Appendix A

ENVIRONMENTAL CONSULTANTS

Mr. Rob Hart
c/o HartMarin
75 Rowland Way, Suite 140
Novato, CA 94945

March 16, 2009

Dear Mr. Hart,

On October 24, 2008, a biological reconnaissance site visit was conducted at 300 Locust Street and the two adjacent parcels to the northwest (Study Area; APN numbers: 064-087-06, -07, -08) in Sausalito, Marin County, California. The site visit was a preliminary assessment of potential biotic resource constraints related to proposed development of a warehouse and parking area in the eastern half of the Study Area and public access park to the northwest.

Locust Street runs along the southeast side of the Study Area while Bridgeway Boulevard is situated to the southwest. The Sausalito Police Station is situated to the north of the Study Area. A small arm of Richardson Bay is adjacent to the northwestern portion of the Study Area.

The Study Area is currently undeveloped; the southeastern portion is used as a CalTrans equipment and construction materials storage yard while the northwestern portion consists of unused city land. A chain-link fence separates the southeastern parcel from the two city-owned parcels located to the northwest. Large equipment and machinery and piles of dirt, gravel, asphalt, and old concrete are scattered about the southeastern portion. The Study Area topsoils are comprised of fill; no native soils were observed. The majority of the southeastern parcel is denuded of all vegetation except for weedy species situated along the margins of the parcel. These species included fennel (*Foeniculum vulgare*), yellow star thistle (*Centaurea solstitialis*), brome grasses (*Bromus spp.*), morning glory (*Ipomoea purpurea*), and wild oats (*Avena sp*.).

The two city-owned parcels in the northwest of the Study Area were dominated by non-native fennel bushes. Non-native annual grasses dominated the understory. A linear depression is situated along the western edge of the two city-owned parcels and may constitute a wetland per the U.S. Army Corps' three-parameter definition. This feature is dominated by salt-grass (*Distichlis spicata*) and is likely a remnant low-spot from when the area was historically filled. It did not appear to have a direct hydrological connection with Richardson Bay.

Given the level of disturbance and invasive plants observed on-site, the Study Area does not contain suitable habitat to support special status plant species known from the vicinity of the Study Area. Migratory bird species may be able to nest in the tall weedy vegetation along the border of Locust Street or in the vacant city parcels in the northwestern half of the Study Area. Removal of this vegetation prior to the onset of the breeding season (e.g. before the end of January) would preclude the need for breeding bird surveys; however if these areas remain vegetated and any proposed construction is to occur during the breeding season then a breeding bird survey may be necessary to ensure no impacts to breeding birds or their young occur as a result of the proposed project. Otherwise there is no suitable habitat for other wildlife species of concern within the Study Area.

2169-G East Francisco Blvd., San Rafael, CA 94901 (415) 454-8868 tel (415) 454-0129 fax info@wra-ca.com www.wra-ca.com

Due to the presence of wetland indicators in the two city owned parcels, a wetland assessment is recommended to map the location and extent of potential wetlands. The proposed project will be designed to avoid these features so no permits from the Army Corps or Regional Water Quality Control Board should be needed.

To summarize, if project activities (grading, drilling, construction, etc.) are to occur during the breeding bird nesting season (February through August) then pre-construction breeding bird surveys should be conducted prior to ground disturbance. Removing the existing invasive plants in the Study Area prior to the end of January would prevent the need for these surveys. A wetland assessment is recommended to ensure the proposed public pathway avoids any wetland habitats on-site. No other sensitive biotic issues were observed in the Study Area and no additional surveys are recommended.

If you have any questions or comments related to this letter please do not hesitate to contact me.

Sincerely,

Geoff Smick
Associate Plant Ecologist

Appendix B

Wetland Assessment

300 Locust St.
Sausalito
Marin County, CA

N
W E
S

0 25 50 100
Feet

wra
ENVIRONMENTAL CONSULTANTS

Date: May 2009
Photo: Marin County 2004
Map By: Michael Rochelle
Filepath: I:\Acad2000\18000\18137\gis\Arcmap\WetlandAssessment.mxd

Appendix C

Purcell, Rhoades & Associates

Consultants in the Applied Earth Sciences

1041 Hook Avenue
Pleasant Hill, CA 94523

Tel (925) 932-1177
Fax(925) 932-2795

No. 08-243/7403-01
August 27, 2008

Mr. Rob Hart
c/o HartMarin
75 Rowland Way, Ste. 140
Novato, CA 94945

Subject: **PRELIMINARY GEOTECHNICAL FINDINGS**
The Mallya Auto Collection and Maritime Memorabilia Display
300 Locust Street
Sausalito, California

Dear Mr. Hart:

As requested, we are pleased to submit this Preliminary Geotechnical Findings for the purpose of discussion with your design team in order to develop options in design and construction for the proposed development at the above subject site in Sausalito, California. This report describes geotechnical issues as determined from a review of City files for adjoining sites, a review of published geotechnical studies, the logging of three exploratory borings, preliminary laboratory review, and preliminary engineering analysis. This report also provides geotechnical data regarding on-site soil conditions in the area of the proposed structure, and preliminary recommendations for foundation type and design.

Introduction

It is our understanding that it is proposed to develop this approximately 1/2-acre rectangular marina site with a private auto collection and maritime memorabilia display. The structure is currently designed with a tilted roof, a second-story loft and deck that overlooks Richardson Bay. The site is currently being used as an equipment yard by P. G. & E. during their work on the adjoining Bridgehead Way. The topography of the site is essentially flat, except for a stockpile of fill placed adjacent to the eastern property line.

Local Geology

The site was a former marsh area that borders Richardson Bay that was covered with man-made fill in the early 1960's, that extend the former shoreline towards Richardson Bay to its present configuration shown on Figure 1, Site Location Map, and Figure 2, Site Plan and Boring Locations, and Figure 2, Site Aerial Photo. Published geologic studies by Rice, et al (1976), and Blake Jr., et al (2000) map the site area as recent fill over marine and marsh deposits (see Figure 4, Area Geologic Map). The site topographically also lies below a colluvium filled area, which would indicate the possible intermingling of colluvium and the underlying marine and marsh deposits, which typically consists of an organic-rich, soft, highly compressible silty clay commonly known as Bay Mud.

In a review of City files, a Geotechnical Study prepared by Miller Pacific Engineering Group was prepared for the immediately adjacent police sub-station north of the subject site, dated January 4, 1995. This site lies between Richardson Bay and the subject site, with two exploratory borings drilled for the proposed temporary pre-fabricated structure. The site plan and logs of borings for this study are presented in Appendix A. The borings disclosed varying fill thickness across the site, with 21 feet of fill logged in Boring 1 at the eastern end of the site, and 32 feet in Boring 2 at the western end of site. Boring B-1 was terminated at a depth of 68 feet and Boring B-2 at 71-1/2-feet into the Old Bay Mud. Boring 1 is approximately 50 feet north of the northern property limit of the subject site. The fill logged in those borings consisted primarily of clay with varying quantities of silt, sand, gravel, organics, and shells. Rock and timber were observed scattered throughout the fill.

The logs show that the fill is underlain by compressible Bay Mud. The Geotechnical Study reports that the Bay Mud was classified as a high plasticity clay, and based upon their observations of the auger cuttings and samples obtained, the Bay Mud is interlayered with thin deposits of gravel. Underlying the soft, compressible Young Bay Mud, is a slightly more consolidated Old Bay Mud at a depth of 64 feet in Boring B-1, and 68 feet in Boring B-2. The borings indicated that the thickness of the Young Bay Mud varied from 42 feet in Boring 1 to 35 feet in Boring 2.

Subsurface Conditions

Field exploration of the site, conducted on August 13, 2008, consisted of drilling three exploratory borings up to a maximum depth of about 34-1/2 feet below existing grade. Please see Figure 2, Site Survey and Test Boring Locations for the locations of the exploratory test borings. The borings were drilled with a truck-mounted, B-24 Mobile drill rig. A permit was obtained from Marin County for these borings. The borings were drilled on the essentially flat portions of the site. There is a fill stockpile located along the eastern limits of the site that will need to be removed prior to site development.

Relatively undisturbed soil samples for laboratory testing were recovered in a 2.5-inch outside diameter (OD) California sampler or a 2-inch OD split spoon sampler driven by a 140-pound hammer free-falling 30 inches. The number of blows applied to advance the sampler was recorded for each 6 inches of penetration and then converted to Standard Penetration Test values and recorded on the Exploratory Boring Logs (Figures 5 through 7).

The exploratory borings indicate variable subsurface conditions within the short length of the site. A soft, blue-gray, silty clay Bay Mud deposit was observed at variable depths beneath the site. Bay Mud was encountered at a depth of approximately 23 feet in Boring 1, 16 feet in Boring 2, and 13 feet in Boring 3. Overlying the Bay Mud layer is a soft to firm transition zone complicated by the mixture of colluvial deposition, fill placement, and probable intrusion of soft Bay Mud into the overlying deposits, as a result of shearing beneath the overburden load from the placement of fill. A fill composed of a mix of primarily silty clay and silty gravel, with some sand, and siltstone fragments was placed over the colluvium and Bay Mud. Penetration resistance tests indicate that approximately

the upper 6 feet is very stiff to hard in cohesive units and dense in non-cohesive materials. Immediately underlying this densified zone, is the soft to firm transition zone overlying the Bay Mud.

Groundwater

Free water was encountered in Boring 1 at 11 feet below existing grade and 7 feet below existing grade in Borings 2 and 3 at the time of drilling. The observed groundwater levels are higher than the corresponding tide elevation. Groundwater levels should be expected to fluctuate primarily in response to seasonal conditions and the actions of man.

Geotechnical Issues

The primary geotechnical issues associated with this proposed project are ground motions and ground failure due to near-source seismic events, and settlement including differential settlement of soft sediments within the transition zone and the underlying Bay Mud. The proposed site development concept is of paramount importance in assessing the extent of potential settlement that may occur at this site. Site planning should be directed to minimizing the amount of fill placed at this site and to provide a uniformly loaded building area in order to reduce the potential impacts of differential settlement.

Where the potential of excessive settlement is present, a settlement tolerant building may be designed that is structure supported on a rigid mat with flexible utility couplings to accommodate total or differential settlement which can be mud-jacked back to level when the building is out of settlement tolerance. Where settlement cannot be tolerated, a pile foundation is required.

Seismic Hazards

The site should be expected to experience severe ground shaking from future near-source seismic events. The site is not within a State designated seismic zone for potentially active faults, but the following faults are located in the site vicinity:

Fault	Maximum Moment Magnitude	Distance, miles	PGA*
San Andreas	7.4	6.5	0.48
San Gregorio	7.0	8.8	0.32
Hayward	6.4	11.1	0.20
Rodgers Creek	7.0	17.1	0.20
Point Reyes	7.0	19.8	0.18
Calaveras	6.8	24.7	0.13
West Napa	6.5	24.8	
Concord-Green Valley	6.2	25.5	
Greenville	6.6	30.6	
Monte Vista	6.7	31.9	

*PGA is peak ground acceleration as a fraction of gravity, determined from the Shake2000 program using the attenuation method of Boore, Joyner, and Fumal (1997)

The specific hazards associated with active faults can be confined to ground shaking and ground failure due to earthquakes. Since there is no mapped active fault recognized by the California Geological Survey as crossing the site, the hazard for surface rupture through the subject site is unlikely from known active faults of the region. The subject site lies within the San Francisco Bay Area, a region of high seismic activity. The probability is very high for a major earthquake to occur in the Bay Area within the economic lifetime of the proposed structures.

The site is underlain by soft Bay Mud, which would tend to amplify ground motions, and as a consequence of severe ground shaking subject to the potential for ground failure in the form of lurching, lateral spreading, or ground cracking. The 1995 Miller Pacific Engineering Group study for the northern adjacent site indicated a nil liquefaction potential. Various published regional studies regarding the liquefaction potential of the site area indicate the site as having a Moderate, and Very High potential for liquefaction.

Based upon our review of published studies, an example of ground cracking was reported in nearby shoreline area that was attributable to ground deformation from earthquake loading. Therefore, due to the variable depth of soil conditions at this site it is recommended that additional assessment using a Cone Penetrometer Probe be performed at this site that will be evaluate the potential for liquefaction, but can also be utilized to derive more information to analyze potential settlement issues at this site.

Settlement

It is believed the site area was filled in the early 1960's, when the original Bay Mud surface was probably slightly above sea level. It is highly likely that as the fill was being placed, "mud waves" were created which displaced the soft Bay Mud. A mud wave results as slope failure that occurs at the edge of an advancing fill over the Bay Mud. This mud wave action resulted in deep fills intermixed with the Bay Mud as the heavier fill displaced the soft, light Bay Mud deposits below the existing site.

The consolidation testing of the soft, Bay Mud deposits under overburden load is currently being performed at the laboratories of PRA, with the analysis of future settlement pending. In order provide an understanding of the magnitude of the potential settlement, a review of the study performed by Miller Pacific Engineering Group for the adjoining site is provided below for your review.

Miller Pacific Engineering Group

Based upon the consolidation test results for the adjoining site, the estimated settlements after 20, 30, 40, and 50 years due to various conditions was summarized and provided in Table A (see Appendix A, this report). Because the site was filled 30 to 35 years ago at the time of the study (1995), it was felt the majority (75 percent) of expected settlement had

occurred. Further, they believed that even with 75 percent of the anticipated settlement having occurred, it was their estimation that future total settlement for fills placed in the 1960's would be an additional 1.5 feet in 50 years. It was projected by Miller Pacific that the additional settlement after 50 years due to loads imposed by the proposed modular building would be less than 0.1 feet. It was further projected that about 0.1 feet of total settlement would occur after 50 years for each 1 foot of new fill placed. It was expected that since the new fill thickness would vary over the building pad, the 50-year differential settlements will also be about 0.1 foot for each 1 foot of new fill placed.

Discussion

The foregoing provides an idea of the concern over ground movement and settlement that could occur beneath imposed loads at this site as a result of consolidation of the soft, compressible transition zone and variable depth of Bay Mud beneath this site. It is for these reasons that it is proposed to support the proposed structure upon a reinforced mat slab with the intent to "float" the structure within the shallow dense fill cover over this site. It is imperative that site development schemes recognize the impact of non-uniformly loaded areas, whether a result of building or additional fill loads. As can be seen from the findings from the Miller Pacific report, each additional foot of fill results on the order of 0.1 feet of additional settlement. The Miller Pacific report encountered soft Bay Mud at 21 feet below grade in Boring 1, and 32 feet below grade in Boring B-2. The site under study is more critical with soft materials found at 6 feet in Boring 1, 9 feet in Boring 2, and 6 feet in Boring 3.

Conceptual Foundation Recommendations

Since the actual building concept, grading and structural loading have not yet been defined, it is difficult to provide specific geotechnical parameters for foundation design. The following is provided with the understanding that additional information as provided to this office regarding anticipated load and load distributions for our analysis will result in revised geotechnical parameters for foundation design.

Foundations

We understand that the proposed development will consist of a two-story structure. Structural loads are expected to be light to moderate at approximately 650 pounds per square foot (psf). Based upon the results of our study, as requested, we provide recommendations for a mat-type foundation system. Geotechnical design criteria should be implemented at the discretion of the Structural Engineer based upon his review and designed in conformance with current industry standards and the geotechnical recommendations of this report. If a foundation system other than that recommended is desired, this office should be called for supplemental recommendations. Such recommendations would be presented as an addendum to this report. The following foundation recommendations are based on the anticipated soil conditions underlying the project site. If unanticipated soil conditions are encountered at the time of grading, the design criteria may be altered at the discretion of the Geotechnical Engineer. Recommendations for a helical pier foundation system are presented below.

Structural Mat Slab Option

For a structural mat slab foundation, the foundations must be designed for a differential deflection of no more than 1/2-inch between the center and exterior portions of the floor slab and/or in any direction for a maximum spacing of 20 feet. Stiffener beams may be required at the discretion of the Structural Engineer to provide the necessary extra strength and rigidity for the proposed foundation system, if the 18-inch thick slab is reduced in thickness. The structural engineer may modify this requirement provided the same stiffness and strength can be achieved through the addition of more steel or slab thickness.

The excavations for foundations must be cleaned or all loose materials and debris and moistened prior to the placement of concrete. All foundation excavations must be observed by our representative to verify the condition of the bearing material. If any localized areas of loose or soft undesirable subsoil are observed in the foundation excavations, the excavation must be sub-excavated to firm soil and/or backfilled with compacted fill under the observation and testing of our representative.

FOUNDATION DESIGN CRITERIA

Item	Criteria
Allowable Bearing Capacity*	700 pounds per square foot (psf)
Coefficient of Sliding Friction	0.35
Passive Pressure	350 pounds per cubic foot-equivalent fluid weight (pcf-efw), initiating at a depth of 12 inches below lowest adjacent grade.
Slab Thickness	18-inches; Actual thickness to be determined by the Structural Engineer.
Cantilever Edge Distance	5 feet
Interior Unsupported Clear Span Distance	15 feet
Stiffener Beam (if needed)	
Depth	Minimum 12 inches
Width	Minimum 12 inches

*Allowable capacity is for dead plus live load. Bearing value may be increased by one-third for wind or seismic loads.

The structural engineer must design the structural slab based on current industry standards using the stated geotechnical criteria with cantilever design for soil shrinkage forces. The structural slabs are to be designed to resist potential variable forces defined by the unsupported interior span and the exterior cantilever span to maintain planarity for the maximum differential vertical movement set forth in this report.

PRA is not a floor moisture proofing consultant or expert, and a qualified specialist with local knowledge of slab moisture protection systems, flooring design and other potential building components should be consulted to provide recommendations for a capillary break or other system to prevent moisture and moisture vapor transmission through the slab. The specialist should note that pre-soaking of the subgrade soil prior to the placement of slab concrete is recommended. For your consideration, it is recommended that floor slabs be supported on at least 6 inches of crushed rock or angular gravel. If this layer is desired to serve as a capillary break, there should be 100 percent particles passing the 1-inch sieve and less than 5 percent by weight passing the no. 4 sieve size. The capillary break layer should not be considered part of any non-expansive import fill layer below the floor slab. The placement of the capillary break should be done as soon as possible after compaction and moisture conditioning of the subgrade to reduce drying of the subgrade soil. Where exposed to either vehicle (truck or fork lift) traffic or relatively heavy point loads such as those associated with storage racks, we recommend that 6-inches of Class 2 aggregate base rock be used over the compacted subgrade.

