Clark & Witham, Inc.

ENVIRONMENTAL PROTECTION
95 MAR 21 AM 8:03

Phone: *(510) 659-1805*
Fax: *(510) 659-6344*

3499 Edison Way, Fremont, CA. 94538

Consulting Engineering Geologists

March 14, 1995
CHO002-C

what about MW-1 - was that destroyed before, or is it still in use? Destroyed -

Mr. Martin Petersen
Citation Homes Central
404 Saratoga Avenue, Suite 100
Santa Clara, California 95050

Subject: Letter Report on Destruction of Ground-Water Monitoring Wells at Former Okada Property, 16109 Ashland Avenue, San Lorenzo, California.

Mr. Petersen:

This letter report documents the destruction of ground-water monitoring wells MW-2 and MW-3 at the former Okada Property, 16109 Ashland Avenue, San Lorenzo, California. The site is located west of Ashland Avenue near East 14th Street in San Lorenzo, as shown in Plate 1. Wells MW-2 and MW-3 were installed in the northeastern portion of the property at the locations shown on Plate 2. The wells were 2 inches in diameter; MW-2 was installed to a depth of 13 feet below grade with a perforated casing interval of 7 feet and MW-3 was installed to a depth of 16 feet below grade with a perforated casing interval of 10 feet. As-built diagrams and exploration drill hole logs for both former wells are attached. Clark and Witham, Inc. submitted a Well Destruction Application on January 10, 1995 to the Zone 7 Water Agency, and was issued a permit authorizing the well destructions. A copy of the permit is attached.

A representative of Clark & Witham, Inc. observed the destruction of MW-2 and MW-3 on February 24, 1995. Exploration Geoservices, Inc. of San Jose, California performed the well destructions by pressure grouting with a slurry of Type I/II Portland cement mixed with 3 to 5 percent by weight bentonite powder and 8 gallons of water per 94-pound bag of cement. The estimated volume of grout required to completely fill the well casing and annular space was approximately 8.6 gallons for MW-2 and 9.1 gallons for MW-3. These volumes were calculated using total well depths, the perforated screen intervals, and the borehole diameters. Filter pack void space was assumed to be 25 percent.

The grouting procedure involved placing air-tight caps on the wellheads and attaching a grout hose to the caps. A grout mixer was used to mix and pump grout into the wells. Grout was pumped from the hopper of the pumping unit in one continuous operation through the well cap/hose assembly at a pressure of 80 pounds per square inch (psi). Pumping continued at the constant 80 psi pressure until the wells were filled completely. The procedure prevented escape of water from the top of the wells and forced water out

of the wells and into the formation. Approximately 16 gallons of grout were pumped into MW-2, and 30 gallons of grout were pumped into MW-3.

The aboveground well protective casings of both wells were removed and the well casings were cut 1 foot below grade. The shallow holes above the casings were backfilled with grout to the ground surface, the grout was allowed to set, and the well locations were returned to their original conditions.

Clark and Witham, Inc. prepared and submitted State of California Well Completion Reports for the well destructions. Attached are copies of these forms. Please call if you have any questions.

