekland Avenue consists of AC paths and deteriorating concrete sidewalks. The section sidewalk connecting the off-site parking lot with the project site consists of narrow concrete sidewalk or AC path only wide enough for single file movement. Overhead lighting is provided at intersections. Crosswalks are provided at the intersection of Meekland Avenue and the A Street Ramp.
- **A Street Ramp** – Continuous sidewalks are provided along both sides of the A Street Ramp, with curb ramps, crosswalks, and overhead lighting provided at intersections.
- **Princeton Street** – Continuous sidewalks are provided along both sides of Princeton Street between A Street and Laurel Avenue, with curb ramps and overhead lighting provided at intersections.

Bicycle Facilities

The *Highway Design Manual*, California Department of Transportation (Caltrans), 2012, classifies bikeways into three categories:

- **Class I Multi-Use Path** – a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized.
- **Class II Bike Lane** – a striped and signed lane for one-way bike travel on a street or highway.
- **Class III Bike Route** – signing only for shared use with motor vehicles within the same travel lane on a street or highway.

Guidance for Class IV Bikeways is provided in *Design Information Bulletin Number 89: Class IV Bikeway Guidance (Separated Bikeways/Cycle Tracks)*, Caltrans, 2015.

- **Class IV Bikeway** – also known as a separated bikeway, a Class IV Bikeway is for the exclusive use of bicycles and includes a separation between the bikeway and the motor vehicle traffic lane. The separation may include, but is not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking.

In the project area, Class II bike lanes exist on Meekland Avenue between A Street and Paseo Grande, and on A Street between the project site and the Hayward BART Station. Bicyclists ride in the roadway and/or on sidewalks along all other streets within the project area. Table 3 summarizes the existing and planned bicycle facilities in the project vicinity, as contained in the *City of Hayward Bicycle Master Plan*.

Table 3 – Bicycle Facility Summary

Status Facility	Class	Length (miles)	Begin Point	End Point
Existing				
Meekland Avenue	II	1.50	A Street	Paseo Grande
A Street	II	1.20	Montgomery Street	Arbor Avenue
Planned				
East Bay Greenway	I	12.00	Hayward BART	Lake Merritt BART

Source: *City of Hayward Bicycle Master Plan*, Alta Planning + Design, 2007

Transit Facilities

Alameda-Contra Costa Transit District (AC Transit) provides fixed route bus service through the East Bay. Local routes serve the City of Hayward and unincorporated Alameda County near the project site. Local routes primarily serve arterial streets, neighborhoods, schools, shopping areas, employment centers, and public transportation hubs.

The following local routes operate within the project area:

- **Route 93** provides loop service to/from the Hayward BART Station and stops at the intersections of A Street and Meekland Avenue as well as Meekland Avenue and Laurel Avenue. Route 93 operates on one-hour headways daily, with weekday service beginning at 5:30 a.m. and weekend service beginning at 7:15 a.m. service concludes daily at approximately 8:30 p.m.
- **Route 85** connects the San Leandro BART Station, Hayward BART Station, and Union City Stations provides to destinations throughout Hayward, San Lorenzo, and San Leandro and stops at the intersections of A Street and Filbert Street. Route 85 operates on one-hour headways daily 6:00 a.m. through 10:00 p.m.
- **Route 37** provides loop service to/from the Hayward and South Hayward BART Stations and stops at the intersections of A Street and Filbert Street. Route 37 operates on one-hour headways on weekdays between 5:00 a.m. and 9:00 p.m.

Two bicycles can be carried on most AC Transit buses. Bike rack space is on a first come, first served basis. Additional bicycles are allowed on AC Transit buses at the discretion of the driver.

Dial-a-ride, also known as paratransit, or door-to-door service, is available for those who are unable to independently use the transit system due to a physical or mental disability. East Bay Paratransit is designed to serve the needs of individuals with disabilities within Hayward and the greater East Bay.