Subsurface moisture and moisture vapor naturally migrate upward through the soil and, where the soil is covered by a building or pavement, this subsurface moisture will collect. To reduce the impact of the subsurface moisture and potential impact of future introduced moisture (such as landscape irrigation or precipitation), it is recommended that a vapor retarder be placed over the capillary break layer. This membrane typically consists of visqueen or polyvinyl plastic sheeting at least 10 mil in thickness. This membrane is typically overlain by a 2-inch thick layer of fine to medium grained sand to promote curing of the slab concrete, protect the membrane during construction, and provide a leveling course. It should be noted that the installation of the capillary break and vapor retarder systems may not be completely effective in preventing floor slab moisture problems. These systems typically will not necessarily assure that floor slab moisture transmission rates will not meet floor-covering manufacturer standards and that indoor humidity levels are appropriate to inhibit mold growth. The design and construction of such systems are totally dependent on the proposed use and design of the proposed building and all elements of building design and function should be considered in the slab on grade floor design. Building design and construction have a greater role in perceived moisture problems since sealed buildings/rooms or inadequate ventilation may produce excessive moisture in the building and affect air quality. If a vapor barrier system is designed, a Stego Wrap material should be used placed in strict accordance with the manufacturers specifications.

Special precautions must be taken during the placement and curing of all concrete slabs. Excessive slump (high water-cement ratio) of the concrete and/or improper curing procedures used during either hot or cold weather conditions could lead to excessive shrinkage, cracking or curling of the slabs. High water-cement ratio and/or improper curing also greatly increase the water vapor permeability of concrete. We recommend that all concrete placement and curing operations be performed in accordance with the American Concrete Institute (ACI) manual. We make no guarantee nor provide any assurance that the use of capillary break/vapor retarder systems will reduce concrete slab-on-grade floor moisture penetration to any specific rate or level, particularly those required by floor covering manufacturers. The builder and designers should consider all available measures

for floor slab moisture protection.

We appreciate the opportunity to provide these preliminary findings for your consideration in development of design and construction options for the subject site. Please contact this office with any questions. We look forward to receiving additional information regarding grading and load distribution in order to formalize our Geotechnical Study.

Very truly yours,

PURCELL, RHOADES & ASSOCIATES

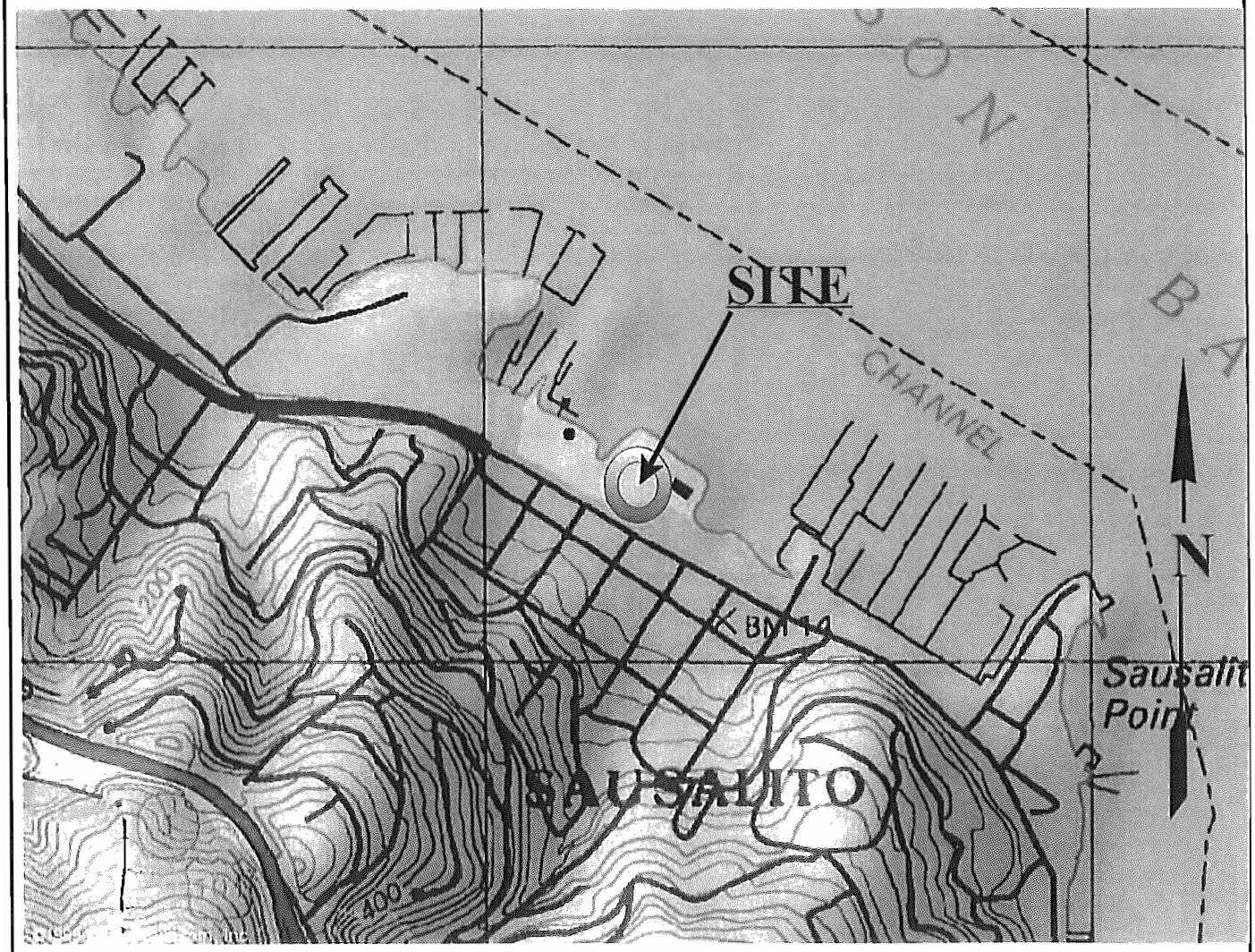
Daniel J. Rhoades, P. E.
Principal
G. E. - 716, exp. 06-30-09

Dean Affeldt, CEG
Principal

Attachments:

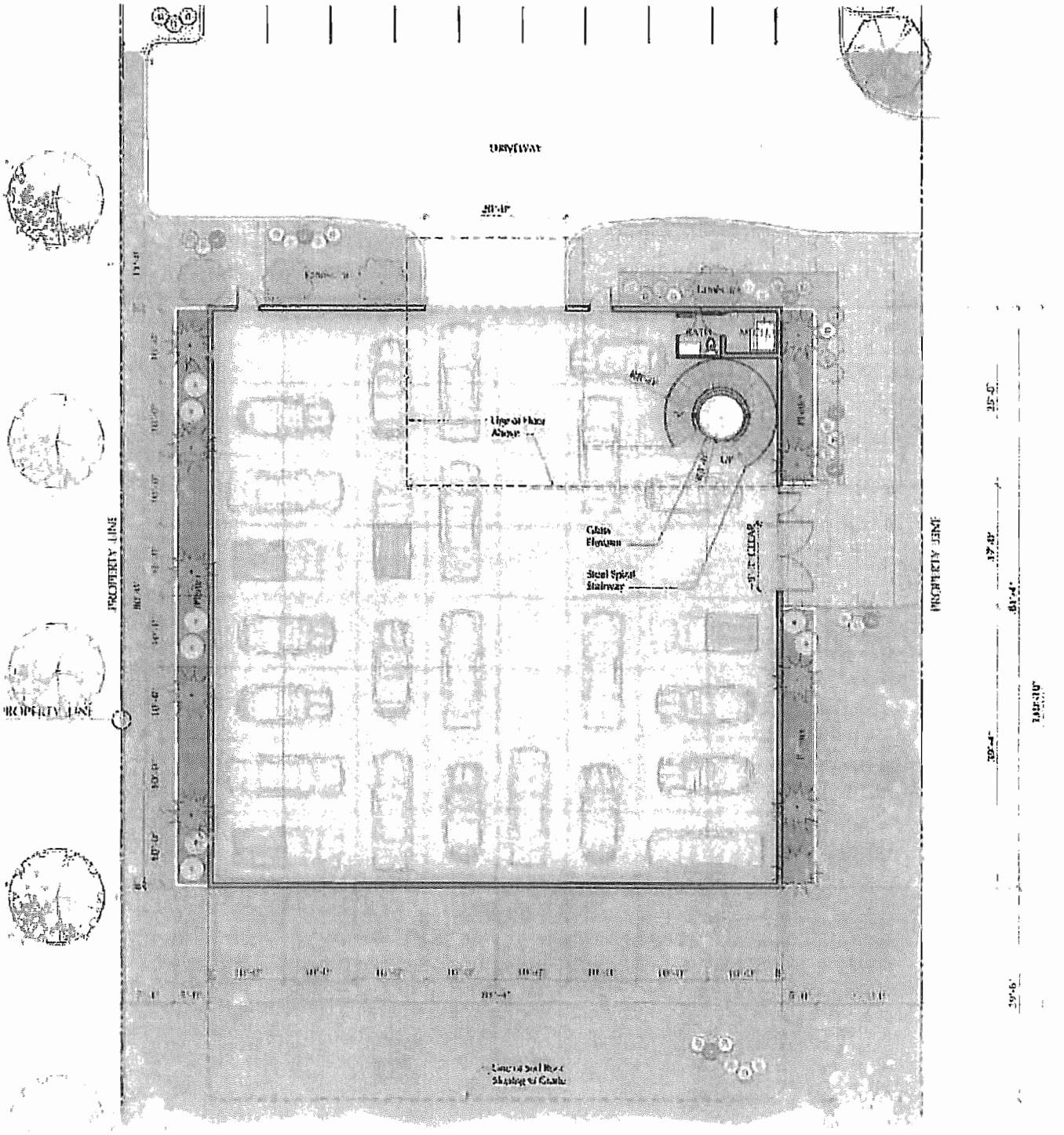
Figure 1	Site Location Map
Figure 2	Site Survey and Boring Location Map
Figure 2A	Site Plan
Figure 3	Site Aerial Photo
Figure 4	Area Geologic Map
Figure 5	Log of Exploratory Boring B-1
Figure 6	Log of Exploratory Boring B-2
Figure 7	Log of Exploratory Boring B-3
Appendix A	Miller Pacific Engineering Group Site Plan, Boring Logs, and Settlement Table

lda/H740301.1



NOT TO SCALE

NOTES SOURCE: TOPOZONE SAN FRANCISCO NORTH QUAD	DATE AUGUST 2008 JOB NO. 7403-01 DWG NO. H740301FIG1 DRAWN IDA CHK'D DJR APP'D DJR	Purcell, Rhoades & Associates Consultants in the Applied Earth Sciences **SITE LOCATION MAP** 300 LOCUST STREET SAUSALITO, CALIFORNIA CLIENT HOULAND, LLC	FIGURE NO 1 REV. NO.

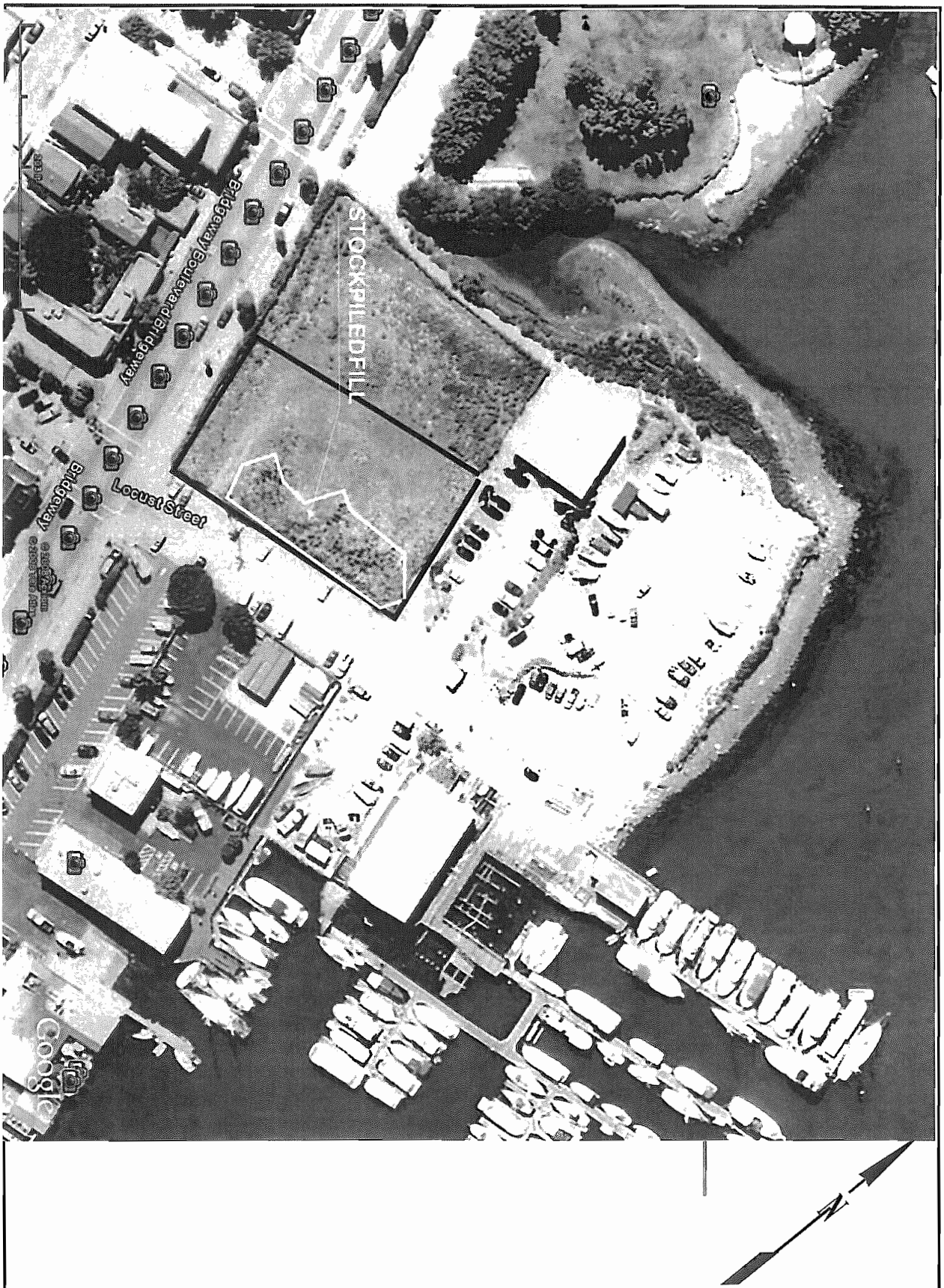


Site Plan

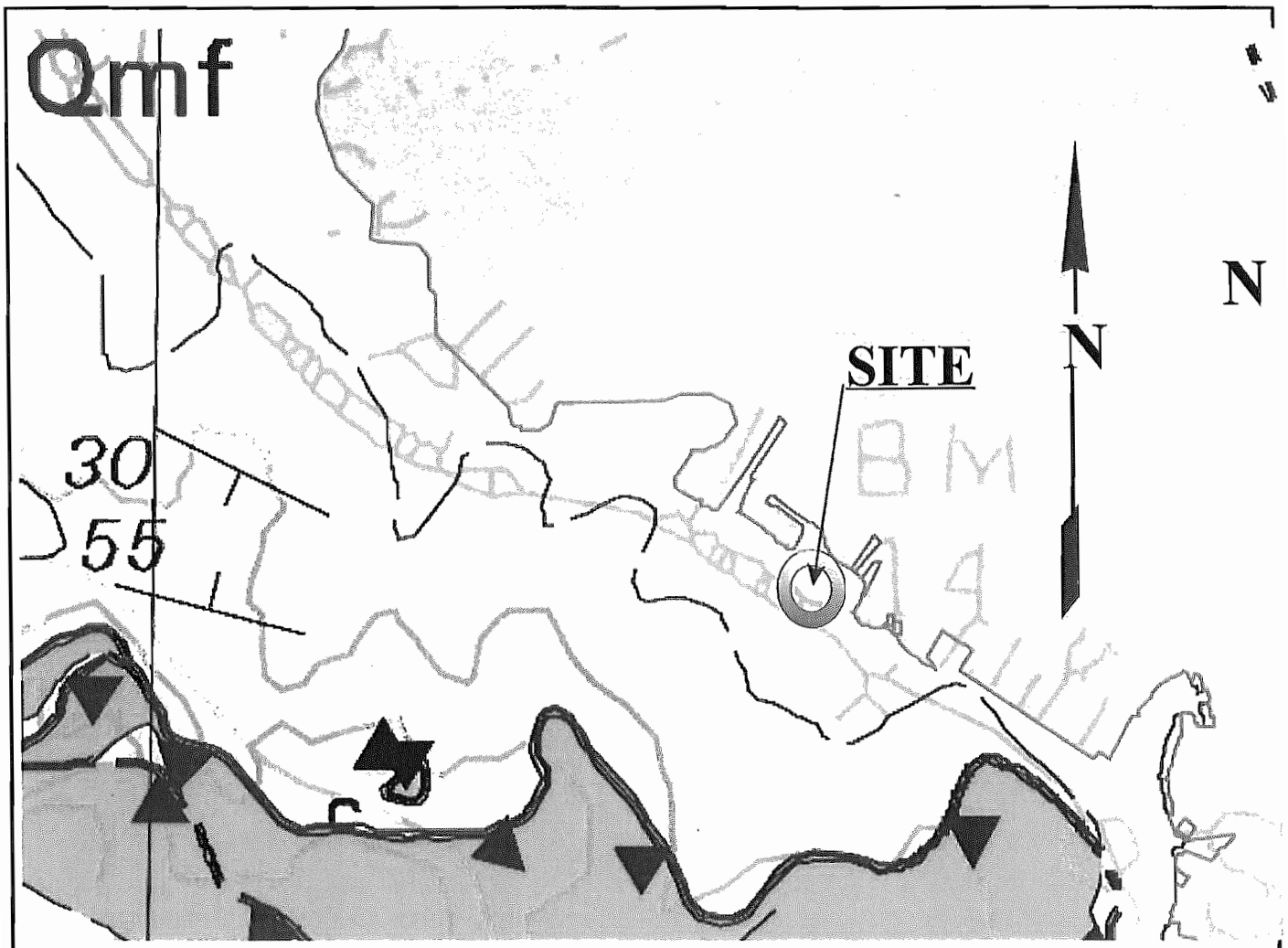
NOT TO SCALE

NOTES SOURCE: Daniel Macdonald AIA Architects	DATE AUGUST 2008 JOB NO. 7403-01 DWG NO. H740301FIG2A DRAWN IDA CHK'D DJR APP'D DJR	Purcell, Rhoades & Associates Consultants in the Applied Earth Sciences **SITE PLAN** 300 LOCUST STREET SAUSALITO, CALIFORNIA CLIENT HOULAND, LLC	FIGURE NO. 2A REV. NO.