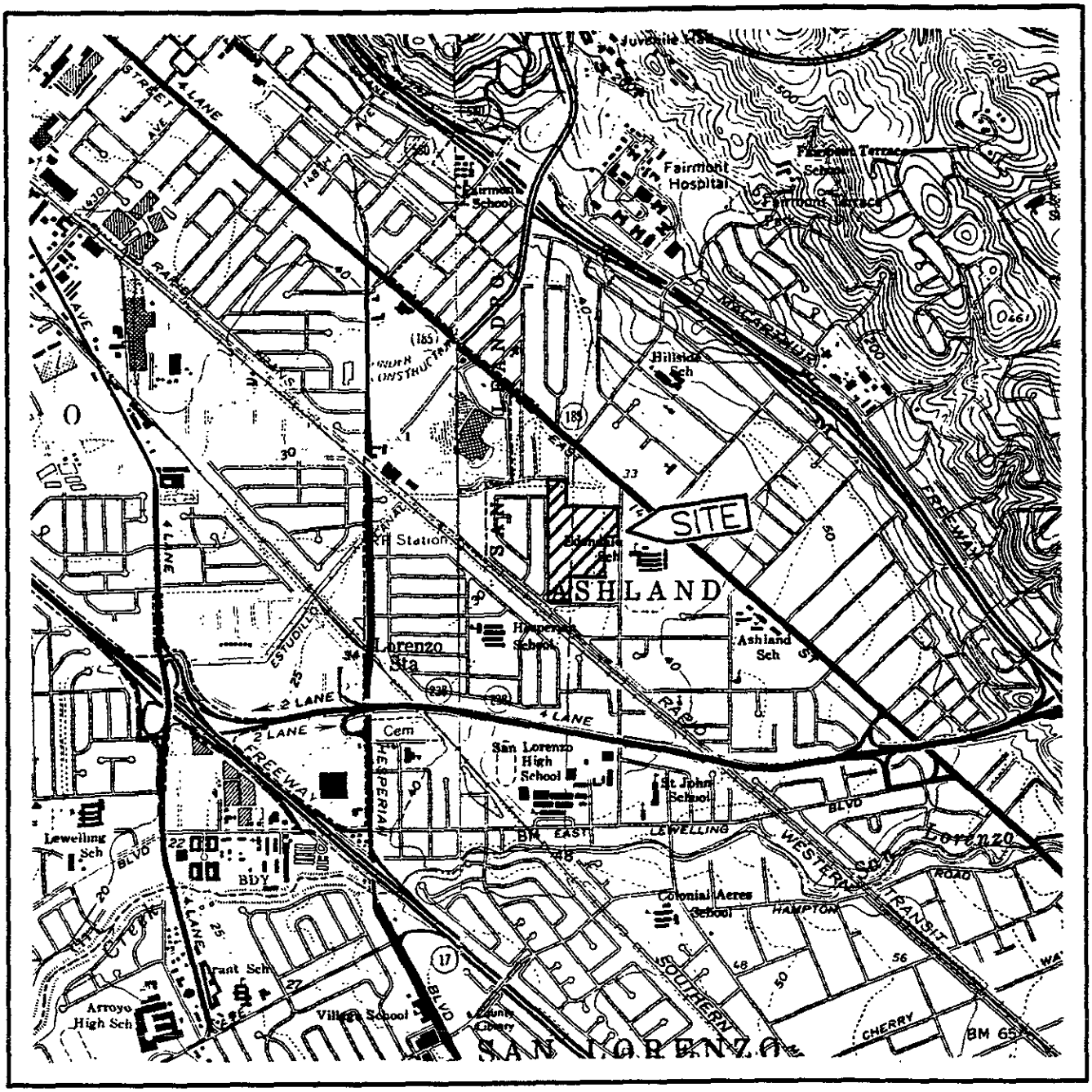
Sincerely,
Clark & Witham, Inc.

Robert Magginetti
Staff Geologist

Rodger C. Witham
Project Manager

Attachments: Plate 1, Site Vicinity Map
Plate 2, Site Plan
As-Built Well Diagrams
Exploration Drill Hole Logs
Drilling Permit Application
State of California Well Completion Reports

cc: Eva Chu, Alameda County Health Care Services Agency



Source: U.S. Geological Survey
7.5–Minute Quadrangle
Hayward/San Leandro, California
Photorevised 1980

