

RECEIVED

11:34 am, Apr 13, 2009

Alameda County
Environmental Health

**PEER REVIEW APPROVAL FORM
(Required for Remediation)**

Presenter: David De Witt

Date: 5-03-2001

Reviewers: Ed Ralston, David Camille

Site Address: 96 MacArthur (Unit 251871) **City:** Oakland, CA

Lead Regulatory Agency: Alameda County - EHS

Case worker: Thomas Peabody

RWQCB: San Francisco Bay RWQCB

PR-10	251871	SS	X	BP
	QM			TRANSMITTAL
	3	4	5	X

Site Conditions: Depth to GW: 15'

Soil Type: Coarse Medium Fine or Interbedded

Impact: Soil GW LPH: (feet)

Max Conc. TPHg: Soil 2000 ppm GW - 620,000 ppb

Max Conc. Benzene: Soil 9.7 ppm GW - 9910 ppb

Max Conc. MTBE: Soil 16 ppm GW - 160,000

Groundwater Plume: On-site Only Off-site

Groundwater Basin Usage: High Production/Risk

Low Production/Risk

No Production/Risk

Other Potential Sensitive Receptor Risk

Explain: Plume not fully defined; CalTrans encroachment permits difficult to obtain for offsite work.

Third Party Issues:

Explain: Site currently operated by Qwik Stop Markets with fuel services.

Agency Directive:

None: RAP only: RAP Source Removal: RAP Soil:

RAP Soil and Groundwater: Other: RBCA already in place, High levels of MtBE need to be addressed.

Date: 5-03-01

Deadline: NONE - see comments

Peer Review Approval Form (Form PR-1) page 1 (Continued)

TMC Environmental Compliance	Page	1 of 2
Expenditure Procedure Guidelines	Date	05/18/01
	Supercedes	09/20/99

Issues: Contamination levels resolved, sparge point moved for more effective system. System is recommended to minimize impact on current operator of the site. Currently no Agency directive, but would prefer to be proactive so as to be able to choose what we want for remediation.

Presenters Recommendation(s):

NFA/Risk Evaluation: Monitoring/Risk Eval: Excavation:
VES: VES/AS: Biovent/Biosparge: Dual Phase:
P&T: Mobile Treatment:
Equipment: Purchase: Lease: Use Existing:
Other: KVA C-Sparge system

Remediation Time: Remediation (yrs) 3 Monitoring (yrs) 5
Estimated Costs:

Equipment: \$ 40,000 Well Install: \$ 15,000 System Install: \$ 12,000
O&M: 10,000/yr Groundwater Monitoring: \$ 10,000/yr. Total Cost: \$ 147K

Reviewers Approval: Yes No (see action items below)

Reviewers Recommendations/Comments/Action Items:

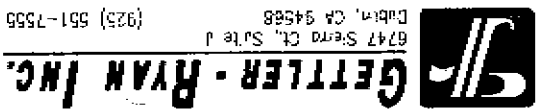
DAVID C. DJC
Ed. R. DJC/ECR

Peer Members

DAVID DEWITT
Presenter

[Signature]
Regional Manager

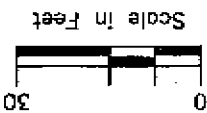
EC Director



POTENTIOMETRIC MAP
 Tosco (Former Unocal) Service Station #1871
 96 MacArthur Boulevard
 Oakland, California

Source: figure modified from drawing provided by WPCS Services, Inc.

FIGURE 1



Approximate groundwater flow direction of a gradient of 0.02 Ft./Ft.



Groundwater elevation contour, dashed where inferred.

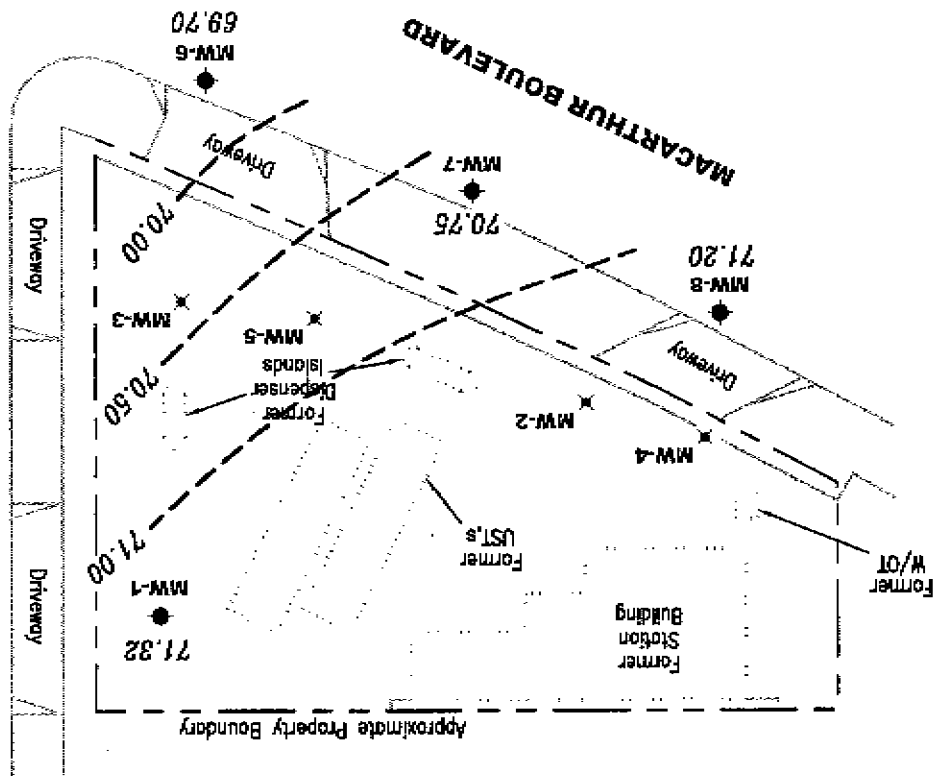
99.99

Groundwater elevation in feet referenced to Mean Sea Level (MSL)

- ◆ Groundwater monitoring well
- * Destroyed well

EXPLANATION

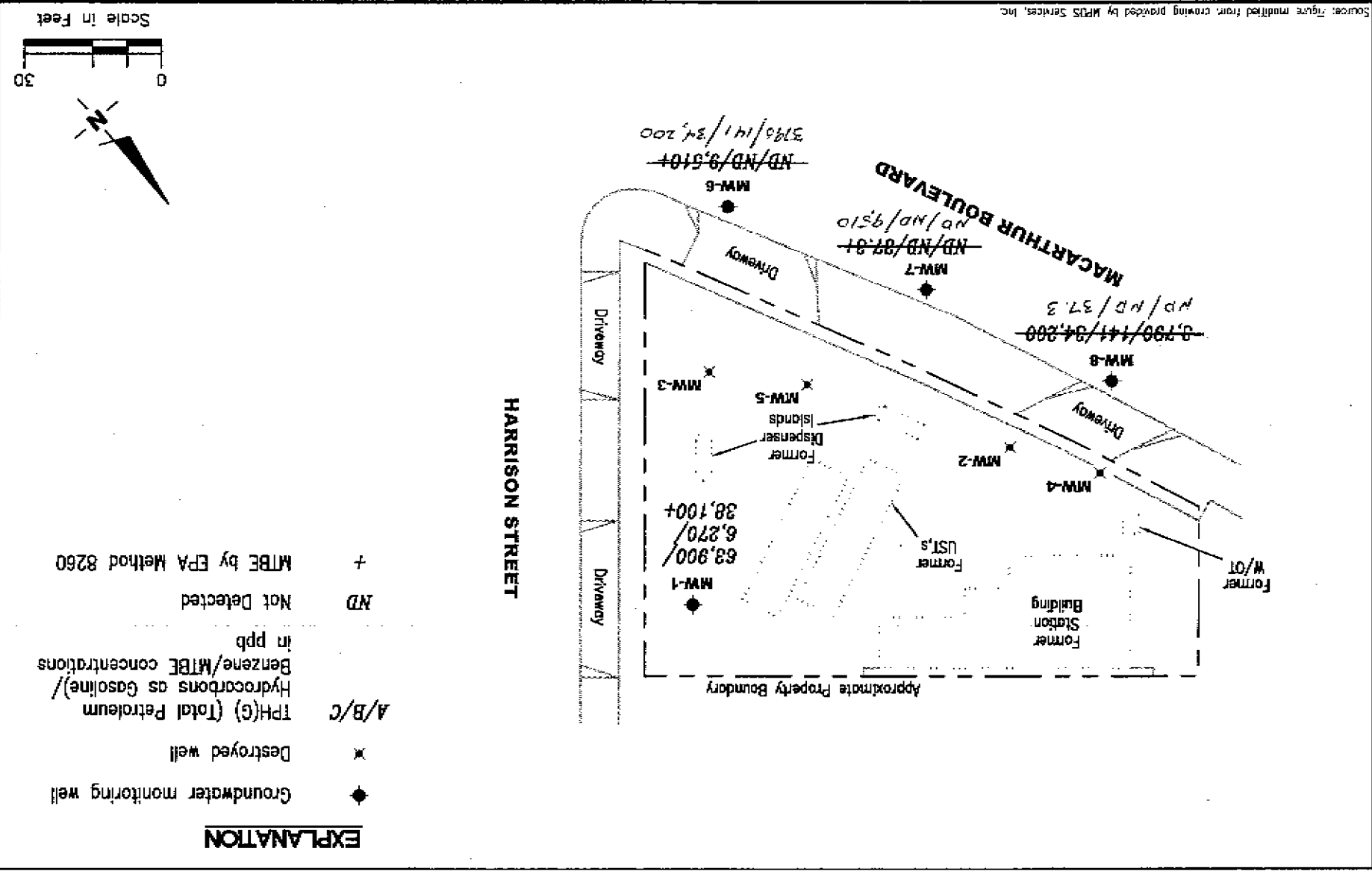
HARRISON STREET



Approximate Property Boundary

Source: Figure modified from drawing provided by HRS Services, Inc.