DATE	JULY 2008	Purcell, Rhoades & Associates Consultants in the Applied Earth Sciences	FIGURE NO.
JOB NO.	7403-01	**SITE SURVEY AND TEST BORING LOCATIONS** 300 LOCUST STREET SAUSALITO, CALIFORNIA	2
DWG NO.	H74030 1FIG2		
DRAWN	IDA		
CHK'D	DJR		
APP'D	DJR	CLIENT HOULAND, LLC	REV. NO.



DATE	JULY 20086	Purcell, Rhoades & Associates Consultants in the Applied Earth Sciences	FIGURE NO.
JOB NO.	7403-01		
DWG NO.	H740301FIG3	**SITE AERIAL PHOTO** 300 LOCUST STREET SAUSALITO, CALIFORNIA	3
DRAWN	IDA		
CHK'D	DJR		
APP'D	DJR	CLIENT HOULAND, LLC	REV. NO.



KEY

Qmf Recent Fill over marine and marsh deposits

NOT TO SCALE

NOTES SOURCE: BLAKE JR., GRAYMER AND JONES (2000)	DATE JULY 2008 JOB NO. 7403-01 DWG NO. H740301FIG4 DRAWN IDA CHK'D DJR APP'D DJR	Purcell, Rhoades & Associates Consultants in the Applied Earth Sciences **AREA GEOLOGIC MAP** 300 LOCUST STREET SAUSALITO, CALIFORNIA CLIENT HOULAND, LLC	FIGURE NO. 4 REV. NO.

EXPLORATORY BORING LOG

CLIENT: HOULAND, LLC PROJECT NO.: 7403-01	LOGGED BY: JM	DATE DRILLED: 8-13-08	PAGE 1 OF 1
DRILL RIG: B-24 DRILLER: RAM WEIGHT OF HAMMER: 140 POUNDS DROP: 30 inches		BORING ELEV.: E.G. BORING DIAM.: 4 INCHES	BORING NO. **B-1**

FIELD				DESCRIPTION			LABORATORY					
DEPTH (FT.)	SAMPLE	SAMPLE NO.	BLOWS / FT	MATERIAL DESCRIPTION AND REMARKS	CONSISTENCY	USCS LETTER SYMBOL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	pH @ °C	PLASTICITY INDEX (%)	UNCONFINED COMPRESSIVE STRENGHT (PSF)	%PASSSING #200
1				FILL	Dense	GM						
2				SILTY GRAVEL, with sand, light brown with rust colored siltstone fragments, slightly moist, dense								
3		B1-1	21	SILTY CLAY, with gravel and some fine sand, moist blue gray siltstone fragments, hard drilling	Very Stiff	CL						
4												
5												
6		B1-2	17		Very Stiff	CL						
7												
8												
9		B1-3	3	SANDY CLAY, with some gravel and siltstone fragments, moist to wet, organic odor.	Soft	CL						
10												
11	▼			Free Water encountered at 11 feet at time of drilling.								
12												
13												
14		B1-4	5	SANDY CLAY, orange rust color, wet with some gravel and siltstone fragments, moist to wet.								
15												
16												
17												
18												
19												
20				Less sand with depth								
21												
22				CLAYEY SAND, with small pebbles, brown								
23												
24		B1-5	6	Bay Mud SILTY CLAY, with some fine sand, blue gray, moist to wet, slight organic odor	Firm	CH						
25												
26												
27				GRAVEL LENS, olive brown		SP						
28				SILTY CLAY, with some fine sand, blue gray, moist to wet.								
29												
33				Note: Silty Clay continuous from 29 to 33 feet.								
34		B1-6 B1-6A	6	GRAVEL LENS, with sand, blue gray, wet SILTY CLAY, with some fine sand, blue gray, moist to wet.		SP CH						
35		BOH		Boring terminated at 34-1/2 feet.								

Free water encountered at 11 feet.
All blowcounts represent Standard Penetretion Test.
Boring backfilled with cement.

Purcell, Rhoades & Associates
Consultants in the Applied Earth Sciences

EXPLORATORY BORING LOG B-1
300 LOCUST STREET
SAUSALITO, CALIFORNIA

Client: HOULAND, LLC

FIGURE NO.
5

EXPLORATORY BORING LOG

CLIENT: HOULAND, LLC PROJECT NO.: 7403-01	LOGGED BY: JM	DATE DRILLED: 8-13-08	PAGE 1 OF 1
DRILL RIG: B-24 DRILLER: RAM WEIGHT OF HAMMER: 140 POUNDS DROP: 30 inches		BORING ELEV.: E.G. BORING DIAM.: 4 INCHES	BORING NO. **B-2**

FIELD				DESCRIPTION	LABORATORY							
DEPTH (FT.)	SAMPLE	SAMPLE NO.	BLOWS / FT.	MATERIAL DESCRIPTION AND REMARKS	CONSISTENCY	USCS LETTER SYMBOL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	pH @ °C	PLASTICITY INDEX (%)	UNCONFINED COMPRESSIVE STRENGHT (PSF)	%PASSSING #200
1				**FILL**	Dense	GM						
2												
3												
4		B2-1	54	SILTY CLAY, with gravel and siltstone fragments, light brown to orange, slightly moist, hard	Hard	CL						
5												
6												
7		B2-2	7	Mix of siltstone fragments with silty clay, light and orange brown, with brown silty clay and gray gravel, wet. ▼ Free Water encountered at 7 feet at time of drilling.	Firm	CL						
8												
9					Soft	CL						
10		B2-3	3	SILTY CLAY, with fine sand and small gravel, medium dark brown, wet.								
11												
12				Alternate layers of stiff and easy drilling blue gray silty clay cuttings								
13												
14												
15		B2-4	3	SILTY CLAY, with sand with intermittent lenses of clayey sand with small gravel, blue gray, moist. No sample recovery with 2.5 inch barrel, split-spoon recovery.	Soft	CL						
16												
17				**Bay Mud**								
18												
19												
20		B2-5	3	SILTY CLAY, blue gray, soft, wet. No sample recovery with 2.5 inch barrel, split-spoon recovery	Soft	CH						
21				Boring terminated at 20-1/2 feet. Free water encountered at 7 feet. All blowcounts represent Standard Penetration Test. Boring backfilled with cement.								
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
32												

Purcell, Rhoades & Associates
Consultants in the Applied Earth Sciences

EXPLORATORY BORING LOG B-2
300 LOCUST STREET
SAUSALITO, CALIFORNIA

Client: HOULAND, LLC

FIGURE NO.
6

EXPLORATORY BORING LOG

CLIENT: HOULAND, LLC PROJECT NO.: 7403-01	LOGGED BY: JM	DATE DRILLED: 8-13-08	PAGE 1 OF 1
DRILL RIG: B-24 DRILLER: RAM WEIGHT OF HAMMER: 140 POUNDS DROP: 30 inches		BORING ELEV.: E.G. BORING DIAM.. 4 INCHES	BORING NO. **B-3**

FIELD				DESCRIPTION			LABORATORY					
DEPTH (FT.)	SAMPLE	SAMPLE NO.	BLOWS / FT.	MATERIAL DESCRIPTION AND REMARKS	CONSISTENCY	USCS LETTER SYMBOL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	pH @ °C	PLASTICITY INDEX (%)	UNCONFINED COMPRESSIVE STRENGHT (PSF)	%PASSSING #200
1				FILL	Dense	GM						
2				SILTY GRAVEL, with sand, medium brown, slightly moist.								
3		B3-1	34	SILTY GRAVEL, with sand, medium brown, asphalt debris, siltstone fragments, dense, moist.	Dense	GM						
4												
5												
6				Easier drilling at 6 feet.								
7				▼ Free Water encountered at 7 feet at time of drilling.								
8		B3-2	10	SILTY GRAVEL, with sand, blue gray, wet.	Loose	GM						
9												
10												
11												
12												
13				**Bay Mud**								
14												
15	BOH	B3-3	3	SILTY CLAY, with glass, charred wood, dark brown to black, wet, slight organic odor	Soft	CH						
16				Boring terminated at 15 feet. Free water encountered at 7 feet. All blowcounts rapresent Standard Penetration Test. Boring backfilled with cement.								
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
32												

Purcell, Rhoades & Associates
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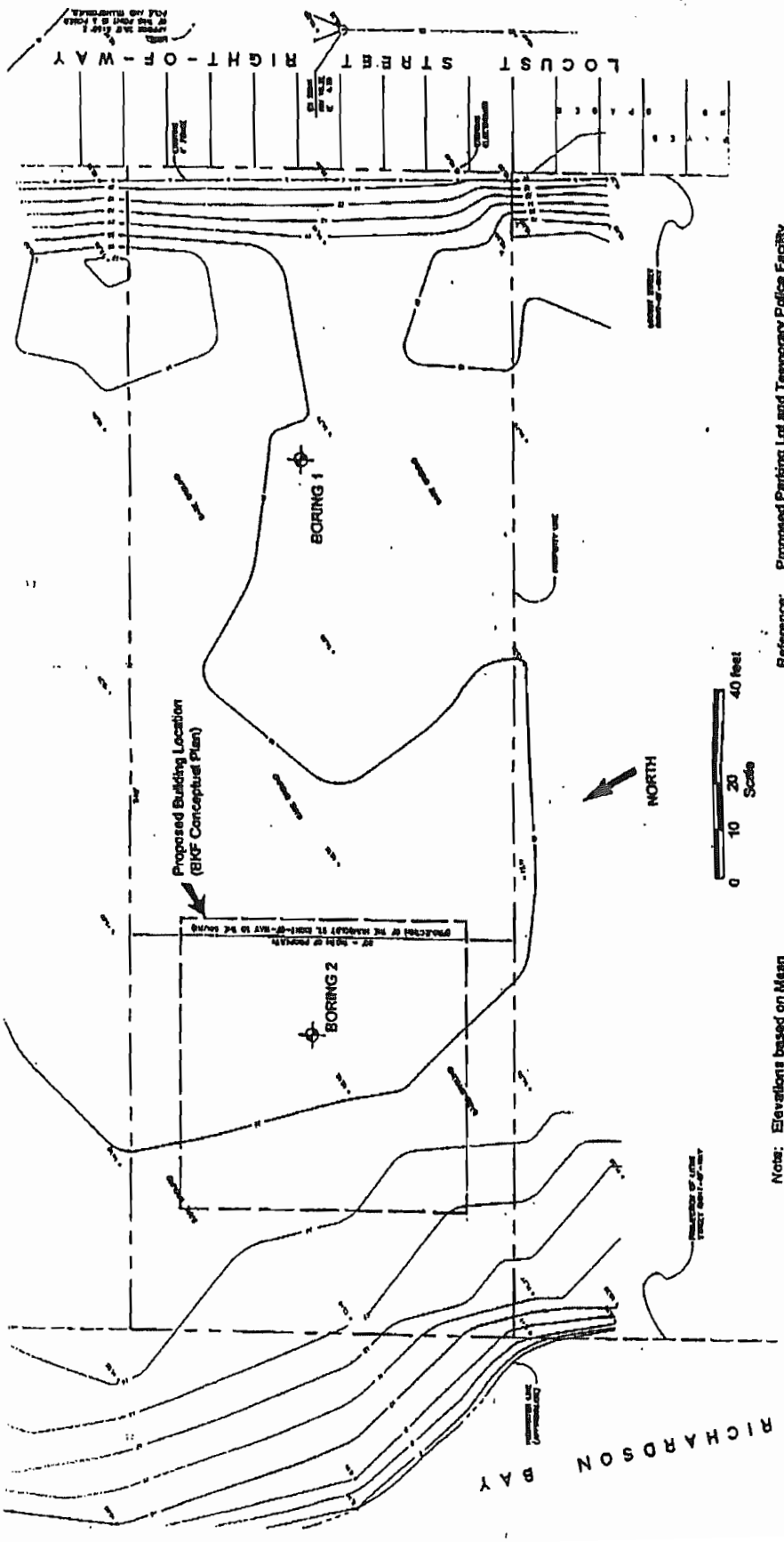
EXPLORATORY BORING LOG B-3
300 LOCUST STREET
SAUSALITO, CALIFORNIA

Client: HOULAND, LLC

FIGURE NO.
7



Reference: Proposed Parking Lot and Temporary Police Facility, Sheet 2, 12/28/94, by Elfan Kangas Foulk

Note: Elevations based on Mean Lower Low Water (MLLW) Datum. NGVD = +2.97 feet, MLLW

MILLER PACIFIC ENGINEERING GROUP

SITE TOPOGRAPHY PLAN
HUMBOLDT STREET PARKING LOT
SAUSALITO, CALIFORNIA

Project No. 350.01 Date 12/30/94 Approved by GMC

Figure 2

TABLE A
ESTIMATED SETTLEMENTS

Time (years beyond 1995)	Future Site Settlement (Existing Conditions) Center (feet)	Future Site Settlement (Existing Conditions) Edges (feet)	Additional Settlements with Improvements Building (feet)	Additional Settlements with Improvements NW Corner 2 ft New Fill (feet)	Additional Settlements with Improvements Paving (feet)
20	0.8	0.7	0.1	0.1	0.1
30	1.0	0.8	0.1	<0.2	0.1
40	1.1	0.9	0.1	0.2	0.1
50	1.2	1.0	0.1	0.2	0.1

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS		SYMBOLS	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS over 50% sand and gravel	CLEAN GRAVEL	GW	WELL GRADED GRAVELS, GRAVEL–SAND MIXTURE
		GP	POORLY GRADED GRAVELS, GRAVEL–SAND MIXTURE
	GRAVEL with fines	GM	SILTY GRAVEL, GRAVEL–SAND–SILT MIXTURE
		GC	CLAYEY GRAVEL, GRAVEL–SAND–CLAY MIXTURE
	CLEAN SAND	SW	WELL GRADED SAND; GRAVELLY SAND
		SP	POORLY GRADED SAND, GRAVELLY SAND
	SAND with fines	SM	SILTY SAND, POORLY GRADED SAND–SILT MIXTURE
		SC	CLAYEY SAND, POORLY GRADED SAND–CLAY MIXTURE
FINE GRAINED SOILS over 50% silt and clay	SILT AND CLAY, liquid limit < 50%	ML	INORGANIC SILT, W\SLIGHT PLASTICITY
		CL	INORGANIC CLAY, W\LOW PLASTICITY, LEAN CLAY
		OL	ORGANIC SILT, ORGANIC CLAY W\LOW PLASTICITY
	SILT AND CLAY, liquid limit > 50%	MH	INORGANIC SILT, ELASTIC SILT
		CH	INORGANIC CLAY W\HIGH PLASTICITY, FAT CLAY
		OH	ORGANIC CLAY, ORGANIC SILT W\ HI PLASTICITY
HIGHLY ORGANIC SOIL		PT	PEAT AND OTHER HIGHLY ORGANIC SOIL MIXTURES

KEY TO BORING AND TEST PIT SYMBOLS

AL	ATTERBERG LIMITS TEST
SA	SIEVE ANALYSIS
HYD	HYDROMETER ANALYSIS
P200	PERCENT PASSING #200 SIEVE
P4	PERCENT PASSING #4 SIEVE
STRENGTH TESTS:	
TV	FIELD TORVANE (UNDRAINED SHEAR)
UC	LABORATORY UNCONFINED COMPRESSION
CU	CONSOLIDATED UNDRAINED
UU	UNCONSOLIDATED UNDRAINED
	UC,CU,UU = 1/2 Deviator Stress

SAMPLER TYPE

▮	UNDISTURBED CORE SAMPLE: MODIFIED CALIFORNIA
▒	STANDARD PENETRATION TEST SAMPLER
X	DISTURBED OR BULK SAMPLE
⠿	ROCK CORE SAMPLE

NOTE: Test boring and test pit logs are an interpretation of conditions encountered at the locations and time of exploration. Subsurface rock, soil and water conditions may differ in other locations and with the passage of time. Lines defining the interface between differing soil or rock description are approximate and may indicate gradual transition.