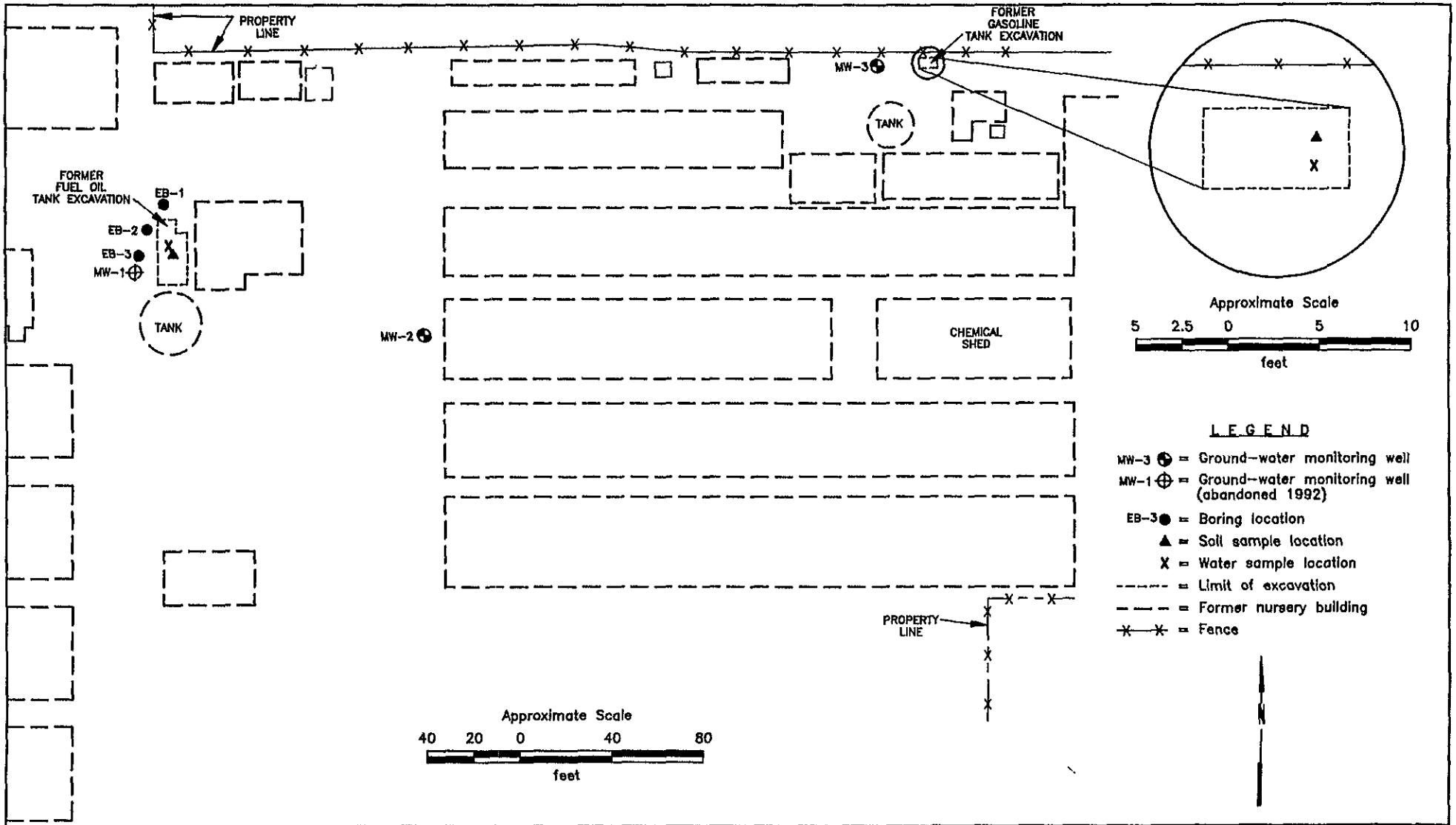
N

Approximate Scale

2000 1000 0 2000 4000

feet

CLARK & WITHAM, INC.	SITE VICINITY MAP Former Okada Property 16109 Ashland Avenue San Lorenzo, California	PLATE 1
PROJECT NO. CH0002-C		