Trip Generation

Trip generation estimates are typically developed using standard rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual*, 9th Edition, 2012. The standard "Church" (ITE LU 560) rates are based on either building square footage or the number of seats in the main worship room. Because the proposed new construction on the existing church site is not anticipated to result in attendance growth comparable to the increase in building size, trip generation rates were developed based on the current programming schedule and number of attendees, and the anticipated future programming schedule and incremental church growth.

The existing conditions at the Chinese for Christ Church were derived using the current programming schedule, see attached schedule, and the average number of attendees for a Sunday service. An average vehicle occupancy of 1.2 persons per vehicle was used to determine the number of trips for the programming schedule on weekdays and Saturdays, while the average occupancy for a Sunday service was determined based on the number of families who attend the church, the average number of persons per family from the 2011-2015 American Community Survey, and 1.2 person per vehicle for other attendees. The church currently accommodates 450 attendees on Sunday, which is comprised of approximately 100 families and 125 additional attendees. The 100 families account for 100 round trips and equate to 325 total attendees. The existing trip generation estimates are summarized in Table 4.

Table 4 – Existing Programing Trip Generation

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Total Daily Attendees *(Persons)*	450	0	45	55	40	45	75
Attendee Round Trips	205	0	38	46	34	38	63
Employee Round Trips	7	6	6	6	6	6	7
Daily Trips	**424**	**12**	**88**	**104**	**80**	**88**	**138**

Note: Attendee Round Trips (Sunday) are based on 100 families and 125 attendees with an average occupancy of 1.2 persons per vehicle
Attendee Round Trips (Monday – Saturday) are based on an average occupancy of 1.2 person per vehicle
Employee Round Trips (Sunday – Saturday) are based on one person per vehicle
Daily Trips assume one inbound and one outbound trip per Attendee/Employee

The majority of church activity occurs on the weekend and outside of commute hours. Based on the current programming schedule, the church currently generates an average of 75 weekday trips, including 6 weekday a.m. peak hour trips and 20 weekday p.m. peak hour trips.

The proposed growth at the Chinese for Christ Church was provided by Church staff and would include approximately 100 additional Sunday attendees, comprised of 25 additional families and 21 new individual attendees, and increased attendance of small group activities during the week. The same occupancy assumptions were used to determine the proposed trip generation. The proposed trip generation estimates are summarized in Table 5.

Table 5 – Proposed Programming Trip Generation

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Total Daily Attendees *(Persons)*	550	0	60	95	60	60	100
Attendee Round Trips	245	0	50	80	50	50	84
Employee Round Trips	7	6	6	6	6	6	7
Daily Trips	**504**	**12**	**112**	**172**	**112**	**112**	**182**

Note: Attendee Round Trips (Sunday) are based on 125 families and 146 attendees with an average occupancy of 1.2 persons per vehicle
Attendee Round Trips (Monday – Saturday) are based on an average occupancy of 1.2 person per vehicle
Employee Round Trips (Sunday – Saturday) are based on one person per vehicle
Daily Trips assume one inbound and one outbound trip per Attendee/Employee

Based on the proposed programming schedule, the church would generate an average of 104 weekday trips, including 6 during the a.m. peak hour and 27 during the p.m. peak hour. The proposed programing schedule would be expected to generate 29 net new weekday trips, no new a.m. peak hour trips and 7 new p.m. peak hour trips. During the a.m. peak hour the only trips expected to be generated by the church are employee trips and the church does not anticipate hiring additional employees.

For comparison, if ITE *Trip Generation* standard trip generation rates were used, the project would be expected to generate an average of 144 weekday trips, including nine during the a.m. peak hour and nine during the p.m. peak hour, based on the proposed building square footage.

Alternative Modes

Pedestrian Facilities

Given the proximity of commercial developments along A Street and the residential neighborhoods surrounding the project site and the proposed use of the existing parking lot located at the corner of Meekland Avenue and the A Street Ramp, approximately one-tenth of a mile from the project site, it is reasonable to assume that many Church attendees will walk to reach the project site.