MILLER PACIFIC ENGINEERING GROUP

SOIL CLASSIFICATION CHART
Humboldt Street Parking Lot
Sausalito, California

JOB NO: 350.01 APPROVED BY: GMC

A-1
FIGURE

BORING 1

EQUIPMENT: 8-in. Hollow Stem/Rotary
DATE: December 19 and 20, 1994
ELEVATION: Approx. +12-ft., NGVD

UNDRAINED SHEAR STRENGTH psf	BLOWS PER FOOT	MOIST. CONT. %	DRY DENSITY pcf	DEPTH feet	
				0	SILTY CLAY (CL) (FILL)
	38	10.1	98		mottled orangish-brown and brown,
		10.7	107		medium stiff, with large, loose
					rocks, organics, shells
	22	17.2	110		dark brown, gravel to 1/2-in.,
					stiff, with some organics, shells
		9.1	113		yellowish-red, more gravel and
	62			5	large rocks, wet to very wet
		13.8	120		
					6-inch gravel layer
		9.4	120		
	33				freewater on samples
					drilling eases
					no sample recovered
	12			10	
					drilling soft
	7				dark brown, soft, gravelly, wet,
		16.0	117		portions of large rocks in sampler
		17.5	113	15	
	6				large pieces of rotted timber
	12				no sample recovered
					drilling stiffens
				20	
	12	30.7	90		CLAY (CH) (BAY MUD)
					greenish-gray, stiff, wet, with
					shells
					switch to rotary wash drilling

FILE: 350-01.B1s

MILLER PACIFIC ENGINEERING GROUP

BORING LOG
Humboldt Street Parking Lot
Sausalito, California

A-2

JOB NO: 350.01

APPROVED BY: GAC

FIGURE

UNDRAINED SHEAR STRENGTH psf	BLOWS PER FOOT	MOIST. CONT. %	DRY DENSITY pcf	DEPTH feet	BORING 1 EQUIPMENT: 8-in. Hollow Stem/Rotary DATE: December 19 and 20, 1994 ELEVATION: Approx. +12-ft., NGVD
				23-	CLAY (CH) (BAY MUD)
				25-	no sample recovered (PISTON SAMPLE), gravels in bay mud
		55.8	67		greenish-gray, stiff, very wet, shells
	5				
500		45.2	74		LL=55, PI=27
				30-	added Matex coagulant to stiffen drilling fluid
		20.0	108		greenish-gray, wet, gravels to 1/4-in. (PISTON SAMPLE)
				35-	rocky material (possible floater), drilling slows to 1-ft./min. under 300 psi drilling eases
	10				light gray, less gravels, moist, stiff
660		57.6	65		
				40-	
					resumed drilling 12/20/94 gravelly bay mud cuttings
				45-	

FILE: 350-01.B1b

MILLER PACIFIC ENGINEERING GROUP

BORING LOG
Humboldt Street Parking Lot
Sausalito, California

A-3

JOB NO: 350.01

APPROVED BY: [signature]

FIGURE

UNDRAINED SHEAR STRENGTH psf	BLOWS PER FOOT	MOIST. CONT. %	DRY DENSITY pcf	DEPTH feet
				46–
				–
				–
	13			–
				50–
				–
				–
				–
				–
				55–
				–
				–
				–
				–
				60–
				–
				–
				–
				–
				65–
				–
				–
				–
				–

BORING 1

EQUIPMENT: 8–in. Hollow Stem/Rotary
DATE: December 19 and 20, 1994
ELEVATION: Approx. +12–ft., NGVD

CLAY (CH) (BAY MUD)

no sample recovered

drilling very soft gravelly bay mud

no sample recovered (PISTON SAMPLE)

no down pressure being applied to drilling, gravelly bay mud

hole caving, more Matex added to drilling fluid

CLAY (CH) (OLDER BAY MUD)
dark brown gravels in cuttings, stiff drilling

hole caved prior to sampling

Bottom of Hole at 68 feet
Water Observed at 4.5 feet While Drilling

FILE: 350-01.B1c

MILLER PACIFIC ENGINEERING GROUP

BORING LOG
Humboldt Street Parking Lot
Sausalito, California

A–4

JOB NO: 350.01

APPROVED BY:

FIGURE

UNDRAINED SHEAR STRENGTH psf	BLOWS PER FOOT	MOIST. CONT. %	DRY DENSITY pcf	DEPTH feet	BORING 2
					EQUIPMENT: 8-in. Hollow Stem DATE: December 20, 1994 ELEVATION: Approx. +12-ft., NGVD
		17.4	107	0	SILTY CLAY (CL) (FILL) mottled brownish-yellow and yellowish-red, moist, stiff, with rocks, organics, timber
	22				
		18.7	100		
	37				piece of asphalt in sample, highly organic soil, with organic odor
		11.8	124		firm drilling
				5	
					grayish brown cuttings, water in hole
					drilling eases slightly
				10	
					drilling very hard orangish-brown rock cuttings
				15	
		13.3	117		brown, some olive-green mottling, some fine sand, moist to wet, stiff, with portions of large rocks in sampler
	7				
				20	

FILE: 350-01.B2a

MILLER PACIFIC ENGINEERING GROUP

BORING LOG
Humboldt Street Parking Lot
Sausalito, California

A-5

JOB NO: 350.01

APPROVED BY:

FIGURE

UNDRAINED SHEAR STRENGTH psf	BLOWS PER FOOT	MOIST. CONT. %	DRY DENSITY pcf	DEPTH feet	BORING 2
					EQUIPMENT: 8-in. Hollow Stem DATE: December 20, 1994 ELEVATION: Approx. +12-ft., NGVD
				23	SILTY CLAY (CL) (FILL)
				25	drilling firms
					brown cuttings, wet
				30	drilling softens
					CLAY (CH) (BAY MUD) greenish-gray, wet, medium stiff drilling firms
90	10	44.4	76	35	
					drilling softens
				40	
				45	

FILE: 350-01.B2b

MILLER PACIFIC ENGINEERING GROUP

BORING LOG
Humboldt Street Parking Lot
Sausalito, California

A-6

JOB NO: 350.01

APPROVED BY:

FIGURE

UNDRAINED SHEAR STRENGTH psf	BLOWS PER FOOT	MOIST. CONT. %	DRY DENSITY pcf	DEPTH feet	BORING 2
					EQUIPMENT: 8-in. Hollow Stem DATE: December 20, 1994 ELEVATION: Approx. +12-ft., NGVD
				46–	CLAY (CH) (BAY MUD)
				50–	drilling firms and softens repeatedly to 60 feet gravelly bay mud
				55–	
				60–	drilling softens gray, gravelly bay mud
				65–	
					CLAY (CH) (OLDER BAY MUD) bluish cuttings, drilling stiffens

FILE: 350-01.B2e

MILLER PACIFIC ENGINEERING GROUP

BORING LOG
Humboldt Street Parking Lot
Sausalito, California

A-7

JOB NO: 350.01

APPROVED BY:

FIGURE

UNDRAINED SHEAR STRENGTH psf	BLOWS PER FOOT	MOIST. CONT. %	DRY DENSITY pcf	DEPTH feet
				69–
				70–
	23	34.4		–
				–
				–
				–
				75–
				–
				–
				–
				–
				80–
				–
				–
				–
				–
				85–
				–
				–
				–
				–
				90–
				–
				–

BORING 2

EQUIPMENT: 8-in. Hollow Stem
DATE: December 20, 1994
ELEVATION: Approx. +12-ft., NGVD

CLAY (CH) (OLDER BAY MUD)
bluish-gray, stiff, moist

Bottom of Hole at 71.5 feet

Water Observed at 7.0 feet While Drilling

FILE: 350-01.B2d

MILLER PACIFIC ENGINEERING GROUP

BORING LOG
Humboldt Street Parking Lot
Sausalito, California

A-8

JOB NO: 350.01

APPROVED BY:

FIGURE

Purcell, Rhoades & Associates
Consultants in the Applied Earth Sciences

1041 Hook Avenue
Pleasant Hill, CA 94523

Tel (925) 932-1177
Fax(925) 932-2795

No. 08-243/7403-01
October 16, 2008

Mr. Rob Hart
c/o HartMarin
75 Rowland Way, Ste. 140
Novato, CA 94945

Subject: **SUMMARY OF LABORATORY TEST RESULTS**
The Mallya Auto Collection and Maritime Memorabilia Display
300 Locust Street
Sausalito, California

Reference: PRA, August 27, 2008, Preliminary Geotechnical Findings....

Dear Mr. Hart:

As requested, we provide the results of the laboratory test results from the samples obtained during the exploratory drilling at the above subject site on August 13, 2008. The laboratory testing performed by this office included determination of dry density and moisture content, unconfined compressive strength, and two consolidation tests of Bay Mud soils from different depths. The results of the laboratory test program are provided on the attached Borings Logs, Figures 5 through 7, that were previously issued in our Preliminary Geotechnical Findings report (dated August 27, 2008), and with the consolidation test plots presented as Figures 8 and 9.

In the absence of a specific grading and load distribution plan, a uniform net load of 400 pounds per square foot was assumed to have been placed on the site in order to calculate settlement estimates for your understanding of the critical nature of potential total and differential settlement at this site. Based upon the above described assumption, it was estimated that approximately 2 inches of settlement would occur within 1 year, with 3-1/2 and 4-1/4 inches settlement estimated at approximately the 5 and 10-year mark, respectively. Pre-loading with 4 feet of stockpiled fill for 5 years over the footprint of the building plus 10 feet would surcharge the compressible material to substantially reduce the potential settlement.

A supplemental study is required to provide final geotechnical foundation design parameters, once specific grading and load distribution plans are developed. Considering the sensitivity of the site to settlement concerns, it may be prudent to perform an additional study using a Cone Dilatometer Test probe that would provide a continuous profile of soil parameters with depth and additional data for a more in-depth assessment of consolidation potential for specific building and grading concepts.

We appreciate this opportunity to be of service. Please contact this office with any questions.

Very truly yours,

PURCELL, RHOADES & ASSOCIATES

Daniel J. Rhoades, P. E.
Principal
G. E. - 716, exp. 06-30-09

Dean Affeldt, CEG 1108
Principal

Attachments:

Figure 5	Log of Exploratory Boring 1
Figure 6	Log of Exploratory Boring 2
Figure 7	Log of Exploratory Boring 3
Figure 8	Consolidation Test 1
Figure 9	Consolidation Test 2

ida/H740301.2

EXPLORATORY BORING LOG

CLIENT: HOULAND, LLC PROJECT NO.: 7403-01	LOGGED BY: JM	DATE DRILLED: 8-13-08	PAGE 1 OF 1
DRILL RIG: B-24 DRILLER: RAM WEIGHT OF HAMMER: 140 POUNDS DROP: 30 inches		BORING ELEV.: E.G. BORING DIAM.: 4 INCHES	BORING NO. **B-1**

FIELD				DESCRIPTION			LABORATORY					
DEPTH (FT.)	SAMPLE	SAMPLE NO.	BLOWS / FT	MATERIAL DESCRIPTION AND REMARKS	CONSISTENCY	USCS LETTER SYMBOL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	pH @ °C	PLASTICITY INDEX (%)	UNCONFINED COMPRESSIVE STRENGHT (PSF)	%PASSSING #200
1				**FILL**	Dense	GM						
2				SILTY GRAVEL, with sand, light brown with rust colored siltstone fragments, slightly moist, dense								
3		B1-1	21	SILTY CLAY, with gravel and some fine sand, moist blue gray siltstone fragments, hard drilling	Very Stiff	CL		8				
4												
5												
6		B1-2	17		Very Stiff	CL	123	11			6200	
7												
8												
9		B1-3	3	SANDY CLAY, with some gravel and siltstone fragments, moist to wet, organic odor.	Soft	CL						
10				Free Water encountered at 11 feet at time of drilling.								
11												
12												
13												
14		B1-4	5	SANDY CLAY, orange rust color, wet with some gravel and siltstone fragments, moist to wet.			92	26				
15				(See Figure 8, Consolidation Test Result)								
16												
17												
18												
19												
20				Less sand with depth								
21				CLAYEY SAND, with small pebbles, brown								
22												
23				**Bay Mud**								
24		B1-5	6	SILTY CLAY, with some fine sand, blue gray, moist to wet, slight organic odor	Firm	CH	64	56				
25				(See Figure 9, Consolidation Test Result)								
26												
27				GRAVEL LENS, olive brown		SP						
28				SILTY CLAY, with some fine sand, blue gray, moist to wet.								
29												
33				Note: Silty Clay continuous from 29 to 33 feet.								
34		B1-6		GRAVEL LENS, with sand, blue gray, wet		SP						
35	BOH	B1-6A	6	SILTY CLAY, with some fine sand, blue gray, moist to wet.		CH						

Boring terminated at 34-1/2 feet.
Free water encountered at 11 feet.
All blowcounts represent Standard Penetration Test.
Boring backfilled with cement.

Purcell, Rhoades & Associates
Consultants in the Applied Earth Sciences

EXPLORATORY BORING LOG B-1
300 LOCUST STREET
SAUSALITO, CALIFORNIA

Client: HOULAND, LLC

FIGURE NO.
5

EXPLORATORY BORING LOG

CLIENT: HOULAND, LLC PROJECT NO.: 7403-01	LOGGED BY: JM	DATE DRILLED: 8-13-08	PAGE 1 OF 1
DRILL RIG: B-24 DRILLER: RAM WEIGHT OF HAMMER: 140 POUNDS DROP: 30 inches		BORING ELEV.: E.G. BORING DIAM.: 4 INCHES	BORING NO. **B-2**

FIELD				DESCRIPTION	LABORATORY						
DEPTH (FT.)	SAMPLE	SAMPLE NO.	BLOWS / FT.	MATERIAL DESCRIPTION AND REMARKS	CONSISTENCY	USCS LETTER SYMBOL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	pH @ °C	PLASTICITY INDEX (%)	UNCONFINED COMPRESSIVE STRENGHT (PSF)	%PASSSING #200
1				**FILL**	Dense	GM						
2												
3												
4		B2-1	54	SILTY CLAY, with gravel and siltstone fragments, light brown to orange, sllightly moist, hard	Hard	CL	122	6				
5												
6												
7		B2-2	7	Mix of siltstone fragments with silty clay, light and orange brown, with brown silty clay and gray gravel, wet. ▼ Free Water encountered at 7 feet at time of drilling.	Firm	CL	107	18			1500	
8												
9					Soft	CL						
10		B2-3	3	SILTY CLAY, with fine sand and small gravel, medium dark brown, wet.								
11												
12				Alternate layers of stiff and easy drilling blue gray silty clay cuttings								
13												
14												
15		B2-4	3	SILTY CLAY, with sand with intermittent lenses of clayey sand with small gravel, blue gray, moist. No sample recovery with 2.5 inch barrel, split-spoon recovery.	Soft	CL						
16												
17				**Bay Mud**								
18												
19												
20		B2-5	3	SILTY CLAY, blue gray, soft, wet. No sample recovery with 2.5 inch barrel, split-spoon recovery	Soft	CH						
21												
22				Boring terminated at 20-1/2 feet. Free water encountered at 7 feet. All blowcounts represent Standard Penetration Test. Boring backfilled with cement.								
23												
24												
25												
26												
27												
28												
29												
30												
31												
32												

Purcell, Rhoades & Associates
Consultants in the Applied Earth Sciences

EXPLORATORY BORING LOG B-2
300 LOCUST STREET
SAUSALITO, CALIFORNIA

Client: HOULAND, LLC

FIGURE NO.
6

EXPLORATORY BORING LOG

CLIENT: HOULAND, LLC PROJECT NO.: 7403-01	LOGGED BY: JM	DATE DRILLED: 8-13-08	PAGE 1 OF 1
DRILL RIG: B-24 DRILLER: RAM WEIGHT OF HAMMER: 140 POUNDS DROP: 30 inches		BORING ELEV.: E.G. BORING DIAM.: 4 INCHES	BORING NO. **B-3**

FIELD				DESCRIPTION			LABORATORY					
DEPTH (FT.)	SAMPLE	SAMPLE NO.	BLOWS / FT.	MATERIAL DESCRIPTION AND REMARKS	CONSISTENCY	USCS LETTER SYMBOL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	pH @ °C	PLASTICITY INDEX (%)	UNCONFINED COMPRESSIVE STRENGHT (PSF)	%PASSSING #200
1				**FILL**	Dense	GM						
2				SILTY GRAVEL, with sand, medium brown, slightly moist.								
3		B3-1	34	SILTY GRAVEL, with sand, medium brown, asphalt debris, siltstone fragments, dense, moist.	Dense	GM						
4												
5												
6				Easier drilling at 6 feet.								
7				▼ Free Water encountered at 7 feet at time of drilling.								
8		B3-2	10	SILTY GRAVEL, with sand, blue gray, wet.	Loose	GM	116	15			530	
9												
10												
11												
12												
13				**Bay Mud**								
14				SILTY CLAY, with glass, charred wood, dark brown to								
15	BOH	B3-3	3	black, wet, slight organic odor	Soft	CH						
16				Boring terminated at 15 feet. Free water encountered at 7 feet. All blowcounts represent Standard Penetration Test. Boring backfilled with cement.								
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
32												

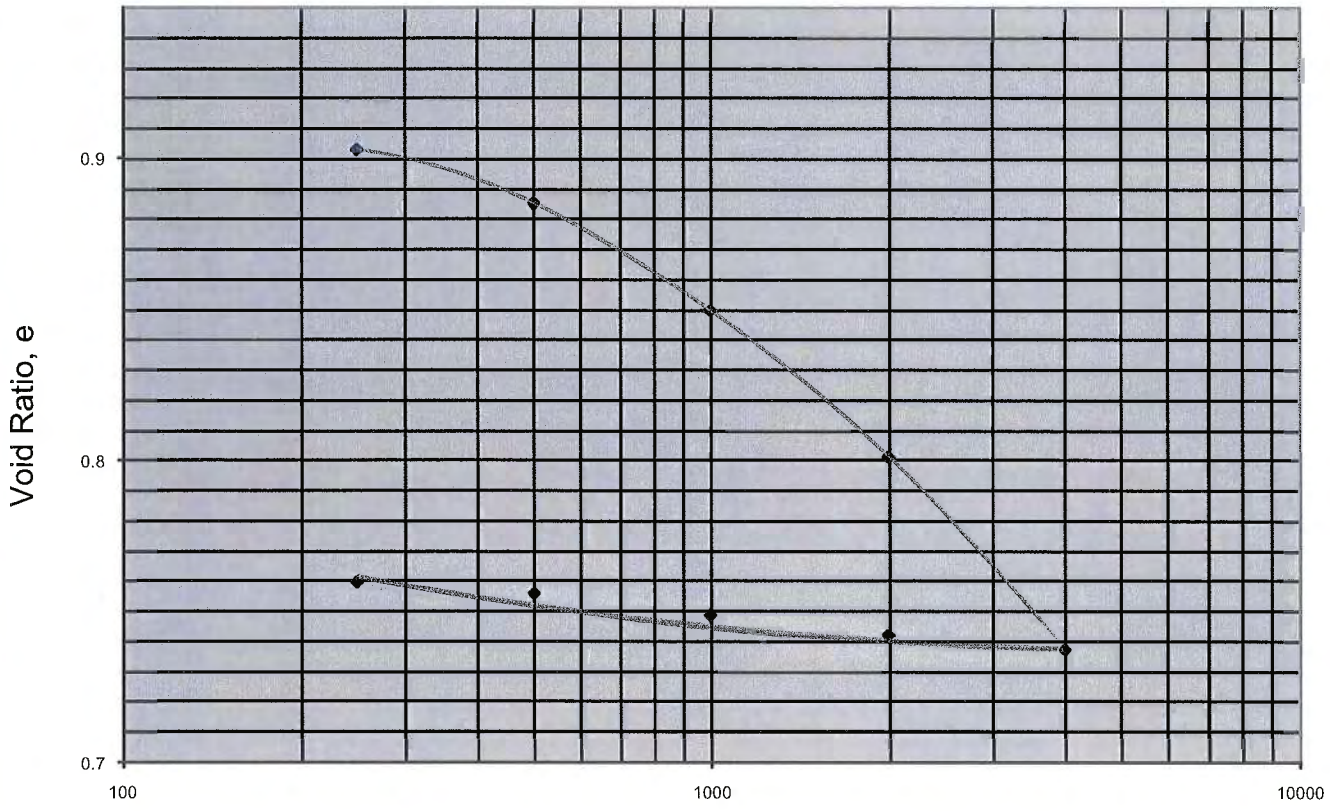
Purcell, Rhoades & Associates
Consultants in the Applied Earth Sciences