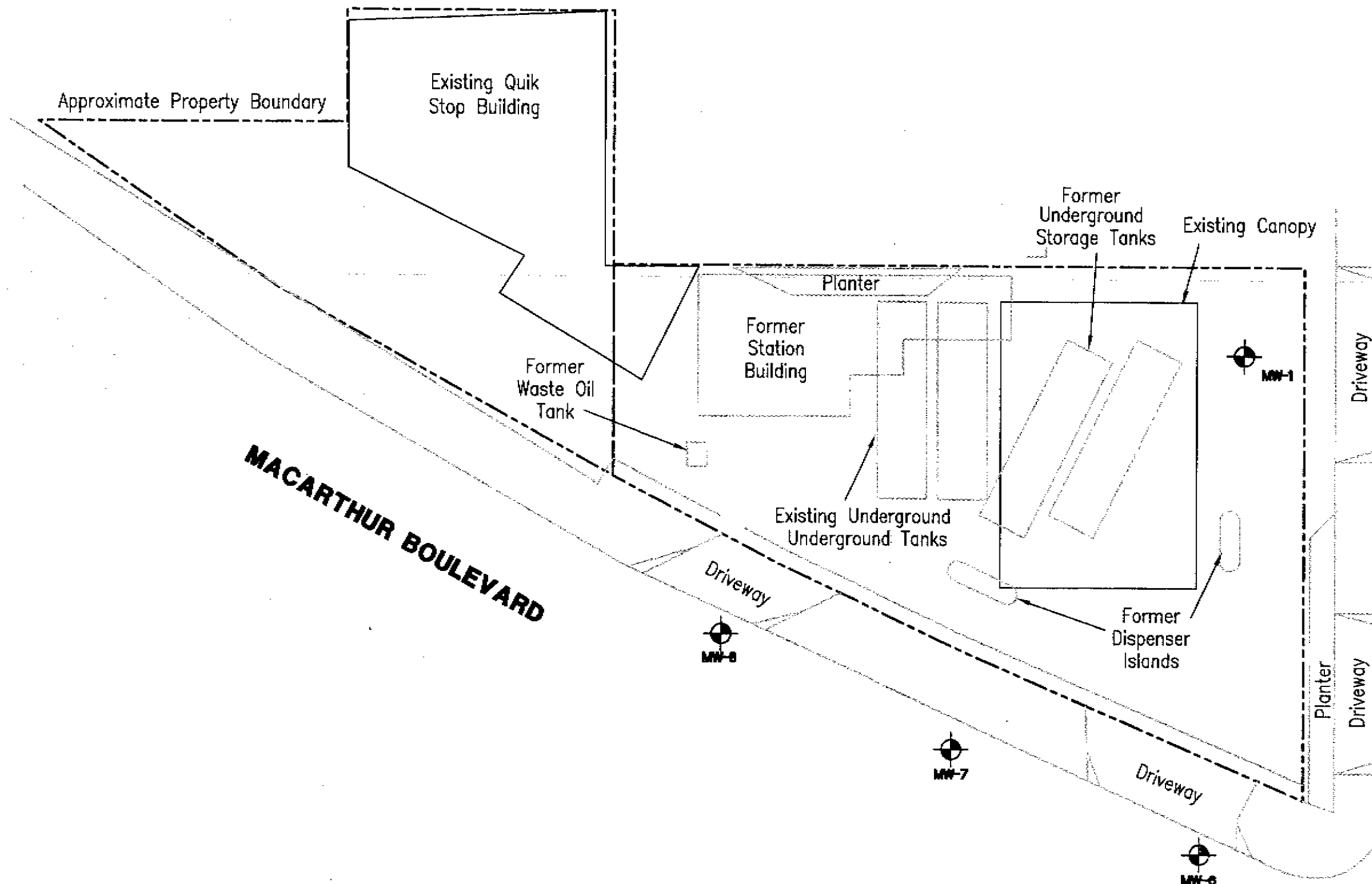
FIGURE 2



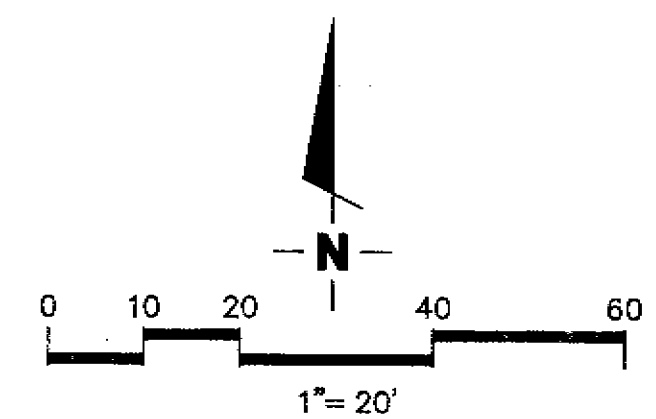
EXPLANATION



GROUNDWATER MONITORING WELL



HARRISON STREET






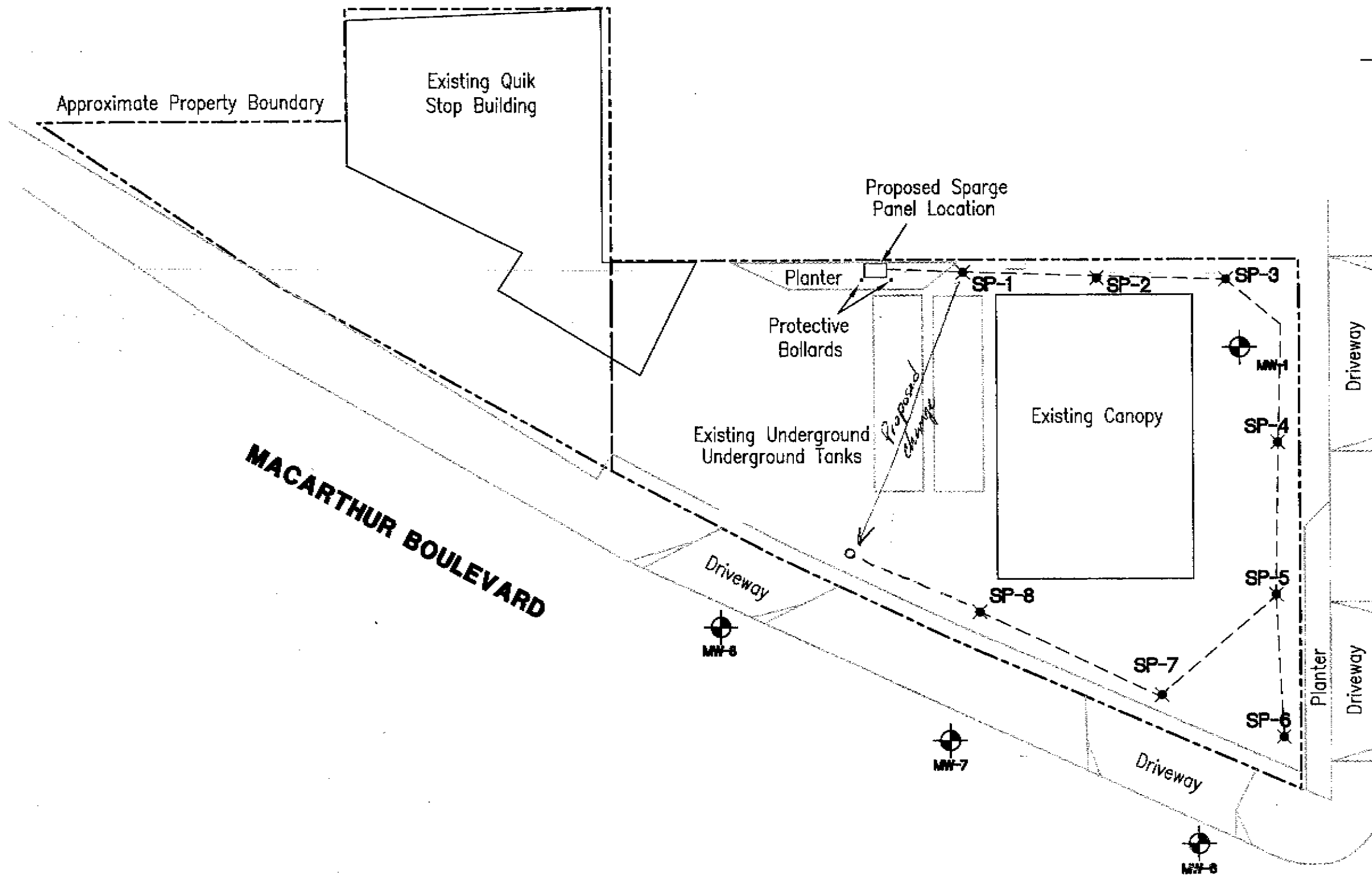
REV #	REVISION	BY	DATE

Source: Figure Modified From Drawing Provided
By MPDS Services, Inc. And From Survey Provided
By Virgil Chavez Land Surveying.

Gettler - Ryan Inc. 6747 Sierra Ct., Suite J (925) 551-7555 Dublin, CA 94568	 1871-G1	PROJECT: 140165.09 FACILITY: FORMER TOSCO (76) STATION #1871 96 MACARTHUR BOULEVARD OAKLAND, CALIFORNIA	TITLE: EXISTING SITE PLAN
		DATE: 4/01 SHEET 2 of 7	DRAWING No. G1 A

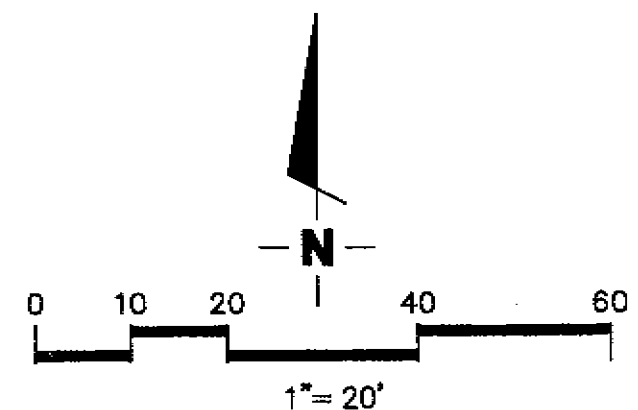
EXPLANATION

-  EXISTING GROUNDWATER MONITORING WELL
-  PROPOSED OZONE SPARGE POINT
-  PROPOSED OZONE TUBING TRENCH



HARRISON STREET

MACARTHUR BOULEVARD



REV #	REVISION	BY	DATE



Gettier - Ryan Inc.

6747 Sierra Ct., Suite J (925) 551-7555
Dublin, CA 94568



1871-G2

PROJECT: 140165.09
 FACILITY: FORMER TOSCO (76) STATION #1871
 96 MACARTHUR BOULEVARD
 OAKLAND, CALIFORNIA
 DATE: 4/01 SHEET 3 of 7

TITLE:
**NEW CONSTRUCTION
 SITE PLAN**
 DRAWING No. **G2** A

Source: Figure Modified From Drawing Provided
 By MPDS Services, Inc. And From Survey Provided
 By Virgil Chavez Land Surveying.

10 General Requirements

- Contractor is to comply with all Federal, State and local environmental laws and ordinances.
- Contractor is responsible for protecting the environment during construction by protecting trees and shrubs, containing any run-on or run-off, controlling dust, and containing any contamination caused by the contractor. TOSCO will be responsible for the disposal of soils and produced waters at an approved facility. The contractor shall dispose of all construction debris off site, including pavement removed during construction.
- Specifications and notes supercede drawings--any conflict is to be brought to the attention of the TOSCO Representative for resolution.
- The consultant is responsible for preliminary building permit fees (review fees) and for discharge permits (AQMD, NPDES, etc.). All required construction permits and inspections (including all fees and bonds) for electrical, mechanical, and civil work shall be the responsibility of the contractor.
- It is the contractor's responsibility to verify all dimensions and conditions before starting work. The consultant's PM shall be notified of any discrepancy.
- Construction areas are to be clearly marked with cones, barricades, or other approved safety markers as required by local codes to restrict access and provide a safe work area for the contractor, facility workers and customers.
- The contractor shall warrant all materials and workmanship for a period of one year. Defects shall be corrected at no cost to TOSCO.
- Contractor shall provide Consultant and TOSCO with a copy of signed-off building permits and "AS BUILT" drawings (accurately marked-up copies of original drawings) within 30 days of completion of construction.
- Contractor shall notify the Consultant and the QuikStop facility manager 48 hours prior to the start of work.

20 Site Work

Earthwork for trenching

- Existing pavement is to be saw cut when removed to provide a square vertical joint for repaving.
- Remove and store material encountered to obtain required sub-grade elevations, including pavement, obstructions visible on the ground surface, underground structures, and utilities indicated to be removed.
- Backfill trenches with bedding material after pipes have been tested. Hand tamp around pipes. Compact adequately to support surface material. (asphalt or concrete).
- Contractor shall make time and access allowances for TOSCO to conduct adequate soil sampling. TOSCO will provide, pay for, and direct all sampling and disposal of contaminated soil.

Well Installation

- Wells (if included) are to be constructed per specified design. Consultant/contractor is to procure and pay for any permits required.
- Well construction will meet any and all municipal codes affecting well construction.
- Contractor is to permanently label all wells on both the well-head piping (permanent ink) and on the top of the well cover (letter punch) with letters and numbers as shown in drawing G2.

Paving

- Pavement shall be replaced with asphalt or concrete to match the existing pavement.
- Thickness and strength is to meet trenching requirements and to avoid sagging or cracking of pavement.

30 Concrete

- Provide cast-in-place concrete, poured over a prepared subgrade, where shown on the drawings as needed for a complete and proper installation.
- Concrete shall be a minimum of 2500 psi and shall have a finish to match existing.

40 Process Equipment Installation

- Equipment shall be placed in accordance with the New Construction Site Plan (G2) and the Process Flow Diagram (G4).
- Contractor shall exercise due care to protect equipment from theft or damage.

50 Equipment Enclosure



- Contractor shall install the ozone sparge panel (supplied by Tosco) in a free-standing Type 12 enclosure. The enclosure size will be nominally 72 inches high by 36 inches wide by 18 inches deep. The ozone sparge panel will be mounted in the enclosure with at least 28 inches of free space above for future use. The enclosure shall be painted to match existing decor or local codes.
- The enclosure will be mounted on a 48 inch by 30 inch by 6 inch thick concrete pad.
- Consultant shall post the following signs: a.) Proposition 65 warning (in California), b.) No Smoking, and c.) Emergency contact telephone number for the consultant.
- Contractor shall provide appropriate fire extinguisher to be kept inside enclosure.

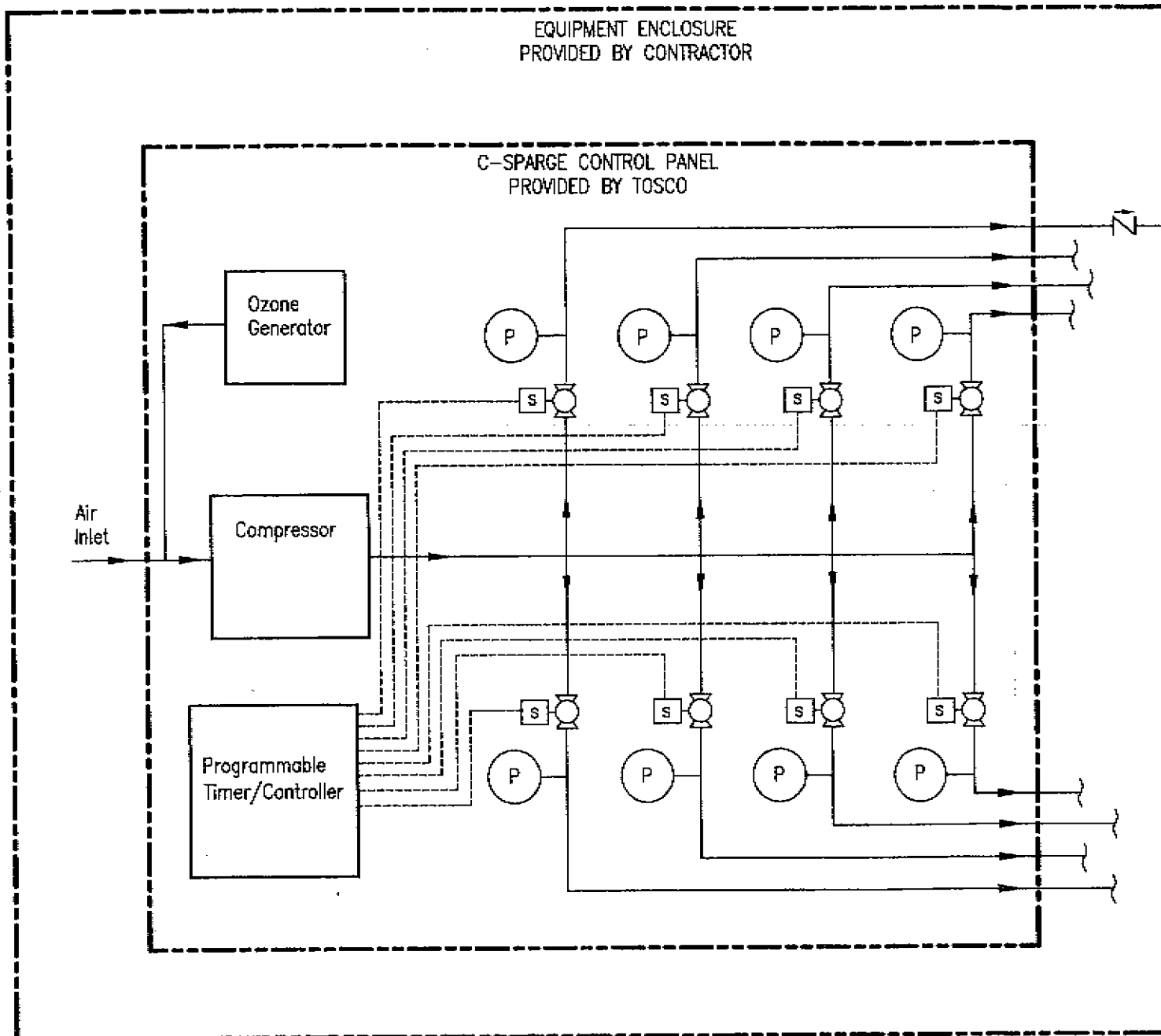
60 Piping and Valves

- Installation details are provided in G5 Construction Details.
- All piping and conduit shall be supported, in accordance with local codes, to prevent sagging or over-stressing of the pipe and connections. All piping shall be supported so that no load or stress is transferred to any equipment.
- Process piping shall be labeled with flow direction and content.
- Where piping is routed above ground (inside the enclosure) the piping shall be supported by unistrut and shall be installed per local code.
- Utility piping must be installed per local code which varies from city to city.
- Secondary containment piping, where required, shall be schedule 40.


7.0 Electrical See - G6 ELECTRICAL SINGLE LINE DRAWING


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
 Gettler - Ryan Inc. 6747 Sierra Ct., Suite J (925) 551-7555 Dublin, CA 94568	 1871-G3	PROJECT: 140165.09	TITLE: CONSTRUCTION NOTES DRAWING No. G3
		FACILITY: FORMER TOSCO (76) STATION #1871	
96 MACARTHUR BOULEVARD OAKLAND, CALIFORNIA	DATE: 4/01	SHEET 4 of 7	



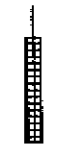
LIST OF SYMBOLS

 Pressure Gauge
0-100 psig

 Solenoid Valve

 Check Valve
(Provided by Tosco
Installed by Contractor)

 Control Wiring

 Microsparge Point

3/8" O.D.
LLDPE Tubing by
Contractor

3/4" PVC
Well Casing
by Others

Microsparge
Point (Typical
- 8 points)
Installed by
others

NOT TO SCALE

REV #	REVISION	BY	DATE



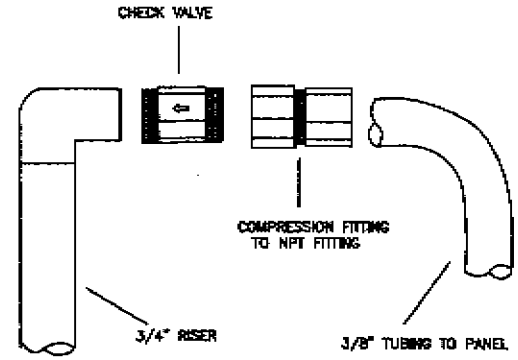
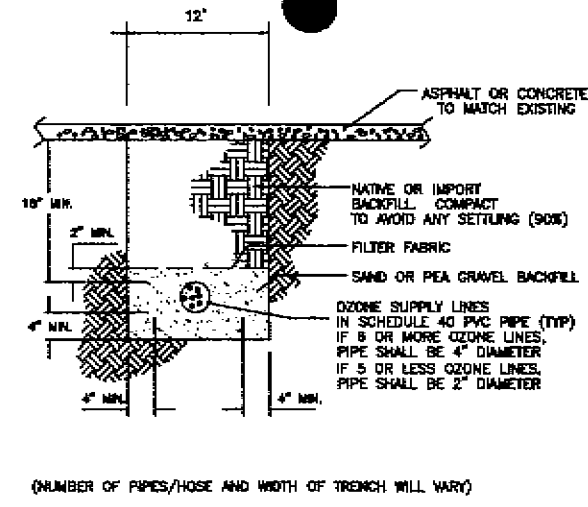
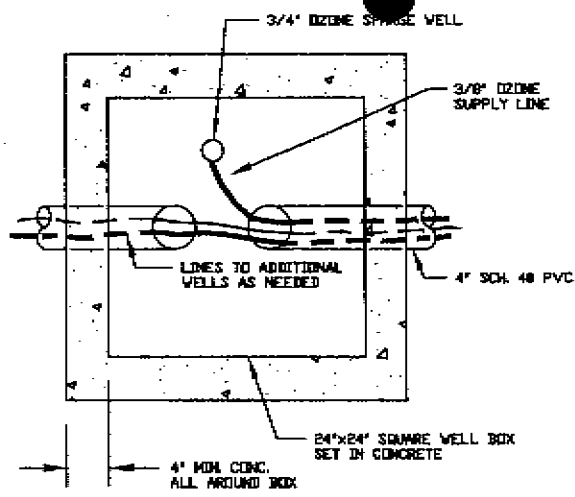
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Dublin, CA 94568



1871-G4

PROJECT: 140165.09
FACILITY: FORMER TOSCO (76) STATION #1871
96 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA
DATE: 4/01 SHEET 5 of 7

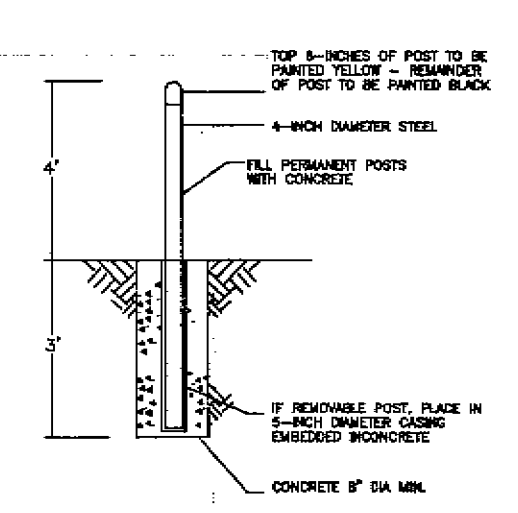
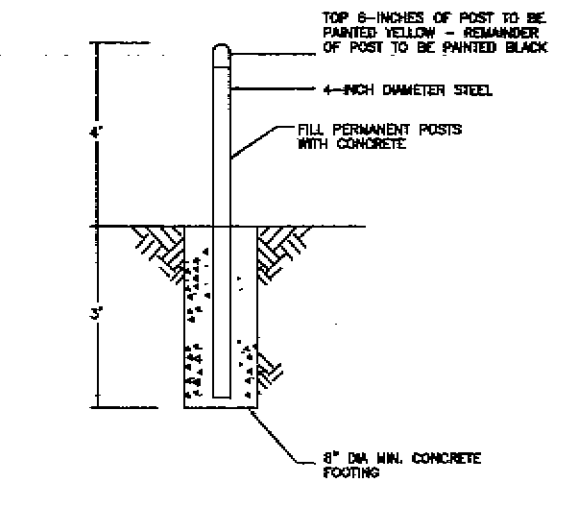
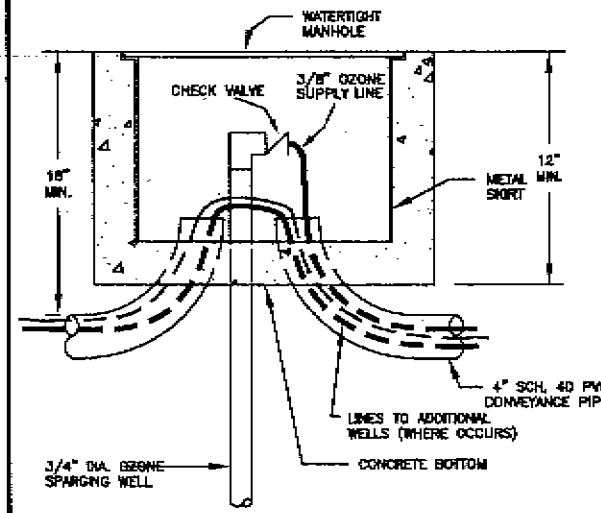
TITLE:
**PROCESS FLOW DIAGRAM
OZONE SPARGE SYSTEM**
DRAWING No. **G4** A



1 AIR SPARGE WELL COMPLETION - PLAN VIEW
G5 NOT TO SCALE

3 SPARGE LINE TRENCH DETAIL
G6 NOT TO SCALE

5 OZONE SPARGE POINT CONNECTION DETAIL
G5 NOT TO SCALE



2 OZONE SPARGE WELL COMPLETION - ELEVATION
G5 NOT TO SCALE

4 FIXED PROTECTION POST DETAIL
G5 NOT TO SCALE

6 REMOVABLE PROTECTION POST DETAIL
G5 NOT TO SCALE

REV #	REVISION	BY	DATE

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Dublin, CA 94568

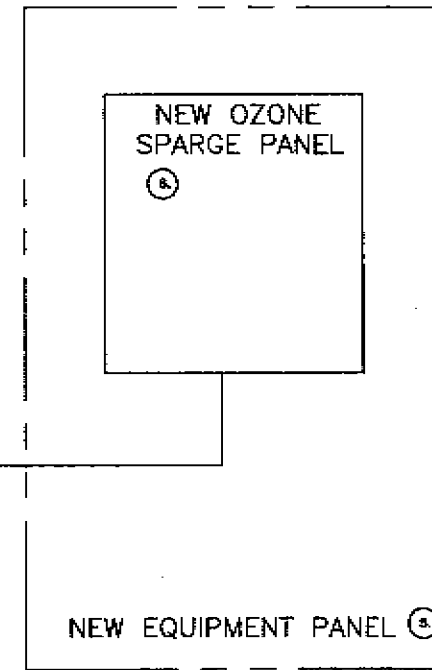
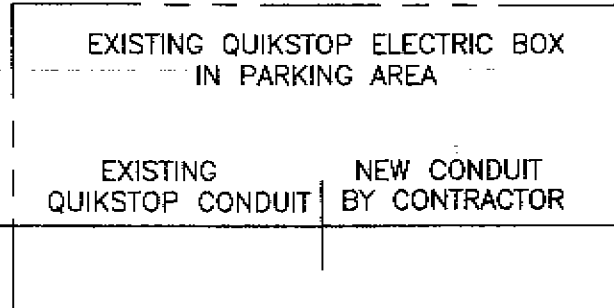
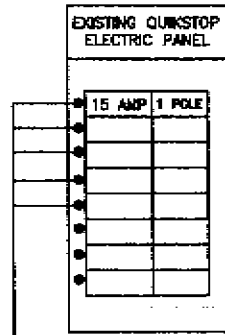
TOSCO

1871-G5

PROJECT: 140165.09
FACILITY: FORMER TOSCO (76) STATION #1871
96 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA
DATE: 4/01 SHEET 6 of 7

TITLE:
CONSTRUCTION DETAILS
DRAWING No. **G5**

EXISTING QUIKSTOP BUILDING



NOTES:

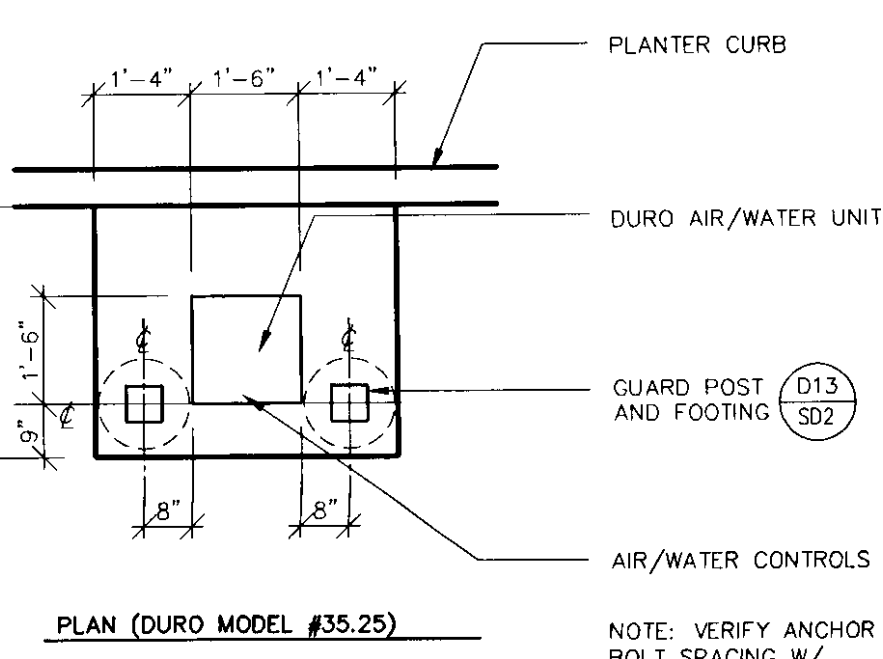
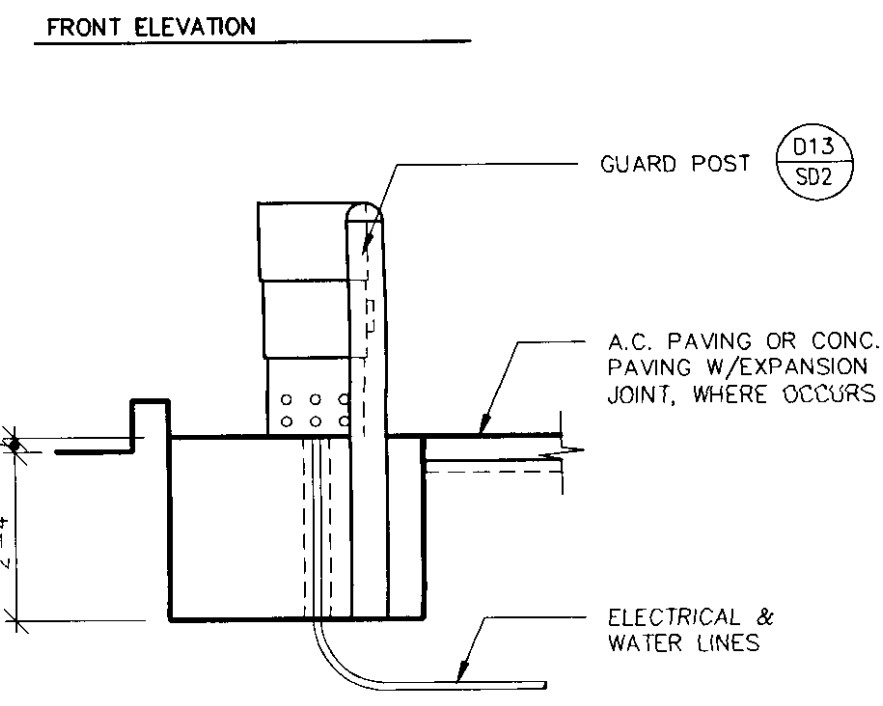
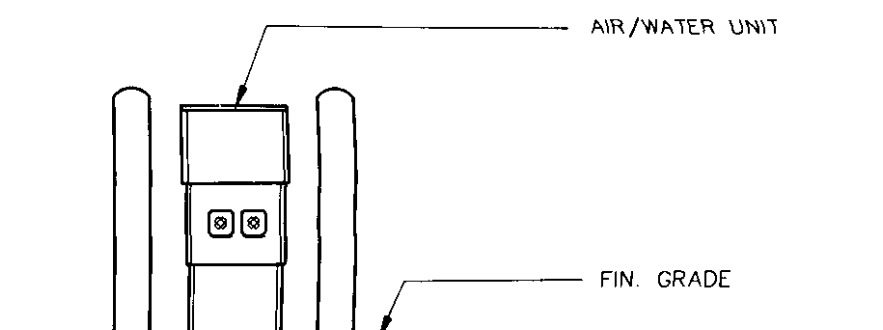
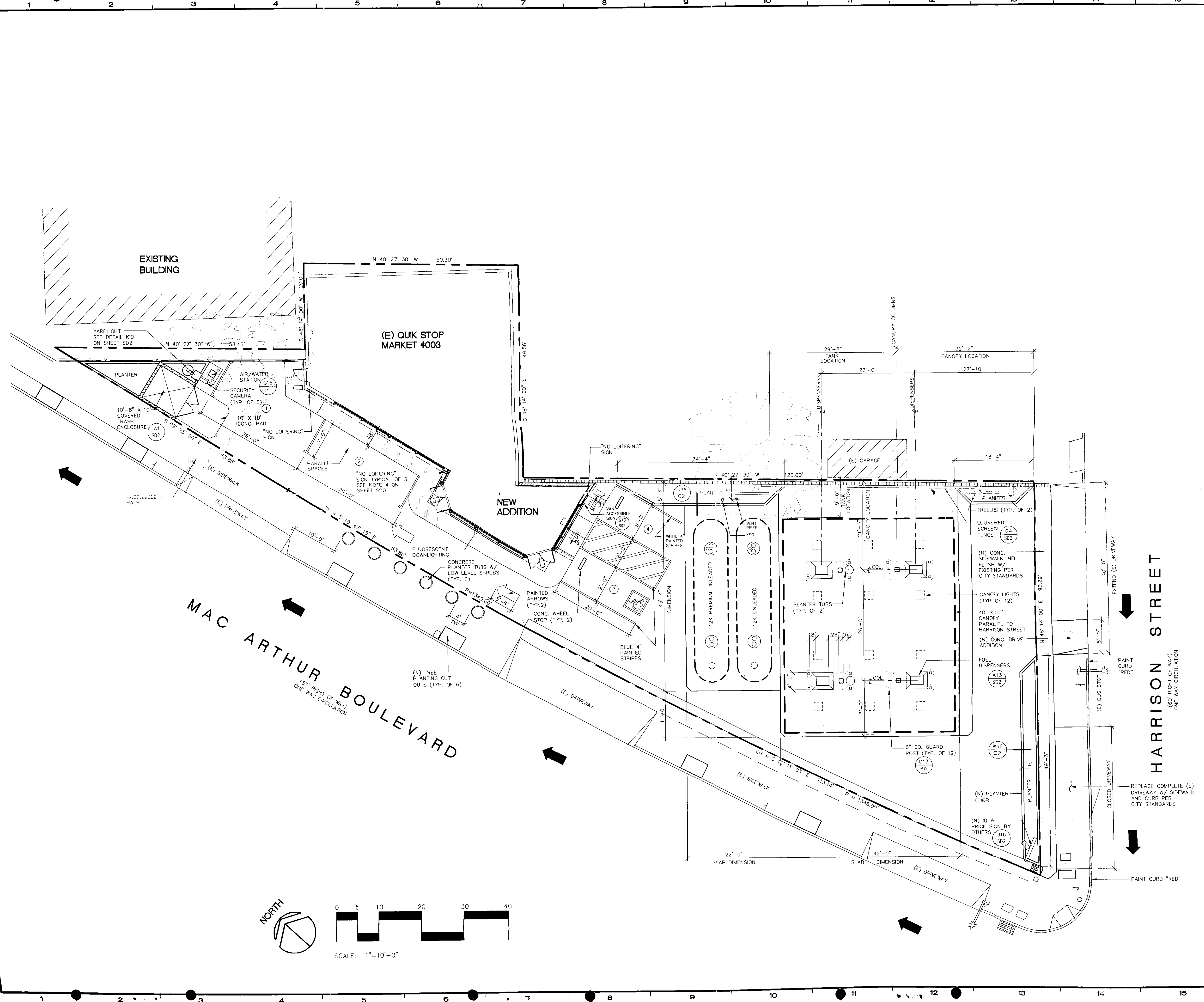
- ① THE CONTRACTOR IS TO PROVIDE REQUIRED PANEL BOX AND BREAKERS FOR POWER. SERVICE AND METER ARE NOT EXISTING.
- ② CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY EQUIPMENT FOR ELECTRICAL SERVICE.
- ③ THE ELECTRICAL SERVICE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF OSHA AND THE LATEST REVISION OF THE NEC AND THE NESC. THE INSTALLATION SHALL ALSO CONFORM TO ALL LOCAL ORDINANCES. ELECTRICAL EQUIPMENT AND MATERIALS SHALL BE IN ACCORDANCE WITH IEEE, ANSI, AND NEMA STANDARDS AND, WHERE APPLICABLE, HAVE THE UNDERWRITERS LABORATORIES APPROVAL AND LABEL OR FACTORY MUTUAL APPROVAL.
- ④ ELECTRICAL WIRING SHALL BE APPROPRIATELY IDENTIFIED AND PERMANENTLY MARKED.
- ⑤ THE ENCLOSURE SHALL BE CONSIDERED TO BE A NEMA 3R NON-HAZARDOUS ENVIRONMENT PER THE NEC, UNLESS: A) THE ENCLOSURE IS INSTALLED WITHIN AN AREA ALREADY RATED AS HAZARDOUS, OR B) THE RECOVERY/TREATMENT SYSTEM ITSELF WILL EMIT ENOUGH FLAMMABLES ITSELF TO GENERATE A HAZARDOUS ATMOSPHERE.
- ⑥ OZONE SPARGE PANEL IS A COMPLETE UNIT PROVIDED BY TOSCO. ELECTRIC CONNECTION IS TO BE HARD WIRED.
- ⑦ CONTRACTORS ELECTRICIAN SHALL BE KNOWLEDGEABLE IN THE INTRICACIES OF GASOLINE STATION ELECTRICAL INSTALLATION. SPECIAL CARE SHALL BE TAKEN TO INSURE THAT THE EXISTING STATION WIRING IS NOT DAMAGED OR COMPROMISED AND THAT DISRUPTION TO STATION OPERATIONS ARE MINIMIZED.

ELECTRICAL LOAD SUMMARY

EQUIPMENT DESCRIPTION	LOAD OR H.P.	VOLTS	PH	COMMENTS
C-SPARGE PANEL	15 AMP	120	1	

REV #	REVISION	BY	DATE

<p>Gettler - Ryan Inc. 6747 Sierra Ct., Suite J (925) 551-7555 Dublin, CA 94568</p>	<p>TOSCO</p>	PROJECT: 140165.09	TITLE: <p>ELECTRICAL SINGLE LINE DRAWING</p>
		FACILITY: FORMER TOSCO (76) STATION #1871	
DATE: 4/01	96 MACARTHUR BOULEVARD OAKLAND, CALIFORNIA	SHEET 7 of 7	
<p>1871-G6</p>			<p>A</p>



G16 AIR/WATER UNIT

DESIGNER'S STATEMENT

THIS PLOT PLAN CORRECTLY REPRESENTS A PLOT PLAN MADE BY ME OR UNDER MY DIRECTION.
 I HEREBY STATE THAT TO THE BEST OF MY KNOWLEDGE ALL PROVISIONS OF APPLICABLE STATE LAWS AND ORDINANCES HAVE BEEN COMPLIED WITH.
 I HEREBY FURTHER STATE THAT ALL PROPOSED GRADES, ELEVATIONS, AND CONTOURS DELINEATED UPON THIS PLOT PLAN ARE BASED UPON A BOUNDARY SURVEY BY GEORGE W. SENIN, R.C.E. #31151 DATED 4/29/98 AND TOPOGRAPHIC SURVEY BY RICHARD H.F. WAGNER, P.L.S. #6556 DATED 12/30/98 THAT WERE INDICATED THEREON BY THE SURVEYOR'S THEREOF AS BEING BASED UPON CITY OF OAKLAND DATUM.

DATE _____
 TITLE: _____
 LICENSE NUMBER _____ EXPIRES _____

MARK	DATE	REVISIONS	INITIAL
▲	5/14/99	ISSUED FOR PERMIT	MDR

SITE PLAN

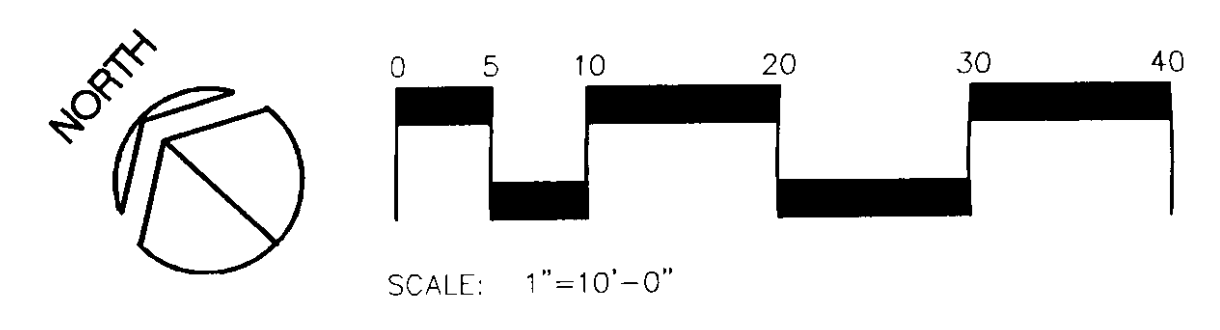
QUIK STOP #003
 66 MAC ARTHUR BOULEVARD
 OAKLAND, CA

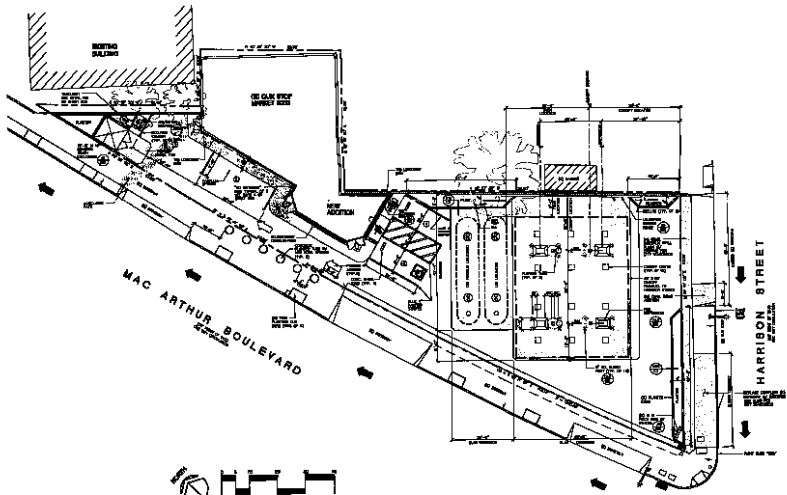


RHL ARCHITECTURE • ENGINEERING • ENVIRONMENTAL SERVICES
 1137 N. McDOWELL BLVD. PETALUMA, CA 94954 (707) 765-1660
 JOHN W. JOHNSON, ARCHITECT JAMES H. RAY, CIVIL ENGINEER

RHL REVIEW	INITIAL	DATE	DATE: 14MAY99
PRELIMINARY			DR. BY:
PLANNING			APPR.:
STEEL BD			RHL # 9972.32
BUILD PERMIT			SHEET
GENERAL BD			
PERMIT REV'S			
CONSTRUCTION			

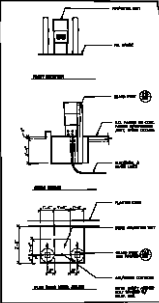
Do not use drawing for construction unless indicated.
SD1





MAC ARTHUR BOULEVARD
10' SIDEWALK

HARRISON STREET
10' SIDEWALK



G16 **APR WATER LINE**

ENGINEER'S STATEMENT

THIS PLAN HAS BEEN PREPARED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF OHIO. I HAVE REVIEWED THE PLAN AND THE INFORMATION SUBMITTED TO ME AND I HEREBY CERTIFY THAT THE PLAN ACCURATELY REPRESENTS THE INFORMATION SUBMITTED TO ME AND THAT THE INFORMATION SUBMITTED TO ME IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

DATE: _____

ENGINEER: _____

NO. OF SHEETS: _____

SHEET NO.: _____

PROJECT: _____

DATE: _____

SITE PLAN

QUIK STOP FOOD
 99 MAC ARTHUR BOULEVARD
 CLEVELAND, OH

QUIK STOP MARKETS, INC.

CRHL CONSTRUCTION RESOURCES HOLDINGS, INC.

NO.	DESCRIPTION	DATE