Project Area – Sidewalks exist along Smalley Avenue along the project frontage. Smalley Avenue has adequate sidewalks between Meekland Avenue and Princeton Street. Along Meekland Avenue, between the off-site parking lot and Smalley Avenue, the existing sidewalk is in a state of disrepair. The existing sidewalk does not have complete curb and gutter, and during a field review parked vehicles were encroaching on the sidewalk. A section of the sidewalk has been replaced with an asphalt-concrete path. The existing sidewalk is four feet wide.

Finding – Pedestrian facilities serving the project site are not expected to be uniformly adequate from all approaches.

Recommendation – The project sponsor should replace the sidewalk on the east-side of Meekland Avenue between the A Street Ramp and Smalley Avenue to provide continuous and uniform connectivity between the project site and the off-site parking lot.

Bicycle Facilities

Existing bicycle facilities, including bike lanes on Meekland Avenue and A Street, together with shared use of minor streets provide adequate access for bicyclists.

Bicycle Storage

The project site plan does not identify the provision of bicycle parking or storage facilities.

Finding – Bicycle facilities serving the project site are expected to be adequate, upon the installation of on-site bicycle storage.

Recommendation – The project sponsor should install short-term bicycle storage that can accommodate at least two bicycles.

Transit

Existing transit routes are adequate to accommodate any project-generated transit trips. Existing bus stops located at the intersection of Meekland Avenue and the A Street Ramp are within acceptable walking distance of the site.

Finding – Transit facilities serving the project site are expected to be adequate.

Site Access

The project site would be accessed via three driveways. Two full access driveways would be located on Smalley Avenue; the first would be approximately 225 feet east of Meekland Avenue, and the second would be approximately 125 east of the first driveway. The third driveway would be located on Meekland Avenue approximately 125 feet north of the A Street Ramp. Each driveway would access independent parking lots, as there are no on-site vehicular connections between the proposed parking lots.

Sight Distance

At driveways a substantially clear line of sight should be maintained between the driver of a vehicle waiting at the crossroad and the driver of an approaching vehicle. Adequate time must be provided for the waiting vehicle to either cross, turn left, or turn right, without requiring the through traffic to radically alter their speed. Sight distance should be measured from a 3.5-foot height at the location of the driver on the minor road to a 4.25-foot object height in the center of the approaching lane of the major road. Setback for the driver on the crossroad shall be a minimum of 15 feet, measured from the edge of the traveled way.

Sight distance along Smalley Avenue at the project driveways and along Meekland Avenue at the off-site parking lot driveway was evaluated based on sight distance criteria contained in the *Highway Design Manual* published by Caltrans. The recommended sight distance at a driveway is based on stopping sight distance, with the approach travel speeds used as the basis for determining the recommended sight distance.

For the posted 25-mph speed limit on Smalley Avenue adjacent to the project site, the recommended stopping sight distance is 150 feet. Based on a review of field conditions, sight distance extends beyond 250 feet to both the east and the west at both project driveways, which would satisfy the sight distance criteria when speeds are greater than 35-mph. Vehicles parked along Smalley Avenue and between the proposed driveways have the potential of reducing sight lines.

The posted speed limit on Meekland Avenue is also 25-mph adjacent to the off-site parking lot. Based on the field review, the sight distance extends approximately 200 feet to the south, under the A Street overpass, and beyond 300 feet to the north of the parking lot driveway. Vehicles parked between the parking lot driveway and the A Street Ramp and directly north of the driveway have the potential of reducing reduce the sight lines.

Finding – Sight distances along Smalley Avenue and Meekland Avenue at the project driveways are adequate for the approach speeds; however, it is noted that parked vehicles along the project frontage could potentially reduce sight lines.

Recommendation – In order to provide adequate sight lines at all times, and to avoid vehicles having to extend out of the driveway to gain additional sight distance prior to turning out the roadway, it is recommended that parking be prohibited within 50 feet of the project driveways, and any new plantings or signs be located to maintain adequate sight lines.