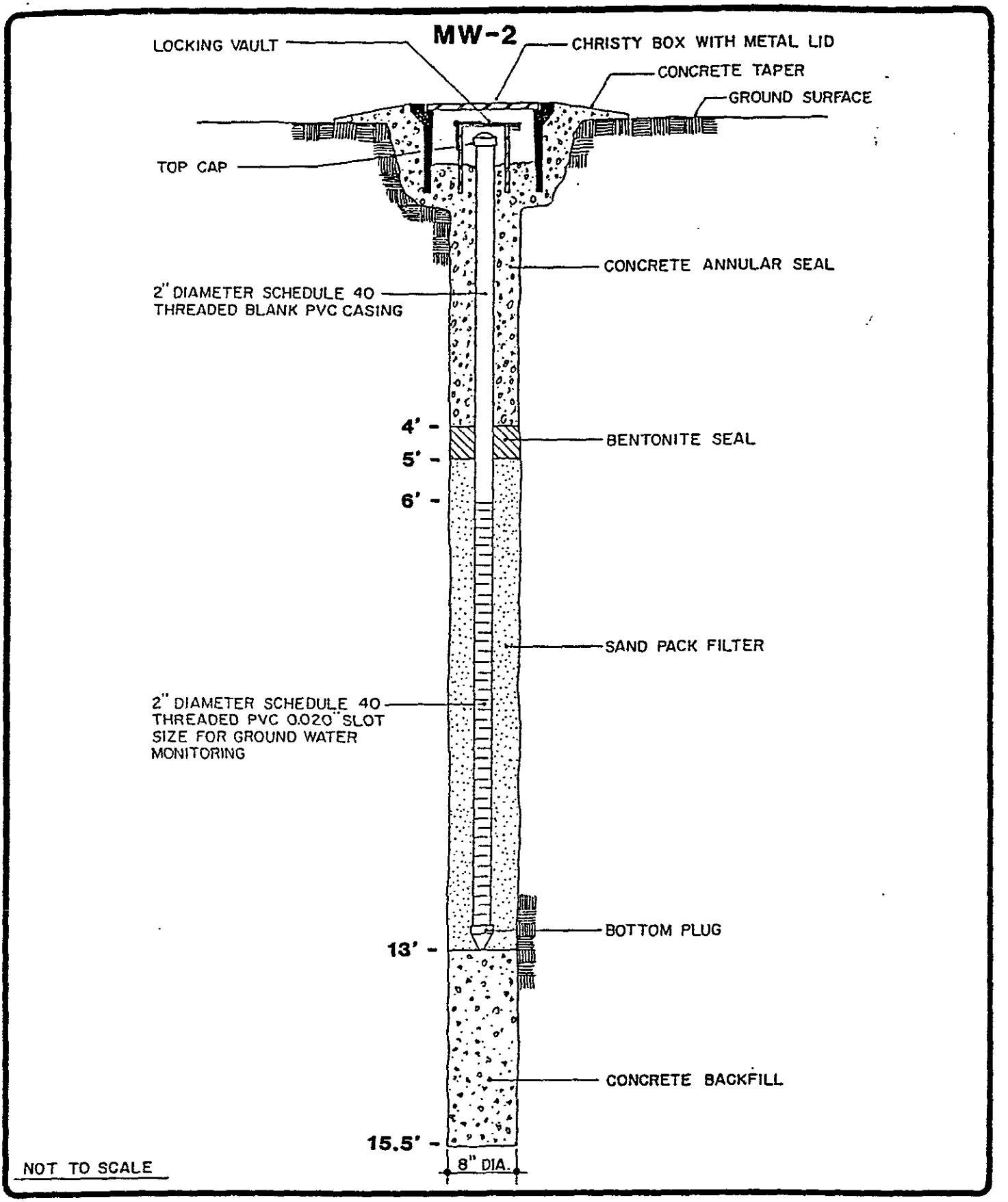


CLARK & WITHAM, INC.

PROJECT NO. CH0002-B

SITE PLAN – NORTHEAST PORTION
Former Okada Property
16109 Ashland Avenue
San Lorenzo, California