EXPLORATORY BORING LOG B-3
300 LOCUST STREET
SAUSALITO, CALIFORNIA

Client: HOULAND, LLC

FIGURE NO.
7

Consolidation Test -- B1, 14.5ft.
e - log P



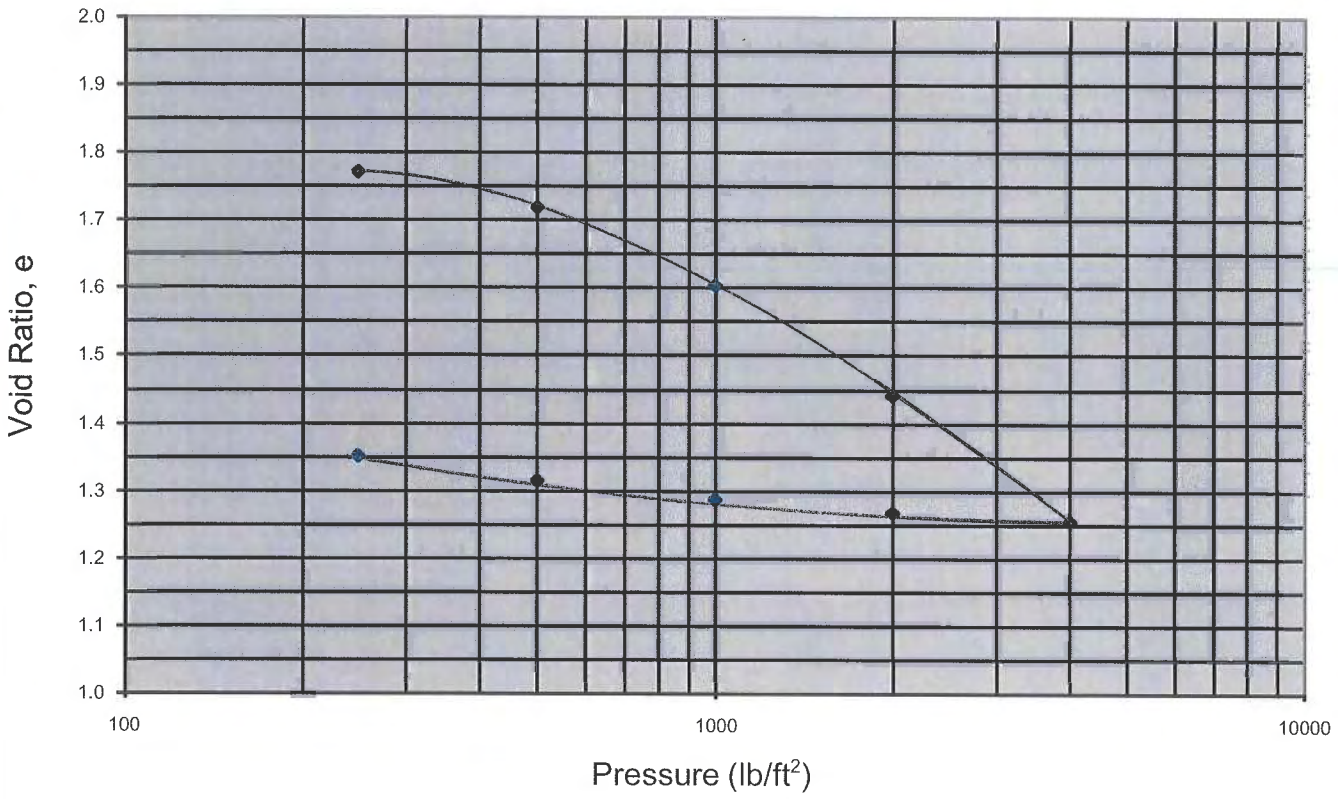
Boring 1 @ 14-1/2 ft.
Silty Clay (CL)
Compression Index C_c - 0.16

BEFORE TEST
dry density.....92 pcf
moisture content.....26 %

AFTER TEST
moisture content..... .24 %

NOTES	DATE OCTOBER 2008	Purcell, Rhoades & Associates Consultants in the Applied Earth Sciences	
	JOB NO. 7403-01		
	DWG NO. H7403.01FIG8	**CONSOLIDATION TEST 1**	FIGURE NO.
	DRAWN JLM	300 LOCUST STREET SAUSILITO, CALIFORNIA	8
	CHK'D DJR		
	APP'D DJR	CLIENT HOULAND, LLC	REV. NO.

Consolidation Test -- B1, 24.5ft.
e - log P



Boring 1 @ 24.5 ft.
Silty Clay with Sand
Compression Index Cc - 0.54

BEFORE TEST
dry density.....64 pcf
moisture content....56 %

AFTER TEST
moisture content...47 %

NOTES	DATE OCTOBER 2008	Purcell, Rhoades & Associates Consultants in the Applied Earth Sciences	
	JOB NO. 7403-01		
	DWG NO. H7403.01FIG9	**CONSOLIDATION TEST 2**	FIGURE NO.
	DRAWN JLM	300 LOCUST STREET SAUSILITO, CALIFORNIA	9
	CHK'D DJR		
	APP'D DJR	CLIENT HOULAND, LLC	REV. NO.

Appendix D

PHASE I ENVIRONMENTAL ASSESSMENT

300 Locust Street
Sausalito, CA 94965

November 24th, 2008

Prepared for:

UB Group
C/O HartMarin
75 Rowland Drive #140
Novato, CA 94945
And/or its assigns

Prepared by:

Environmental Resource Group
1038 Redwood Highway, Suite 1
Mill Valley, California 94941
Phone: 415-381-6574
Fax: 415-381-6320

TABLE OF CONTENTS

1.0 INTRODUCTION

This Phase I Environmental Assessment presented in this report focuses on the property located at 300 Locust St. in Sausalito, CA; (hereafter referred to as Property). The Phase I was requested by HartMarin of Novato, CA on behalf of UB Group and or its assigns.

The objective of a Phase I Assessment is to evaluate whether potential or known (recognized) environmental concerns (RECs) exist on or immediately adjacent to the Property, to evaluate whether past or ongoing operations of tenants at the Property may be an environmental concern, and to identify off-site activities that could potentially affect the Property's soil or groundwater.

This Phase I ESA is designed to identify the presence of RECs in connection with the subject site through the research of previous and current ownership and uses of the site by owners and tenants. Additionally, the purpose of the Phase I ESA is to permit the user to satisfy one of the requirements to qualify for what is commonly known as the "innocent landowner" defense to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) liability as described by 42 U.S.C. Section 9601 (35)(B).

The Phase I ESA includes the following scope of work:
a) a review of local regulatory agency records,
b) a review of local, state, and federal regulatory agency lists compiled by Environmental Data Resources, Inc. (EDR),
c) a review of aerial photographs, both current and historical,
d) a review of pertinent building permit records and city directories,
e) a site inspection of existing on-site conditions and observations of adjacent property uses,
f) interview(s) with person(s) knowledgeable of the previous and current ownership and uses of the subject site, and
g) review of past Phase I and/or Phase II reports completed for the subject property.

The scope of work for this Phase I ESA conforms to ASTM E 1527-05.

1.1 Executive Summary of Findings

This summarizes the findings of the Phase I Environmental Site Assessment for the Property referred to as 300 Locust St. in the City of Sausalito, CA.

The Property has never been developed according to the city of Sausalito. Until approximately 1965 the Property and the adjacent parcels on the Bay side of Bridgeway were a part of Richardson Bay. The Property was diked and filled in the late 1960's. The Property under assessment in this report is composed of one parcel with a total of 0.51 acres or 22,253 sq. ft. The parcel is slightly irregular in shape. There is no evidence that the parcel had been developed prior to the physical inspection. The Property is

physically located on the northwest corner of the intersection of Locust St., and Bridgeway in the city of Sausalito.

The parcel map acquired from the Marin county Assessor's Office shows several streets in the surrounding area to the north and west of the Property that have not been built at the time of this report and there is no evidence that there are imminent plans to begin the construction in the near future. A portion of the land was taken by the city of Sausalito for the expansion of Bridgeway in 2004.

At the time of the physical inspection, there were no structures on the site and the site had been leased on a short time basis to ATG, Inc. –an undergound contractor working for Pacific Gas & Electric Co. for the temporary storage of pipe, conduit and bedding materials for the installation of expanded service along Bridgeway in both directions from the Property. The materials stored on the site were not hazardous and pose no environmental threat to the integrity of the Property. The foreman for the contractor stated that all of the materials would be either used in the project or completely removed at the end of the job. He also stated that when he began spotting materials on the site, there was no evidence of any other construction or underground storage tanks on the site.

There are no current Recognized Environmental Condition (RECs) on the Property. There are two historic RECs found in close proximity to the Property. The first Historic REC is a Sanitary District pump station located on the southeast corner of Locust St. and Bridgeway. The pump station uses a diesel fuel tank for emergency purposes. The tank has not had a release in the past and is monitored on a continuous basis by the city of Sausalito Maintenance Dept. The second Historic REC is at a Pacific Bell facility located on Turney St. approximately one block to the southeast and slightly up hill from the Property. The Pacific Bell facility uses a diesel fuel storage tank for emergency power and the tank has been reported as releasing fuel into the subsurface environment in the past. The release has been successfully remediated to the satisfaction of the Marin County Environmental Health Dept. and the Regional Water Quality Control Board and the company has been sent a "case closed" letter.

There are several additional sites listed in the database search that are located at a distance from the Property such that the sites do not pose a threat to the Property based upon the types and quantities of materials in use.

ERG finds no reason to rate this Property anything but a low environmental risk and there is no recommendation for additional work on the Property at this time.

2.0 PROPERTY DESCRIPTION

This section presents a general description of the Property and surrounding area, and discussions of the historical and current land use of the Property. The information contained in this section is based on interviews, review of regulatory files, discussions with regulatory agency personnel, review of environmental databases, review of aerial photographs, and a site inspection.

2.1 Site Location

The Property is located on the northwest side of Locust St. at the intersection of Locust St. and Bridgeway. The Property is composed of one parcel totaling approximately 22,253 square feet or 0.51 acres. The parcel is slightly irregular in shape with the southwestern boundary at an angle to the northwestern boundary. See parcel map in APPENDIX A.

The subject Property has never been developed with any type of structure in the past according to the Marin County Assessor's Office and the city of Sausalito Building Dept. There is vehicle access into the Property from the southeastern corner of the Property along Locust St. The Property is within the boundary of the city of Sausalito and does receive city services such as police and fire protection from the city.

The Property has the Marin County Assessor's Parcel Number 064-087-07. (See attached parcel map in Appendix A).

Easements have been granted to the City of Sausalito Public Utility Divisions and Pacific Gas & Electric for access to gas and electrical lines. The City of Sausalito and the Sausalito Water Dept. supply potable water and the sanitary waste is the responsibility of the Sausalito Sanitary District. The County of Marin and the city of Sausalito are responsible for the storm water system. The Property is in an area of Marin County and the City of Sausalito that is zoned for a mixture of commercial uses along both sides of Locust St. to the northeast and southwest of the Property as well along Bridgeway to the southeast and northwest. The closest residential use is found approximately one block to the southwest on Locust St. (See aerial photographs in Appendix A).

No encroachments were noted at the time of the site inspection. A site location map and assessor's parcel map can be found in Appendix A

2.2 Environmental Setting

Based upon a review of the U. S. Geological Survey Topographical Map, the Property has an elevation of approximately 11 feet above mean sea level. The land slopes upward to the south and west and is essentially flat to the east and north.

Surface waters in the vicinity of the Property include Richardson Bay – a portion of San Francisco Bay, located approximately 400 ft. to the northeast and Coyote Creek, located approximately one and one-eighth miles to the northwest. The regional depth to groundwater is variable from 3 to 10 feet below grade with minor seasonal variations depending on the amount of rainfall. Drinking water levels are typically found at depths greater than 300 ft. and the flow is variable depending on the time of the year and the amount of rainfall but is generally assumed to be toward the north or northeast along with the surface water drainage patterns toward the Richardson Bay portion of the San Francisco Bay.

There are one Federal and six State registered water wells located within a one-mile radius of the Property. There are few private wells used for groundwater monitoring or extraction located within the one mile radius of the Property. There are no monitoring wells located on the Property. There are no oil or gas wells located within one mile of the site.

The potable water supply is maintained and operated by the City of Sausalito and the Marin Municipal Water District. The water is tested for quality on a monthly basis. There have been only minor violations of the EPA water quality requirements over the past two years.

There is a sanitary sewer connection stubbed to the Property line – the sanitary sewer systems are operated and maintained by the City of Sausalito and the Sausalito/Marin Wastewater Treatment Authority. The storm water drainage system is maintained by the County of Marin and the Sausalito Maintenance Dept.

The site is in an area of Marin County rated a Zone 3 by the EPA for radon levels and requires no testing.

2.3 Historical Land Use

Historical land use of the Property was evaluated through interviews with regulatory agency personnel, review of aerial photographs from the years 1946, 1952, 1965, 1982 1993, 1998, and 2005; review of Sanborn fire insurance maps (if available), and review of the title documents for the Property for the past fifty years or a change in land use. A description of the Property's historical land use is presented below.

According to the Marin County Building Department, the Property has never been developed as a commercial / industrial site. The Property remains undeveloped to the present time. Prior to 1965, the Property was a part of Richardson Bay and was diked and filled in the late 1960's.

The site was occupied at the time of the physical inspection on October 30, 2008 by a contractor working for Pacific Gas & Electric on the expansion of services along

Bridgeway past the front of the Property. The site was in use as a construction materials temporary storage site. The foreman at the site stated that all of the materials were none hazardous and would either be used in the construction project or removed from the site at the time of completion of the project. A walk around the Property did not reveal any hazardous materials or evidence of underground fuel storage tanks.

Sanborn maps are not available for the site.

2.3.1 Interviews

The present owner of the Property is: Houland Ltd. A Swiss company. The current owners acquired title to the Property in 2004.

A conversation with personnel in the County Building Department, the Assessor's Office and the city of Sausalito confirmed that the Property has never been developed with any type of structure in the past. The parcel has never been used for agricultural purposes since the completion of the fill project.

Search of the Marin County Recorder records did not show any evidence that an environmental lien has ever been recorded for the Property.

A conversation with the Sausalito Fire Department – Hazardous Materials Division revealed that there ahs never been any type of hazardous material storage on the site.

2.3.2 Aerial Photograph Review

Aerial photographs were reviewed to identify evidence of past land uses, structures, and potential hazardous material sources. Aerial photographs generally provide a surface view of land uses and changes in development over time. Review of the 1946, 1952, 1965, 1982, 1993, 1998, and 2005 aerial photographs are summarized below:

1946 The Property and the area to the northeast is under water as a part of Richardson Bay.

1952 The Property remains under water. To the northwest and southeast filling operations are commencing – the first major dike is under construction to the north and northwest.

1965 The Property has been diked but not yet filled. The area to the north of the Property has been filled but not yet developed.

1982 The Property appears to be filled and the boat repair facility to the northeast has been completed. The area south of Bridgeway appears to be almost completely developed to a variety of uses.

1993 The Property remains vacant. The park to the northwest of the Property appears to be returning to the bay.

1998 The Property remains vacant. The Sausalito police buildings have been placed on the parcel to the north of the Property.

2005 The Property remains vacant. The park to the northwest of the property has been filled and appears to be in use.

2.3.3 Chain of Title Review

A check of the County Recorder's records revealed that: Houland, Ltd. is the current owner of the Property. The current owner acquired title to the Property in 2004.

Current Owner:	Houland, Ltd., a Swiss company is the current owner of the Property. The current owner acquired title to the Property in 2004 from:
2004	Jolly Friar's, Inc. Jolly Friar's, Inc acquired title to the Property in 1971 from:
1971	Western Title Insurance, Inc. Western Title Insurance acquired title to the Property in 1970, shortly after the completion of the fill project.

The title search was halted at this point due to time constraints.

2.4 Current Status

2.4.1 Site Inspection

A physical inspection of the site was completed on October 30, 2008 by Michael Gingrass and Benjamin Wells. The Property consists of a total of one parcel, undeveloped to any use other than as a temporary storage and load-out yard for construction materials such as pipe, gravel, sand and fill dirt for an underground construction along the northeast side of Bridgeway.

The Property is located on the north corner of the intersection of Locust St. and Bridgeway. The parcel can be accessed from Locust St. through an entrance gate at the southeast corner of the parcel. There is minimal landscaping at the front boundary of the Property, along Bridgeway. The remainder of the Property is vacant and unpaved.

There were piles and stacks of underground construction materials placed around the perimeter of the Property at the time of the inspection. The site foreman stated that nothing currently stored on the Property was considered hazardous and that all of the materials would either be used for the project or removed at the completion of the project.

There is no evidence of spillage of oil or other liquids on the soil of the Property and there is no evidence of underground tanks on the site.

There is no transformer located on the Property.

The Property is located in an area of Sausalito that is zoned for a mix of commercial / industrial uses along both sides of Locust St. and along both sides of Bridgeway in either direction for several blocks. The closest residential uses are found approximately one block up the hill to the southwest along Locust St.

The closest underground storage tanks available to the public are located approximately three-eighths of a mile from the Property to the southeast along Bridgeway at a Chevron station. The Chevron station has reported a release of fuel into the subsurface environment in the past and has completed a remediation program to the satisfaction of the Marin county Environmental Health Dept and the Regional Water Quality Control Board and has been issued a "case closed" letter. The next closest underground tanks available to the public are found more than one-quarter mile from the Property.

A site location map can be found in Appendix A, and photographs of the property taken during the site inspection are shown in Appendix B.

The site inspection found no evidence of current or past underground fuel storage tanks, hazardous waste treatment sumps, or other residue of heavy industrial activity on the Property. There was no evidence of petroleum, paint, or other chemicals being spilled or disposed onto the Property. There is no evidence of chemically stressed vegetation on the subject Property or the adjacent properties.

2.4.2 Adjacent and Neighboring Properties

The site is located within the limits of the city of Sausalito, in an area zoned for commercial and industrial uses in the immediate vicinity of the subject Property and along both sides of Bridgeway fro several blocks in both directions.

The closest residential usage is found approximately one block to the southwest and up the hill on Locust St.

The buildings in the immediate vicinity of the subject Property are in compliance with the zoning. The site is bounded on all sides by other uses compatible with the designated

zoning. Visual inspection of the exterior appearance and activities of the adjacent properties did not reveal any obvious evidence of environmental risk to the site.

To the north and northeast of the subject Property is the Sausalito Police station and parking lot and beyond the Police building toward Richardson Bay is an unpaved parking lot for the boat owners who keep their vessels in the adjacent marina. Neither of these operations is considered a threat to the environmental integrity of the Property.

To the east and southeast of the Property and across Locust St. is the Sausalito Yacht Harbor operation. The operation does not pose a threat to the environmental integrity of the Property.

To the northwest and adjacent to the Property is a vacant parcel owned by the city of Sausalito and then Dunphy Park. Neither of these sites is considered a threat to the environmental integrity of the Property.

To the west, southwest and south and across Bridgeway are a variety of small shops and office buildings occupied by a variety of businesses such as a bicycle shop, a restaurant, a small animal hospital, a flower shop and at least two new office buildings. These operations are not considered a threat to the environmental integrity of the Property.

3.0 RECORDS REVIEW

Regulatory agency databases were reviewed and state, county, and city agencies were contacted to evaluate the occurrence of chemical contamination at the site and nearby properties. The results are presented in the following sections.

3.1 Regulatory Agency Database Review

Environmental Data Resources (EDR) was requested to conduct a search of regulatory agency databases for reported information regarding the subject property and for neighboring sites that have a potential for environmental impact at the subject property. Detailed results of the database search are presented in Appendix C. Consistent with guidelines presented in ASTM E1527-2005, the EDR report contains information from the following databases:

- National Priorities List (NPL);
- Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS);
- Resource Conservation and Recovery Information System (RCRIS) Treatment, Storage, and Disposal (TSD) Facilities.
- RCRIS Large Quantity Generators;
- RCRIS Small Quantity Generators;
- Emergency Response Notification Center;
- State Registered Underground Storage Tanks (Registered USTs);
- State Registered Leaking Underground Storage Tanks (LTANKS);
- State Solid Waste information System;
- State Cal-Sites Report.
- The Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS);
- Corrective Action Report (CORRACTS);
- Environmental Liens Listing (LEINS)

There are no NPL sites identified within a one-mile radius of the subject property. The database search did not identify the subject Property as a current or past hazardous material use or storage site.

There are a total of twenty-two sites listed within a one-mile radius of the subject Property identified on the entire database search. Eleven of the twenty-two sites have reported a release of fuel or other hazardous liquids into the soil or groundwater beneath the respective properties. Of these eleven sites, nine have completed a remediation plan under the supervision of the appropriate regulatory agency and received a "case closed" letter. The two remaining sites are in some stages of satisfying the requirements for completion of a remediation plan under the supervision of the State of California Environmental Protection Agency or the Regional Water Quality Control Board or the County of Marin Dept of Environmental Health. These sites are not considered a threat to the environmental integrity of the Property due to their location and distance from the Property.

The remaining sites include two RCRA Small Quantity Generators of hazardous waste, (meaning that they don't generate more than 100 Kg. per month), eleven current or historical underground storage tank sites, four Envirostor sites and two Deed Restriction sites. None of these sites are considered an immediate threat to the environmental integrity of the Property.

An inspection of the surrounding neighborhood did not reveal any individual site with the potential to threaten the soil or groundwater of the subject Property.

3.2 Agency Contact and File Review

Personnel at relevant agencies were contacted regarding issues of potential environmental concern at the Property and at neighboring sites. The Marin County Environmental Health Department and the Sausalito Fire Department were contacted for information concerning hazardous materials usage at the site and surrounding sites.

3.2.1 Marin County Environmental Health Department

The County Environmental Health Dept. was contacted to review files concerning underground storage tanks in the area surrounding the subject Property. The contact at the Public Works Dept. – Ms. Phyllis Callahan stated that the site has not inspected since there is no structure that might be using or storing hazardous materials on the site.

Ms. Callahan also stated that all of the commercial fuel stations in the area are inspected on a bi-yearly basis and that she knew of no industrial or commercial activities on or near the site in a position where a release could affect the Property, or that make use of large

quantities of hazardous materials, and further stated that she knows of no fuel station in a position where a release would threaten the subject Property.

Ms. Callahan discussed the Sausaltio-Marin City Sanitary District pump station on the corner of Locust and Bridgeway and commented that the files show the tank is now equipped with an electronic monitoring system and the tank should not be a threat to the subject Property.

3.2.2 Sausalito Fire Department

The Sausalito Fire Department was contacted to ascertain whether any inspections had been carried out on the Property. The files revealed that the subject Property has never been inspected for use or storage of hazardous materials in the past.

4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 Deviations

There have been no deviations from the ASTM E-1527-2005 Standards in the preparation of this report.

4.2 Conclusions

Based upon the information presented in this Phase I Environmental Assessment Report, the following conclusions can be made:

Historical Data

- The property was filled and reclaimed from Richardson Bay in the 1960's. It has never been developed as a commercial, industrial or residential site in the intervening years.

Operational Activities

- The site is currently leased to a contractor working on a project to expand the underground services along Bridgeway past the Property. There are piles of soil, sand and gravel as well as stacks of various sized pipe spotted on the Property. None of the materials is considered hazardous and the site will be returned in the same condition as when the lease began upon completion of the project.

Hazardous Materials/Petroleum Products

- There is no evidence of underground fuel storage tanks on the site – no vent pipes, fill ports or obvious other signs. There are no hazardous materials stored on the site or used in the operations.

Hazardous Wastes

- There are no quantities of hazardous wastes generated on the site on a regular basis at the present time.

Asbestos

- There was no evidence of asbestos found during the site inspection.

Regulatory Review

- A review of agency databases indicates that there are twenty-two current or historical sites within one mile of the subject Property. None of these sites pose an immediate threat to the Property.

Adjacent Properties

- No adjacent property was identified which could have a negative effect on the environmental integrity of the Property.

Property Environmental Rating

- The Property is rated a low environmental risk based upon all of the information gathered during the assessment process.

4.3 Recommendations

Based upon the information gathered during the assessment process, ERG can find no reason to recommend any further action such as a Phase II Investigation be undertaken at this time.

5.0 LIMITATIONS

5.1 Limitations and Exceptions

The findings, interpretations of data, recommendations, specifications or professional opinions are presented within the limits prescribed by available information at the time the report was prepared, in accordance with generally accepted professional engineering and geologic practice and within the requirements by the Client. There is no warranty, expressed or implied.

The findings of this report are based on the readily available data and information obtained from public and private sources. As of the present date, the findings of this report are valid only for the project scope studied. With the passage of time, changes in the conditions of a Property can occur whether they are due to natural processes or to the works of man on this or adjacent properties. This report should be updated in accordance with applicable standards or if any changes have affected the site. Legislation or the broadening of knowledge may result in changes in applicable standards. Additional studies (at greater cost) may or may not disclose information that may significantly modify the findings of this report. ERG accepts no liability on completeness or accuracy of the information presented and or provided to me, or any conclusions and decisions that may be made by the Client or others regarding the subject site/project.

There are no exceptions in this report.

5.2 Certifications

I declare the, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in §312.10 of 40CFR Part 312.

I have the specific qualifications based on education, training and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

_____ _____

Michael E. Gingrass, REA #00020 Benjamin Wells, RG, President

_____

Date

Appendix E

PRELIMINARY DRAINAGE REPORT

300 Locust Street
Sausalito, California

Job No.: 0313-010

February 2009

Prepared by: KRC
Checked by: MLT

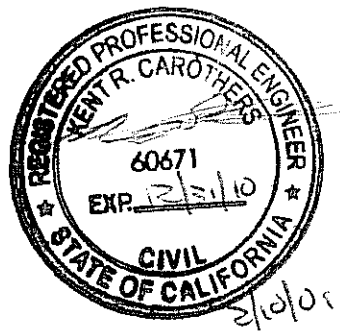


TABLE OF CONTENTS

I. Introduction, Project Summary, and Methodology

A. Introduction

This report details the methodology and preliminary calculations for the Storm Drainage elements for the proposed storage facility at 300 Locust Street, located in eastern Sausalito in the County of Marin.

The project is the creation of a boat and vehicle storage building and park improvements on a vacant lot. The Drainage Area Map is included in the appendix.

B. Existing Conditions

The existing drainage for the project site generally flows from northeast to the southwest toward the intersection of Bridgeway and Locust Street. There is currently no existing curb and gutter on Locust Street and the runoff from the site and the half street section of Locust Street pools at the corner of Locust street and overflow the crown to an existing catch basin and then is conveyed into the existing pipe in Locust Street and Per City maps and by inspection the existing storm drainage in Locust Street is conveyed by a pipe to the east and outfalls (BD 200) into the San Francisco Bay. The City map is included in the appendix. LDSI performed a field inspection and found the existing pipe in the street to be clogged with debris and surcharged. Prior to construction and once the pipe is cleared of debris, the existing pipe system and hydraulics will need to be verified to assure that the Pad Elevation is acceptable.

C. Proposed Conditions

The site development improvements include construction of boat and vehicle storage facility and park improvements with associated driveway, parking area, utilities, and irrigation improvements.

The proposed drainage has been designed to mimic the existing hydrologic pattern of the site and discharge at the predevelopment outfall location along Locust Street. The runoff from the roof will be discharge at the frontage along Bridgeway via a large downspout system and into a dispersion sump (infiltration area). Any overflow from the dispersion sump will be conveyed to the field inlets along the Bridgeway Frontage. The parking lot area in the rear will drain to a bio-retention area and through a swale to the existing low point connection along Locust Street. A new drainage inlet and stub will convey water to the existing storm drain manhole in Locust Street. There is minimal drainage from Locust Street onto the project. The existing drainage will be collected in the swale running along Locust to the new Droop Inlet and into the existing manhole.

There are five drainage areas (A-E) on the site. Drainage area A is the roof, Drainage Area B is the frontage field inlet on Bridgeway. Drainage Area C is the swale along Locust. Drainage area D is the parking Lot, and Drainage Area E is the runoff to the swale in back of the curb behind the parking lot. The OS (Offsite) drainage area is from

the crown in the existing street of Locust to the property line at the intersection. The drain in the park areas will direct water to the historic locations along Bridgeway and ultimately the bay inlet adjacent to Dumphy Park. Associated with the landscape improvement in the waterfront park is the relocation of the existing asphalt pathway and sidewalk improvements along Bridgeway. The pathway relocation and sidewalk do not change the overall hydrology of the area or the flow patterns.

D. Hydrology and Hydraulic Methodology

This drainage study was developed using the Drainage Design criteria from the County of Marin Department of Public Works Hydrology Manual, "Revision 8/2/00". All flow calculations were performed using the Rational Method (Q=CIA). The Recurrence interval of 100 is used for pipe design. The 100 year event was also calculated to analyze localized flooding conditions and to design the onsite inlet and ditch systems to prevent flooding of localize areas.

Based on the Land Use of commercial, the minimum time of concentration is 5 minutes for onsite design. The Runoff Coefficient is weighted since the vegetated area exceeds 20% of the total area. The C(p) value of 1.0 was used for impervious areas, while a C(v) value of 0.5 was used for pervious cover. The rainfall intensities are calculated based on Chart K, Zone C of the Caltrans District 4 Hydrology Procedures included in the County of Marin Drainage Criteria Standards.

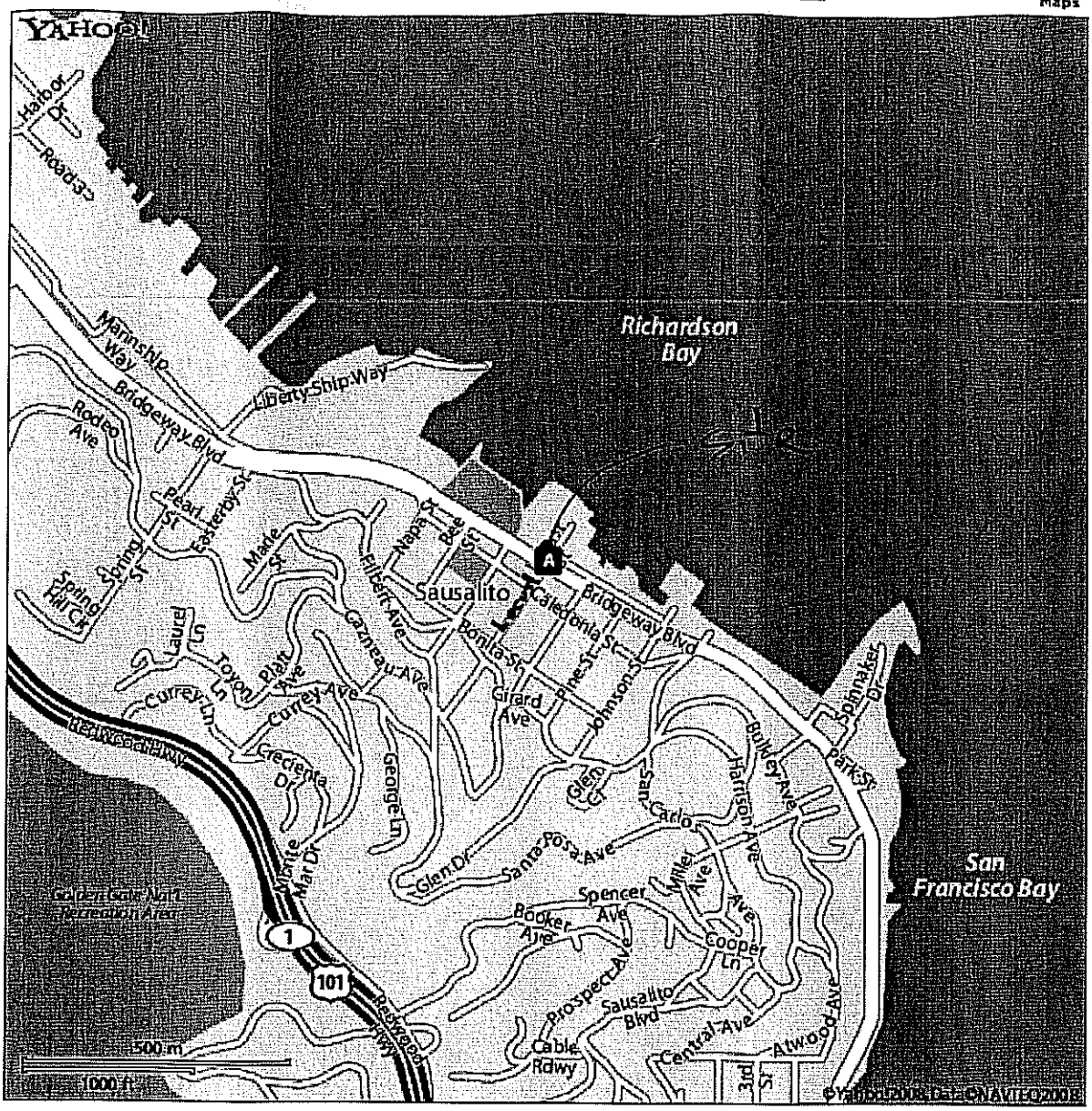
The project site falls within the region of 1.3" for the P(10) Isopleths according to the Design Rainfall Intensities – Map "I" included in the appendix. The site falls into area "A2" 0.66/0.70 for the design rain fall variations – Map "V" as included in the appendix.

Calculated flows for each drainage area are included in Section 2. Calculated flows for the pipe segments are included in the Section 3.

The Manning roughness coefficient is 0.013. The minimum size for on-site storm drainage is 8" for clogging and maintenance.

Map of Locust St, Sausalito, CA 94965

YAHOO! LOCAL Maps



When using any driving directions or map, it's a good idea to do a reality check and make sure the road still exists, watch out for construction, and follow all traffic safety precautions. This is only to be used as an aid in planning.

E

II. HYDROLOGY CALCULATIONS

The minimum Tc for the offsite runoff is 5 minutes.

DA- A : Q (100)=CIA = 1.0 x 4.8 x 0.17 = 0.82 cfs
Q(10) = 0.66 (0.82) = 1.23 cfs

DA -B: Q (100)= CIA = 0.5 x 4.8 x 0.105 = 0.252 cfs
Q(10) = 0.66 (0.252) = 0.17 cfs

DA- C: Q (100)= CIA = 0.52 x 4.8 x 0.028 = 0.07 cfs
Q(10) = 0.66 (0.07) = 0.046 cfs

DA- D: Q (100)= CIA = 0.80 x 4.8 x 0.144 = 0.55 cfs
Q(10) = 0.66 (0.55) = 0.36 cfs

DA- E: Q (100)= CIA = 0.5 x 4.8 x 0.048 = 0.12 cfs
Q(10) = 0.66 (0.12) = 0.08 cfs

DA- OS (OFFSITE): Q (100)= CIA = 1.0 x 4.8 x 0.092 = 0.44 cfs
Q(10) = 0.66 (0.44) = 0.29 cfs

III. PIPE & INLET CALCULATIONS

The pipe calculations for each main pipe segment are included as the flowing for the largest area to each pipe.

The design flow for the 12" pipe connecting to the existing manhole is: A= 0.587 acres. I (100) = 4.8 in/hr, C= 0.75

$$Q= 0.587 * 4.8 * 0.75 = 2.11 \text{ cfs}$$

The flow from DA-A, DA-B and the offsite street area is 1.51 cfs

The flow from the bio-retention BMP is 0.67 cfs

12" SD
TO
Exist
MH

Manning Pipe Calculator

Given Input Data:

Shape	Circular
Solving for	Depth of Flow
Diameter	12.0000 in
Flowrate	2.1100 cfs
Slope	0.0100 ft/ft
Manning's n	0.0130

Computed Results:

Depth	6.6454 in
Area	0.7854 ft2
Wetted Area	0.4464 ft2
Wetted Perimeter	20.1428 in
Perimeter	37.6991 in
Velocity	4.7270 fps
Hydraulic Radius	3.1911 in
Percent Full	55.3779 %
Full flow Flowrate	3.5628 cfs
Full flow velocity	4.5363 fps

Critical Information

Critical depth	7.4453 in
Critical slope	0.0068 ft/ft
Critical velocity	4.1119 fps
Critical area	0.5131 ft2
Critical perimeter	21.7402 in
Critical hydraulic radius	3.3989 in
Critical top width	12.0000 in
Specific energy	0.9009 ft
Minimum energy	0.9307 ft
Froude number	1.2476
Flow condition	Supercritical

10" SD

tmp#3.txt

Manning Pipe Calculator

Given Input Data:

Shape	Circular
Solving for	Depth of Flow
Diameter	10.0000 in
Flowrate	1.5100 cfs
Slope	0.0100 ft/ft
Manning's n	0.0130

Computed Results:

Depth	6.1014 in
Area	0.5454 ft2
Wetted Area	0.3486 ft2
Wetted Perimeter	17.9290 in
Perimeter	31.4159 in
Velocity	4.3320 fps
Hydraulic Radius	2.7996 in
Percent Full	61.0140 %
Full flow Flowrate	2.1910 cfs
Full flow velocity	4.0171 fps

Critical Information

Critical depth	6.6064 in
Critical slope	0.0075 ft/ft
Critical velocity	3.9296 fps
Critical area	0.3843 ft2
Critical perimeter	18.9208 in
Critical hydraulic radius	2.9245 in
Critical top width	10.0000 in
Specific energy	0.7995 ft
Minimum energy	0.8258 ft
Froude number	1.1827
Flow condition	Supercritical

8" SD From Bio-Retention

tmp#4.txt

Manning Pipe Calculator

Given Input Data:

Shape	Circular
Solving for	Depth of Flow
Diameter	8.0000 in
Flowrate	0.6700 cfs
Slope	0.0100 ft/ft
Manning's n	0.0130

Computed Results:

Depth	4.2548 in
Area	0.3491 ft2
Wetted Area	0.1887 ft2
Wetted Perimeter	13.0763 in
Perimeter	25.1327 in
Velocity	3.5510 fps
Hydraulic Radius	2.0778 in
Percent Full	53.1847 %
Full flow Flowrate	1.2084 cfs
Full flow velocity	3.4618 fps

Critical Information

Critical depth	4.6297 in
Critical slope	0.0075 ft/ft
Critical velocity	3.1978 fps
Critical area	0.2095 ft2
Critical perimeter	13.8258 in
Critical hydraulic radius	2.1822 in
Critical top width	8.0000 in
Specific energy	0.5505 ft
Minimum energy	0.5787 ft
Froude number	1.1768
Flow condition	Supercritical

Calculations for the Drop Inlets (DI's) are included in this section for the largest contributing area:

The Drop Inlets with side openings calculations are based on the weir equation Q=3.0 x L x h ^ 0.5 and are as follows:

(DI #3 – Area B) - 24"x24" square grate, L = 1.0'. h = 0.5,
Assume 25% blocked by debris, L'= 0.75'
Q= 3.00*0.75*0.5^0.5= 1.59 cfs
Q (Cap) > Q (design) 1.08 cfs

(DI #5 – BIO-RETENTION) - 24"x24" square grate, L = 1.0'. h = 0.5,
Assume 25% blocked by debris, L'= 0.75'
Q= 3.00*0.75*0.5^0.5= 1.59 cfs
Q (Cap) > Q (design) 0.67 cfs

Calculations for the swales are based on 100 year flows and utilize Manning's Equation to determine the depth in the channel. Supercritical areas are checked with subcricial slopes to verify critical depths. Calculations are as follows:

Area C
Swale
along
Bldg

Channel Calculator

Given Input Data:

Shape	Trapezoidal
Solving for	Depth of Flow
Flowrate	0.0700 cfs
Slope	0.0100 ft/ft
Manning's n	0.0300
Height	6.0000 in
Bottom width	4.0000 in
Left slope	0.5000 ft/ft (V/H)
Right slope	0.5000 ft/ft (V/H)

Computed Results:

Depth	1.5222 in
Velocity	0.9401 fps
Full Flowrate	1.3434 cfs
Flow area	0.0745 ft2
Flow perimeter	10.8073 in
Hydraulic radius	0.9922 in
Top width	10.0886 in
Area	0.6667 ft2
Perimeter	30.8328 in
Percent full	25.3692 %

Critical Information

Critical depth	1.1011 in
Critical slope	0.0349 ft/ft
Critical velocity	1.4760 fps
Critical area	0.0474 ft2
Critical perimeter	8.9242 in
Critical hydraulic radius	0.7652 in
Critical top width	8.4044 in
Specific energy	0.1406 ft
Minimum energy	0.1376 ft
Froude number	0.5569
Flow condition	Subcritical

Swale Behind Parking Area E

Channel Calculator

Given Input Data:

Shape	Trapezoidal
Solving for	Depth of Flow
Flowrate	0.1200 cfs
Slope	0.0100 ft/ft
Manning's n	0.0300
Height	6.0000 in
Bottom width	4.0000 in
Left slope	0.5000 ft/ft (V/H)
Right slope	0.5000 ft/ft (V/H)

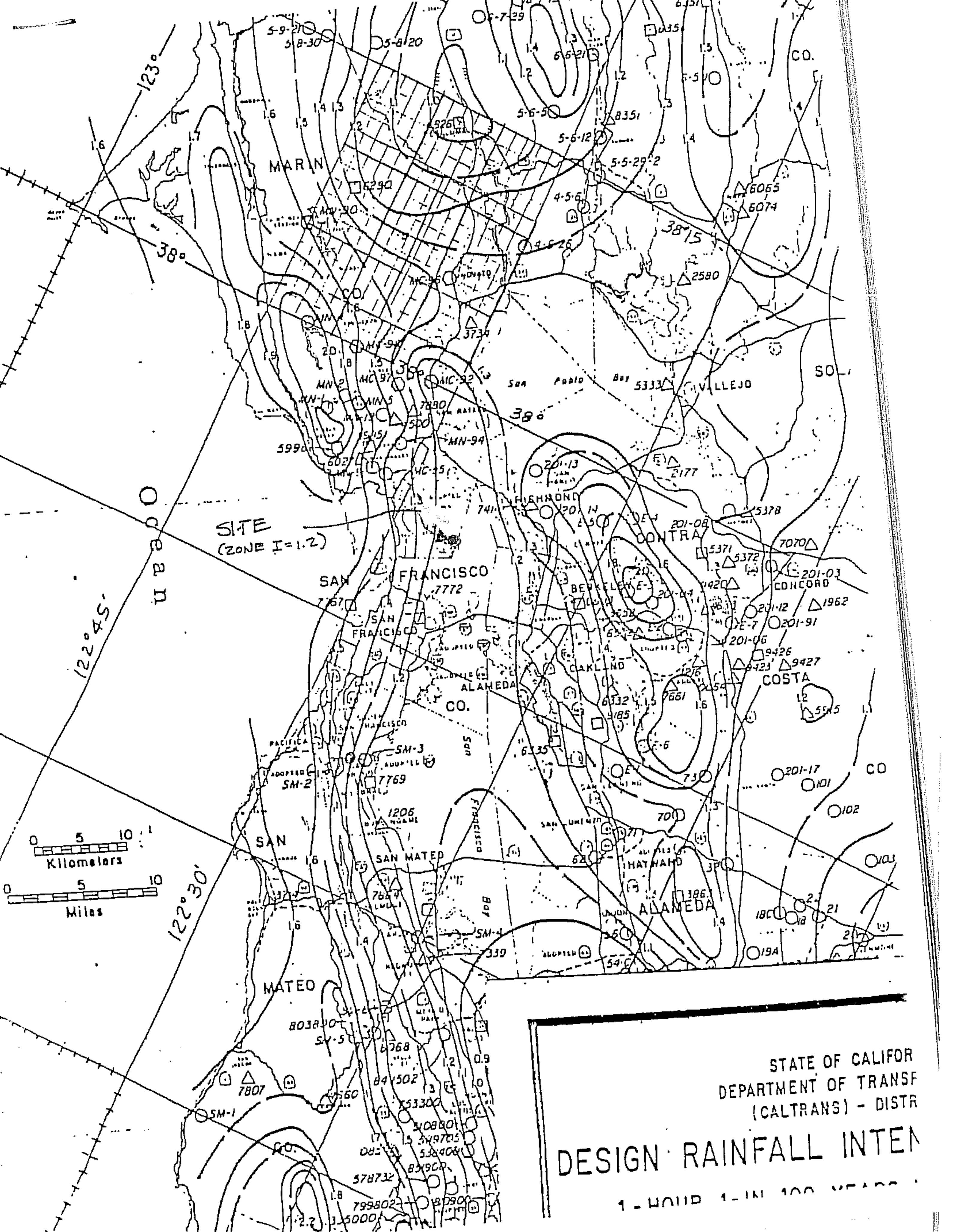
Computed Results:

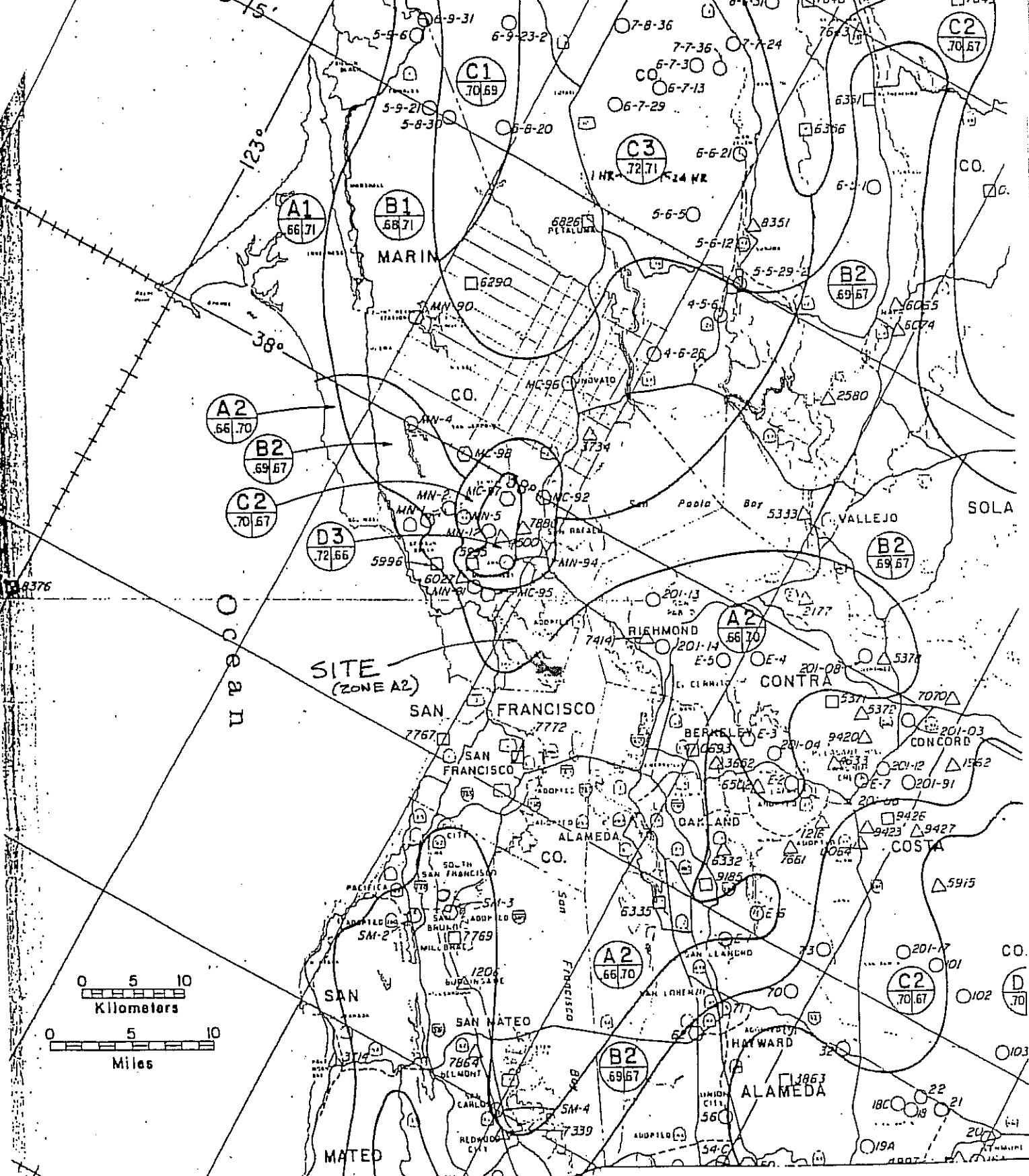
Depth	1.9924 in
Velocity	1.0862 fps
Full Flowrate	1.3434 cfs
Flow area	0.1105 ft2
Flow perimeter	12.9102 in
Hydraulic radius	1.2323 in
Top width	11.9695 in
Area	0.6667 ft2
Perimeter	30.8328 in
Percent full	33.2063 %

Critical Information

Critical depth	1.4843 in
Critical slope	0.0324 ft/ft
Critical velocity	1.6706 fps
Critical area	0.0718 ft2
Critical perimeter	10.6381 in
Critical hydraulic radius	0.9723 in
Critical top width	9.9373 in
Specific energy	0.1844 ft
Minimum energy	0.1855 ft
Froude number	0.5754
Flow condition	Subcritical

APPENDIX A


MARIN
SITE
(ZONE I = 1.2)
SAN FRANCISCO
Ocean
San Pablo Bay
VALLEJO
SOL
RICHMOND
CONTRA COSTA
CONCORD
BERKELEY
OAKLAND
ALAMEDA CO.
SAN MATEO
HAYWARD
ALAMEDA
PACIFICA
San Francisco Bay
SAN MATEO CO.
CO.
38°
38°15
123°
122°45'
122°30'
0 5 10
Kilometers
0 5 10
Miles
STATE OF CALIFOR
DEPARTMENT OF TRANSP
(CALTRANS) - DISTR
DESIGN RAINFALL INTEN
1 - HOUR 1 - IN 100 YEARS