Parking

The project was analyzed to determine whether the proposed parking supply would be sufficient for the anticipated parking demand. As proposed, the project would provide a total of 83 parking spaces, exclusively for the use of the Church. The parking is divided between three parking lots; 33 standard parking spaces and three handicap accessible parking spaces would be located on the same parcel as the proposed building, 15 standard parking spaces would be located on the parcel directly adjacent to the proposed building, and 32 standard parking spaces would be located at the corner of Meekland Avenue and A Street, approximately one-tenth of a mile away from the project site. The recommendation to improve the sidewalk on Meekland Avenue would improve the connectivity between the off-site parking lot and the project site, and also provide a benefit to the surrounding community.

Parking demand for the proposed redevelopment was estimated using standard rates published by ITE in *Parking Generation*, 4th Edition, 2010. The parking demand of the project was estimated using the published standard rates for Church (ITE LU#560) based on the number of seats in the main worship room. The main worship room would have a total of 325 seats.

Parking supply requirements are based on the County of Alameda Municipal Code, Chapter 17.52.920 Parking Spaces Required – Places of Assembly. The proposed parking supply of 83 spaces is anticipated to adequately accommodate the estimated parking demand of 82 spaces, and also satisfy the County requirement of 82 spaces based on the number of seats in the main worship room. The proposed parking supply, expected demand, and County requirements are shown in Table 6.

Table 6 – Parking Analysis Summary

Land Use	Units	Supply (spaces)	ITE Parking Generation		County Requirements	
			Rate	Est. Parking Demand	Rate	Spaces Required
Church	325 seats	83	0.25	82	1.0 for 4 seats	82
Total		**83**		**82**		**82**

The site plan shows that out of the 83 spaces proposed for the Church, 3 spaces are handicap accessible. The County of Alameda Municipal Code, Chapter 17.52.770, Parking Spaces – Accessibility, requires that parking spaces for the disabled must be provided in compliance with the uniform building code and the Federal Accessibility Guidelines. Based on the requirements stipulated by the Federal Accessibility Guidelines, four accessible stalls are required. The project site is deficient one accessible parking stall.

County parking stall sizes are based on the County of Alameda Municipal Code, Chapter 17.52.780; Parking Spaces – Size and Location. Required parking stall sizes for the County of Alameda are not less than 180 square feet and have a width not less than 9 feet and an length not less than 18 feet. The final site plan should identify at least 82 parking spaces that conform to the standards set in Chapter 17.52.780.

Finding – The proposed parking supply would accommodate the anticipated parking demand and meet County requirements for the number of required parking spaces. The proposed parking supply includes 3 handicap accessible parking spaces, one less than Federal Accessibility Guidelines stipulate. The preliminary parking diagram does not identify parking lot dimensions.

Recommendation – The project should provide one additional handicap accessible parking space. The final site plan should confirm that the parking lots are designed in compliance with Chapter 17.52.780 and include parking space dimensions, parking space angles, driveway widths, and backup area dimensions.

CEQA Checklist

The 2010 California Environmental Quality Act (CEQA) Guidelines lists six criteria to be considered when determining if a project would result in a significant impact on transportation.

XVI. Transportation/Traffic

a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Less than significant. The proposed project is not expected to result in a significant impact to the performance of the circulation system. Project generated trips are expected to occur on the weekend and outside of commute hours. The proposed project is not expected to hinder efforts to encourage walking, bicycling, or public transit use, but rather improve pedestrian and public transit connectivity for project

generated trips and local residents through the recommended sidewalk replacement. The project is therefore expected to have a less-than-significant impact on pedestrians, bicyclists, and public transit.

b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Less than significant. The Alameda County Transportation Commission (ACTC) serves as the Congestion Management Agency (CMA) for Alameda County. ACTC's most recent Congestion Management Plan, referred to as the 2015 CMP Monitoring Report, establishes the designated CMP Roadway network, which includes A Street, Hesperian Boulevard, I-880, and Mission Boulevard (SR 238) near the project site and the LOS standard for each roadway in the network. The project is expected to generate few peak hour trips, and the majority of trips would be from local residents. Traffic on the designated CMP roadway network is not expected to be impacted. Therefore, the proposed project is not expected to conflict with ACTC's Congestion Management Program.

c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No Impact. The project site is not located near any airports; therefore, the proposed project would have no impact on air safety or operations of airport facilities.