PLATE 2



TERRATECH

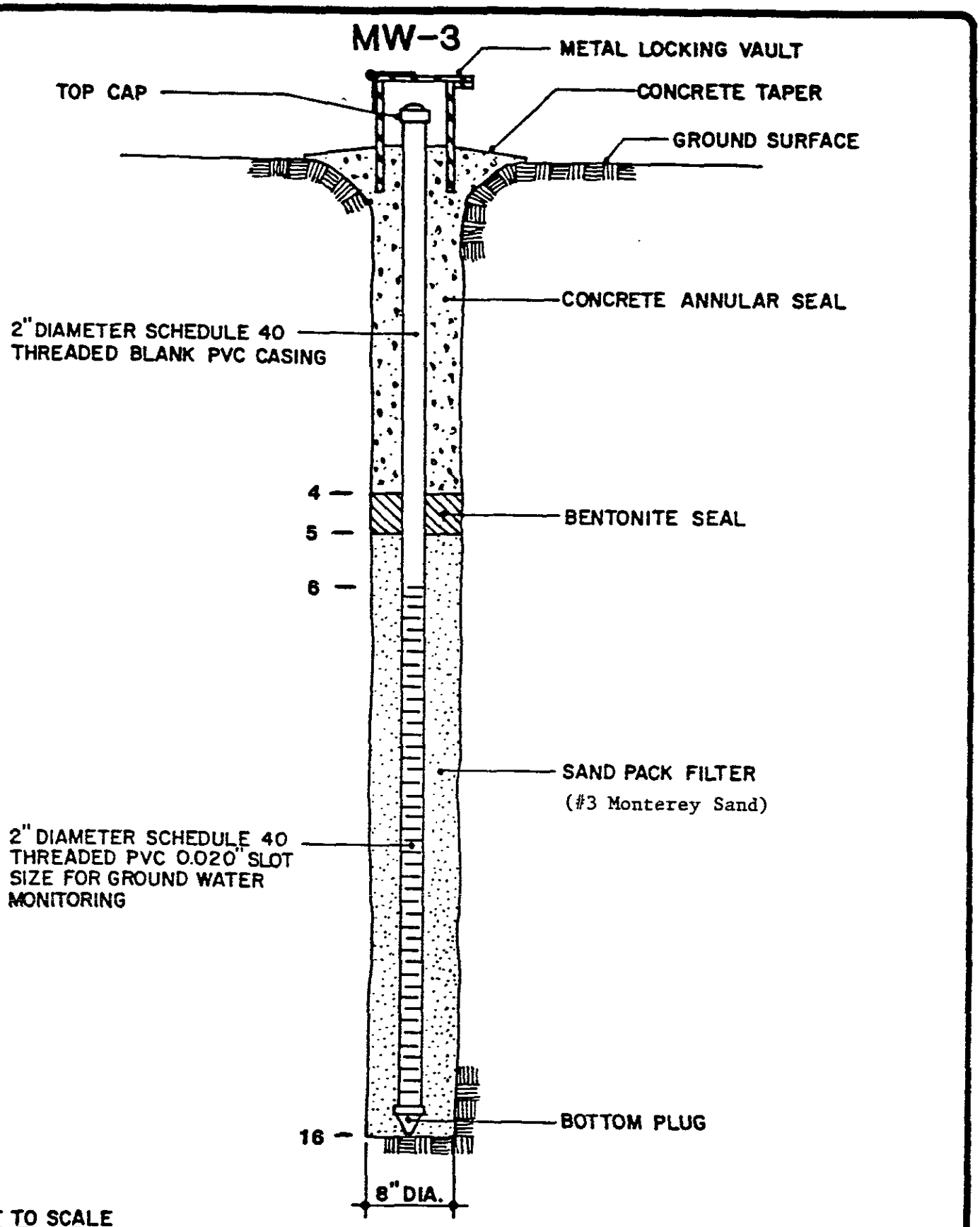
AS-BUILT WELL DIAGRAM

OKADA PROPERTY
SAN LEANDRO, CALIFORNIA

FIGURE 2

PROJECT 4486

SAN JOSE BLUEPRINT CO
PRINTED ON JR 330



August 1989

TERRATECH

AS-BUILT MONITORING WELL DIAGRAM

CITATION - OKADA
SAN LEANDRO, CALIFORNIA

FIGURE 2

PROJECT 4486/1

EXPLORATION DRILL HOLE LOG

HOLE No. MW-2

PROJECT OKADA PROPERTY | DATE 3-28-89 | LOGGED BY BMK

DRILL RIG Hollow Stem; CME 75 | HOLE DIA. 8" | SAMPLER X = Modified Calif.