STATE OF CALI
DEPARTMENT OF TRA
(CALTRANS) - DI

DESIGN RAINFALL VAR

ZONES AND SUBZONES OF

ZONE A2, I_{100} (P_{60}) = 1.2

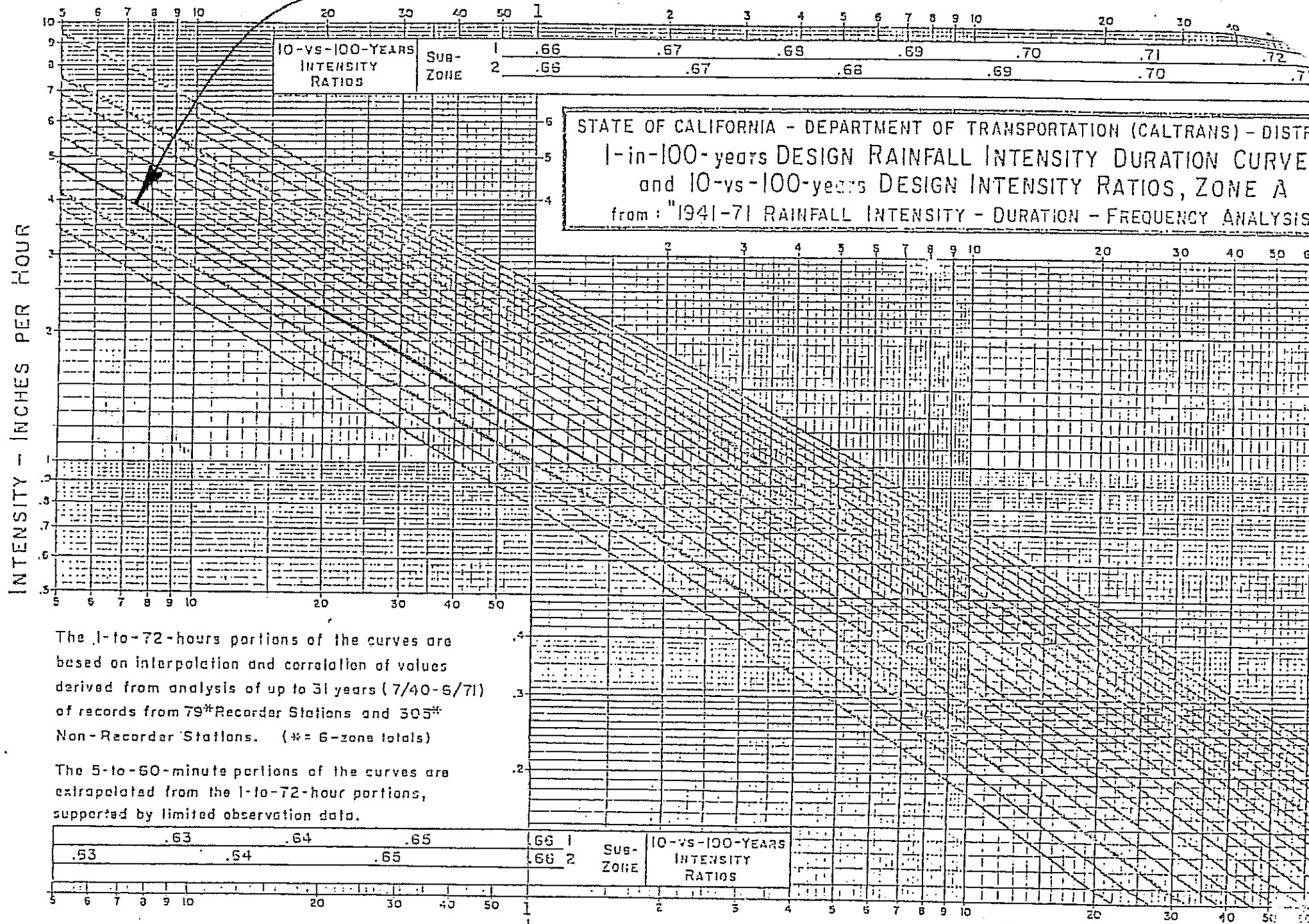
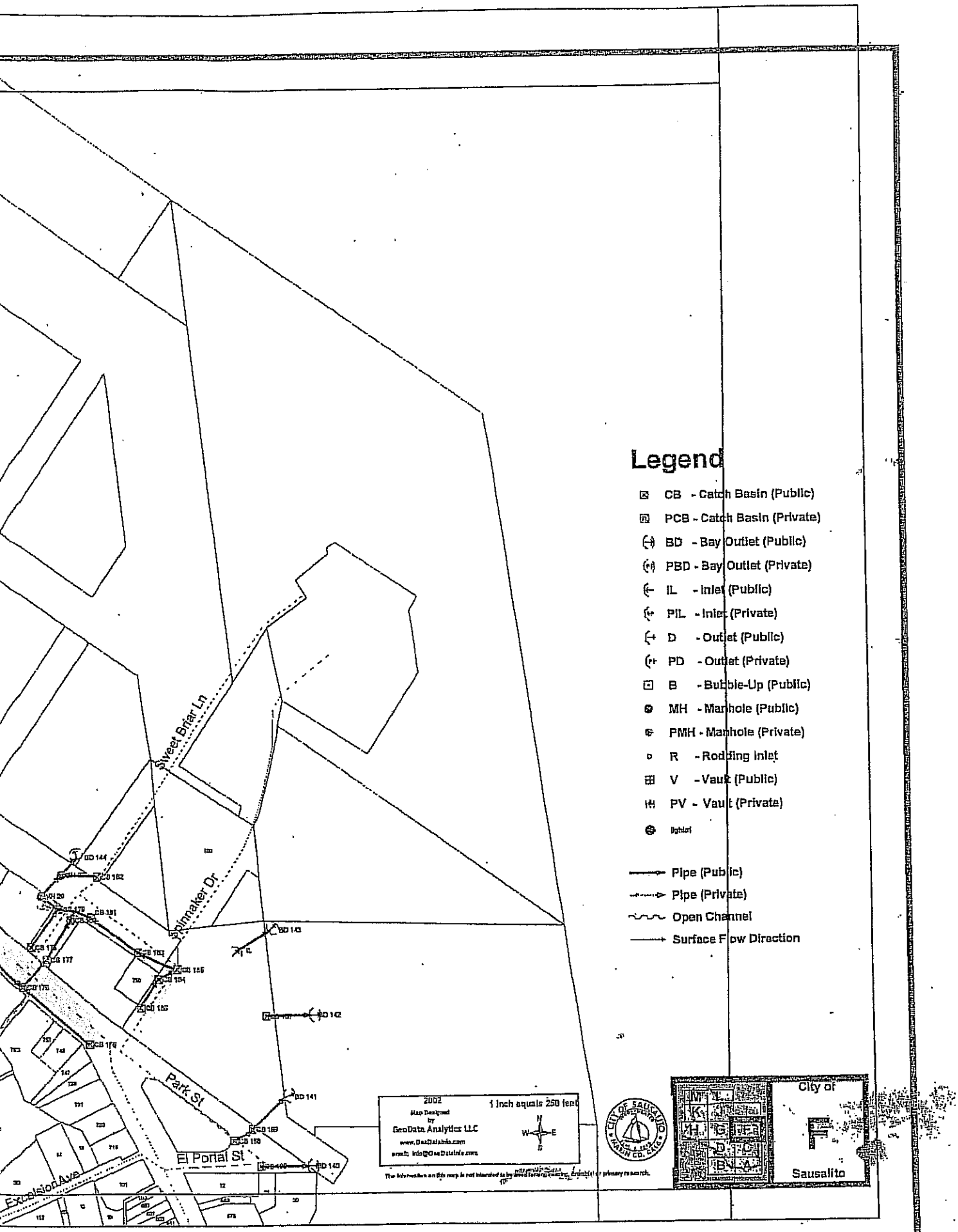


CHART "K" ZONE A

APPENDIX B


Map I
Map I
Site
Bridgeway Blvd
Caledonia St
Humboldt Ave
Donahue Ave
Map G
Map F
Pine St
Johnson St
Bonita St
Girard Ave
Bulkley Ave
Hanson Ave
San Carlos
Glen Dr
Rose Ct
Gidot Ct
Map D
Map C


Legend
CB - Catch Basin (Public)
PCB - Catch Basin (Private)
BD - Bay Outlet (Public)
PBD - Bay Outlet (Private)
IL - Inlet (Public)
PIL - Inlet (Private)
D - Outlet (Public)
PD - Outlet (Private)
B - Bubble-Up (Public)
MH - Manhole (Public)
PMH - Manhole (Private)
R - Rodding Inlet
V - Vault (Public)
PV - Vault (Private)
Pipe (Public)
Pipe (Private)
Open Channel
Surface Flow Direction
Sweet Briar Ln
Spinnaker Dr
Park St
El Portal St
Excelsior Ave
2002
Map Designed by
GeoData Analytics LLC
1 inch equals 250 feet
City of
Sausalito

APPENDIX C

Appendix F

MEMORANDUM

TO: Brian Swartz (HartMarin Real Estates Consultants)

FROM: John Templeton and David Parisi (Parisi Associates)

DATE: December 17, 2008; Revised March 12, 2009

SUBJECT: 300 Locust Street, Sausalito, CA

This memorandum presents information regarding regulations and performance criteria that control and dictate transportation conditions near a proposed warehouse at 300 Locust Street, Sausalito, CA.

The project site, shown in **Figure 1**, is located on the northwest corner of Bridgeway Boulevard and Locust Street. The site is bounded by a small maritime business to the north, Dunphy Park to the west, Locust Street to the east and Bridgeway Boulevard to the south. The properties to the north and west are separated by an 8-foot wide asphalt pedestrian/bicycle path. The project site is generally vacant, but is used on occasion to park boats and trailers.

Figure 1
Project Site – 300 Locust Street

A. Existing Street Network

Three key roadways and two intersections serving the site are discussed below.

Bridgeway Boulevard is a major arterial street running northwest to southeast through Sausalito. For purposes of this report, Bridgeway Boulevard is assumed to run in an east to west direction. In the immediate vicinity of the project, Bridgeway Boulevard is a two-lane street. Small commercial operations are the typical businesses in this area. Parallel parking is permitted along both sides of the street.

Locust Street is a two-lane street abutting the project. The street extends in a northeast to southwest direction. For purposes of this report, Locust Street is assumed to run in a north to south direction. The street terminates at a small marina about a one block north of Bridgeway Boulevard. To the south, Locust Street is a one-lane, one-way street traversing northbound. Commercial operations and maritime activities are typical businesses along the street. Perpendicular street parking is permitted along both sides of the street in the project vicinity.

Napa Street is a two-lane street that extends in a northeast to southwest direction. For purposes of this report, Napa Street is assumed to run in a north to south direction. The street terminates at a small marina and Dunphy Park about a one block north of Bridgeway Boulevard. To the south, Napa Street is used to access commercial businesses and residences.

The **Bridgeway Boulevard/Locust Street** intersection is stop sign-controlled on both Locust Street approaches. An eastbound left-turn lane on Bridgeway Boulevard serves vehicles turning north onto Locust Street. Pedestrian crosswalks are located on all legs of the intersection.

The **Bridgeway Boulevard/Napa Street** intersection is stop sign-controlled on both Napa Street approaches. Eastbound right-turn vehicles on Bridgeway Boulevard exit onto a free right-turn lane prior to the intersection. Left-turn lanes are located on both approaches of Bridgeway Boulevard. A second westbound through lane begins on the west side of the intersection. Vehicles turning left from northbound Napa Street turn exclusively into the new travel lane. Pedestrian crosswalks are located on all legs of the intersection, except the west side of Bridgeway Boulevard.

B. Existing Traffic Conditions

Parisi Associates evaluated weekday morning and afternoon/evening peak hour traffic forecasts at the non-signalized intersections of Bridgeway Boulevard/Locust Street and BridgewayBoulevard/Napa Street. For the analysis, Parisi Associates used level-of-service (LOS) performance, which is defined based on peak hour intersection volumes in relation to intersection capacity. **Table 1** provides a qualitative description of the various levels-of-service used in defining intersection performance.

The City of Sausalito uses the Highway Capacity Manual (HCM) operational procedure for evaluating unsignalized intersections. The procedure provides estimates of capacity, delay, and LOS. Intersection-wide delay and LOS are not defined by the HCM for one-way or two-way stop controlled intersections. In those cases, evaluations are reported on the approaches with the worst delay and LOS.

Table 1: Level of Service Descriptions for Stop Sign-Controlled Intersections

Level of Service	Description	Delay per Vehicle (sec.)
A	LOS A describes operations with low control delay, up to 10 seconds per vehicle. This LOS occurs when progression is extremely favorable and most vehicles arrive during the green phase. Many vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values.	< 10
B	LOS B describes with control delay greater than 10 and up to 20 seconds per vehicle. This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than the LOS A, causing higher levels of delay.	10 - 15
C	LOS C describes operations with control delay greater than 20 and up to 35 seconds per vehicle. These higher delays may result from only fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. Cycle failure occurs when a given green phase does not serve queued vehicles, and overflows occur. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.	15 - 25
D	LOS D describes operations with control delay greater than 35 and up to 55 seconds per vehicle. At LOS D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, and high V/C ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	25 - 35
E	LOS E describes operations with control delay greater than 55 and up to 80 seconds per vehicle. These high delay values generally indicate poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are common.	35 - 50
F	LOS F describes operations with control delay in excess of 80 seconds per vehicle. This level, considered unacceptable to most drivers, often occurs with over saturation, that is, when arrival flow rates exceed the capacity of lane groups. It may also occur at high V/C ratios with many individual cycle failures. Poor progression and long cycle lengths may also contribute significantly to high delay levels.	> 50

Source: Transportation Research Board, Highway Capacity Manual, 2000

The vehicle delay and LOS for the two intersections are based on turn movement counts taken in November 2008. The results for morning and afternoon peak periods are shown in **Table 2**. At the Bridgeway Boulevard/Locust Street intersection during the morning peak hour, the northbound approach on Locust Street experiences a vehicle delay of 13.3 seconds and therefore operates at LOS "B." In the afternoon, the same northbound approach on Locust Street experiences a vehicle delay of 17.1 seconds and therefore operates at LOS "C."

At the Bridgeway Boulevard/Napa Street intersection during the morning peak hour, the northbound approach on Napa Street experiences a vehicle delay of 14.3 seconds and therefore operates at LOS "B." In the afternoon, the same northbound approach on Napa Street experiences a vehicle delay of 43.1 seconds and therefore operates at LOS "E."

Table 2: Existing Intersection Service Levels and Delays

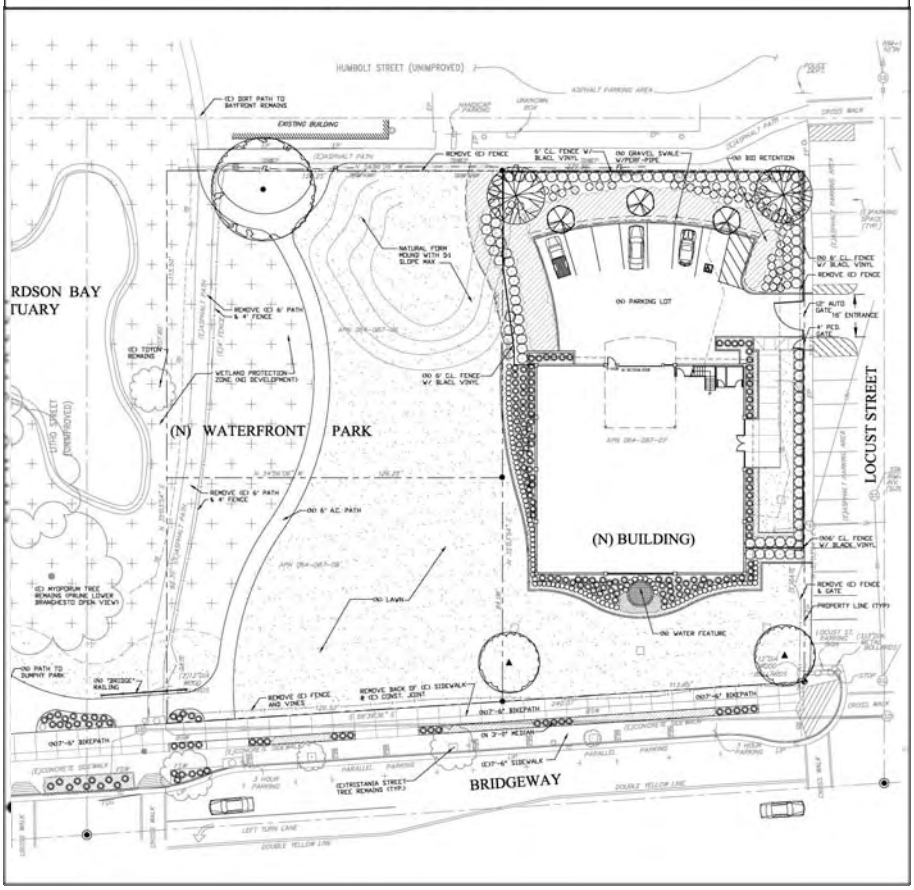
Peak Period	Overall		Eastbound		Westbound		Northbound		Southbound	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Bridgeway Boulevard/Locust Street										
AM	--	--	0.2	A	--	--	13.3	B	--	--
PM	--	--	0.3	A	--	--	17.1	C	--	--
Bridgeway Boulevard/Napa Street										
AM	--	--	0.3	A	--	--	14.3	B	--	--
PM	--	--	2.9	A	--	--	41.3	E	--	--

Source: Parisi Associates

C. Existing plus Project Conditions

The proposed 6,678 square foot warehouse, as shown in **Figure 2**, could store items such as automobiles, art, furniture, and boats.

Figure 2
300 Locust Street Site Plan



Trip generation for the proposed warehouse land use was calculated using trip generation rates presented in the Institute of Transportation Engineers' *Trip Generation (7th Edition)*. As shown in **Table 3**, the project generates 33 daily trips, 3 AM peak hour trips, and 3 PM peak hour trips.

Table 3: Projects Trip Generation Estimates

Land Use	ITE Code	Project		Daily		AM Peak		PM Peak	
		Size	Units	Rate/ksf	Total	Rate/ksf	Total	Rate/ksf	Total
Warehouse	150	6,678	Sq. Ft.	4.96	33	0.45	3	0.47	3

Source: ITE Trip Generation, 7th Edition

The vehicle delay and LOS for morning and afternoon peak periods at the two intersections are shown in **Table 4** for Existing plus Project conditions. At the Bridgeway Boulevard/Locust Street intersection during the morning peak hour, the northbound approach on Locust Street experiences a vehicle delay of 13.3 seconds and therefore operates at LOS "B." In the afternoon, the same northbound approach on Locust Street experiences a vehicle delay of 17.1 seconds and therefore operates at LOS "C."

At the Bridgeway Boulevard/Napa Street intersection during the morning peak hour, the northbound approach on Napa Street experiences a vehicle delay of 14.3 seconds and therefore operates at LOS "B." In the afternoon, the same northbound approach on Napa Street experiences a vehicle delay of 43.1 seconds and therefore operates at LOS "E."

The vehicle delay and LOS for Existing plus Project conditions are the same as Existing conditions, except for the northbound movement on Napa Street at Bridgeway Boulevard, where there is an increase of 0.1 seconds. Because of the very low trip generation values for the proposed project, the Existing plus Project conditions remains essentially the same as Existing conditions.

Table 4: Existing plus Project Intersection Service Levels and Delays

Peak Period	Overall		Eastbound		Westbound		Northbound		Southbound	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Bridgeway Boulevard/Locust Street										
AM	--	--	0.2	A	--	--	13.3	B	--	--
PM	--	--	0.3	A	--	--	17.1	C	--	--
Bridgeway Boulevard/Napa Street										
AM	--	--	0.3	A	--	--	14.4	B	--	--
PM	--	--	2.9	A	--	--	41.3	E	--	--

Source: Parisi Associates

D. Parking

Parking requirements for the project are governed by the "City of Sausalito Zoning Ordinance." Chapter 10.40 "General Development Regulations" provides parking specifications in Chapter 10.40.100, "Parking Standards;" Chapter 10.40.110 "Parking Space Requirements by Land Use:" and Chapter 10.40.120 "Design and Improvement of Parking." In general, all approved land uses must provide the required number of parking spaces for the project on the project site. The subject

project is proposed as a 6,678 square foot warehouse. The City requires one off-street parking space per 1,500 square feet for a warehouse land use. For the proposed project, four off-street parking spaces would be required, of which one space would be for disabled parking. The project is proposing to supply seven off-street parking spaces, or three spaces in excess of City requirements.

The City also requires that all off-street parking and access must be designed to result in a minimum loss of on-street parking. For every parking space lost on-street, an additional parking space must be provided off-street. There are currently 19 perpendicular parking spaces abutting the project site along Locust Street. Those 19 parking spaces would remain, but in a slight modification to the existing alignment. The change is due to relocation of an existing driveway to a location that accesses the new project parking lot.