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

Less than significant. Proposed modifications to the existing transportation facilities, including the sidewalk improvements, are expected to accommodate any increase in pedestrians and bicyclists traveling along Meekland Avenue.

e. Result in inadequate emergency access?

Less than significant. The proposed project does not include any modifications to the existing transportation and street network, beyond the recommended sidewalk replacement. Therefore, the proposed project would not affect emergency access.

f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Less than significant. The proposed project and recommended improvements are consistent with adopted policies and plans regarding public transportation, bicycle, and pedestrian facilities. As described, any improvements to pedestrian facilities are expected to improve access to the project site and would adequately accommodate any increase in pedestrian activity accessing the church.

Conclusions

- The calculated collision rate at one of the three nearby intersections was higher than the statewide average for similar facilities for the five-year review period. The collision rate was higher than the statewide average for all three nearby roadway segments for the five-year review period.
- The proposed project is expected to generate an average of 29 net new weekday trips, with no new trips during the weekday a.m. peak hour and seven additional trips during the weekday p.m. peak hour.

- The proposed project is expected to generate an average of 80 new Sunday trips based on an increase of 100 attendees.
- Pedestrian facilities within the vicinity of the project are not expected to be adequate to provide connectivity to the off-site parking lot. The existing bicycle network provides adequate connectivity for bicyclists, but the site plan does not identify on-site bicycle storage. Public transit facilities serving the project site are expected to be adequate.
- Sight distances along Smalley Avenue and Meekland Avenue at the project driveways are adequate for the approach speeds. Parked vehicles along the project frontage could interrupt sight lines.
- The proposed parking supply would be adequate based on ITE standard parking demand rates and meet the County's requirements for the number of spaces. The proposed parking supply includes three handicap accessible parking spaces, one less than Federal Accessibility Guidelines outline. The preliminary parking diagram does not identify dimensions for the parking spaces.
- The project's impact to the circulation system, congestion management program, air traffic, hazardous design features, emergency access, and conflict with adopted policies are considered to be less than significant.

Recommendations

- The project sponsor should replace the sidewalk on the east-side of Meekland Avenue between the A Street Ramp and Smalley Avenue to provide connectivity between the project site and the off-site parking lot.
- Short-term bicycle storage should be installed on-site storage that can accommodate at least two bicycles.
- Parking should be prohibited within 50 feet of the project driveways and any new plantings or signs be located to maintain adequate sight lines.
- The project sponsor should provide one additional handicap accessible parking space. The final site plan should confirm that the parking lots are designed in compliance with Chapter 17.52.780 and include parking space dimensions, parking space angles, driveway widths, and backup area dimensions.

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Attachments: Collision Rate Calculations
Existing and Proposed Programming Schedule

Intersection Collision Rate Calculations

Chinese for Christ Church Transportation Impact Analysis

Intersection # 1: Meekland Ave & Smalley Ave

Number of Collisions: 2
Number of Injuries: 1
Number of Fatalities: 0
ADT: 10500
Start Date: January 1, 2012
End Date: December 31, 2016
Number of Years: 5

Intersection Type: Tee
Control Type: Stop & Yield Controls
Area: Suburban

$$\text{collision rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times 365 \text{ Days per Year} \times \text{Number of Years}}$$

$$\text{collision rate} = \frac{2 \times 1{,}000{,}000}{10{,}500 \times 365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	**0.10 c/mve**	**0.0%**	**50.0%**
Statewide Average*	**0.14 c/mve**	**0.7%**	**38.0%**

ADT = average daily total vehicles entering intersection
c/mve = collisions per million vehicles entering intersection
* 2013 Collision Data on California State Highways, Caltrans

Intersection # 2: Meekland Ave & A St

Number of Collisions: 3
Number of Injuries: 1
Number of Fatalities: 0
ADT: 12000
Start Date: January 1, 2012
End Date: December 31, 2016
Number of Years: 5

Intersection Type: Four-Legged
Control Type: 4 Way Stop
Area: Suburban

$$\text{collision rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times 365 \text{ Days per Year} \times \text{Number of Years}}$$

$$\text{collision rate} = \frac{3 \times 1{,}000{,}000}{12{,}000 \times 365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	**0.14 c/mve**	**0.0%**	**33.3%**
Statewide Average*	**0.32 c/mve**	**0.4%**	**44.7%**

ADT = average daily total vehicles entering intersection
c/mve = collisions per million vehicles entering intersection
* 2013 Collision Data on California State Highways, Caltrans

Intersection Collision Rate Calculaions

Chinese for Christ Church Transportation Impact Analysis

Intersection # 3: Princeton St & Smalley Ave

Date of Count: Saturday, January 00, 1900

Number of Collisions: 4
Number of Injuries: 0
Number of Fatalities: 0
ADT: 6000
Start Date: January 1, 2012
End Date: December 31, 2016
Number of Years: 5

Intersection Type: Four-Legged
Control Type: Stop & Yield Controls
Area: Suburban

$$\text{collision rate} = \frac{\text{Number of Collisions x 1 Million}}{\text{ADT x 365 Days per Year x Number of Years}}$$

$$\text{collision rate} = \frac{4 \times 1{,}000{,}000}{6{,}000 \times 365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	**0.37 c/mve**	**0.0%**	**0.0%**
Statewide Average*	**0.26 c/mve**	**0.9%**	**37.4%**

ADT = average daily total vehicles entering intersection
c/mve = collisions per million vehicles entering intersection
* 2013 Collision Data on California State Highways, Caltrans

Intersection #

Date of Count:

Number of Collisions:
Number of Injuries:
Number of Fatalities:
ADT:
Start Date:
End Date:
Number of Years:

Intersection Type:
Control Type:
Area:

$$\text{collision rate} = \frac{\text{Number of Collisions x 1 Million}}{\text{ADT x 365 Days per Year x Number of Years}}$$

$$\text{collision rate} = \frac{0 \times 1{,}000{,}000}{0 \times 365 \times 0}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	**0.00 c/mve**	**0.0%**	**0.0%**
Statewide Average*	**0.30 c/mve**	**0.7%**	**40.3%**

ADT = average daily total vehicles entering intersection
c/mve = collisions per million vehicles entering intersection
* 2013 Collision Data on California State Highways, Caltrans

SEGMENT COLLISION RATE CALCULATIONS

Chinese for Christ Church Transportation Impact Analysis

Location: Meekland Ave between A St and Laurel Ave

ADT: 10,000

Number of Collisions: 14
Number of Injuries: 6
Number of Fatalities: 0
Start Date: January 1, 2012
End Date: December 31, 2016
Number of Years: 5

Highway Type: Conventional 2 lanes or less
Area: Suburban
Design Speed: ≤45

Segment Length: 0.2 miles
Direction: North/South

$$\frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times 365 \text{ Days per Year} \times \text{Segment Length} \times \text{Number of Years}}$$

$$\frac{14 \times 1{,}000{,}000}{10{,}000 \times 365 \times 0.2 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Segment	**3.84 c/mvm**	**0.0%**	**42.9%**
Statewide Average*	**2.39 c/mvm**	**0.6%**	**37.1%**

ADT = average daily traffic volume
c/mvm = collisions per million vehicle miles
* 2013 Collision Data on California State Highways, Caltrans

Location: Smalley Ave between Meekland Ave and Princeton St

ADT: 1,000

Number of Collisions: 3
Number of Injuries: 1
Number of Fatalities: 0
Start Date: January 1, 2012
End Date: December 31, 2016
Number of Years: 5

Highway Type: Conventional 2 lanes or less
Area: Suburban
Design Speed: ≤45

Segment Length: 0.2 miles
Direction: East/West

$$\frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times 365 \text{ Days per Year} \times \text{Segment Length} \times \text{Number of Years}}$$

$$\frac{3 \times 1{,}000{,}000}{1{,}000 \times 365 \times 0.18 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Segment	**9.13 c/mvm**	**0.0%**	**33.3%**
Statewide Average*	**2.39 c/mvm**	**0.6%**	**37.1%**

ADT = average daily traffic volume
c/mvm = collisions per million vehicle miles
* 2013 Collision Data on California State Highways, Caltrans

SEGMENT COLLISION RATE CALCULATIONS

Chinese for Christ Church Transportation Impact Analysis

Location: Princeton St between A St and Laurel Ave

ADT: 5,000

Number of Collisions: 14
Number of Injuries: 2
Number of Fatalities: 0
Start Date: January 1, 2012
End Date: December 31, 2016
Number of Years: 5

Highway Type: Conventional 2 lanes or less
Area: Suburban
Design Speed: ≤45

Segment Length: 0.2 miles
Direction: North/South

$$\frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times 365 \text{ Days per Year} \times \text{Segment Length} \times \text{Number of Years}}$$

$$\frac{14 \times 1{,}000{,}000}{5{,}000 \times 365 \times 0.2 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Segment	**7.67 c/mvm**	**0.0%**	**14.3%**
Statewide Average*	**2.39 c/mvm**	**0.6%**	**37.1%**

ADT = average daily traffic volume
c/mvm = collisions per million vehicle miles
* 2013 Collision Data on California State Highways, Caltrans

Location:

Date of Count:
ADT:

Number of Collisions:
Number of Injuries:
Number of Fatalities:
Start Date:
End Date:
Number of Years:

Highway Type:
Area:
Design Speed:
Terrain:

Segment Length:

$$\frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times 365 \text{ Days per Year} \times \text{Segment Length} \times \text{Number of Years}}$$

$$\frac{0 \times 1{,}000{,}000}{0 \times 365 \times 0 \times 0}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Segment	**0.00 c/mvm**	**0.0%**	**0.0%**
Statewide Average*	**0.82 c/mvm**	**2.4%**	**40.1%**

ADT = average daily traffic volume
c/mvm = collisions per million vehicle miles
* 2013 Collision Data on California State Highways, Caltrans

Existing Programming (# of Attendees)							
	Sunday	**Monday**	**Tuesday**	**Wednesday**	**Thursday**	**Friday**	**Saturday**
8:00 AM	Service/ Sunday School (450)		Sister Group (30) Elder Fellowship (12)	Restaurant Fellowship (30)			
9:00 AM							
10:00 AM							
11:00 AM							
12:00 PM							
1:00 PM							
2:00 PM							
3:00 PM							
4:00 PM							
5:00 PM							
6:00 PM							Youth Groups (75)
7:00 PM							
8:00 PM				Roots Fellowship (25)	Transparent Fellowship (40)	Salt-Light Fellowship (45)	
9:00 PM							
10:00 PM							

Proposed Programming (# of Attendees)							
	Sunday	**Monday**	**Tuesday**	**Wednesday**	**Thursday**	**Friday**	**Saturday**
8:00 AM	Service/ Sunday School (550)		Sister Group (40) Elder Fellowship (20)	Restaurant Fellowship (50)			
9:00 AM							
10:00 AM							
11:00 AM							
12:00 PM							
1:00 PM							
2:00 PM							
3:00 PM							
4:00 PM							
5:00 PM							
6:00 PM							Youth Groups (100)
7:00 PM							
8:00 PM				Roots Fellowship (40)	Transparent Fellowship (60)	Salt-Light Fellowship (60)	
9:00 PM							
10:00 PM							