

ENVIRONMENTAL SUMMARY REPORT UNIVERSAL CITY STATION (C0321) METRO RED LINE SEGMENT 3 (R82) FINAL REPORT

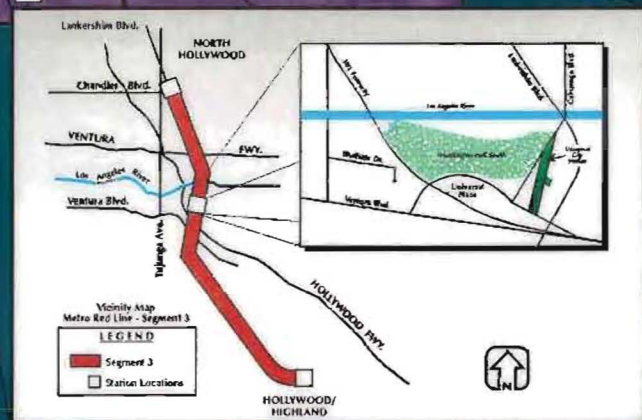


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Prepared by

ENGINEERING-SCIENCE INC.
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Universal City Station (C0321)
Environmental Summary Report
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ES ENGINEERING-SCIENCE

**ENVIRONMENTAL SUMMARY REPORT
UNIVERSAL CITY STATION (CO321)
METRO RED LINE SEGMENT 3 (R82)**

Prepared by Parsons Engineering Science, Inc.

For

The Los Angeles County Metropolitan Transportation Authority

February, 1995

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EXECUTIVE SUMMARY

Parsons ES summarized environmental conditions at the proposed Universal City Station (station) located between Lankershim Boulevard, Willowcrest Avenue, and the Hollywood Freeway in Los Angeles, California. The summary was completed by reviewing available pertinent documentation and agency listings to estimate a contaminated soil volume for the station. We understand this data will be used in estimating costs associated with construction.

Parsons ES concludes the following, based on the data reviewed:

1. Evidence indicating soil and ground water contamination was not discovered on parcels C3-750 through C3-753, C3-757 through C3-764, and C3-770 through C3-776, and C3-778.
2. Petroleum hydrocarbons and/or lead predominantly appear between 5 and 20 feet below ground surface (bgs) on six parcels (C3-754, C3-755, C3-765, C3-766, C3-767, and C3-768). Two parcels (C3-754 and C3-755) occupy the station, and four (C3-765, C3-766, C3-767, and C3-768) are present northeast of it. In addition, geotechnical borings encountered petroliferous soils in the Topanga Formation, between 71 and 96 feet bgs. Given the above data, Parsons ES estimates contaminated soils may total 17,000 to 30,000 yds³ for the station.
3. Agency listings indicated potential contaminant sources, including 6 potential hazardous waste sites and 10 leaking UST sites. In our opinion, these sites have a low to moderate potential to contaminate the station soils, due to their distance from the site. Due to construction dewatering, they have a greater potential to contaminate groundwater, rather than soil, within the station. Consequently, the above volume does not include contaminants from these sites.
4. Petroleum hydrocarbons and lead were detected in groundwater beneath four parcels. TRPH and lead were present in groundwater beneath parcels C3-755 and C3-765. Ethylbenzene, toluene, and xylene were present beneath C3-766 and C3-768. Because dewatering may draw contaminants to the station from these sources and sources in item 2, above, it may be necessary to implement groundwater treatment during dewatering.

TABLE OF CONTENTS

	<u>Page</u>
EXECUTIVE SUMMARY	
1.0 INTRODUCTION	1
1.1 REPORT ORGANIZATION	1
1.2 SPECIAL TERMS AND CONDITIONS	2
1.3 LIMITATIONS AND EXCEPTIONS OF ASSESSMENT	2
1.4 LIMITING CONDITIONS AND METHODOLOGIES USED	2
2.0 PROJECT CONDITIONS	3
3.0 PREVIOUS INVESTIGATIONS	3
3.1 PARCEL C3-750	4
3.2 PARCEL C3-754	4
3.3 PARCEL C3-755	4
3.4 PARCEL C3-765	5
3.5 PARCEL C3-766	6
3.6 PARCEL C3-767	6
3.7 PARCEL C3-768	7
3.8 FORMER SERVICE STATION SITE	7
3.9 GEOTECHNICAL STUDIES	7
4.0 GROUND WATER QUALITY	7
4.1 PUMP TESTS	8
4.2 REGIONAL GROUNDWATER QUALITY	8
4.3 AGENCY LISTINGS	8
5.0 CONTAMINATED SOIL VOLUME	9
5.1 PARCEL C3-754	10
5.2 PARCEL C3-755	10
5.3 PARCEL C3-765	10
5.4 PARCELS C3-766 AND C3-768	11

TABLE OF CONTENTS (CONT'D)

	<u>Page</u>
5.5 UNIVERSAL CITY STATION	10
5.6 AGENCY LISTINGS	11
6.0 CONCLUSIONS	11
7.0 REFERENCES	12

TABLES

- 1 SUMMARY, CHEMICAL TESTING RESULTS, SOIL
UNIVERSAL CITY STATION
- 2 SUMMARY, CHEMICAL TESTING RESULTS, GROUNDWATER
UNIVERSAL CITY STATION
- 3 AGENCY LISTING SITES UNIVERSAL CITY STATION

FIGURES

- 1 VICINITY MAP
- 2 PLOT PLAN UNIVERSAL CITY STATION
- 3 PLOT PLAN PARCEL C3-750
- 4 PLOT PLAN PARCEL C3-754
- 5 PLOT PLAN PARCEL C3-755
- 6 PLOT PLAN PARCEL C3-765
- 7 PLOT PLAN PARCEL C3-766
- 8 PLOT PLAN PARCEL C3-767
- 9 PLOT PLAN PARCEL C3-768
- 10 GEOTECHNICAL BORINGS UNIVERSAL CITY STATION
- 11 AGENCY LIST SITES
- 12 POTENTIAL LOCATIONS, CONTAMINATED SOIL

**ENVIRONMENTAL SUMMARY REPORT
UNIVERSAL CITY STATION (CO321)
METRO RED LINE SEGMENT 3 (R82)**

1.0 INTRODUCTION

Parsons-Engineering Science (Parsons ES) summarized information pertaining to the environmental condition of the proposed Metro Red Line, Universal City Station located in Los Angeles, California (Figure 1). This study was performed for the Los Angeles County Metropolitan Transportation Authority (MTA) in accordance with our Project Implementation Plan, dated December 7, 1994. The study involved reviewing available pertinent documentation regarding environmental impairment to estimate a contaminated soil volume for the station and indicate costs associated with construction. These objectives were attained through the following five tasks:

- Reviewing the Geotechnical Design Summary Report (GDSR) on the site for information pertaining to soil and groundwater contamination at the station;
- Reviewing documents cited in this report for evidence of environmental impairment on and near the site.
- Evaluating appropriate county, state, and federal agency lists for known or potential hazardous waste sites or landfills, and sites currently under investigation for environmental violations within one mile of the station;
- Estimating the volume of contaminated soil, and the type and concentration of contaminants it contains, based on the review above; and
- Preparing this report to document our findings, conclusions, and recommendations.

1.1 REPORT ORGANIZATION

The report is organized as follows: Project conditions are presented in Section 2; previous investigations are discussed in Section 3; groundwater quality is summarized in Section 4; estimates of contaminated soil are made in Section 5; and conclusions are documented in Section 6. References are presented in Section 7.

1.2 SPECIAL TERMS AND CONDITIONS

- The information and conclusions presented in this report are valid only for the circumstances of the site as described in this report as they existed during the time period of the investigation.
- This report does not constitute a warranty, guaranty, or representation of the absolute absence of hazardous or otherwise harmful substances or conditions found on the sites or, if such substances and conditions are on the sites, that the investigation accurately defined the degree and extent of possible contamination of the sites.
- Parsons ES evaluated the reasonableness and completeness of available relevant information, but does not assume responsibility for the truth or accuracy of any information provided to Parsons ES by others or for the lack information that is intentionally, unintentionally, or negligently withheld from Parsons ES by others.
- After acceptance of this report, if Parsons ES obtains information that it believes warrants further exploration and development, Parsons ES will endeavor to provide that information to MTA, but Parsons ES will not be liable for not doing so.
- This report is neither a legal opinion nor compliance with any environmental law, "innocent landowner defense," or "due diligence inquiry." Only legal counsel retained by MTA is competent to determine the legal implications of information or conclusions contained in this report.
- Parsons ES is not responsible for any effect upon MTA's or other's legal rights, obligations, or liabilities or for any effect upon the financeability, marketability, or value of the property or for the occurrence or non-occurrence of any transaction involving the property based upon the information stated in this report.

1.3 LIMITATIONS AND EXCEPTIONS OF ASSESSMENT

To achieve the study objectives stated in this report, Parsons ES based its conclusions on the best information available during the period of the investigation and within the limits prescribed by MTA.

No investigative method can completely eliminate the possibility of obtaining partially imprecise or incomplete information. Professional judgement was exercised in gathering and evaluating the information obtained, and Parsons ES commits itself to the usual care, thoroughness, and competence of the engineering profession.

1.4 LIMITING CONDITIONS AND METHODOLOGY USED

This study was limited to a review of federal, state, and county environmental data bases provided by Vista Environmental Information, Inc. and pertinent and available documents provided by Parsons-Dillingham and MTA. The study did not include a review of aerial

photographs or chain-of-title, electrical transformer inspections, a radon gas survey, an asbestos survey, tests for lead-based paint, analysis of potable water, a wetlands study, or soil and groundwater sampling and analysis.

2.0 PROJECT CONDITIONS

The station comprises Contract C0321 of the Metro Red Line Segment 3 tunnel and station alignment. Segment 3 begins at the proposed Hollywood/Vine station, continues west to La Brea Avenue, enters the Santa Monica Mountains, and continues north beneath Lankershim Boulevard to North Hollywood in the San Fernando Valley (valley).

The station occupies the junction of the valley and mountain tunnel reaches, north of the Santa Monica Mountains. It will be oriented with side structures, and an entrance structure, extending outward 120 feet from the main station structure (Figure 2). In general, it will be excavated using cut and cover methods to depths of 70 to 80 feet. The station will measure 900 feet long and 60 feet wide for an area of 54,000 ft² and a volume of about 150,000 yds³. The entrance will have an area of approximately 34,000 ft² and a volume of about 35,000 yds³. According to the MTA, the cross-over will be excavated separately from the station, under Contract C0311. The station will be excavated and constructed by 1998 and operational by 1999, in accordance with the current construction schedule, dated December 20, 1994.

3.0 PREVIOUS INVESTIGATIONS

The station site comprises several parcels containing 1 and 2-story buildings used for residential and commercial purposes. These buildings will be demolished prior to station construction. The site is currently bounded by Weddington Park, across Willowcrest Avenue to the west, Universal Studios, across Lankershim Boulevard to the east, and residential and commercial parcels, across the Hollywood Freeway to the south.

Over the past two years, MTA has overseen several studies into environmental liability potentially associated with owning the site parcels. These studies were performed in two phases to assess the presence and extent of contamination caused by current and historic site activities. They generally included reviewing reports, agency databases and records, aerial photos, maps, and geologic and hydrogeologic data for evidence of soil and groundwater contamination (Phase I); and soil and groundwater analyses to confirm the presence and extent of contamination (Phase II). H₂O Science, Inc (H₂O) and the Remedial Management Corporation (RMC) completed Phase I studies of the station in January and February, 1994. Other consultants performed Phase II studies, based on the Phase I results.

H₂O and RMC discovered evidence of contamination at five of the 27 parcels (C3-750, C3-754, C3-755, C3-765, C3-768) they investigated (H₂O, 1993, 1994; RMC, 1994). H₂O also indicated the presence of a former service station, approximately 200 feet south of parcel C3-750. The following summarizes conditions at these sites, information from geotechnical reports, and chemical testing results (Tables 1 and 2).

3.1 PARCEL C3-750

This parcel is occupied by a brick building and parking areas owned by Lucas Film (Figure 3). In 1989, an 8,000-gallon gasoline underground storage tank (UST) was removed from the site and samples were collected 1 and 3 feet beneath the tank. Total Petroleum Hydrocarbons as gasoline (TPHg) was reportedly not detected. The excavation was filled with soil and washed gravel; however, it is unknown whether the Los Angeles City Fire Department (LAFD) approved the UST removal (H₂O, 1993, 1994).

In 1994, All American Soils, Inc. (AASI) performed a Phase II investigation to assess the location of the former UST. The investigation involved 1) drilling four borings around the former UST: three borings to a depth of 21 feet and one boring to a depth of 35 feet; 2) installing a monitoring well in the deeper boring; 3) collecting soil and groundwater samples; and 4) analyzing the samples for chemical contaminants. AASI completed its investigation in August 1994, without detecting contaminants in soil and groundwater near the former UST. AASI recommended no further action, based on the chemical test results (AASI, 1994a).

3.2 PARCEL C3-754

The site contains an office building occupied by Budget Rent-A-Car (Figure 4). One 7,500 gallon gasoline UST, three monitoring wells, three 55-gallon drums of waste oil, one 55-gallon drum of motor oil, and five 5-gallon containers of car shampoo were reportedly observed onsite. Auto oil changes were formerly conducted on the property. The status of the UST and analytical data from the monitoring wells were not reported by H₂O (H₂O, 1993, 1994).

AASI performed a Phase II investigation in August 1994 to assess the condition of the drum storage and UST areas. The investigation was performed in two stages. Stage I involved 1) drilling two hand auger borings to a depth of 10 feet in the drum storage area; 2) drilling seven hand auger borings to depths of up to 6 feet to explore for the UST; and 3) using a mobil drill rig to drill four borings to depths of 25 feet around the UST. Stage II included 1) interviewing the site owner and manager; 2) reviewing LAFD and City of Los Angeles Department of Building and Safety records; 3) performing a geophysical survey; 4) drilling to a depth of 20 feet, near the middle of the UST; and 5) angle drilling to a depth of 23 feet beneath the UST. AASI submitted soil samples from the borings and groundwater from the angle boring for chemical analysis. The results indicated Total Recoverable Petroleum Hydrocarbons (TRPH) (14 to 320 mg/kg) 0.5 feet below the drum storage area. Petroleum hydrocarbons were not detected in soil and groundwater near the UST. AASI recommended removing soil to a depth of 1 foot in the drum storage area, based on the chemical test results (AASI, 1994b).

3.3 PARCEL C3-755

The parcel is occupied by a parking lot and seven monitoring wells installed by Converse Consultants West (CCW) to perform the pump test (1992) (Figure 5). In September 1994, Harding Lawson Associates (HLA) investigated the parcel based on H₂O's recommendation for Phase II study. The HLA study included: 1) contacting the Los Angeles Department of Public Works, the LAFD, the Los Angeles City Building and Safety Department, and the California

Division of Oil and Gas for agency information on the site; 2) performing a title search; 3) reviewing aerial photos and historical maps of the parcel; 4) conducting a geophysical survey to locate underground structures including USTs, prior to drilling; 5) drilling and sampling three borings to 25 feet bgs; 6) collecting groundwater from two borings and one existing well; and 7) analyzing samples for chemical contaminants (HLA, 1994).

The results indicated the site was underlain by multiple aquifers and contaminated by petroleum hydrocarbons and lead. The aquifers existed in silty sand layers at depths ranging from 12 to 28 feet bgs and 42 to 50 feet bgs. The contaminants included TRPH, xylene, and lead in soil and TRPH and lead in groundwater. The borings are shown on Figure 5. In general, HLA detected TRPH in two borings at 5.5 feet, xylene in one boring at 21.5 feet, and lead in three borings at a depth of 5.5 feet. Concentrations ranged from 82 to 1,750 ppm for TRPH, ND to 0.013 ppm for xylene, and 48.3 to 138 ppm for lead. TRPH (4 to 9 ppm) and lead (2.95 to 8.77 ppm) were limited to the upper aquifer, in groundwater from two borings. HLA concluded that 1) TRPH and xylene may have originated from the adjacent Budget Rent-A-Car Facility; 2) lead was below action levels in soil and above drinking water standards (Maximum Contaminant Levels (MCLs)) in groundwater; and 3) the pump test wells were screened across the aquifers. HLA recommended additional studies to assess the extent of chemical compounds and abandoning the CCW wells to prevent contaminants from migrating between aquifers (HLA, 1994).

3.4 PARCEL C3-765

The parcel is owned by MTA and contains a building occupied by IRS Media (Figure 6). As early as 1922, it contained a service station operated by the Gilmore Oil Company. H₂O did not report other information on the station (H₂O, 1993, 1994). Based on the H₂O report, HLA performed the following during a Phase II investigation of the parcel: 1) obtained information from agencies described under parcel C3-755; 2) performed a title search; 3) reviewed aerial photos and historical maps of the parcel; 4) drilled six borings near the former service station building, grease rack, and near a former auto wash facility on adjacent property to the north; 5) collected groundwater from three boreholes; and 6) analyzed soil and groundwater samples for chemical contaminants (HLA, 1994).

HLA completed the study concurrent with the Phase II study performed at C3-755. The results indicated the site was contaminated and underlain by multiple aquifers, extending from parcel C3-755. In general, the soil contained TRPH and lead in all six borings, and xylene in two borings. TRPH was present at 5 and 15 feet bgs in two borings (B-08 and B-09), 5 feet in two borings (B-10 and B-11), 21.5 feet in one boring (B-07), and 43.5 feet in an additional boring (B-06). Lead was limited to 5 feet bgs in all borings. Xylene was present at 15 feet in one boring and 43.5 feet in another boring. Concentrations ranged from 9 to 60 ppm for TRPH, 24.0 to 35.6 ppm for lead, and ND to 0.021 ppm for xylene. TRPH and lead were present in groundwater, ranging from ND to 260 ppm for TRPH and 0.56 to 20.1 ppm for lead. Lead was below action levels in soil, but above drinking water standards (MCLs) in groundwater. Based on these results, HLA concluded that TRPH had migrated into the upper and, possibly, lower aquifer and recommended 1) further study into the extent of the chemical compounds; and 2) remedial

monitoring to detect soil contamination and USTs, if any, during building demolition/excavation (HLA, 1994).

3.5 PARCEL C3-766

The site was formerly a carwash, but is currently a parking lot owned by the MCA Corporation (Figure 7). Site information concerning the car wash was not reported by H₂O (H₂O, 1993, 1994).

In March 1994, Drilling and Remediation Technology, Inc. (DART) performed a Phase II site investigation for the MTA to assess the car wash and any associated USTs. The study included a geophysical survey, two soil borings, one monitoring well, and analysis of soil and groundwater samples. The results indicated petroleum hydrocarbons and no USTs. DART detected TRPH (>100 ppm) at elevated levels between 0 and 5 feet in soil, and TPHg (0.4 mg/l) ethylbenzene (16 µg/L), toluene (16 µg/L), and xylene (77 µg/L) at low levels in groundwater. Benzene was not detected. Pursuant to these findings, DART recommended removing and treating TRPH soil onsite and collecting an additional sample to confirm the VOC well results (DART, 1994).

3.6 PARCEL C3-767

The parcel is an asphalt-paved parking lot owned by MTA (Figure 8). At an unknown date, it may have been occupied by a service station. Other information on the station was not reported (H₂O, 1993, 1994).

Based on the H₂O report, the Remedial Action Corporation (RAC) performed the following during a Phase II study of the parcel: 1) reviewed historical aerial photos, Sanborn Maps, and LAFD and Los Angeles City Building and Safety records for historical information on the site; 2) a geophysical survey to identify underground structures, including USTs, prior to drilling; 3) a soil gas survey (survey) to locate contaminant sources; 4) excavating areas indicated by the survey to contain USTs and piping; 5) supervising the removal and closure of USTs; 6) managing material (sand and slurry) removed from USTs; and 7) analyzing soil, groundwater, and the UST material for chemical contaminants (RAC, 1994).

RAC completed its investigation in September 1994, after discovering one, 1,000 gallon UST and two, 20-gallon USTs in the northeast corner of the property. RAC supervised the removal of the USTs and sampled the excavated soil, and soil beneath the USTs and piping. Petroleum hydrocarbons were not detected. However, TPH gas (3,100 mg/kg), benzene (1.1 mg/kg), toluene (20 mg/kg), ethylbenzene (39 mg/kg), and total xylenes (200 mg/kg) were present 1.5 feet bgs in a pit excavated near the USTs. Concentrations ranged from low to non-detect deeper (1.5 to 10 feet) in the pit. Lead was generally consistent with natural concentrations in soil, except for one sample which contained high concentrations of lead (362 ppm). RAC collected this sample 125 feet from the USTs and concluded it contained lead from other sources. RAC recommended no further action, based on the chemical test results (RAC, 1994).

3.7 PARCEL C3-768

The site is currently a parking lot owned by the MCA Corporation (Figure 9). In 1955, an automotive repair facility may have been located onsite. Information confirming the facility's presence was not provided (H₂O, 1993, 1994).

In March 1994, DART performed a Phase II site investigation for the MTA to assess the repair facility and any associated USTs. The study included a geophysical survey, two soil borings, one monitoring well, and analysis of soil and groundwater samples. The results indicated an absence of USTs; however, elevated levels of petroleum hydrocarbons were detected on-site. DART detected elevated levels of TRPH (>100 mg/kg) above 5 feet bgs, and TPHg (0.3 mg/l) ethylbenzene (11 µg/L), toluene (13 µg/L), and xylene (48 µg/L) at low levels in groundwater. Benzene was not detected. Pursuant to these findings, DART recommended removing and treating TRPH soil onsite and additional groundwater sampling to confirm the VOC results. DART estimated it would be necessary to remediate a total of 660 yds³ of soil from this parcel, and parcel C3-766 (DART, 1994).

3.8 FORMER SERVICE STATION SITE

A Sanborn Map, dated 1943, indicated a former service station site, approximately 200 feet south of parcel C3-750. H₂O recommended an investigation into the site's potential to impact the station. The site is currently located beneath the Hollywood Freeway, and its potential to impact the station appears low.

3.9 GEOTECHNICAL STUDIES

CCW drilled geotechnical borings in the station vicinity to gather soils data for use in designing the station and adjacent tunnel segment (Figure 10). In general, unusual odors were not reported in the borings, except for sulfur odors in one boring (34-5) at an approximate depth of 48 feet. Three borings (34-3, 34-4, and 34-5) reportedly contained "petroliferous soil" between 71 and 96 feet bgs. CCW analyzed samples from a fourth boring (35-E) for hydrocarbons using EPA Method 8015 and aromatic compounds using EPA Method 8020. The results indicated low levels of hydrocarbons (42 ppm) at a depth of 58 feet. CCW did not chemically analyze other samples; consequently, hydrocarbon concentrations are unknown in other borings (Converse Consultants, Inc., 1989; CCW, 1992; Converse Environmental West, 1992).

4.0 GROUNDWATER QUALITY

The general contractor will dewater the station for at least two years to lower and maintain groundwater at levels acceptable for construction. Dewatering will affect groundwater gradients and draw groundwater from areas surrounding the station. Consequently, Parsons ES reviewed pumping tests, regional groundwater quality, and agency listings to assess offsite contaminant sources capable of degrading dewatering flows.

4.1 PUMP TESTS

CCW performed pump tests in 1984 and 1992 to obtain data for use in the design of a dewatering system for the station and adjacent tunnel segment. In order to perform these tests, CCW installed wells in the former Los Angeles River bed (1984 test) and parcel C3-755 (1992 test) (CCW, 1992; Engineering-Science, 1993). The tests were as follows:

1. The 1984 test was performed approximately 700 feet west of the Universal City Station. The results indicate a hydraulic conductivity of 1,900 gallons per day per square foot (gpd/ft²) and pumping rates of 3 to 4 million gallons per day (mgd) for 120 days, and 1 to 2 mgd for the remaining construction period.
2. The 1992 test test resulted in a hydraulic conductivity of up to 55 gpd/ft² and pumping rates of 1.2 mgd for 60 days and 0.4 mgd for the remaining construction period.

Prior to the tests, the test wells (1992) (Figure 5) contained total dissolved solids, sulfate, cadmium, and chromium above NPDES discharge limits. Perchloroethene (PCE) was detected in one well (35-C), greater than 3500 feet north of the station. PCE and other volatile organic compounds (VOCs) were not detected in the pump test wells (CCW, 1992; Engineering Science, 1993).

Groundwater currently flows 20 to 26 feet bgs with a northerly gradient of less than 1 percent. However, dewatering will lower groundwater and affect groundwater gradients in an area extending approximately 500 feet from the station (CCW, 1992). The size of this area is uncertain and may extend to greater lengths. Thus, dewatering could draw contaminants to the station from sources discussed in Section 3.0 above, and Sections 4.2 and 4.3, below.

4.2 REGIONAL GROUNDWATER QUALITY

A federal Superfund site covers portions of the valley according to the Watermaster Report for the Upper Los Angeles River Area (ULARA, 1994). This is due, in part, to groundwater contamination from nitrates and chlorinated solvents (perchloroethene and trichloroethene). Both plumes extend over the eastern portions of the valley, approximately 1 mile from the site, and appear to be migrating southeast along the eastern margin of the valley, away from the site (ULARA, 1994).

4.3 AGENCY LISTINGS

Parsons ES contracted Vista Environmental Information, Inc. for agency listings of regulated sites, and sites under review for environmental impairment within one mile of the station (Vista Environmental Information, Inc., 1995) The purpose of this task was to identify potential contaminant sources to the station and USTs within 100 feet of the station since Federal guidelines may require MTA to remove USTs less than 25 feet from the alignment.

Based on these lists, 33 sites are present within one mile of the station, including 6 potential hazardous waste sites, 10 sites with leaking USTs, 13 owner/operators of USTs, eight hazardous waste generators, and other listed sites. Federal and State Superfund Sites were not identified on the lists reviewed. Oil and gas fields and undocumented oil wells were not reported on site by the GDSR. The sites are summarized in Table 3 and are shown as multiple listings (several sites under one number) on Figure 11. The following leaking UST and suspected hazardous waste sites are present upgradient of the station, relative to the direction of groundwater flow:

SITE	SITE MAP NUMBER	STATUS
10 UCP Associates 3838 Lankershim Blvd.	2	Leaking UST(s)
Laser Technology, Inc. 10624 Ventura Blvd.	5	Suspected hazardous waste site listed under no further action (NFA) by the Cal EPA.
ARCO Gasoline Station 3704 Cahuenga Blvd.	9	Leaking UST(s)
Exxon Gasoline Station 3640 Cahuenga Blvd.	10	Leaking UST(s)
AL Blair, Inc.	10	Suspected hazardous waste site listed under NFA by the Cal EPA.
Allendor Productions, Inc.	15	Suspected hazardous waste site listed under NFA by the Cal EPA.
Hanna-Barbera Productions, Inc.	15	Suspected hazardous waste site.

A NFA classification precludes sites from listing with the State Superfund, but does not preclude them from being contaminated. Consequently, they are listed as potential contaminant sources to the station.

5.0 CONTAMINATED SOIL VOLUME

Based on the data reviewed, it appears that contaminated soil may be excavated from the station. The volume to be excavated is unknown, but is estimated to project costs associated with station construction. In order to derive this volume, Parsons ES assumed 1) contaminants migrated to the station from adjacent sources (sites); and 2) some contaminants would remain even if these sites were remediated, prior to station construction. It is anticipated that these sites may contribute contaminated soil on the order of 5,000 yds³, out of 25,000 to 50,000 yds³ estimated for the station structure. To be conservative, Parsons ES recommends using the total volume(s) to estimate project costs. The basis for these estimates, and the sites contributing to them, is as follows:

5.1 PARCEL C3-754

Elevated levels of petroleum hydrocarbons were detected up to 1 foot beneath the drum storage facility. Given the facility area (120 ft²) and above depth, contaminated soil on the order of 4.5 yds³ may be present on this parcel. Contaminated soils within the station are shown on Figure 12.

5.2 PARCEL C3-755

Elevated levels of TRPH and lead were detected in two borings drilled near the Budget Rent-A-Car Facility. They were not detected below 5 feet bgs or in boring B-03 drilled on the northeast side of the parcel. Based on these results, Parsons ES assumes contaminated soils extend 10 feet bgs over the southwest corner of the parcel (the area encompassing B-01 and B-02) and total 49,500 ft³ or approximately 2,000 yds³. These soils have not been fully delineated, and the volume may exceed (or be less than) this amount.

5.3 PARCEL C3-765

TRPH, lead, and xylene were detected in soil beneath the former service station site. TRPH and xylene were present between 5 and 20 feet bgs in most borings and at 43.5 feet bgs in one boring. Lead was detected above 15 feet bgs (probably 5 feet bgs). Though the service station exists up to 100 feet from the station, Parsons ES assumes it has contaminated the site, covering a 3,000 ft² area approximately 20 feet deep (the maximum depth of contaminants in most borings). Therefore, the total volume of these soils is 60,000 ft³ or approximately 2,500 yds³. These soils have not been fully delineated, and the volume may exceed (or be less than) this amount.

5.4 PARCELS C3-766 and C3-768

TRPH was present in both parcels up to 5 feet bgs. Given the depth of contamination and their distance from the station (50 and 150 feet, respectively) the potential for these parcels to contaminate the station appears low. However Parsons ES assumes contaminants have migrated into the station over a 3,000 ft² area extending 5 feet deep. Thus, the total volume of these soils is 15,000 ft³ or approximately 600 yds³.

5.5 UNIVERSAL CITY STATION

Geotechnical borings encountered petroliferous soil in the Topanga formation, between 71 and 96 feet bgs. However a contaminated soil volume cannot be estimated with certainty, based on the data obtained. The borings are spaced up to 400 feet apart, and it is unknown whether they indicate isolated contaminants or the edge of larger, more concentrated, contaminant plumes.

It is possible these soils occur throughout the Topanga formation, based on similar conditions at other station sites. The Topanga is gray to dark gray in color and varies from 10 to 25 feet thick in the station (Engineering Management Consultants, 1994). Thus, petroliferous soil may total 12,000 to 25,000 yds³ for the station box and 8,000 to 16,000 yds³, based on the

station dimensions (described in Section 2.0) and the Topanga formation thickness within the station.

5.6 AGENCY LISTINGS

As mentioned above, agency listings were reviewed to identify potential offsite sources of contaminants to the station. Based on these lists, likely contaminant sources, including hazardous waste sites and leaking USTs, vary from 1/10 to 3/4 mile from the station and are unlikely to contaminate station soils due to their distance from the site. These sites have a greater potential to contaminate groundwater, rather than soil, within the station.

6.0 CONCLUSIONS

Parsons ES summarized environmental conditions at the proposed Universal City Station, located between Lankershim Boulevard, Willowcrest Avenue, and the Hollywood Freeway in Los Angeles, California. The summary was completed by reviewing pertinent and available documentation and agency listings to estimate a contaminated soil volume for the station. We understand this data will be used in estimating costs associated with construction.

Parsons ES concludes the following, based on the data reviewed:

1. Evidence indicating soil and ground water contamination was not discovered at parcels C3-750 through C3-753, C3-757 through C3-764, and C3-770 through C3-776, and C3-778.
2. Petroleum hydrocarbons and/or lead average between 5 and 20 feet bgs on six parcels (C3-754, C3-755, C3-765, C3-766, C3-767, and C3-768). Two parcels (C3-754 and C3-755) occupy the station, and four (C3-765, C3-766, C3-767, and C3-768) are present northeast of it. In addition, geotechnical borings encountered petroliferous soils in the Topanga Formation, between 71 and 96 feet bgs. Given the above data, Parsons ES estimates contaminated soil volumes totalling 17,000 to 30,000 yds³ for the station (Contract CO321).
3. Agency listings indicated potential contaminant sources, including 6 potential hazardous waste sites and 10 leaking UST sites. In our opinion, these sites have a low to moderate potential to contaminate the station soils, due to their distance from the site. Due to construction dewatering, they have a greater potential to contaminate groundwater, rather than soil, within the station. Consequently, the above volume does not include contaminants from these sites.
4. Petroleum hydrocarbons and lead were detected in groundwater beneath four parcels. TRPH and lead were present in groundwater beneath parcels C3-755 and C3-765. Ethylbenzene, toluene, and xylene were present beneath C3-766 and C3-768. Because dewatering may draw contaminants to the station from these sources and sources in item 2, above, it may be necessary to implement groundwater treatment during dewatering.

7.0 REFERENCES

- All American Soils, Inc., August 1994a, "Report for a Phase II Site Assessment, Parcel C3-750 (Lucas Film Studio Site), Metro Red Line Universal City Station, Los Angeles, California (LRA-423-94)" Prepared for MTA.
- _____, August 1994b, "Report for a Phase II Site Assessment, Parcel C3-754 (Budget Rent-A-Car Site), Metro Red Line Universal City Station, Los Angeles, California (LRA-423-94)" Prepared for MTA.
- Converse Consultants, Inc., June 1989, "Supplement Geotechnical Report, Tunnels - Universal City Station to Ventura Freeway Vent Structure, Design Unit B330, Metro Rail Project, Los Angeles, California," Prepared for Metro Rail Transit Consultants.
- Converse Consultants West, 1992, "Geotechnical Design Summary Report, for Construction Contract Unit C321, Universal City Station," Prepared for Engineering Management Consultant (EMC).
- Converse Environmental West, November 1992, "Phase I Environmental Site Assessment, Metro Rail Red Line Project, Segment 3 - North Hollywood, Portions of Lankershim Blvd., Chandler Blvd., and Vine Ave.," Prepared for EMC.
- Drilling and Remediation Technology, Inc., 1994, "Phase II Site Assessment, Parcels C4-766 and C4-768, Metro Red Line, Universal City Station, Universal City, California," Prepared for MTA.
- EMC, December 22, 1994, "Universal City Station, Contract C0321, Pre-Final Design Submittal, Volume I, Metro Red Line Project," Prepared for MTA.
- Engineering Science, Inc., September 1993, "Groundwater Analysis of Segment 3," Prepared for the MTA, EN025, Contract Work Order - 001.
- Harding Lawson Associates, September 1994, "Phase II Site Characterization, Parcels A4-755 (C3-755) and A4-765 (C3-765), Lankershim Blvd. and Universal City Station, Los Angeles, California," Prepared for MTA.
- H₂O Science, Inc., June 1993, "Report for MTA RFP No. LRA-294-93, Phase I Pre-Acquisition Site Assessment and Asbestos Survey at the Proposed Universal City Station (Metro Red Line) City of Los Angeles, California," Prepared for MTA.
- _____, January 1994, "Updated Report for MTA RFP No. LRA-294-93, Phase I Pre-Acquisition Site Assessment and Asbestos Survey at the Proposed Universal City Station (Metro Red Line) City of Los Angeles, California," Prepared for MTA.

7.0 REFERENCES (CONT'D)

Remedial Action Corporation, 1994, "Phase II Site Characterization and Underground Storage Tank Removal, Metro Red Line, Parcel C3-767, Universal City Station, Los Angeles, California (MTA Contract # LRA-467-94)," Prepared for MTA

Remedial Management Corporation, February 1994, "Phase I Environmental Assessment, Los Angeles City Parcel Nos. C3-775, C3-776, and C3-778, LRA-353-93," Prepared for MTA.

Vista Environmental Information, Inc., January 1995, Vista California Site Assessment Plus Report (Extended by 1/4 mile), Report I.D. Number 063009-001.

Watermaster Services in the Upper Los Angeles River Area, Los Angeles County, Upper Los Angeles River Area Watermaster (ULARA), May 1994.

TABLES

TABLE 1
SUMMARY, CHEMICAL TEST RESULTS, SOIL
UNIVERSAL CITY STATION

Parcel	Boring	Sample Depth (feet)	EPA 6010A	EPA 418.1	EPA 8015	EPA 8240*			
			Lead (mg/kg)	TRPH (mg/kg)	TPH as Gasoline (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)
C3-754	B-1	0.5							
		2.0		ND					
		5.0							
		10.0							
	B-2	1.0							
		2.0		ND					
		5.0							
		10.0							
	B-3	15.0			ND	ND	ND	ND	ND
		20.0			ND	ND	ND	ND	ND
		25.0			ND	ND	ND	ND	ND
	B-4	15.0			ND	ND	ND	ND	ND
		20.0			ND	ND	ND	ND	ND
		25.0			ND	ND	ND	ND	ND
	B-5	15.0			ND	ND	ND	ND	ND
		20.0			ND	ND	ND	ND	ND
	B-6	15.0			ND	ND	ND	ND	ND
		20.0			ND	ND	ND	ND	ND
		25.0			ND	ND	ND	ND	ND
	B-7	16.0			ND				
19.0				ND					
B-8	17-1/2			ND					
	20.5			ND					
C3-755	B-01	5.5	138	1750	ND				
		14		ND	ND				
		23.5		ND	ND	ND	ND	ND	
	B-02	5.5	483	75	ND				
		13.5		ND	ND				
		23.5		ND	ND	ND	ND	ND	
	B-03	5.5	515	ND	ND				
13.5			ND	ND					
	21.5		ND	ND	ND	ND	ND		
C3-765	B-06	6.0	29	ND	ND				
		19		ND	ND				
		43.5		ND	ND	ND	ND	0.021	

Notes:

TRPH = Total recoverable petroleum hydrocarbons

TPH = Total petroleum hydrocarbons

mg/kg = milligrams per kilogram

ND = Not Detected

Blank = Not analyzed for this compound.

TABLE 1 (CONT'D)
SUMMARY, CHEMICAL TEST RESULTS, SOIL
UNIVERSAL CITY STATION

Parcel	Boring	Sample Depth (feet)	EPA 6010A	EPA 418.1	EPA 8015	EPA 8240*				
			Lead (mg/kg)	TRPH (mg/kg)	TPH as Gasoline (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	
C3-765	B-07	5.5		ND	ND					
		13.5		ND	ND					
		21.5			ND	ND	ND	ND	ND	
	B-08	5.0			ND					
		13.5			ND	ND	ND	ND	ND	
		20.5			ND					
	B-09	5.0			ND					
		15			ND	ND	ND	ND	ND	
		22.5		ND	ND					
	B-10	5.0			ND					
		15.0		ND	ND	ND	ND	ND	ND	
		15.0			ND	ND	ND	ND	ND	
C3-766	B-1	0.5			ND					
		5.0			ND	ND	ND	ND	ND	
		25			ND	ND	ND	ND	ND	
	B-2	0.5			ND					
		5.0			ND	ND	ND	ND	ND	
		25			ND	ND	ND	ND	ND	
	GW-1	0.5			ND					
		5.0			ND	ND	ND	ND	ND	
		20		ND	ND	ND	ND	ND		
C3-767 6/21/94	S1TE	1.5			100	15	20	39	200	
	S2TE	10			5	ND	0.042	0.0110	0.010	
	S8TE	3.0			5	ND	0.047	0.058	0.090	
	S9TE	5.0			ND	ND	0.006	0.007	0.017	
	8/9/94	S1TE	10.5	ND ^a		ND	ND	ND	ND	ND
		S2TE	10.5	ND ^a		ND	ND	ND	ND	ND
		S3PE	2.5	6.51		ND	ND	ND	ND	ND
		S4SP	2.0	19.59		ND	ND	ND	ND	ND
		S5SP	2.0	18.01		ND	ND	ND	ND	ND

Notes:

TRPH = Total recoverable petroleum hydrocarbons

TPH = Total petroleum hydrocarbons

mg/kg = milligrams per kilogram

ND = Not Detected

Blank = Not analyzed for this compound.

S = Sample number

TE = Tank excavation

PE = Piping excavatrimon

SP = Soil stockpile

a = EPA 7420

TABLE 1 (CONTD)
SUMMARY, CHEMICAL TEST RESULTS, SOIL
UNIVERSAL CITY STATION

Parcel	Boring	Sample Depth (feet)	EPA 6010A	EPA 418.1	EPA 8015	EPA 8240*			
			Lead (mg/kg)	TRPH (mg/kg)	TPH as Gasoline (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)
C3-767 8/9/94	S6SP	2			ND	ND	ND	ND	ND
	S7TS	0.5							
	S8TS	0.5							
	S9TE	13			ND	ND	ND	ND	ND
	S10BG	0.5							
C3768	B-3	0.5			ND				
		5			ND	ND	ND	ND	ND
		25			ND	ND	ND	ND	ND
	B-4	0.5			ND				
		5			ND	ND	ND	ND	ND
		25			ND	ND	ND	ND	ND
	GW-2	0.5			ND				
		5			ND	ND	ND	ND	ND
	25			ND	ND	ND	ND	ND	

Notes:

TRPH = Total recoverable petroleum hydrocarbons

TPH = Total petroleum hydrocarbons

mg/kg = milligrams per kilogram

ND = Not Detected

Blank = Not analyzed for this compound.

S = Sample number

TE = Tank excavation

PE = Piping excavatrimon

SP = Soil stockpile

TS = Tank slurry, BG = Background

a = EPA 7420

TABLE 2
SUMMARY, CHEMICAL TEST RESULTS, GROUNDWATER
UNIVERSAL CITY STATION

Parcel	Boring	Sample Depth (feet)	EPA 200.7	EPA 418.1	EPA 8015M	EPA 8240/624			
			Lead mg/l	TRPH mg/l	TPH as Gasoline mg/l	Benzene (ug/l)	Toluene (ug/l)	Ethyl-benzene (ug/l)	Total Xylenes (ug/l)
C3-750	B-3	20	ND ¹		ND	ND ²	ND ²	ND ²	ND ²
C3-754	B-8	20.5			ND				
C3-755	GW-01				ND	ND	ND	ND	ND
	GW-02				ND	ND	ND	ND	ND
	GW-03		ND	ND	ND	ND	ND	ND	ND
	PW-1		ND	ND	ND	ND	ND	ND	ND
C3-765	GWO6-A			ND	ND	ND	ND	ND	ND
	GWO7					ND	ND	ND	ND
	GWO8					ND	ND	ND	ND
	GW09					ND	ND	ND	ND
	GWO6D						ND	ND	ND
C3-766	GW-1	29.2		ND		ND	16	16	77
C3-768	GW-2	28.2		ND		ND	13	11	48

Notes:

1 = EPA 7420; 2 = EPA 624

TRPH = Total recoverable petroleum hydrocarbons

TPH = Total petroleum hydrocarbons

ug/l = Micrograms per liter

mg/l = Milligrams per liter

ND = Not Detected

Blank = Not analyzed for this compound.

**TABLE 3
AGENCY LISTINGS
UNIVERSAL CITY STATION**

SITE	VISTA MAP NO.	SOURCE	DIRECTION	AGENCY STATUS
Neely Enterprises 3939 Lankershim Blvd.	1	Cal EPA	Onsite	The Cal-EPA will be performing a preliminary site assessment (PSA) on a low priority basis. The reason for the PSA is unknown. The site is discussed in Section 4.4 of the report.
Universal City Studios, Inc. 3900 Lankershim Blvd.	1	Cal EPA Cal UST List SWQCB RWQCB CORTESE	>500 feet, East	The site is a RCRA generator with 20 USTs. Two USTs are leaking, one has been removed, and the remainder are in service. A pump and treatment system is remediating gasoline leakage from one UST. The remedial method used for the second UST is unknown. An additional 550 gallon UST, containing oil, has been removed. The status of the remaining UST's is unknown.
Unknown Landfill	-	RMC, 1994	600 feet, Northeast	The site is an inactive, Class III landfill located in Weddington Park. It reportedly accepted nonsoluble, nondecomposable, inert solids for disposal. Toxic/hazardous substances are not accepted by Class III landfills. The RWQCB has no information on this site.
Budget Rent-A-Car 3885 Lankershim Blvd.	1	Cal UST List	Onsite	Owner/operator of UST(s). The site is discussed in Section 4.2 of the report.
Black Falcon Ltd. 3855 Lankershim Blvd.	2	Cal UST List	Adjacent, South	Owner/operator of UST(s). Information concerning the UST(s) was not reported, unavailable, or unknown.
Tuntex Properties, Inc. 3840 Lankershim	2	Cal UST List	Adjacent, South	Owner/operator of UST(s). Information concerning the UST(s) was not reported, unavailable, or unknown.
10 UCP Associates 3838 Lankershim Blvd.	2	SWQCB RWQCB	500 feet, Southeast	The site contains two leaking diesel fuel USTs. A preliminary assessment is underway into the extent of contamination. According to H ₂ O, contaminants are limited to soil in the UST area and significant impacts to groundwater are not anticipated (H ₂ O, 1993, 1994).
Sheraton Universal Hotel 3838 Lankershim	2	Cal UST List	Adjacent South	Owner/operator of UST(s). Information concerning the UST(s) was not reported, unavailable, or unknown.
Pacific Photo Express Ltd. 100 Universal City Plaza	3	Cal EPA	0.17mile Northeast	Small quantity RCRA generator.

TABLE 3 (CONT'D)
AGENCY LISTINGS
UNIVERSAL CITY STATION

SITE	VISTA MAP NO.	SOURCE	DIRECTION	AGENCY STATUS
MCA, Inc. 100 Universal City Plaza	3	Cal EPA SWQCB RWQCB	0.17mile Northeast	The site contains 17 USTs, ranging from 125 to 12,000 gallons in volume. The USTs are constructed of steel and contain oil, miscellaneous chemicals, and unleaded gasoline. Solvents migrating from two USTs have contaminated soil and groundwater south and west of the site. Leakage is being remediated using pump and treat methods on one UST and unknown methods on the other.
Howard . Anderson Co., (Technicolor, Inc.) 4050 Lankershim Blvd.	4	CEW, 1992 Cal EPA SWQCB RWQCB CORTESE	0.17mile Northeast	The site is a RCRA generator with three USTs (T4) and an unknown number of clarifiers. Leakage or overfilling of the USTs has contaminated the soil and groundwater with 1,1,1-trichloroethane, perchloroethene, and diesel fuel. The RWQCB believes the contaminant plume is migrating north at a relatively low rate, based on the soil transmissivity and groundwater gradient. Remediation will reportedly consist of 1) decommissioning, removing, or bringing the USTs into compliance; 2) excavating and disposing contaminated soil; and 3) using wells to extract contaminated groundwater. According to RWQCB, notice is pending.
Four Star Ventura Ltd. 10600 Ventura	5	Cal UST list	0.04mile Southwest	Owner/operator of UST(s). Information concerning the UST(s) was not reported, unavailable, or unknown.
Laser Technology, Inc. 10624 Ventura Blvd.	5	Cal EPA	0.04mile Southwest	The site is a RCRA generator, listed under No Further Action (NFA) by the Cal EPA.
Harbans Singh 3780 Cahuenga	6	Cal UST	0.04mile Southwest	Owner/operator of four UST(s). Information concerning the UST(s) was not reported, unavailable, or unknown.
Toyota of North Hollywood 4100 Lankershim	7	Cal EPA Cal UST	0.26 mile North	RCRA generator and owner/operator of USTs. Information concerning the USTs was not reported, unavailable, or unknown.
Auto Trends, Inc. 4110 Lankershim Blvd.	7	Cal EPA	0.26 mile North	Small quantity RCRA generator.
Image Transform, Inc. 4142 Lankershim Blvd.	7	Cal EPA	0.26 mile North	Small quantity RCRA generator.
Public Storage, Inc. 10830 Ventura	8	Cal UST	0.18 mile West	Owner/operator of UST(s). Information concerning the UST(s) was not reported, unavailable, or unknown.

**TABLE 3 (CONT'D)
AGENCY LISTINGS
UNIVERSAL CITY STATION**

SITE	VISTA MAP NO.	SOURCE	DIRECTION	AGENCY STATUS
Boink Screeners 3717 Cahuenga Blvd. W	9	Cal EPA	0.22 mile South	Small quantity RCRA generator.
ARCO Gasoline Station Number 6143 3704 Cahuenga Blvd.	9	RWQCB	0.22 mile South	The site contains four USTs, ranging from 6,000 to 12,000 gallons in volume. A preliminary site assessment is underway to assess gasoline leakage from one UST.
Computer Color Corp. 3711 Cahuenga Blvd.	9	Cal EPA	0.22 mile South	Small quantity RCRA generator.
Exxon Gasoline Station Number 7-3017 3640 Cahuenga Blvd.	10	SWQCB RWQCB CORTESE	0.28 mile Southeast	Gasoline has leaked from two USTs. The owner is excavating and treating contaminated material.
AL Blair, Inc. 3637 Cahuenga Blvd.	10	Cal EPA	0.28 mile Southeast	The Cal EPA has listed the site under NFA.
Unocal Gasoline Station Number 1736 10974 Ventura Blvd.	11	Cal EPA SWQCB RWQCB CORTESE	0.38 mile West	The site contains two gasoline and one oil UST. Hydrocarbons have migrated from two USTs into soil and groundwater beneath the site. Free product is reportedly being removed. A preliminary assessment is underway to assess the extent of contamination.
Mobil Gasoline Station Number 11-KRF 11001 Ventura Blvd.	11	SWQCB RWQCB	0.38 mile West	The site contains one oil and four gasoline USTs. Hydrocarbons have migrated to soil and groundwater from one or more USTs. The owner is performing free product removal and a remedial investigation/feasibility study. According to the MTA, the contaminant plume has migrated east onto Parcel C3-782, the Racquet Center of Universal City.
Robert Ruehnan, Inc. 4270 Lankershim Blvd.	12	CEW Cal UST List LAFD	0.46 mile Northwest	An auto sales/repair facility with one former UST (T7). The UST was installed in 1974 and removed in 1989. Soil sampling was apparently not conducted beneath the UST after it was removed.

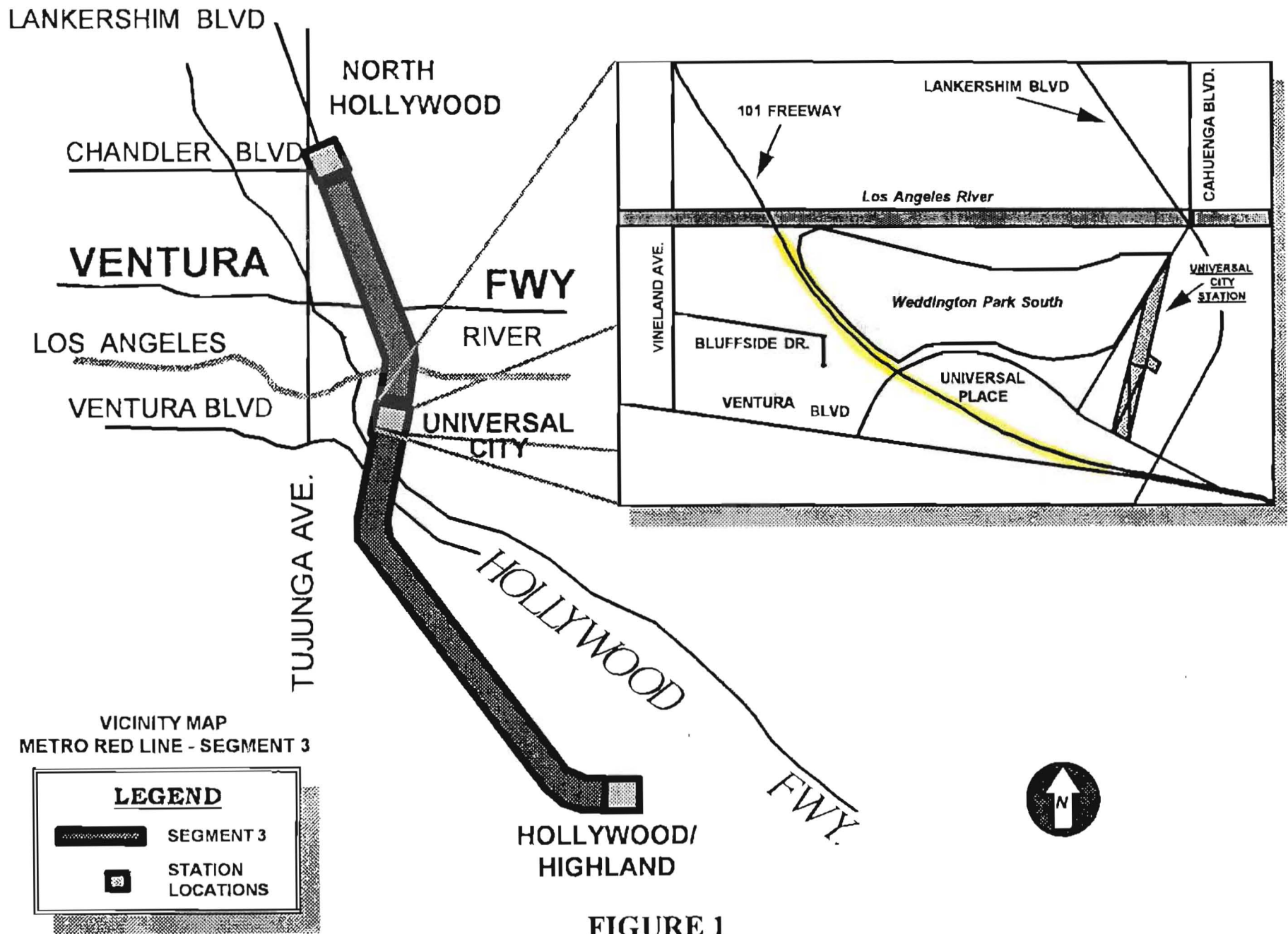
**TABLE 3 (CONT'D)
AGENCY LISTINGS
UNIVERSAL CITY STATION**

SITE	VISTA MAP NO.	SOURCE	DIRECTION	AGENCY STATUS
Robert Ruehman, Inc. 4245 Lankershim Blvd.	12	CEW Cal UST List LAFD	0.46 mile Northwest	In 1945, permits were issued to install a 2,000 gallon gasoline UST (T6) and a 280 gallon waste oil UST at a filling station. A 1,000 gallon UST was abandoned in-place (LAFD) early 1970's, and a 2,000 gallon UST was reportedly abandoned in 1990. Contaminants were not detected at depths of 5 and 10 feet beneath the 2,000 gallon UST. Contaminants were not detected in a boring (BH-L/VAL) drilled by CEW adjacent to the site.
Universal City Nissan 3550 Cahuenga Blvd. W.	13	Cal UST List	0.48 mile Southeast	Owner/operator of USTs. Information on USTs is unavailable.
Lakeside Golf Club 10340 Valley Spring	14	Cal UST List	0.55 mile Northeast	Owner/operator of USTs. Information on USTs is unavailable.
Allendor Productions, Inc. 3449 Cahuenga Blvd.	15	Cal EPA	0.70 mile Southeast	Delisted by Cal EPA. The basis for the initial listing was not reported.
Hanna-Barbera Productions 3400 Cahuenga Blvd.	15	Cal EPA	0.70 mile Southeast	The Cal EPA will perform a PSA on a low priority basis. The reason for the PSA was not reported.
Mobil #17-FDQ 10570 Riverside Dr.	16	SWQCB RWQCB CORTESE	0.79 mile North	Gasoline has leaked from one or more USTs. Information concerning the USTs and leak was unavailable or not reported.
Ben Lei Mobil 4377 Vineland	17	SWQCB RWQCB	0.79 mile Northwest	Gasoline has leaked from one or more USTs. Information concerning the USTs and leak was unavailable or not reported.

Source: Vista Environmental Information Inc., 1995, unless noted otherwise.

Cal EPA California Environmental Protection Agency,
 Cal UST List California State Listing of Underground Storage Tanks
 SWQCB California State Water Quality Control Board List of Leaking Underground Storage Tanks
 RWQCB California State Water Quality Control Board, Los Angeles Region, List of Leaking Underground Storage Tanks
 CORTESE California Office of Environmental Protection, Hazardous Waste Substance Site List
 RMC Remedial Management Corporation, 1994.
 H₂O H₂O Science, Inc., 1993, 1994.

FIGURES



VICINITY MAP
METRO RED LINE - SEGMENT 3

LEGEND



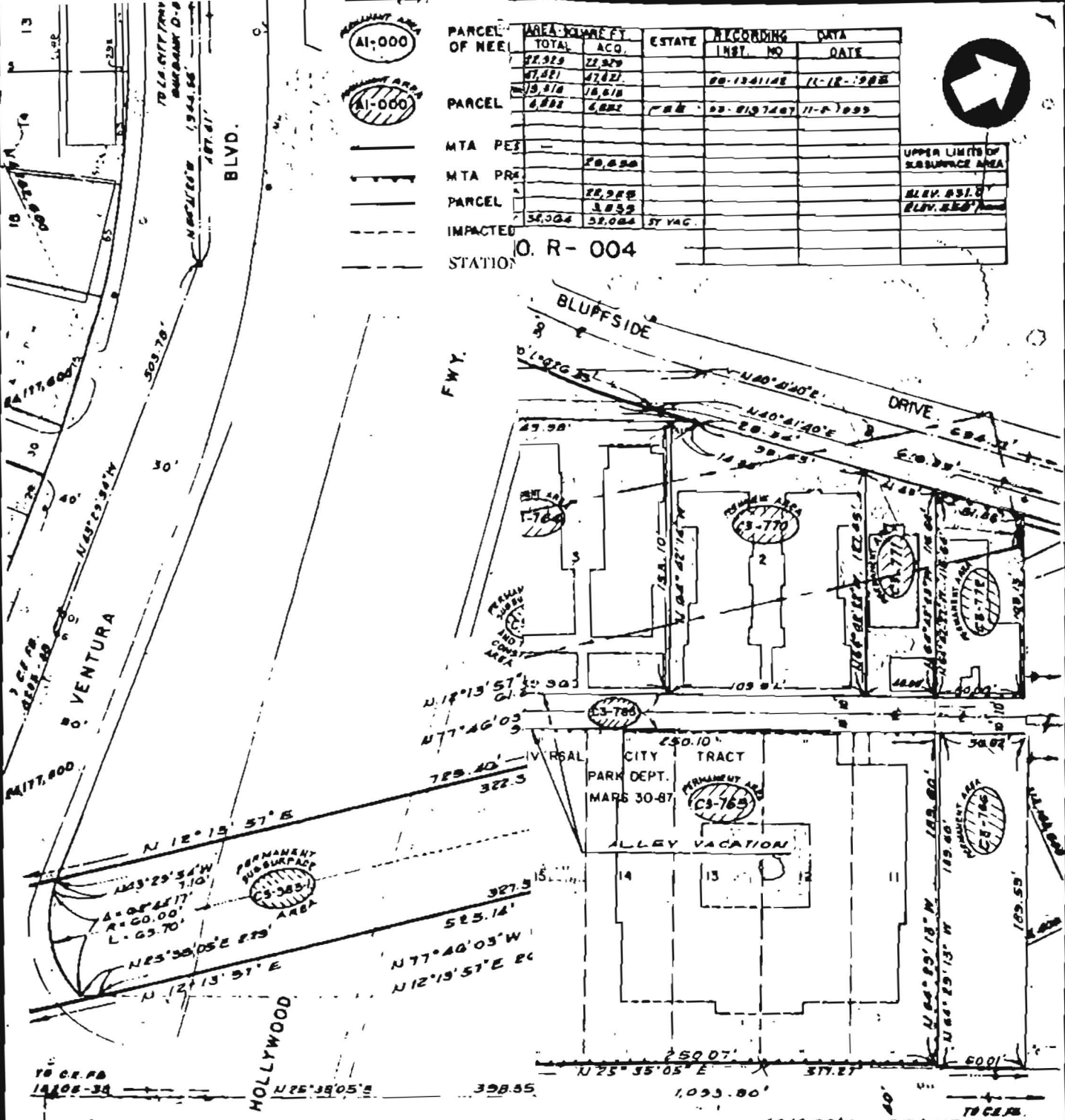
-  SEGMENT 3
-  STATION LOCATIONS

FIGURE 1



PARCEL OF NEEL	AREA - SQUARE FT		ESTATE	RECORDING DATA	
	TOTAL	ACQ.		INSTR. NO.	DATE
	22,929	22,929			
	47,821	47,821		88-124148	11-12-1988
PARCEL	15,816	15,816	F&E	88-8197407	11-8-1988
	6,882	6,882			
MTA PEG					
MTA PRE		20,890			
PARCEL		22,929			
		3,852			
IMPACTED STATION	34,004	52,084	ST VAC.		

O. R - 004



GENERAL NOTES

- THE DATA SHOWN ON THIS MAP AND/OR PLAT IS COMPILED FROM PUBLIC SOURCES AND IS SUBJECT TO FIELD VERIFICATION.
- BEARINGS AND DISTANCES ARE BASED ON CALIFORNIA COORDINATE SYSTEM ZONE VII COORDINATES OBTAINED FROM LOS ANGELES CITY SURVEY DIVISION.



**FIGURE 2
PLOT PLAN
UNIVERSAL CITY STATION**

THE PREPARATION OF THIS MAP WAS MADE UNDER THE PROVISIONS OF THE TRANSPORTATION AND INFRASTRUCTURE ACT OF 1991, AS AMENDED, LOS ANGELES COUNTY.

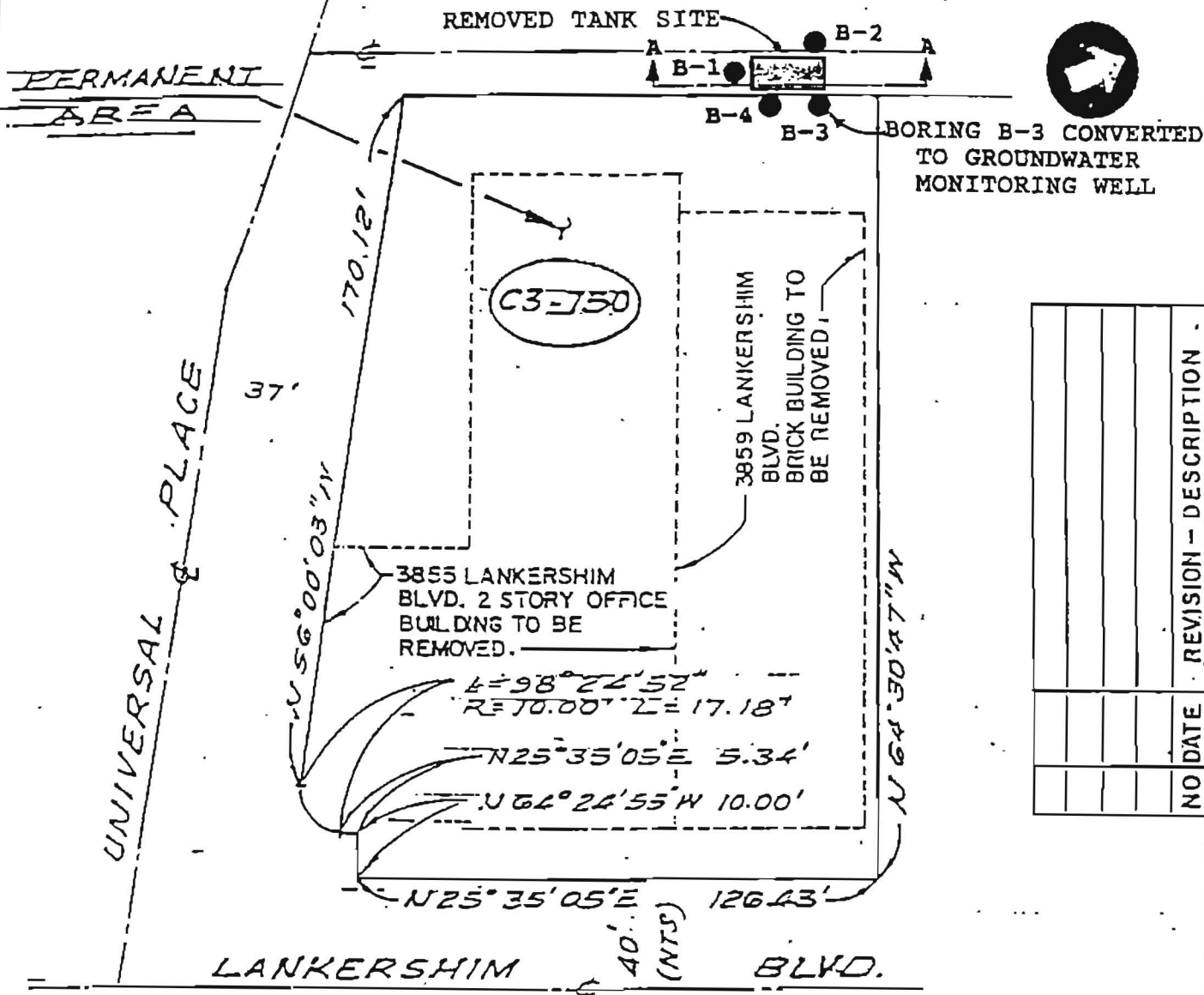
REV.	DATE	BY	CHK

**BOUND TO NORTH HOLLYWOOD
UNIVERSAL CITY STATION
RIGHT OF WAY MAP
ANGELES COUNTY CALIFORNIA**

CONTRACT NO. C0321	
DRAWING NO. R-001	REV. 0
SCALE 1" = 40'	
SHEET NO.	

MARCIA L. RODRIGUES
 LOTS 2 & 26 PART
 OF LOT 27 OF THE UNIVERSAL
 CITY TRACT, NIB 30-87
 ASSESSOR'S MAP REF.
 2225-37-18, 19 & 20
 R.O.W. REFERENCE
 RW 097-750

APPROVED BY: [Signature]
 PROJECT MANAGER
 DATE: 8/6/92



NO	DATE	REVISION - DESCRIPTION

Title Report: PENDING

The data shown on this map and/or plat is and is subject to field verification.

Approx. location of the removed UST

Proposed boring locations

Bearings and distances are based on Calif VII coordinates obtained from Los Angeles

AREA	TOTAL	REQUIRED	TEMPORARY
SQUARE FEET	24,580	24,580	—

FIGURE 2

Rail Construction Corporation
 METRO RED LINE

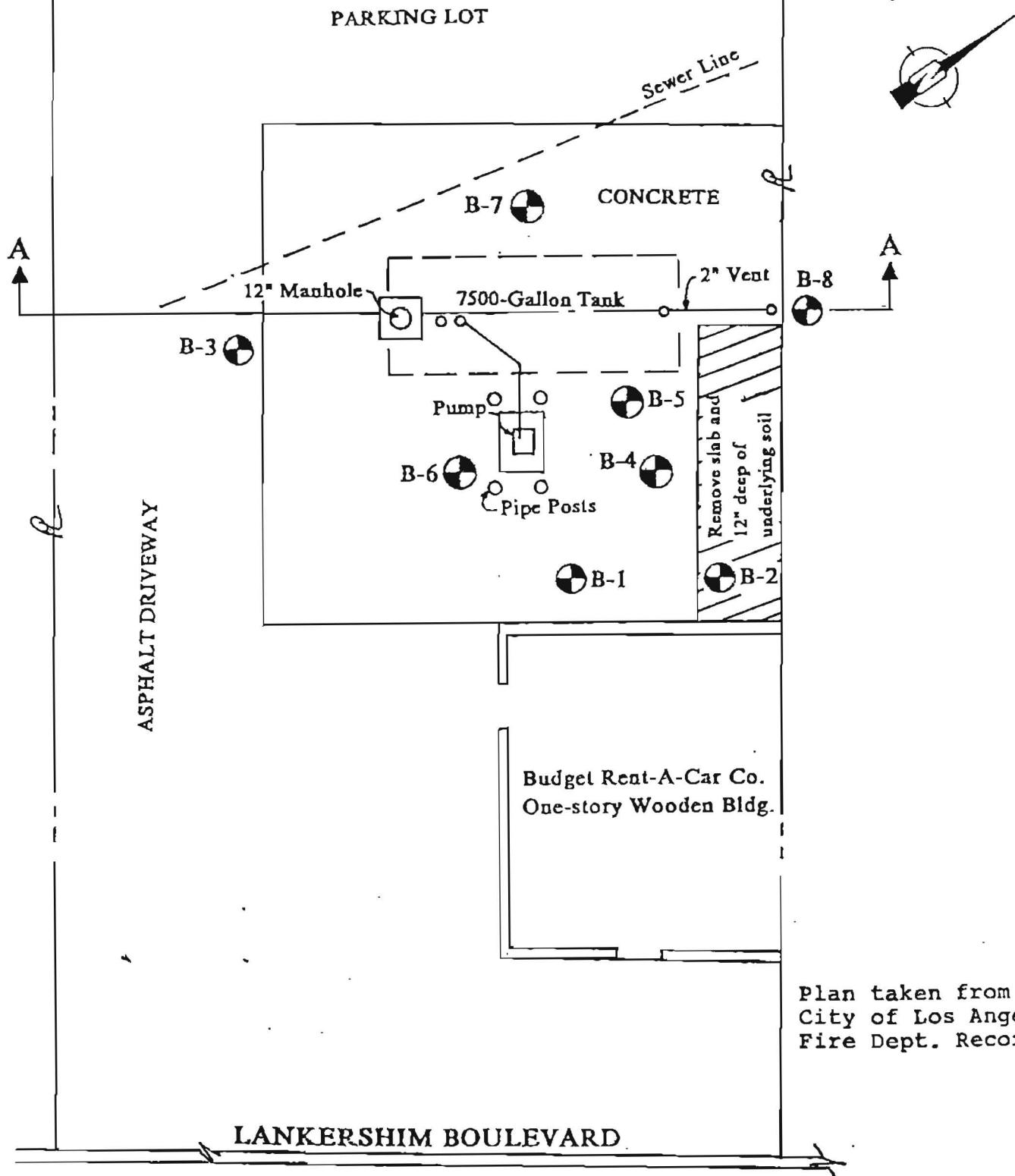
METRO RAIL TRANSIT CONSULTANTS
 DMJM/PBDD/KE/HWA

PREPARED BY: [Signature]

FIGURE 3
 PLOT PLAN
 PARCEL C3-750
 UNIVERSAL CITY STATION

DESIGN UNIT/CONTRACT NO. C3 25	
SCALE	1" = 20'
DATE	7-8-92
REV. DATE	REV. NO.

REFERENCE: ALL AMERICAN SOILS, INC., 1994



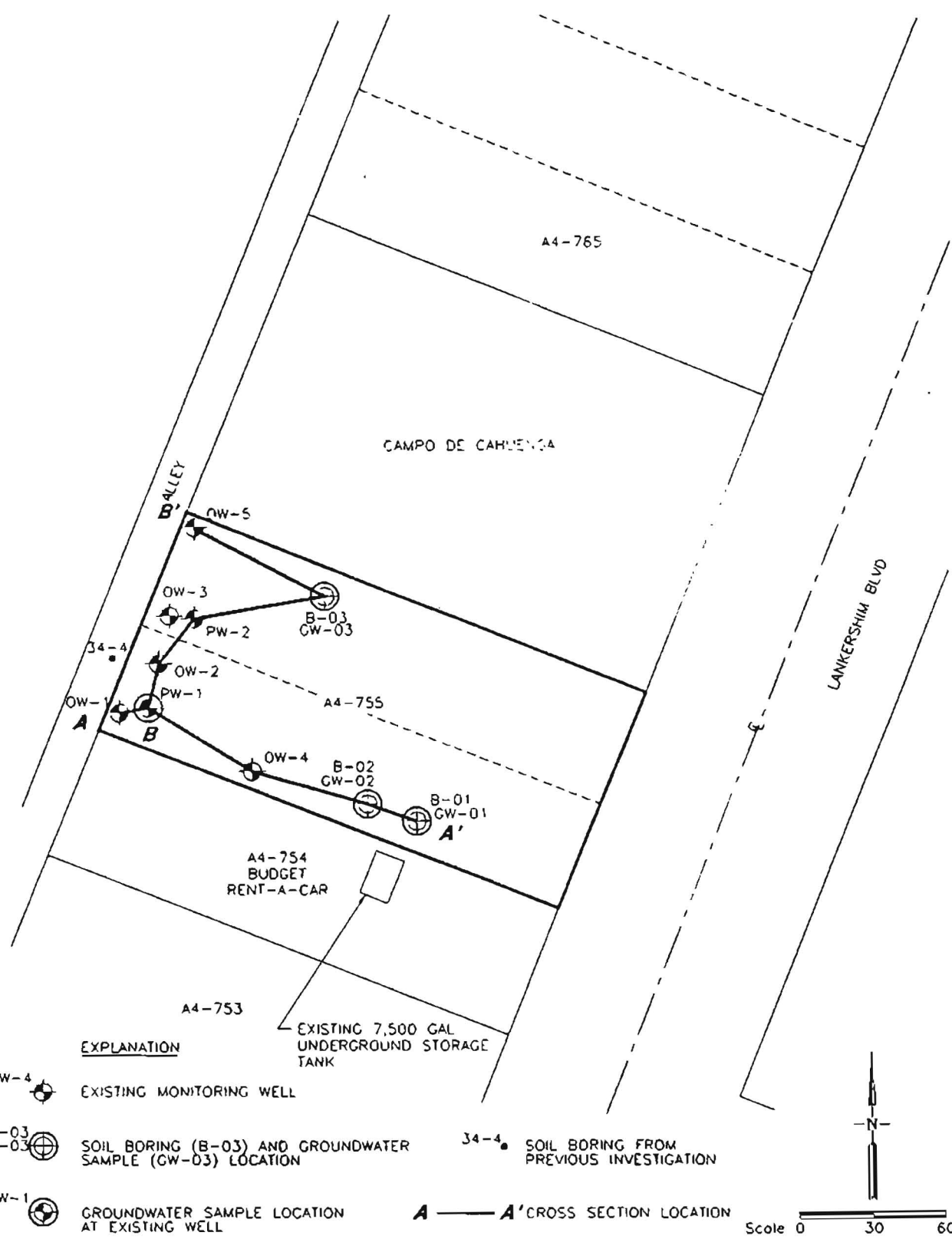
Plan taken from City of Los Angeles Fire Dept. Record.

 BORING LOCATION

SCALE: 1" = 10'

FIGURE 4
 PLOT PLAN
 PARCEL C3-754
 UNIVERSAL CITY STATION

MVA 28351A 11 63165



**FIGURE 5
PLOT PLAN
PARCEL C3 - 755
UNIVERSAL CITY STATION**

REFERENCE: HARDING LAWSON ASSOCIATES, 1994

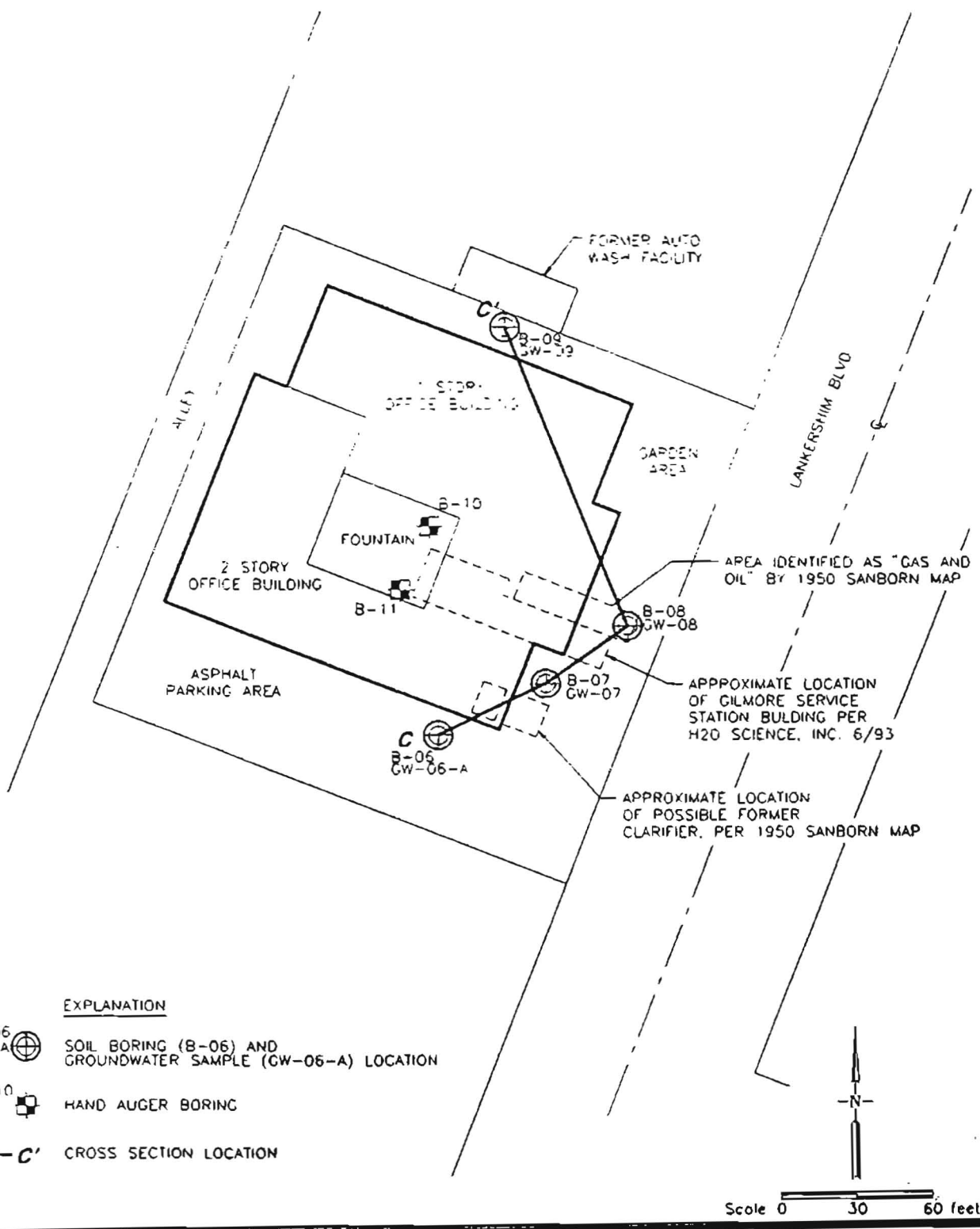
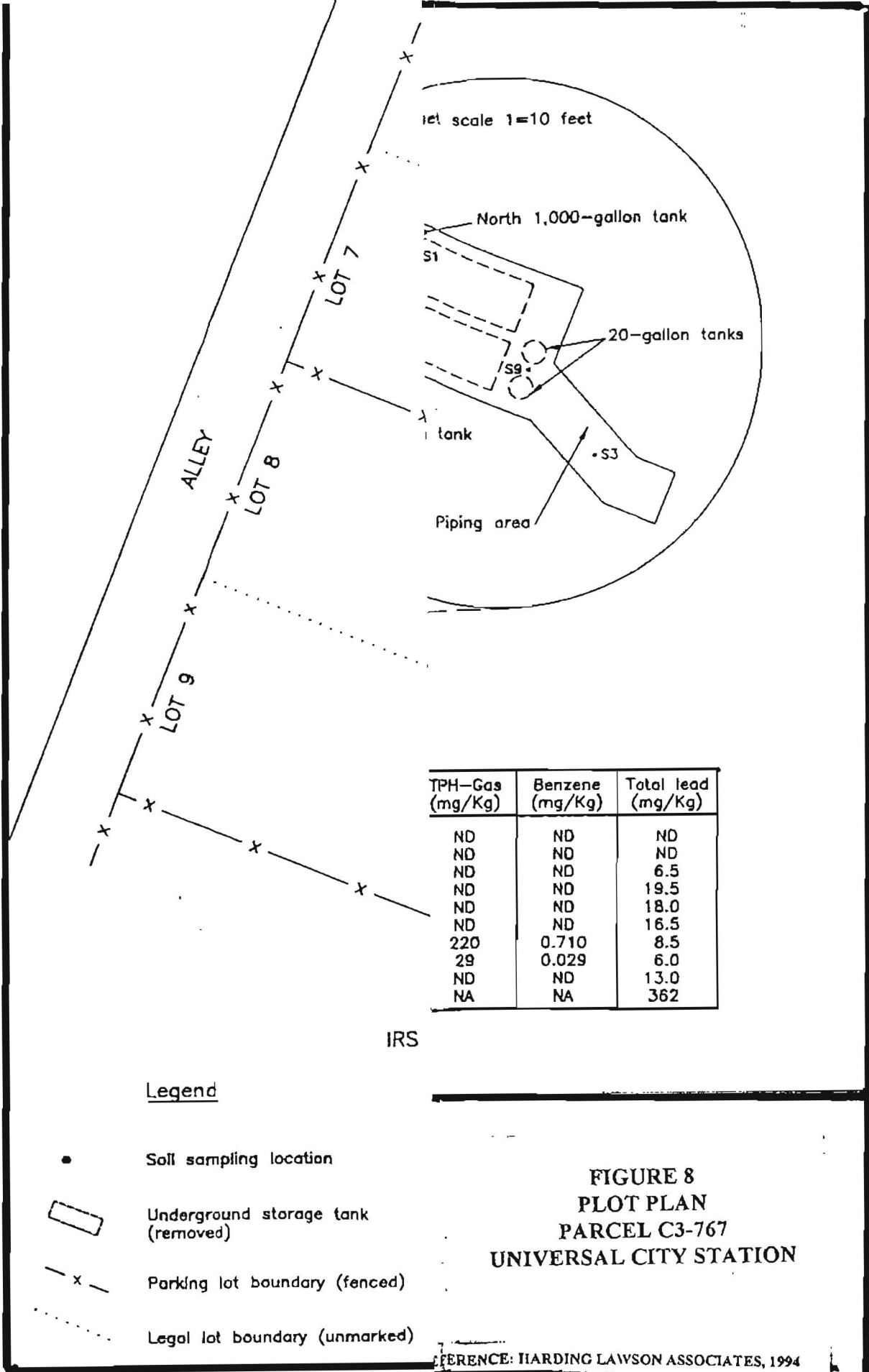


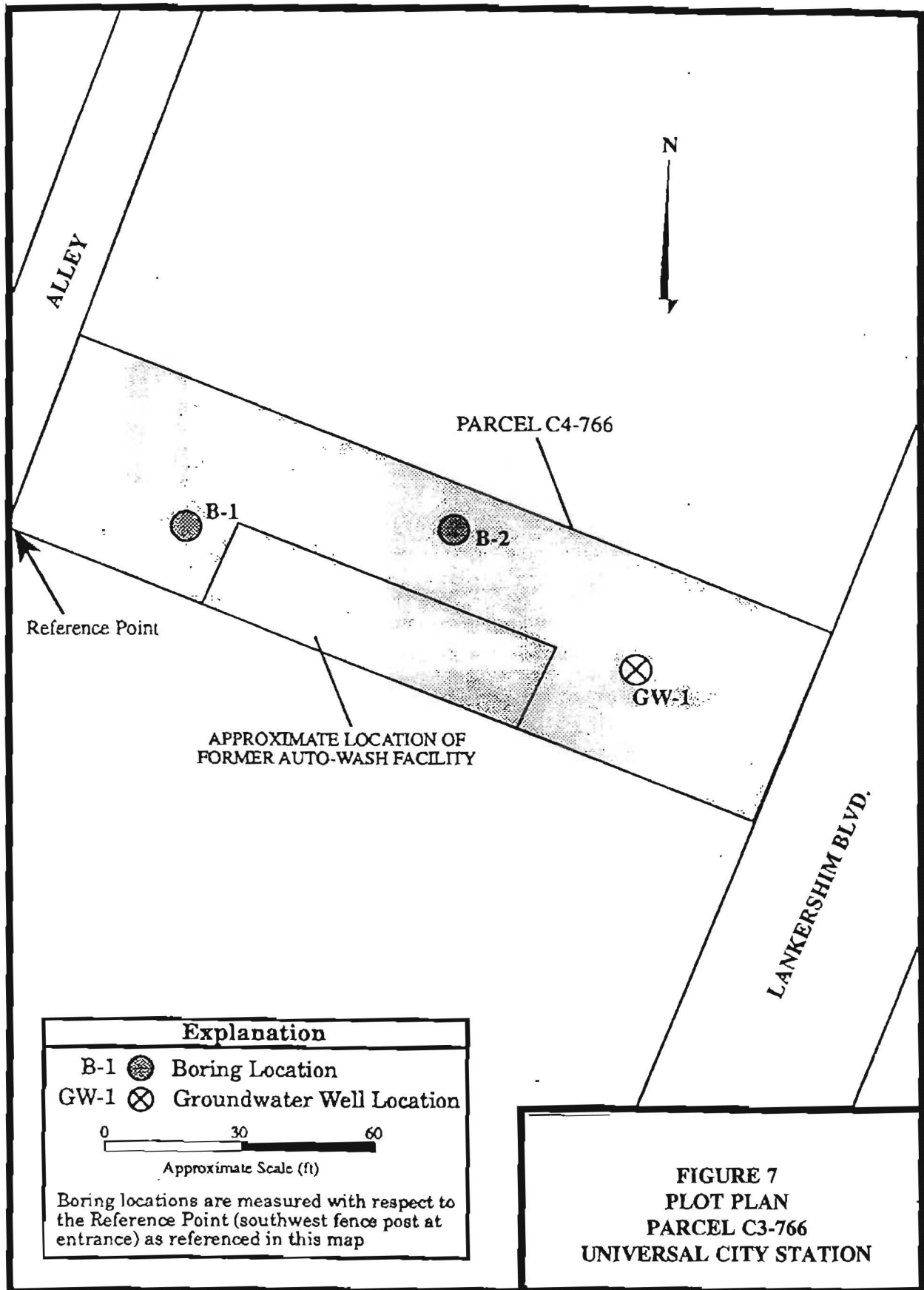
FIGURE 6
PLOT PLAN
PARCEL C3 - 765
UNIVERSAL CITY STATION

REFERENCE: HARDING LAWSON ASSOCIATES, 1994



**FIGURE 8
PLOT PLAN
PARCEL C3-767
UNIVERSAL CITY STATION**

REFERENCE: HARDING LAWSON ASSOCIATES, 1994

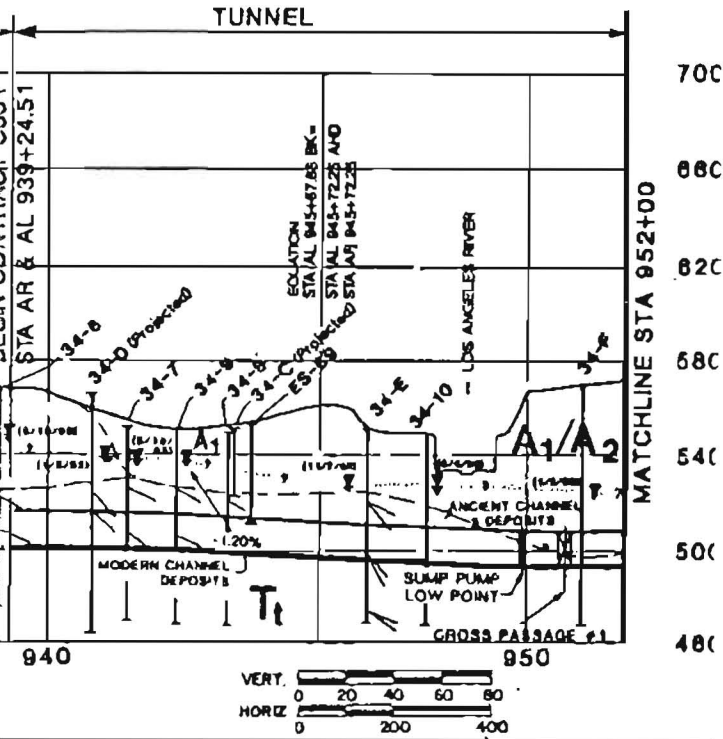


REFERENCE: DRILLING AND REMEDIAL TECHNOLOGY



EXPLANATION

GEOLOGIC UNITS	
A ₁	YOUNG ALLUVIAL (Granular); Includes clean sands, silty sands, gray sandy gravels, and locally contains cobbles and boulders. Primary ranges from loose to very dense.
A ₂	YOUNG ALLUVIUM (Fine-grained); Includes sandy silts, silts, clayey silty sands, and clayey sands. Primary silt, but ranges from firm to soft.
T _t	BEDROCK-TOPANGA FORMATION (Siltstone, Sandstone, Claystone, Conglomerate, laminated to thickly bedded. Primarily hard, local soft beds and well cemented massive sandstone beds.
SYMBOLS	
---	Geologic contact: dashed where approximate; queried where inferred.
⊙ ⊙ ⊙ ⊙	Fault (view in plan), dotted where concealed, queried where inferred. (U) upstream side, (D) downthrown side.
↗ ↘	Fault (view in geologic section); approximately located, queried where inferred. Arrows indicate probable movement; attitude in profile is an apparent one not corrected for scale distortion.
↗ ↘	Dip of bedding from unoriented core samples, bedrock attitudes may not be correctly oriented in the plane of the profile; number gives true dip in degrees as encountered in boring, strike of bedding as encountered in boring in degrees.
⊕	Perched groundwater level, approximately located, queried where inferred. Shown with date of observation.
⊕	Static water level; approximately located, queried where inferred. Shown with date of observation, subject to variation dependent on groundwater basin.
⊕	Groundwater level; approximately located, queried where inferred. Shown with date of observation, subject to variation dependent on groundwater basin.
▲	Core Penetration Sounding (1092)

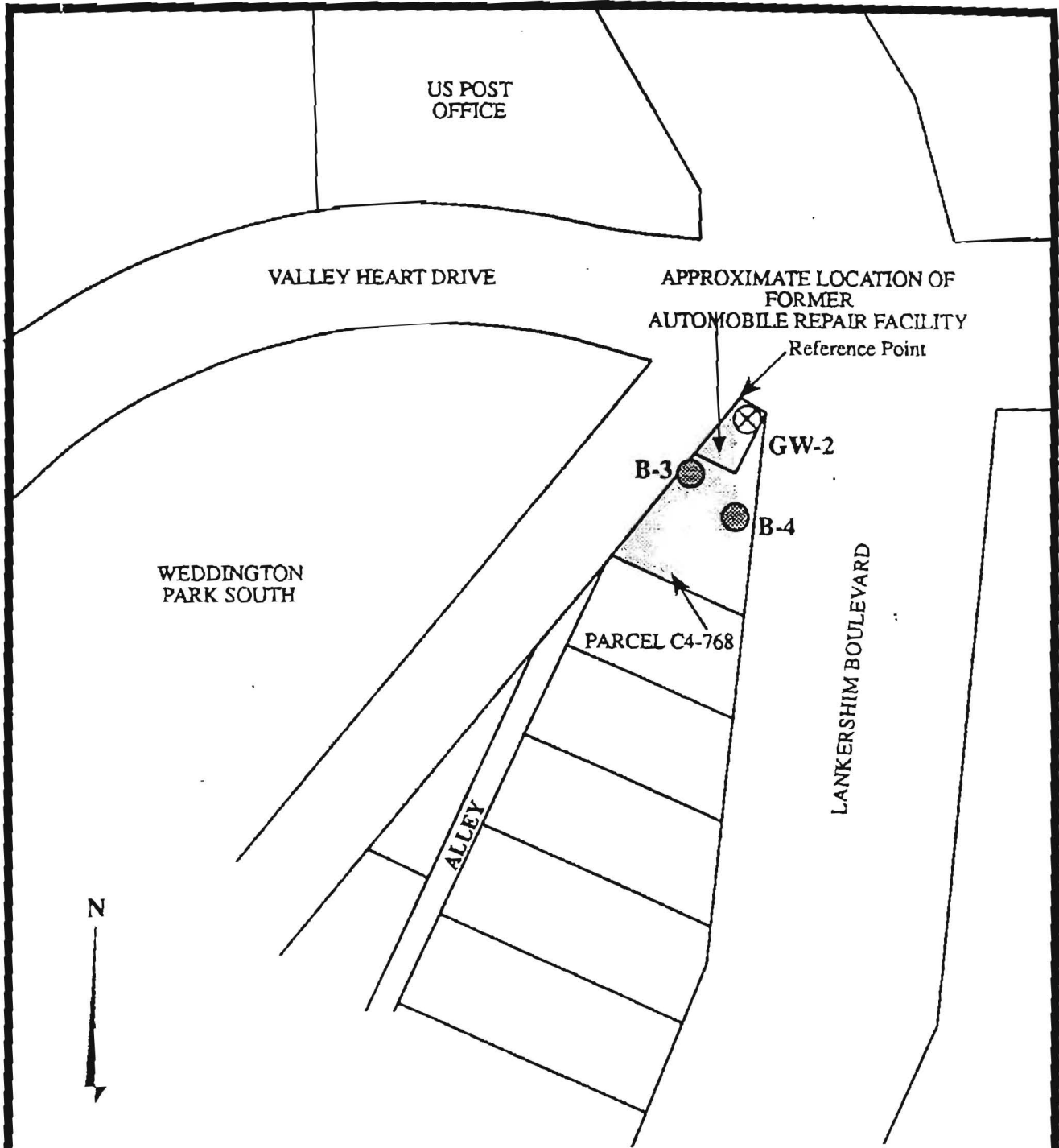


**FIGURE 10
GEOTECHNICAL BORINGS
UNIVERSAL CITY STATION**

THE PREPARATION GRANT FROM THE TRANSPORTATION ACT OF 1964, AS AM LOS ANGELES CO.		
REV.	DATE	BY

**LA CBD TO NORTH HOLLYWOOD
UNIVERSAL CITY STATION
LOCATION OF BORINGS
AND GEOLOGICAL SECTION
SHEET 1 OF 11**

CONTRACT NO.	C0321
DRAWING NO.	K-101
SCALE	AS SHOWN
SHEET NO.	




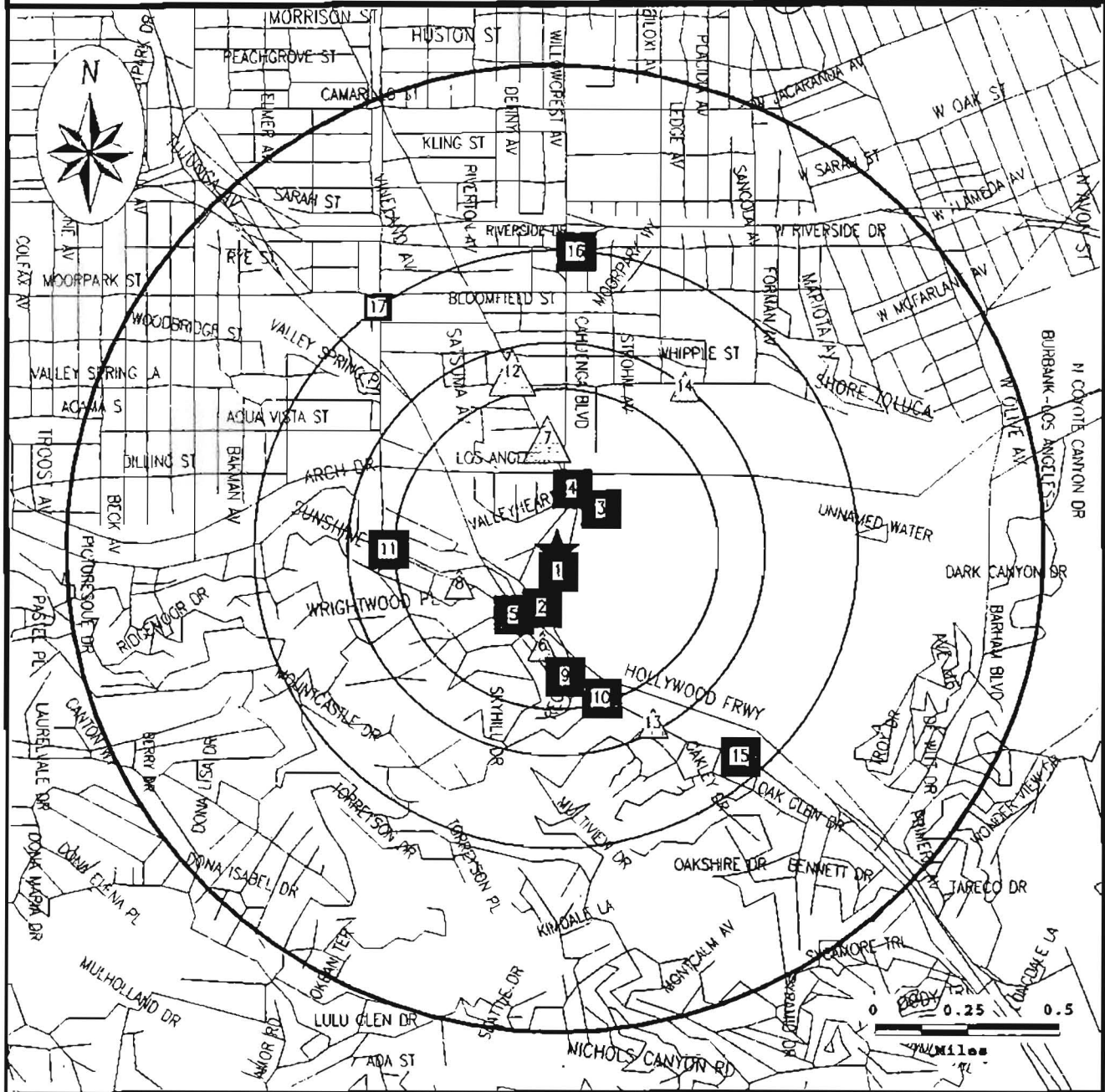
Explanation	
B-1	● Boring Location
GW-1	⊗ Groundwater Well Location
0 100 200  Scale (ft)	
Boring locations are measured with respect to the Reference Point (north west corner of block) as referenced in this map	

FIGURE 9
PLOT PLAN
PARCEL C3-768
UNIVERSAL CITY STATION

**FIGURE 11
AGENCY LIST SITES
UNIVERSAL CITY STATION**



Subject Site	Category:	A	B	C	D
★	Databases Searched to:	1 1/4 mi.	3/4 mi.	1/2 mi.	3/8 mi.
	Single Sites	◆	■	△	○
	Multiple Sites	◆	■	△	○
		NPL, SPL, SCL, TSD	CERCLIS, LUST, SWLF	UST	ERNS, GENERATORS
—	Roads				
—	Highways				
—	Railroads				
—	Rivers or Water Bodies				
—	Utilities				

If additional databases are listed in the cover page of the report they are also displayed on this map. The map symbol used corresponds to the database category letter A,B,C,D.