GROUNDWATER DEPTH INITIAL 7' | FINAL 5.5' | HOLE ELEV. —

DESCRIPTION	SOIL TYPE	DEPTH	SAMPLE	BLOWS PER FOOT	POCKET PEN (tsf)	TORVANE (tsf)		LIQUID LIMIT	WATER CONTENT	PLASTIC LIMIT	DRY DENSITY (pcf)	FAILURE STRAIN (%)	UNCONFINED SHEAR STRENGTH (psf)
SANDY CLAY; black, dry, stiff; odorless.	CI	1											
		2											
		3											
		4											
CLAY W/SAND; brown, moist, firm; odorless.	CI	5	X	6			▼						
SILTY SAND; tan, wet, soft, fine grained; odorless.	SM	6											
		7					▽						
		8											
SANDY LEAN CLAY; brown, wet, soft, odorless.	CL	9											
		10	X	5									
		11											
		12											
		13											
		14											
FAT CLAY; black-dark gray, moist, stiff; odorless.	CH	15	X	9									
BOTTOM OF HOLE @ 15.5'		16											
		17											
		18											
		19											
		20											

EXPLORATION DRILL HOLE LOG

HOLE No. MW-3

PROJECT CITATION - OKADA | DATE 8/17/89 | LOGGED BY BMK

DRILL RIG HSW - Hollow Stem | HOLE DIA. 8" | SAMPLER X = Modified Calif.

GROUNDWATER DEPTH INITIAL —— | FINAL 8 1/2' | HOLE ELEV.

DESCRIPTION	SOIL TYPE	DEPTH	SAMPLE	BLOWS PER FOOT	POCKET PEN (tsf)	TORVANE (tsf)		LIQUID LIMIT	WATER CONTENT	PLASTIC LIMIT	DRY DENSITY (pcf)	FAILURE STRAIN (%)	UNCONFINED SHEAR STRENGTH (psf)
LEAN CLAY W/SAND AND GRAVEL(FILL?); brown, dry, stiff; odorless.	CL	1											
FAT CLAY(FILL?); black, moist, firm; trace fine sand; slight odor.	CH	2											
		3											
		4											
becomes greenish, with glass shards; very moist; stronger odor (possible fuel oil)		5											
		6	X	4									
SILTY SAND; gray, wet, loose; fine to medium grained. (driller reports water between 6' and 9')	SM	7											
		8					▼						
FAT CLAY; gray - dark gray; moist, stiff; slight odor.	CH	9											
		10											
		11	X	12									
		12											
		13											
		14											
becomes light gray; still slight odor		15											
		16	X	11									
BOTTOM OF HOLE @ 16 1/2 FEET Monitoring Well Constructed		17											
		18											
		19											
		20											

ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588 VOICE (510) 484-2600
FAX (510) 462-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 16109 Ashland Avenue
San Lorenzo, California

CLIENT
Name Citation Homes Central
Address 404 Saratoga Ave., Suite 100 Vicinity
City Santa Clara, CA Zip 95050
(408) 985-6000

APPLICANT
Name Clark & Witham, Inc.
Fax (510) 659-6344
Address 3499 Edison Way Voice (510)659-1805
City Fremont, California Zip 94538

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	___	General	___
Water Supply	___	Contamination	___
Monitoring	___	Well Destruction	XX

PROPOSED WATER SUPPLY WELL USE
Domestic ___ Industrial ___ Other ___
Municipal ___ Irrigation ___

DRILLING METHOD:
Mud Rotary ___ Air Rotary ___ Auger ___
Cable ___ Other ___

DRILLER'S LICENSE NO. C-57 484288

WELL PROJECTS

Drill Hole Diameter	8 in.	Maximum	
Casing Diameter	2 in.	Depth	13/16 ft.
Surface Seal Depth	4 ft.	Number	2

GEOTECHNICAL PROJECTS

Number of Borings	___	Maximum	
Hole Diameter	___ in.	Depth	___ ft.

ESTIMATED STARTING DATE January 25, 1995
ESTIMATED COMPLETION DATE January 25, 1995

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Robyn C. Witham Date 1/10/95

FOR OFFICE USE

PERMIT NUMBER 95016
LOCATION NUMBER 3S/2W 6J80 to 6J81

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well Projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

B. WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

C. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

(E.) WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 13 Jan 95
Wyman Hong

91992

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED