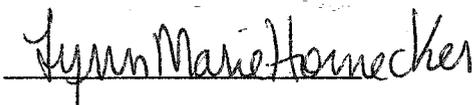


Summary Report

Phantom Drum Storage Area
Solid Waste Management Unit (SWMU) 50
Marine Corps Air Station, El Toro, California

15 January 2002

Prepared by:



Lynn Marie Hornecker
Project Manager

Southwest Division, Naval Facilities Engineering Command
BRAC Programs Office
San Diego, CA 92101-2404

Transmittal

Date: 15 January 2002

From: Lynn Marie Hornecker 

To: **Triss Chesney**
State of California Environmental Protection Agency
Department of Toxic Substances Control (DTSC), Region 4
Site Mitigation Branch, Base Closure Unit
5796 Corporate Avenue
Cypress, CA 90630

Subj: Solid Waste Management Unit (SWMU 50)
Phantom Drum Storage Area
Marine Corps Air Station, El Toro

Provided for your review as the attachment is the Summary Report for Solid Waste Management Unit (SWMU 50), a phantom or non-existent drum storage area at the Marine Corps Air Station (MCAS), El Toro. SWMU 50 was identified during the Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA). According to the RFA documentation, SWMU 50 was identified on a photograph taken in 1980 and was reportedly located near Building 179. The RFA documentation states that the drum storage area could not be located during the visual inspection activities.

We evaluated historical property records, facility maps, and photographs for MCAS El Toro during the development of the Summary Report, and extracts from these documents are included in the Summary Report. We found no record of a Building 179 at MCAS El Toro. There is however, a structure 179 – a former underground storage tank (UST) at the former Tank Farm 2. All USTs were removed from the former Tank Farm 2 in 1995. The Regional Water Quality Control Board, Santa Ana Region closed the tank sites in March 2000.

We also evaluated historical documents for the Marine Corps Air Facility (MCAF), Tustin and we found that Building 179 - a Line Maintenance Shack - exists at MCAF Tustin. We conducted a visual inspection of the Building 179 vicinity and the nearby temporary accumulation area or drum storage area, Building 578 (ST-40A), at MCAF Tustin on 15 January 2002. We believe that the drum storage area in the vicinity of Building 179 at MCAF Tustin was photographed in 1980. Drum storage areas and other areas of concern at MCAF Tustin are being managed under the MCAF Tustin environmental restoration program.

SOUTHWESTNAVFACENGCOM
BRAC Operations
Code 06CC.LMH
1220 Pacific Highway
San Diego, California 92132-5190

File: etswmu50trltjan2002.doc

We believe that the label on the 1980 photograph of the drum storage area near Building 179 was incorrect and should have identified MCAF Tustin rather than MCAS El Toro as the facility.

We recommend that SWMU 50 be designated a phantom or non-existent site and that SWMU 50 be deleted from the list of Locations of Concern in the next MCAS El Toro BRAC Business Plan update.

If we do not receive comments from your office within sixty (60) days of receipt of this transmittal, then we will assume that you concur with our recommendations to designate SWMU 50 a phantom or non-existent site and to delete SWMU 50 from the list of Locations of Concern.

Please do not hesitate to call me at (619) 532-0783 if you have questions on the attachment.
Thank you very much.

Attachment

Summary Report, SWMU 50 (SWDIV, January 2002)

CF:

Dean Gould (MCAS El Toro BEC)
Project File (MCAS El Toro)

SOUTHWESTNAVFACENGCOM
Code 06CC.LMH
1220 Pacific Highway
San Diego, CA 92132
Telephone: (619) 532-0783/Fax: (619) 532-0780

File: eltoroar.doc

TRANSMITTAL

Date: 3 July 2002

From: Lynn Marie Hornecker
MCAS El Toro

2/MLH

To: Diane Silva
Code ~~01LS.DS~~ *05GS.DS*

Subj: CERCLA Administrative Record Materials
Marine Corps Air Station, El Toro

Installation: Marine Corps Air Station, El Toro

UIC Number: M60050

Document Title (or subject):

Author:

Recipient:

Record Date: 26 June 2002

Approximate Number of Pages: 70 pages

EPA Category: 01.1

Sites: SWMU 50

Key Words: RFA

Contract: N/A

CTO Number: N/A

Site will be deleted based upon attached documentation.

Summary

The purpose of this Summary Report is to present information pertaining to a phantom or non-existent drum storage area, designated as Solid Waste Management Unit (SWMU) 50 at the Marine Corps Air Station (MCAS), El Toro. SWMU 50 was identified during the Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA). The RFA documentation states that SWMU 50 was identified as a drum storage area located near Building 179 and that the drum storage area was identified on a photograph taken in 1980. The record from the visual inspection indicates that the drum storage area could not be located.

The Marine Corps Air Station, El Toro, also known as the Station, comprises approximately 4,700 acres in eastern Orange County approximately 45 miles southeast of Los Angeles, California. The Station closed on 2 July 1999 in accordance with the Base Realignment and Closure Act of 1993 (BRAC III).

This Summary Report includes a description of information collected during a review of historical property records, facility maps, photographs, environmental compliance management plans, the results of a recent visual inspection, and a discussion of the findings of the review of historical documentation.

The historical records do not include a Building 179 at MCAS El Toro, however, a Building 179 is located at the Marine Corps Air Facility (MCAF), Tustin. The recent visual inspection of the Building 179 vicinity at MCAF Tustin confirmed that the 1980 photograph of a drum storage area was taken near Building 179 at MCAF Tustin.

Based upon the absence of evidence of a Building 179 at MCAS El Toro, and the existence of a Building 179 at the Marine Corps Air Facility, Tustin, it is recommended that SWMU 50 be designated a phantom or non-existent site and be deleted from the list of Locations of Concern in the next BRAC Business Plan update for MCAS El Toro.

Historical Records

Exhibits: Recent photographs of the Building 179 vicinity at Marine Corps Air Facility, Tustin and a copy of the 1980 photograph are included in the Appendix as Exhibits 1 and 2. The 1980 photographs are maintained in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Administrative Record with the record identifier M60050.000924. The list that accompanies the 1980 photographs does not cite the California Department of Health Services (DHS) as the source, however, this information may have been inadvertently omitted from the hand-written list.

The 1980 photograph shows a sign on an unpaved area near Building 179. A hazardous waste accumulation area, ST-40A (Building 578), is located in an unpaved area near Building 179, and this unit is being managed under the MCAF Tustin environmental restoration program.

Exhibit 3 is a site plan from the closure documentation for Tank Farm 2. The plan shows the location of UST 179 at Tank Farm 2. All tanks were removed from Tank Farm 2 in 1995.

MCAS El Toro RFA Documentation:

The visual inspection record (JEG 1993) states: "A DSA near Building 179 was identified in a 1980 DHS photograph. There is currently no Building 179 at MCAS El Toro. There is a UST 179 that appears on a 6 February 1989 building list for the Station. There is no evidence of a past or present DSA near Tank 179. The DSA could also not be located from information in the photograph." Extracts from the 1993 RFA documentation are included in the Appendix.

A temporary accumulation area (TAA) is located adjacent to the southeast side of the former Tank Farm 2 near Building 765. TAA 765 was closed by the California Department of Toxic Substances Control (DTSC) in 1998 and a copy of the DTSC letter is included in the Appendix.

MCAS El Toro Building Guides dated 1989, 1994, and 1997:

Building 179 is not included in the 1989, 1994, or the 1997 guides, however, the 1989 and 1994 guides identify structure 179 as a fuel tank. Extracts from the building guides are included in the Appendix.

MCAS El Toro Underground Storage Tank Program:

All tanks were removed from the former Tank Farm 2 (USTs 176, 177, 178, 179, 180, 181, 182, and 183) with oversight by the Orange County Health Care Agency (OCHCA) in 1995. An extract from the closure documentation (Toxguard 1996) and the RWQCB closure letter dated March 2000 are included in the Appendix.

MCAF Tustin Documentation:

The 1989 and 1994 Building Guides for MCAF Tustin (formerly MCAS Tustin) include Building 179 - a Line Maintenance Shack. Extracts from the 1989 and 1994 Building Guides are included in the Appendix.

The Building 179 vicinity was visually inspected and photographs were taken by a Navy representative on 15 January 2002. A hazardous waste accumulation area structure (Building 578) was constructed in the Building 179 vicinity after the 1980 photograph was taken. Building 578, identified on the 1994 Building Guide as Hazardous Waste Storage #9, is being managed under the MCAF Tustin environmental restoration program as ST-40A.

The Base Realignment and Closure Business Plan, Marine Corps Air Station, Tustin, 2000 in Review (USMC February 2001) identifies Building 179 in reuse parcel 18. The Business Plan also identifies a temporary accumulation area (or drum storage area) at Building 578 (ST-40A) that is located near Building 179. Extracts from the document are included in the Appendix.

Findings and Recommendations

The following findings are based upon information collected during the record search activities, the RFA documentation, and from observations during the visual inspections:

- The RFA identified SWMU 50 as a drum storage area located near Building 179 at MCAS El Toro, and the RFA identified a photograph dated 1980 as the source of the information.
- Historical records, including building guides, property records, and facility maps, for MCAS El Toro do not indicate that a Building 179 existed. However, the records identify structure 179 as a fuel tank at the former Tank Farm 2. UST 179 was removed in 1995 and the tank site has been closed by OCHCA.
- Historical records for MCAF Tustin include a Building 179, and the areas of concern at or near Building 179 are being managed under the MCAF Tustin environmental restoration program.
- Recent photographs of the Building 179 vicinity at MCAF Tustin show a temporary accumulation area structure (Building 578) that is located on the unpaved area near Building 179.
- It is possible that a transcription error caused the 1980 photograph of the Building 179 vicinity at MCAF Tustin to be identified as a building at MCAS El Toro.

Based upon the absence of evidence of a Building 179 at MCAS El Toro and the existence of Building 179 and a nearby drum storage area (Building 578) at MCAF Tustin, it is recommended that SWMU 50 be considered a phantom or non-existent site. It is also recommended that SWMU 50 (drum storage area located near Building 179) be deleted from the inventory of locations of concern in the next Business Plan Update for MCAS El Toro.

References and/or Sources of Information

California Regional Water Quality Control Board, Santa Ana Region. 1989. Correspondence dated June 23, 1989.

County of Orange. 1999. Preferred Land Use Plan, Concept B. August. [prepared by the MCAS El Toro Local Redevelopment Authority]

Jacobs Engineering Group (JEG). 1993. Installation Restoration Program, Final Resource Conservation and Recovery Act Facility Assessment Report for Marine Corps Air Station, El Toro, California. [Navy Contract N68711-89-D-9296, Contract Task Order 193]

Naval Facilities Engineering Command, Southwest Division. 1997. Plant Account Record for MCAS El Toro.

OHM. 1998. Site Assessment and Remedial Action Report, Tank Farm 2, Marine Corps Air Station, El Toro, California. April. [Navy Contract N68711-93-D-1459, Delivery Order Number 24]

Science Applications International Corporation (SAIC). 1994. Final, Marine Corps Air Station, El Toro, Hazardous Material/Hazardous Waste Management Plan {with Appendices C and I, Hazardous Waste Accumulation Areas and Photographs of Accumulation Points and Hazardous Material Storage Areas}. August. [Contract N68711-92-D-4658, Delivery Order Number 4].]

Toxguard. 1996. Site Assessment-Closure Report, Parts 1 and 2, Underground Storage Tank Removals at Tank Farm #2, United States Marine Corps Air Station, El Toro. May. [Navy Contract N68711-94-C-0677]

United States Marine Corps Air Station, El Toro. 2001. Base Realignment and Closure (BRAC) Business Plan.

United States Marine Corps Air Station, El Toro. Circa 1946-1999. Station Property Records, Facility Maps, and Building Guides.

United States Marine Corps Air Station, El Toro. 1997-2000. No Further Action correspondence from RWQCB, OCHCA, and/or DTSC.

United States Marine Corps Air Station, El Toro. Administrative Record Identifier M60050.000924. Historical photographs of drum storage areas dated 1980.

United States Marine Corps Air Facility, Tustin. Historical environmental restoration program documents and building records.

Appendix

Site Photographs and Other Documentation

Exhibits: Photographs of Building 179 Vicinity at MCAF Tustin (January 2002); Photograph of SWMU 50 (1980); and Extract from Closure Documentation for Tank Farm 2

Extracts from RFA Documentation (JEG 1993) and 1980 Photograph List

Extracts from MCAF Tustin Documents

Extracts from MCAS El Toro Business Plan (Published March 2001)

Extracts from MCAS El Toro Building Guides and Historical Facility Maps

No Further Action Decision Document for UST 179 (Former Tank Farm 2) and nearby TAA 765

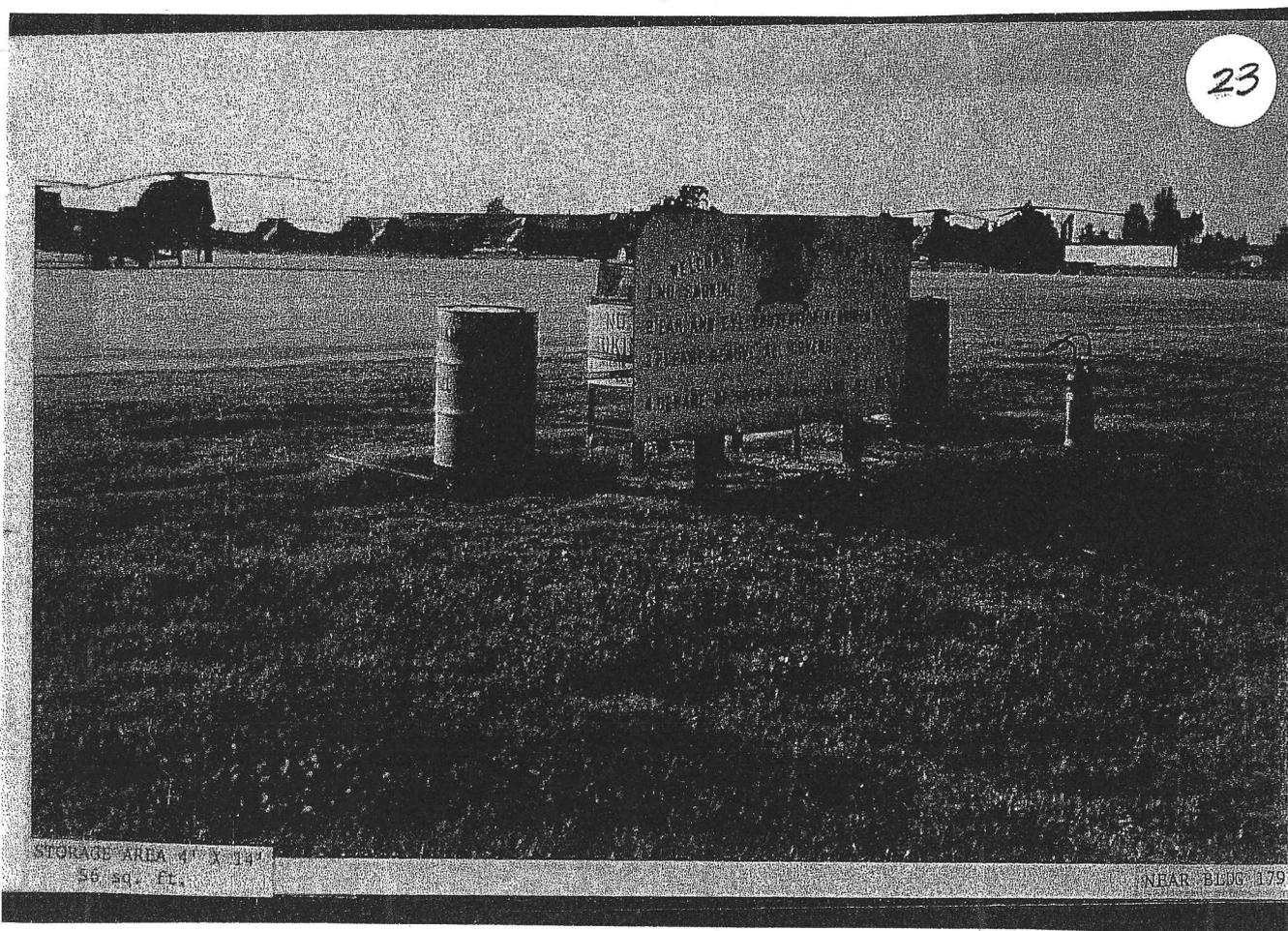
**Exhibit 1. Building 179 Vicinity Photographs.
Marine Corps Air Facility, Tustin
Date of Photographs: 15 January 2002**



[Notes: Building 179 was identified as a drum storage area at MCAS El Toro based upon a photograph taken in 1980. The drum storage area was designated Solid Waste Management Unit (SWMU) 50 during the RCRA Facility Assessment for MCAS El Toro]

Exhibit 2. Photograph Number 23 of an area near Building 179
(from MCAS El Toro Administrative Record Document Identifier
M60050.000924 and RFA Documentation)

Date of Photograph: 1980



Notes: Building 179 is located at the Marine Corps Air Facility, Tustin. The 1980 photograph in the MCAS El Toro Administrative Record Document M60050.000924 resulted in the identification of the Building 179 vicinity as RFA Solid Waste Management Unit 50. The label on the 1980 photograph incorrectly identified MCAS El Toro as the location of Building 179.

SOUTHWESTNAVFACENGCOM
CODE 06CC.LMH
SAN DIEGO, CA 92101

RFA Documentation and 1980 Photograph of Building 179

EXTRACTS

MARINE CORPS AIR STATION EL TORO
EL TORO, CALIFORNIA
INSTALLATION RESTORATION PROGRAM
FINAL RESOURCE CONSERVATION
AND RECOVERY ACT (RCRA)
FACILITY ASSESSMENT REPORT

PREPARED BY:
Southwest Division, Naval Facilities
Engineering Command
1220 Pacific Highway
San Diego, California 92132-5190

THROUGH:
CONTRACT #N68711-89-D-9296
CTO #193
DOCUMENT CONTROL NO:
CLE-C01-01F193-S2-0001

WITH:
Jacobs Engineering Group, Inc.
3655 Nobel Drive, Suite 200
San Diego, California 92122

In association with:
International Technology Corporation
CH2M HILL



Mike Arends, P.E.
CLEAN Project Manager
CH2M HILL, Inc.

7/16/93
Date



Raoul Portillo
CLEAN Technical Reviewer
Jacobs Engineering Group Inc.

15 July 1993
Date

TABLE 4-1
 COMPREHENSIVE LIST OF SWMUs AND AREAS OF CONCERN
 IDENTIFIED DURING THE PRELIMINARY REVIEW/VISUAL SITE INSPECTION
 MCAS EL TORO RFA

SWMU	SMWU TYPE	SOURCE (1)	LOCATION/BUILDING	COMMENTS	DATE	SIZE	MATERIAL	CONTENTS
31	Drum Storage Area	c	29	R/FS Site				
32	Drum Storage Area (2)	b	36					
33	Hazardous Waste Storage Area	Active	51					
34	Drum Storage Area	c	71	Identified as MCAS Tustin		45,000 sq ft		
35	Drum Storage Area	b	96					
36	Drum Storage Area	a	103	Duplicate of SWMU/AOC 27				
37	Aircraft Wash Area	a	114	Duplicate of SWMU/AOC 210				
38	Drum Storage Area	a	114					
39	Hazardous Waste Storage Area	Active	115					
40	Drum Storage Area (2)	a	127					
41	Vehicle Wash Rack	a	127					
42	Drum Storage Area	a,b	130					
43	Drum Storage Area (2)	c	137			450 sq ft		
44	Drum Storage Area (2)	a	143					
45	Drum Storage Area	c	155			150 sq ft		
46	Vehicle maintenance and parking	e	163	DRMO Lot 2				
47	Drum Storage Area (2)	c	172					
48	Underground Storage Tank	f	178	Active	1943	50,000 gal	Steel-Lined Concrete	Waste Oil
49	Underground Storage Tank	f	179	Active	1943	25,000 gal	Steel-Lined Concrete	Waste Oil
50	Drum Storage Area	c	179			56 sq ft		
51	Underground Storage Tank	f	180	Active	1943	50,000 gal	Steel-Lined Concrete	Waste JP-5
52	Underground Storage Tank	f	182	Active	1943	25,000 gal	Steel-Lined Concrete	Waste Oil
53	Underground Storage Tank	f	185	Identified as MCAS Tustin	Unknown	750 gal	Steel	Waste Oil
54	Underground Storage Tank	f	185	Identified as MCAS Tustin	Unknown	750 gal	Steel	Waste Oil
55	Drum Storage Area (2)	c	186			20 sq ft		
56	Drum Storage Area (2)	c	187			172 sq ft		
57	Underground Storage Tank	f	189	Active	1943	50,000 gal	Steel-Lined Concrete	Waste Oil
58	Underground Storage Tank	f	189	Active	1988	2,000 gal	Fiberglass-Coated Steel	Waste Oil
59	Underground Storage Tank	f	191	Active	1943	25,000 gal	Steel-Lined Concrete	Waste Oil
60	Underground Storage Tank	f	204	Release detection 1989, Active	1943	50,000 gal	Steel-Lined Concrete	Waste JP-5

4-9

**TABLE 4-1
COMPREHENSIVE LIST OF SWMUs AND AREAS OF CONCERN
IDENTIFIED DURING THE PRELIMINARY REVIEW/VISUAL SITE INSPECTION
MCAS EL TORO RFA**

SWMU	SWMU TYPE	SOURCE (1)	LOCATION/BUILDING	COMMENTS	DATE	SIZE	MATERIAL	CONTENTS
301	Mark Arrest System	m	East side of Runway 34R					
302	Mark Arrest System	m	West side of Runway 34R					
303	Underground Storage Tank	m	359					
304	Trenches inside Building 359	m	359					
305	Septic Tank	l	601					
306	Septic Tank	l	687			2,000 gal	Concrete	Sanitary Waste
307	Septic Tank	l	819		1986	2,200 gal	Concrete	Sanitary Waste

NOTES:

(1) SOURCE:

- Current - Based on site visits Jan-Feb 1991
- Past - Based on agency records review and miscellaneous records for MCAS El Toro as identified below:
 - a - Regional Water Quality Control Board, letter to LL Rehor (June 23, 1989)
 - b - SPCC map (no date)
 - c - Department of Health Services, 1980 Photographs
 - d - EPA, Region IX, Compliance Inspection Report, May 1987
 - e - interview
 - f - UST list EG & G Idaho, Inc., November 1990
 - i - Department of Conservation, California Division of Oil and Gas, Long Beach
 - j - Per MCAS El Toro List of Oil/Water Separators
 - k - Observed during VSI
 - l - Other
 - m - Per Navy direction (added during SV)

(2) SWMU/AOC was not able to be accurately located and/or identified from the records review information and the site visits.

4-27

**Evaluation Form
SWMU/Area of Concern
Number 50**

Name: Drum Storage Area

Location: Near Building 179

Size: 56 sq ft

Date of Site Visit: 19 April 1991

A DSA near Building 179 was identified in a 1980 DHS photograph. There is currently no Building 179 at MCAS El Toro. There is a UST 179 that appears on a 6 February 1989 building list for the Station. There is no evidence of a past or present DSA near Tank 179. The DSA could also not be located from information in the photograph.



PHOTO RECORD FILE INDEX

CLE-C01 M60050.000924
M60050.000924 MCAS EL TORO
ROLL NO. SSIC # 5090.3

EXTRACTS

M60050.000924
MCAS EL TORO
SSIC # 5090.3

PERIOD FROM _____ TO _____ 19__

PROJECT: CTO#193 RFA

PROJECT NO. SCE 70022 MR

PREPARED BY: _____

PICTURE NUMBER	PHOTO DESCRIPTION/LOCATION	DATE	DAILY LOG NUMBER
1	Storage Area View Change - North of Bldg. 360 Facing North	12/8/80	
2	Storage Area 5076 S.F. Available - North of Bldg. 360 Facing East	12/8/80	
3	Storage Area 12' x 30' 360 sq. ft. - West of Bldg. 29	10/29/80	
4	Cash Crew Training Pit 50' Dia 1963 sq. ft. - East of Bldg. 23A	10/28/80	
5	Storage Area 4' x 30' 120 sq. ft. - East of Bldg. 359	10/29/80	
6	Storage Area 2' x 10' 20 sq. ft. - South of Bldg. 186	10/28/80	
7	Storage Area 172 sq. ft. - South of Bldg. 187	10/28/80	
8	Storage Area 15' x 30' 450 sq. ft. - West of Bldg. 297	10/29/80	
9	Storage Area 5' x 10' 50 sq. ft. - West of Bldg. 297	10/29/80	
10	Storage Area 15' x 80' 120 sq. ft. - East of Bldg. 155	10/29/80	
11	Storage Area 12' x 30' 360 sq. ft. - East of Bldg. 672	10/29/80	
12	Storage Area 14' x 20' / 12' x 6' 352 sq. ft. - West of Bldg. 297	10/29/80	
13	Storage Area 18' x 40' 720 sq. ft. - West of Bldg. 297	10/29/80	
14	Storage Area 4' x 4' 16 sq. ft. - West of Bldg. 297	10/29/80	
15	Storage Area 5' x 10' 50 sq. ft. - North of Bldg. 386	10/29/80	
16	Storage Area 25' x 30' 600 sq. ft. - West of Bldg. 29	10/29/80	



PHOTO RECORD FILE INDEX

ROLL NO. _____

PERIOD FROM _____ TO _____ 19____

PROJECT: CTO# 193 RFA

PROJECT NO. SCE 70022 MR

PREPARED BY: _____

PICTURE NUMBER	PHOTO DESCRIPTION/LOCATION	DATE	DAILY LOG NUMBER
17	Storage Area 5'x120' 600 sq. ft. - North of Bldg 673	10/29/80	
18	Storage Area 12'x20' 240 sq. ft. - East of Bldg 673	10/29/80	
19	Storage Area 20'x25' 500 sq. ft. - East of Bldg 673	10/29/80	
20	Storage Area 20'x20' 400 sq. ft. - East of Bldg 673	10/29/80	
21	Storage Area Containers - North of Bldg 60, East End of Stg Area	12/08/80	
22	Storage Area 12'x20' 240 sq. ft. - South of Bldg 10	10/29/80	
→ 23	Storage Area 4'x14' 56 sq. ft. - Near Bldg 179	10/29/80	
24	Storage Area 15'x30' 450 sq. ft. - West of Bldg 137	10/29/80	
25	Storage Area 10'x30' 300 sq. ft. - West of Bldg 1519	10/29/80	
26	Storage Area 150'x300' 45,000 sq. ft. - North of Bldg 71F	10/29/80	
27	Storage Area 5'x5' 25 sq. ft. - South of Bldg 298	10/29/80	
28	Storage Area 10'x12' 120 sq. ft. - South of Bldg. 298	10/29/80	
29	Storage Area 3'x20' 60 sq. ft. - West of Bldg 306	10/29/80	
30	Storage Area 12'x40' 480 sq. ft. - West of Bldg 390	10/29/80	

23



STORAGE AREA 4' X 11'
56 sq. ft.

NEAR BLDG 179

24



STORAGE AREA 15' X 30'
450 sq. ft.

WEST OF BLDG 137

Extracts from MCAF Tustin Documents

MCAS TUSTIN BUILDING GUIDE

BLDG NO.	MAP GRID	DESCRIPTION	TENANT	CAT CODE NUMB	COST ACCOUNT CODE
106	C4	Self Service Car Wash	MWR	74032	71JO
128	C4	Softball Diamond #1	MWR	75020	75GO
131	B3	Parade and Drill Field	S-4	17960	7570
132	D2	Bachelor Enlisted Quarters	Billeting	72111	7170
133	D2	Bachelor Enlisted Quarters	Billeting	72111	7170
134	D3	Bachelor Enlisted Quarters	Billeting	72111	7170
135	D3	Bachelor Enlisted Quarters	Billeting	72111	7170
142	B3	Picnic Shelter	MWR	75057	75GO
143	B3	Barbeque Pit	MWR	75057	75GO
144	B3	Volleyball Court	MWR	75010	75GO
145	B3	Basketball Court	MWR	75010	75GO
146	B3	Barbeque Hut	MWR	75057	75GO
148	B3	Baseball Field	MWR	75020	75GO
149	E7	Vehicle Grease Rack	WTS-37	21455	7120
150	B3	Racquetball Court	MWR	75010	75GO
159	C2	Bowling Center	MWR	74040	71HO
160	D3	Baseketall/Volleyball Court	MWR	75010	75GO
161	D4	Applied Instruction	NAMTRADET	17120	7110
162	B3	Public Toliet @ Playground	MWR	73075	71JO
163	B3	Public Toliet @ Footblfld	MWR	73075	71JO
164	B2	Combat Training Pool/Tank	Training	17955	7570
165	C3	Convenience Food Str #4	MWR	74001	71JO
166	C3	Exchange Retail Store	MWR	74001	71JO
167	C3	Exchange Snack Stand #10	MWR	74004	71JO
168	C3	Exchange Service Outlets	MWR	74009	71JO
169	B5	ACFT Ready Fuel Storage	Supply	12430	75AO
170	B5	Acft Ready Fuel Storage	Supply	12430	75AO
171	D5	Aircraft Operational Bldg	S-3	14140	71LO
171	D5	Control Tower	S-3	14170	71LO
172	F2	Bulk Fuel	MWSS-374	41184	75AO
173	C4	Applied Instruction	NAMTRADET	17120	7110
174	E7	Welding Shop	MALS-16	21106	71UO
175	E7	Parts Storage	MALS-16	21106	71UO
176	F2	Calibration Laboratory	NAVCALAB	21845	7120
177	D2	Bachelor Enlisted Quarters	Station	72111	7170
178	D4	Line Maintenance Shack	HMH-163	21115	71UO
→ 179	D4	Line Maintenance Shack	HMH-363	21115	71UO
180	F8	Line Maintenance Shack	HMM-166	21115	71UO
		Line Maintenance Shack	HMT-302	21115	71UO
		Line Maintenance Shack	HMH-465	21115	71UO
		Line Maintenance Shack	G-3	14120	71LO
		Line Maintenance Shack	Food Serv	72210	7180
		Line Maintenance Shack	MWR	74038	71JO
		Line Maintenance Shack	MWSS-374	21451	7120
		Line Maintenance Shack	MWSS-374	21106	71UO
190	F8	Maint Hangar OH Space	MALS-16	21105	71UO
190	F8	Maint Hangar 01 Space	MALS-16	21106	71UO
190	F8	Maint Hangar 02 Space	MALS-16	21107	71UO

Annotations made by the writer of the Summary Report are identified with a star symbol or an arrow.

★ The 1989 Tustin Building Guide does include Building 179 - Line Maintenance Shack.

EXTRACTS

**UNITED STATES MARINE CORPS
Marine Corps Air Station El Toro
P O Box 94003
Santa Ana, CA 92709-4003**

11000
IJP.7
15 June 1994

MEMORANDUM

From: Assistant Chief of Staff, Installations
To: Distribution

Subj: FY94 BUILDING GUIDE

Encl: (1) MCAS El Toro Building Guide
(2) MCAS Tustin Building Guide ←
(3) MCAS Camp Pendleton Building Guide
(4) Big Bear Building Guide

1. Enclosures (1) through (4) contain data for all Class II property on listed air stations and Big Bear.
2. It is requested the information be reviewed to ensure that future building guides are corrected. Please report discrepancies to the Planning Division at extension 2232.


ANN DOTSON
By direction

DISTRIBUTION:
MCAS A
IJA List A, B
MCAS Tustin: 50 copies
MCAS Camp Pendleton: 50 copies

The 1994 Building Guide identifies a
Building 179 at MCAS Tustin.

ve No. 3
14/94

MCAS TUSTIN BUILDING GUIDE

FAC NO.	MAP GRID	DESCRIPTION	TENANT	CAT CODE NUMB	COST ACCT CODE	SIZE
143	B3	Barbeque Pit	MWR-Rec	75057		1 EA
144	B3	Volleyball Court	MWR-Rec	75010		1 EA
145	B3	Basketball Court	MWR-Rec	75010		1 EA
146	B3	Barbeque Hut	MWR-Rec	75057		1 EA
148	B3	Soccer Field	MWR-Rec	75020		1 EA
149	E7	Vehicle Grease Rack	MWSS-374	21456		517 SF
150	B3	Racquetball Court	MWR-Rec	75010		1 EA
159	C2	Bowling Center	MWR-Rec	74040		5640 SF
160	D3	Basketball/Volleyball Ct	MWR-Rec	75010		1 EA
161	D4	Applied Instruction	NAMTRADET	17120		13980 SF
162	B3	Public Toilet @ Playground	MWR-Rec	73075		245 SF
163	B3	Public Toilet @ Ftball Field	MWR-Rec	73075		245 SF
164	B2	Combat Training Pool/Tank	Training	17955		1 EA
165	C3	Convenience Food Str #4	MWR-Retail	74001		7520 SF
166	C3	Retail Store	MWR-Retail	74001		9600 SF
167	C3	Exchange Cafeteria	MWR-Retail	74004		1800 SF
168	C3	Retail/Services Outlets	MWR-Retail	74009		3200 SF
169	B5	Acft Ready Fuel Storage	Supply	12430		203644 GA
170	B5	Acft Ready Fuel Storage	Supply	12430		203756 GA
171	D5	Aircraft Operational Bldg	S-3	14140		6085 SF
171	D5	Control Tower	S-3	14170		1963 SF
172	F2	Bulk Fuel	MWSS-374	41184		2520 SF
173	C4	Applied Instruction	NAMTRADET	17120		26000 SF
174	E7	Welding Shop	MALS-16	21106		1240 SF
175	E7	Parts Storage	MALS-16	21106		384 SF
176	F2	EAF, EOD	MWSS-374	61072		9760 SF
177	D2	Bachelor Enlisted Quarters	Billeting	72111		23052 SF
178	D4	Line Maintenance Shack	HMH-163	21115		1400 SF
→ 179	D4	Line Maintenance Shack	HMH-363	21115		1050 SF
180	F6	Line Maintenance Shack	HMM-166	21115		1050 SF
181	F6	Line Maintenance Shack	MAG-16	21115		1400 SF
182	F7	Line Maintenance Shack	MAG-16	21115		1050 SF
183	D5	Comb Fire/Rescue Station	S-3	14125		6827 SF
184	D3	Enlisted Mess Hall	Food Serv	72210		22007 SF
185	D3	Hobby Shop Automotive	MWR-Rec	74038		5808 SF
186	E7	FMF Auto Org Shop	MWSS-374	21451		10765 SF
187	E7	Paint & Blasting Shop	MWSS-374	21451		1200 SF
189	C3	Flower Shop	MWR-Retail	74009		1080 SF
190	F8	Maint Hangar OH Space	MALS-16	21105		16250 SF
190	F8	Maint Hangar 01 Space	MALS-16	21106		12366 SF
190	F8	Maint Hangar 02 Space	MALS-16	21107		5232 SF
190	F8	Strge out of Stores	MALS-16	44112		4952 SF
190	F8	Avionics Shop	MALS-16	21145		4018 SF
190	F8	Snack Bar #1	MWR-Hosp	74004		0
191	E3	Acft Direct Fueling Sta	Supply	12110		2 OL
192	E3	Acft Direct Fueling Sta	Supply	12110		2 OL
193	F3	Acft Direct Fueling Sta	Supply	12110		2 OL
194	E3	Day Tank	Supply	12430		58818 GA

Annotations made by the writer of the Summary Report are identified with a star symbol or an arrow.

★ Building 578 is located near Building 179.

Page No. 7
14/94

MCAS TUSTIN BUILDING GUIDE

FAC NO.	MAP GRID	DESCRIPTION	TENANT	CAT CODE NUMB	COST ACCT CODE	SIZE
573	F3	Hazardous Waste Storage #4	Installation	83142		9 SY
574	E3	Hazardous Waste Storage #5	Installation	83142		17 SY
575	B3	Hazardous Waste Storage #6	Installation	83142		17 SY
576	B5	Hazardous Waste Storage #7	Installation	83142		11 SY
577	D4	Hazardous Waste Storage #8	Installation	83142		22 SY
→ 578	D4	Hazardous Waste Storage #9	Installation	83142		22 SY
579	C5	Hazardous Waste Storage #10	Installation	83142		17 SY
580	D5	Hazardous Waste Storage #11	Installation	83142		22 SY
581	G6	Hazardous Waste Storage #12	Installation	83142		11 SY
582	G6	Hazardous Waste Storage #13	Installation	83142		22 SY
583	F7	Hazardous Waste Storage #14	Installation	83142		17 SY
584	F7	Hazardous Waste Storage #15	Installation	83142		17 SY
585	F8	Hazardous Waste Storage #16	Installation	83142		11 SY
586	F8	Hazardous Waste Storage #17	Installation	83142		17 SY
587	F7	Hazardous Waste Storage #18	Installation	83142		17 SY
588	F7	Hazardous Waste Storage #19	Installation	83142		9 SY
589	E7	Hazardous Waste Storage #20	Installation	83142		17 SY
590	E7	Hazardous Waste Storage #21	Installation	83142		11 SY
591	G7	Hazardous Waste Storage #22	Installation	83142		44 SY
592	D6	Generator (nr Bldg 569)	Installation	81159		180 SF
593	F8	Lift Station	Installation	83230		75 GM
594	D3	Picnic Shelter	Station	74078		312 SF
595	G8	Sewage Pumping Station	Installation	83230		160 GM
596	E7	Haz/Flam Mat'l Locker	MAG-16	44130		200 SF
597	F7	Haz/Flam Mat'l Locker	MAG-16	44130		100 SF
598	F6	Haz/Flam Mat'l Locker	MAG-16	44130		200 SF
599	G6	Haz/Flam Mat'l Locker	MAG-16	44130		100 SF
600	H4	Haz/Flam Mat'l Locker	MAG-16	44130		400 SF
601	F2	Haz/Flam Mat'l Locker	MAG-16	44130		100 SF
602	E3	Haz/Flam Mat'l Locker	MAG-16	44130		100 SF
603	B7	Transformer Pad @ B.550	Installation	81212		9 SY
604	B7	AN/GMQ-13 Transmitter	Gd Elect	13440		1 EA
605	B7	AN/GMQ-13 Receiver	Gd Elect	13440		1 EA
606	B7	AN/FPN-63 MTI Reflector	Gd Elect	13440		1 EA
607	D7	AN/UMQ-29	Gd Elect	13440		1 EA
608	C6	AN/GMQ-10 Transmitter	Gd Elect	13440		1 EA
609	C6	AN/GMQ-10 Receiver	Gd Elect	13440		1 EA
3000T	E7	FREST	HMT-302	17120		10800 SF
3002T	12C	Guard Shack at Rear Gate	PMO	73025		
3003T	11G	Guard Shack at Marble Mt	PMO	73025		
448	E10	Sewage Pump Station #1	Housing	83230		1200 GM
9	H7	Sewage Pump Station #2	Housing	83230		1400 GM
50	C11	Sewage Pump Station #3	Housing	83230		220 GM
6798	A4	Sanitary Sewer	Housing	83210		6594 LF
6857	G11	Sewer Lift Station	Housing	83230		400 GM
C	B2	VIP Quarters	ET Billeting	74020		972 SF
C3	B3	SATO	MWR-Rec	74009		721 SF
C3	B3	Youth Center	MWR-Rec	74055		3538 SF

EXTRACTS

Annotations made by the writer of the
Summary Report are identified with a
star symbol or an arrow.

**BASE REALIGNMENT AND CLOSURE
BUSINESS PLAN
MARINE CORPS AIR STATION
TUSTIN, CALIFORNIA**

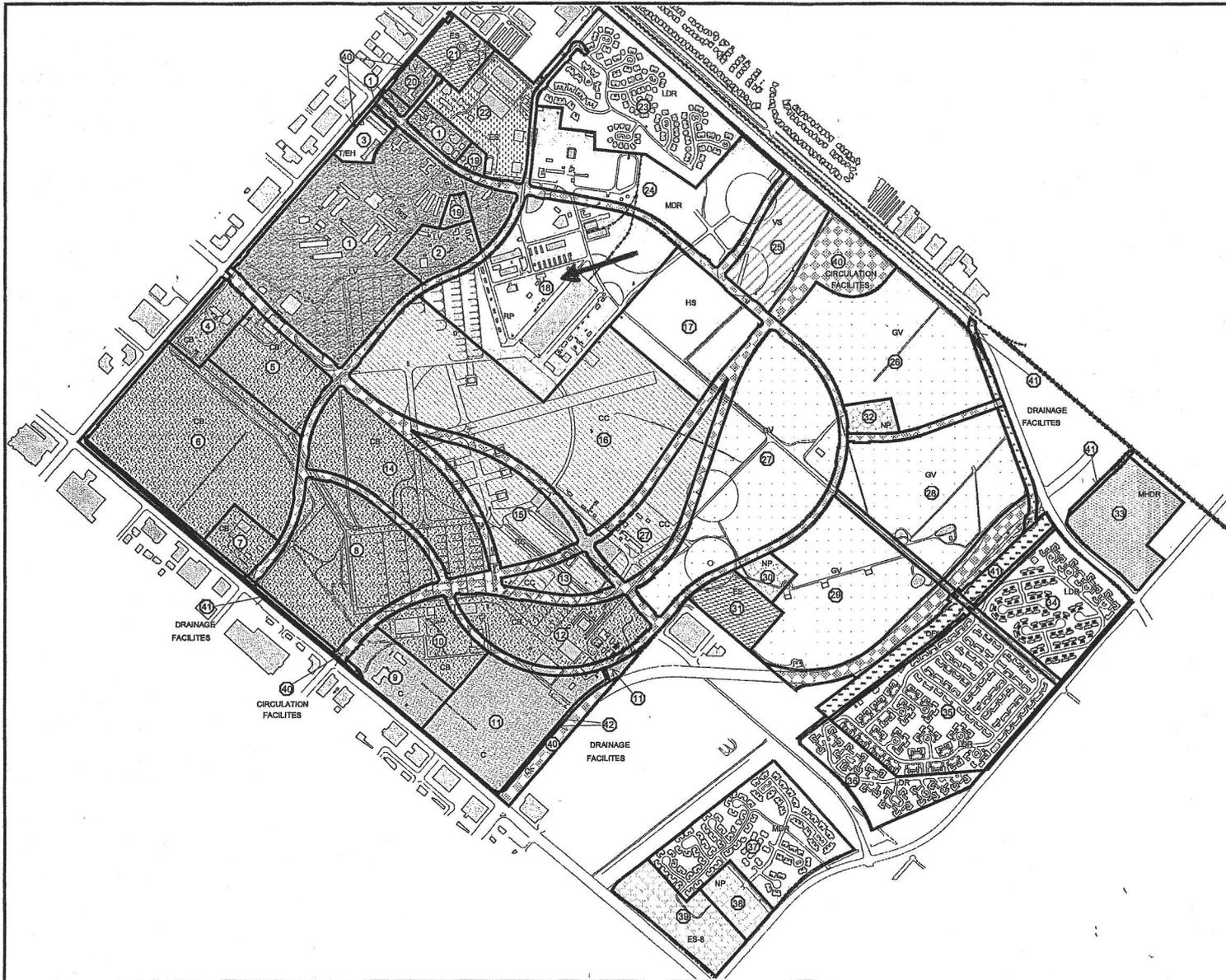
2000 IN REVIEW

February 2001

Table 1 (continued)

Parcel No.	Approx. On-Base Area (Acres) ^a	Reuse Priority	Community Use Description/ Proposed Use	Known Sites					CERFA Eligible Property ^b
				AST	UST	AOC	IRP	Buildings	
18	84.5	High/Medium	Urban Regional Park and Animal Control Facility	28A, 28B, 106 (SAT-7), 183 (SAT-15)	20A, 28, 28A, 32, 35, 90, 105B, 105C, 105D, 105E, 105F, 161, 171, 183, 183A, 203A (SAT-5), 203B (SAT-5), 226	AMRRT-1, AMHP-1, AMS-9, AMS-10, AMW-1(A,B), AS-4, AS-7, DSD-4, DSD-5, DSS-1, DSS-2, MAW-12, MAW-13, MAW-16, MDA-2, MDA-4, MDA-7, MDA-8, MDA-9, MFL-1, MMS-5, MMS-7, MWA-14, MWA-16 (ST-62, Bldg. 106), MWA-24, ST-21A (Bldg. 576), ST-21B, ST-21C, ST-21D, ST-21F, ST-23 (Bldg. 577), ST-40A (Bldg. 578), ST-40B, ST-40C, ST-41A (Bldg. 580), ST-41B, ST-43, ST-44, ST-45 (Bldg. 263), ST-46 (Bldg. 262), ST-54 (Bldg. 28A), ST-55 (Bldg. 40A), ST-56 (Bldg. 264), ST-59A (Bldg. 579), ST-59B, ST-61, ST-63 (Bldg. 71G), ST-64, ST-65 (Bldg. 71J), ST-67, ST-79, ST-80, ST-83 (Bldg. 28), STD-1 (Bldg. 248), TOW-13, TOW-15, TOW-21, TOW-22, TOW-X2	9A, 11, 12, 13S	19, 20A, 20B, 21, 27, 28, 28A, 30, 35, 35A, 40A, 71A-J, 90, 92, 103, 106, 161, 171, 173, 178, 179, 183, 201, 203, 207, 226, 242, 248, 253, 257, 259, 260, 261, 262, 263, 264, 502, 503, 504, 511, 512, 513, 523, 533, 564, 576, 577, 578, 579, 580	Portion
19	4.3	High	Child Care Centers	None	None	None	13S	189, 199, 547	None
20	4	High	60-Bed Facility for Abused, Abandoned, Neglected Children	None	1, 42	AS-5	None	1, 42	Portion
21	10	High	Elementary School	None	None	None	None	A, B, C, H1	All
22	24.1	High	Parks	None	93, 222A, 222B, 222C, 222D, 222G, 222H, 222I, C4, C5	ST-58	13W, 13S	93, 128, 131, 143, 144, 145, 146, 148, 150, 163, 164, 202, 208, 216, 221, 256, 258, C-3, C-4	Portion
23	54.2	High	Residential	None	None	AMRRT-1, AMS-13, DI-1, MFL-1	13E, 16	162, 6798, Housing	Portion
24	51.7	High	Residential	169 (SAT-3A), 170 (SAT-3B)	18A, 18B, 22(A-M) – total of 39 tanks, 47, 66, 89, 268	AMRRT-1, AMS-6, DSD-6, MAE-4, MDA-6, MDA-10, MFL-1, MWA-17, MWA-18, ST-14(A,C), ST-14B, ST-15, ST-21E, ST-72A (Bldg. 16), ST-72B (MWA-23), TOW-16, TOW-X7	13E, 13S, 13W, 16	16, 17, 17T, 41, 47, 47T, 53, 66, 89, 228, 247, 3005T	Portion
25	20.7	High	Village Services	None	None	None	None	604, 605	All
26	62.3	High	Golf Village	None	None	None	None	None	All

(table continues)



LEGEND

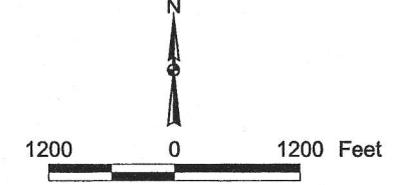
- GOVERNMENT PROPERTY LINE
- MCAS TUSTIN REUSE PARCELS
- BUILDING OR STRUCTURE
- EXISTING ROAD OR PAVED AREA
- PARKING
- RAILROAD

SYMBOL	LAND USE
①	PARCEL NUMBER
④	CIRCULATION FACILITIES
④	DRAINAGE FACILITIES
C	COMMERCIAL
CB	COMMERCIAL BUSINESS
CC	COMMUNITY CORE
CP	COMMUNITY PARK
—	EASEMENTS/ROADS
ES	ELEMENTARY SCHOOL (K-8)
ES-8	ELEMENTARY SCHOOL (K-8)
GV	GOLF VILLAGE
HS	HIGH SCHOOL
LDR	LOW DENSITY RESIDENTIAL
LV	LEARNING VILLAGE
MDR	MEDIUM DENSITY RESIDENTIAL
MHDR	MEDIUM HIGH DENSITY RESIDENTIAL
NP	NEIGHBORHOOD PARK
RP	URBAN REGIONAL PARK
T/EH	TRANSITIONAL/EMERGENCY HOUSING
VS	VILLAGE SERVICES

SOURCES:

PARCEL DESIGNATION AND FUTURE LAND REUSE ARE BASED ON MCAS TUSTIN SPECIFIC PLAN/REUSE PLAN, ERRATA, CITY OF TUSTIN, SEPTEMBER 1988.

BASE MAP BASED ON AERIAL SURVEY CONDUCTED BY AIRBORNE SYSTEMS, INC. ON OCTOBER 21, 1990. REVISED BY BECHTEL IN NOVEMBER 1997 TO UPDATE BASE MAP.



**SOUTHWEST DIVISION
NAVAL FACILITIES ENGINEERING COMMAND**

**MCAS TUSTIN
DISPOSAL AND REUSE PARCELS**

File No.	Figure 1	DATE:
18716152		2/20/01

United States Marine Corps

Base Realignment and Closure Business Plan

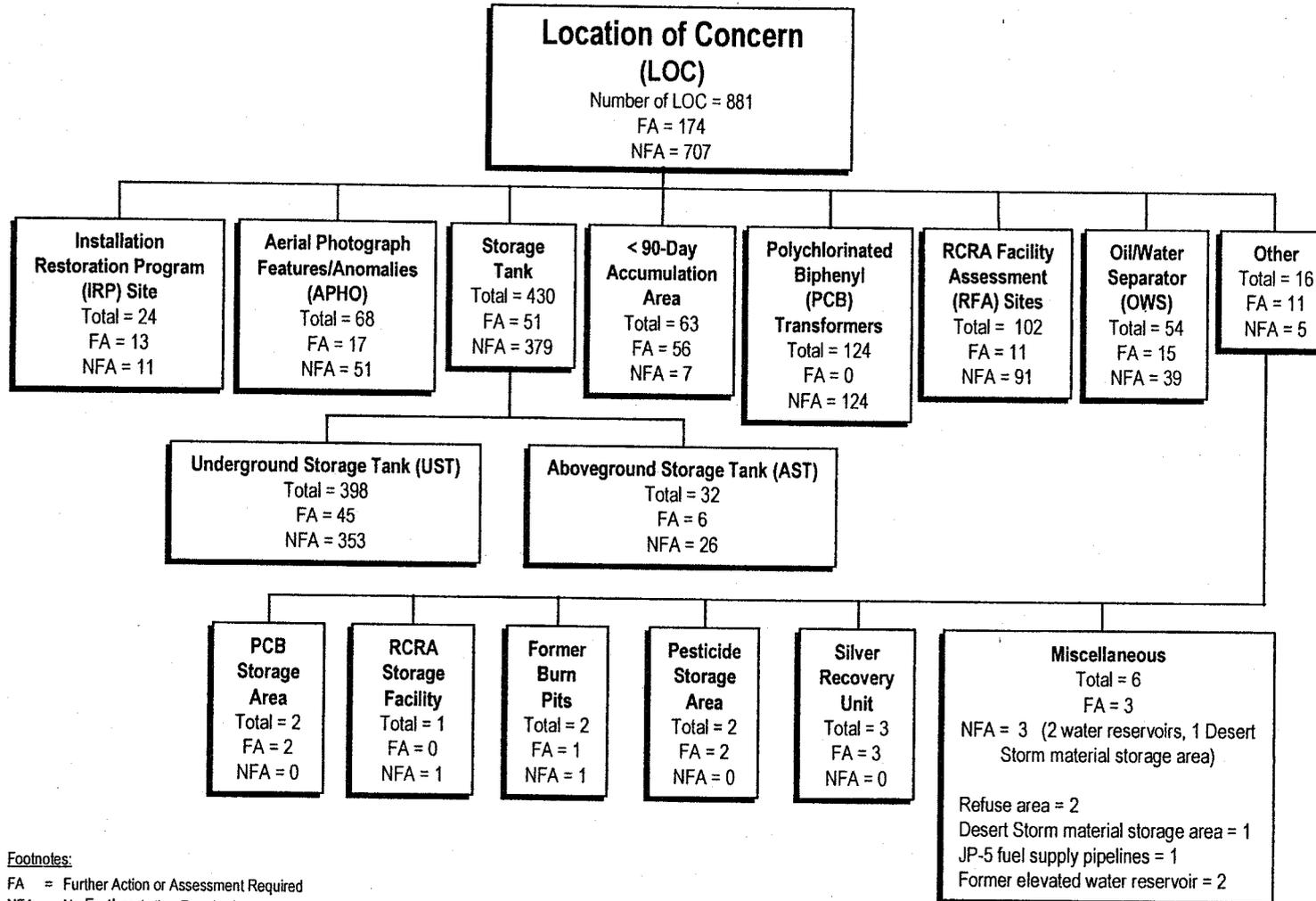
EXTRACTS



For
**Marine Corps Air Station
El Toro, CA**

March 2001

**Exhibit 2 - Location of Concern Distribution
(as of 31 December 2000)**



Footnotes:

FA = Further Action or Assessment Required
NFA = No Further Action Required

**Table 2
Site Summary**

(Sheet 37 of 43)

Database Tracking	Reuse Parcel	Description	Material Disposed	Date of Operation	Status	Regulatory Mechanism	NFA	NFA Date	Comments	ECP Area Type	Approx. ECP Area (acres)
RFA 32	9B	Drum storage area			Not Located During RFA		X			1	0.18
RFA 35	11A	< 90-day accumulation area			Not Located During RFA		X			1	0.18
RFA 40	12B	Drum storage area			Not Located During RFA		X			1	0.18
RFA 41	12B	Vehicle wash rack					X			3	0.18
RFA 43	12B	Drum storage area			Not Located During RFA		X			1	0.18
RFA 44	12B	Drum storage area			Not Located During RFA		X			1	0.18
RFA 46	13E	Vehicle Maintenance and Parking / DRMO			Closed		X	8/10/99		4	0.18
RFA 47	3A	< 90-day accumulation area			Not Located During RFA		X			1	0.18
RFA 50	9B	Drum storage area			Not Located During RFA		X			1	0.18
RFA 55	9B	Drum storage area			Not Located During RFA		X			1	0.18
RFA 56	9B	Drum storage area			Not Located During RFA		X			1	0.18
RFA 69	9B	Drum storage area			Not Located During RFA		X			1	0.18
RFA 71	11A	< 90-day accumulation area			NFA	DTSC	X	1/27/00		4	0.18
RFA 72	8	< 90-day accumulation area			FA					6	0.18
RFA 74	11A	Aircraft wash area					X			1	0.18
RFA 78	11A	Drum storage area			Not Located During RFA		X			1	0.18
RFA 79	11A	Drum storage area			Not Located During RFA		X			1	0.18
RFA 80	11A	Drum storage area			Not Located During RFA		X			1	0.18
RFA 81	11A	Drum storage area			Not Located During RFA		X			1	0.18
RFA 82	11A	Drum storage area			Not Located During RFA		X			1	0.18
RFA 88	11A	PCB storage area			FA					5	0.18
RFA 89	11A	Drum storage area			Not Located During RFA		X			1	0.18
RFA 94	10A	< 90-day accumulation area			NFA	DTSC	X	10/7/99		3	0.18
RFA 95	11A	Engine test cell					X			3	0.18
RFA 96	12H	Drum storage area			Not Located During RFA		X			1	0.18
RFA 98	13F	Vehicle wash rack					X			1	0.18
RFA 100	13F	TCE degreaser					X			3	0.18
RFA 103	13F	Drum storage area			Not Located During RFA		X			1	0.18

Extracts from MCAS El Toro Building Guides and Facility Maps

MCAS EL TORO BUILDING GUIDE

BLDG NO.	MAP GRID	DESCRIPTION	TENANT	CAT CODE NUMB	COST ACCOUNT CODE
174	T7	Storage Tank/Potable Water	FMD	84140	76FO
175	T6	Storage Tank/Potable Water	FMD	84140	76FO
176	R4	ACFT Ready Fuel Storage-VACANT	FMD	12430	75AO
177	R4	ACFT Ready Fuel Storage-VACANT	FMD	12430	75AO
178	R4	ACFT Ready Fuel Storage-VACANT	FMD	12430	75AO
179	R4	ACFT Ready Fuel Storage-VACANT	FMD	12430	75AO
180	R4	Heating Fuel Storage-VACANT	FMD	82160	7640
1		Heating Fuel Storage-VACANT	FMD	82160	7640
1		Heating Fuel Storage-VACANT	FMD	82160	7640
1		Heating Fuel Storage-VACANT	FMD	82160	7640
1		Heating Fuel Storage	Supply	82160	7640
1		Heating Fuel Storage	Supply	82160	7640
1		Heating Fuel Storage	Supply	82160	7640
1		Heating Fuel Storage	Supply	82160	7640
198	N7	Heating Fuel Storage	Supply	82160	7640
199	N7	Heating Fuel Storage ACFT	Supply	82160	7640
200	M7	Ready Fuel Storage ACFT	Supply	12430	75AO
201	M7	Ready Fuel Storage ACFT	Supply	12430	75AO
202	M7	Ready Fuel Storage ACFT	Supply	12430	75AO
203	M7	Ready Fuel Storage Heating	Supply	12430	75AO
204	N10	Contaminated Fuel Storage	Supply	82160	7640
205	O10	Contaminated Fuel Storage	Supply	82160	7640
206	N10	Storage Motor Gas Fuel	Supply	12450	75AO
207	N10	Storage ACFT Ready Fuel	Supply	12450	75AO
208	N10	Storage ACFT Ready Fuel	Supply	12430	75AO
209	N10	Storage ACFT Ready Fuel	Supply	12430	75AO
210	N10	ACFT Ready Fuel Storage	Supply	12430	75AO
211	N10	Storage ACFT Ready Fuel	Supply	12430	75AO
212	N10	ACFT Ready Fuel Storage	Supply	12430	75AO
213	N10	ACFT Ready Fuel Storage	Supply	12430	75AO
214	N10	ACFT Ready Fuel Storage	Supply	12430	75AO
215	N10	ACFT Ready Fuel Storage	Supply	12430	75AO
216	M7	Vehicle Ready Storage	Supply	12430	75AO
217	M7	Vehicle Ready Storage	Supply	12430	75AO
218	M7	Motor Gas Fuel Storage	Supply	12450	75AO
222	N3	Storage Tank/Potable Water	FMD	84130	76FO
240	R4	Contract Refueler Facility	Supply	44110	7140
241	R4	MC Property Storage	Supply	73040	
242	S4	Storage out of Stores MC	MWSS-37	44112	7140
242	S4	Storage Out Of Stores	AC/S G-4	44112	7140
243	S4	Historical Ctr	AC/S G-4	61072	7160
244	S5	Historical Collection	AC/S G-4	21820	7120
245	S4	Construction Equip Maint	H&HS-37	21820	7120
248	S3	Bachelor Officers Quarters	G-4	61010	7160
249	S3	Bachelor Officers Quarters	G-4	72411	71A0
250	S3	Bachelor Officers Quarters	G-4	72412	71A0
251	S3	Conference Center	G-4	61010	7160
256	Q4	Applied Instruction (APTU)	APTU	17120	7110

Annotations made by the writer of the Summary Report are identified with a star symbol or an arrow.

★ The 1989 El Toro Building Guide does not include Building 179. Structure 179 is a tank.

EXTRACTS

**UNITED STATES MARINE CORPS
Marine Corps Air Station El Toro
P O Box 94003
Santa Ana, CA 92709-4003**

11000
1JP.7
15 June 1994

MEMORANDUM

From: Assistant Chief of Staff, Installations
To: Distribution

Subj: FY94 BUILDING GUIDE

Encl: (1) MCAS El Toro Building Guide ←
(2) MCAS Tustin Building Guide
(3) MCAS Camp Pendleton Building Guide
(4) Big Bear Building Guide

1. Enclosures (1) through (4) contain data for all Class II property on listed air stations and Big Bear.
2. It is requested the information be reviewed to ensure that future building guides are corrected. Please report discrepancies to the Planning Division at extension 2232.



ANN DOTSON
By direction

DISTRIBUTION:

MCAS A
IJA List A, B
MCAS Tustin: 50 copies
MCAS Camp Pendleton: 50 copies

MCAS EL TORO BUILDING GUIDE

FAC NO.	MAP GRID	DESCRIPTION	TENANT	CAT CODE NUMB	COST ACCT CODE	SIZE
123	N9	Maint Hangar 01 Space	VMFA-232	21106	EBVO	1190 SF
123	N9	Maint Hangar 02 Space	VMFA-232	21107	EBVO	5050 SF
124	N9	Maint Hangar 01 Space	VMFA (AW) 225	21106	EBVO	5840 SF
124	N9	Snack Bar #14	Sta/G-4	74005	EBLO	400 SF
125	N9	Maint Hangar 01 Space	VMFA (AW) 225	21106	EBVO	4224 SF
126	N9	Maint Hangar 02 Space	VMFA (AW) 225	21109	EBVO	4224 SF
127	N9	Tire Storage Paint	MALS-11	44112	EBDO	4026 SF
129	M9	Aviation Armament	MALS-11	21154	EBVO	3900 SF
130	M9	Aviation Paint Area	MALS-11	21106	EBVO	2906 SF
131	M9	Storage	MALS-11	44112	EBDO	4240 --
132	M9	Aviation Armament Shop	MALS-11	21154	EBVO	6240 SF
133	M9	Housing	Installation	71477	EBBO	3390 SF
134	M8	Hangar Maint Admin	VMFA-323	21107	EBVO	6240 SF
135	M8	EM Mess Open	Vacant/G-4	72210	EBHO	6240 SF
136	M8	NBC Storage	MAG-11	44112	EBDO	6240 SF
137	M8	Storage	MAG-11	44112	EBDO	3120 SF
137	M8	Academic Instruction	MATCS-38 (DETB)	17110	EBAO	3120 SF
138	M7	Electronics Maint Div	Sta/G-6	21710	EBBO	6240 SF
139	M7	3rd MAW Embark	3rd MAW	44112	EBDO	6240 SF
142	N9	Hazardous/Flam Storage	MALS-11	44130	EBDO	640 SF
146	F3	Standby Generator Bldg	Installation	81159	EAAO	360 SF
147	N4	Post Office Boxes Bldg	CSSD-14	73085	EBLO	829 SF
152	Q3	Grnds Equip Shed	Installation	21920	EBBO	112 SF
155	T6	Grnds Equip Shed	Installation	21920	EBBO	260 SF
156	T6	Storage Tank/Potable Water	Installation	84140	EAQO	10000 GA
163	Q12	Inert Storehouse	Vacant	42132	EBDO	1250 SF
164	Q12	Inert Storehouse	Vacant	42132	EBDO	1250 SF
165	R12	Haz/Flam Storage (AVN Sup)	MALS-11	44130	EBDO	1250 SF
166	R11	Inert Storehouse	Vacant	42132	EBDO	1250 SF
167	S11	Inert Storehouse	Vacant	42132	EBDO	1250 SF
169	R12	NBC Storage	MALS-11	44112	EBDO	140 SF
170	Q13	Inert Storehouse	Vacant	42132	EBDO	1250 SF
171	Q13	Inert Storehouse	Vacant	42132	EBDO	140 SF
172	P13	Inert Storehouse	Vacant	42132	EBDO	1250 SF
174	T7	Storage Tank/Potable Water	Installation	84140	EAQO	1000000 GA
175	T6	Storage Tank/Potable Water	Installation	84140	EAQO	1000000 GA
176	R4	JP-5 Tank	Inactive (DLA)	12430	ECJO	25000 GA
177	R4	JP-5 Tank	Inactive (DLA)	12430	ECJO	50000 GA
178	R4	JP-5 Tank	Inactive (DLA)	12430	ECJO	46577 GA
179	R4	JP-5 Tank	Inactive (DLA)	12430	ECJO	24424 GA
			Inactive (DLA)	82160	EBFO	24490 GA
			Inactive (DLA)	82160	EBFO	43368 GA
			Inactive (DLA)	82160	EBFO	46388 GA
			Inactive (DLA)	82160	EBFO	24495 GA
			Supply	41182	ECJO	50000 GA
			InactiveSupply	41182	ECJO	25000 GA
191	O4	Waste Oil Storage	Inactive (DLA)	12450	ECJO	25000 GA
196	N7	Diesel Fuel Storage	Inactive (DLA)	12450	ECJO	25000 GA
197	N7	Diesel Fuel Storage	Inactive (DLA)	12450	ECJO	50000 GA

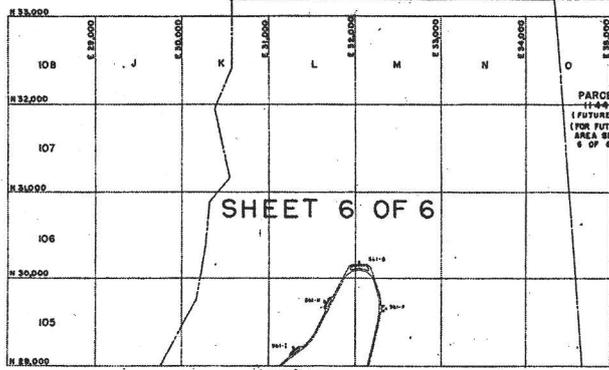
The 1994 MCAS El Toro Building Guide does not include a Building 179, however, a tank 179 is identified.

El Toro Building Guide

EXTRACT

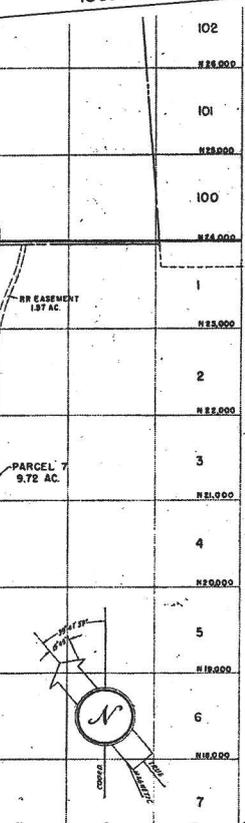
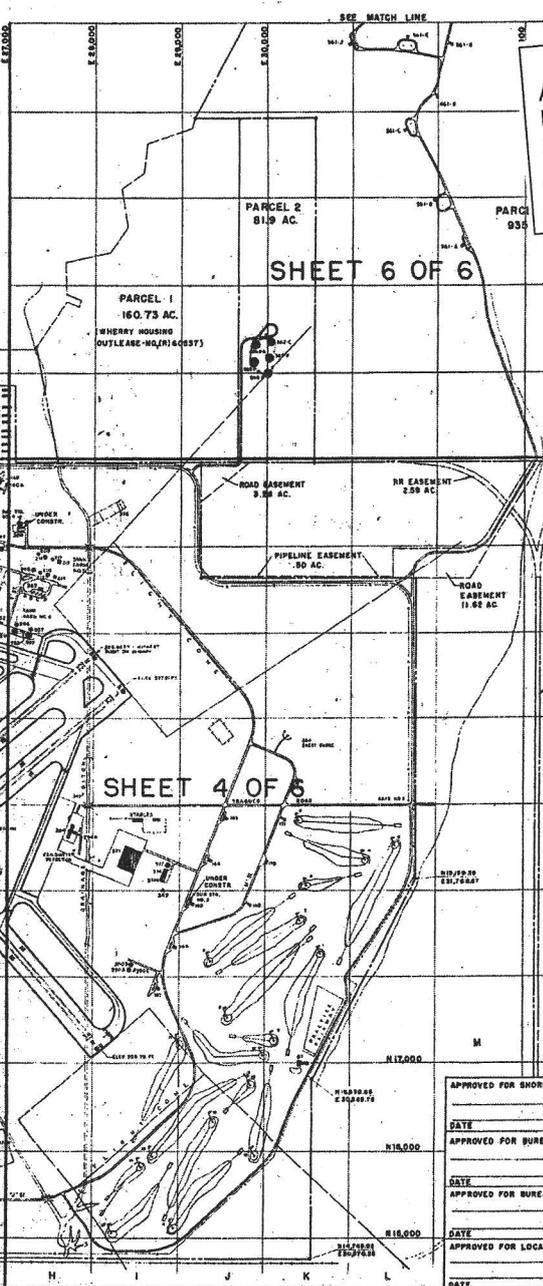
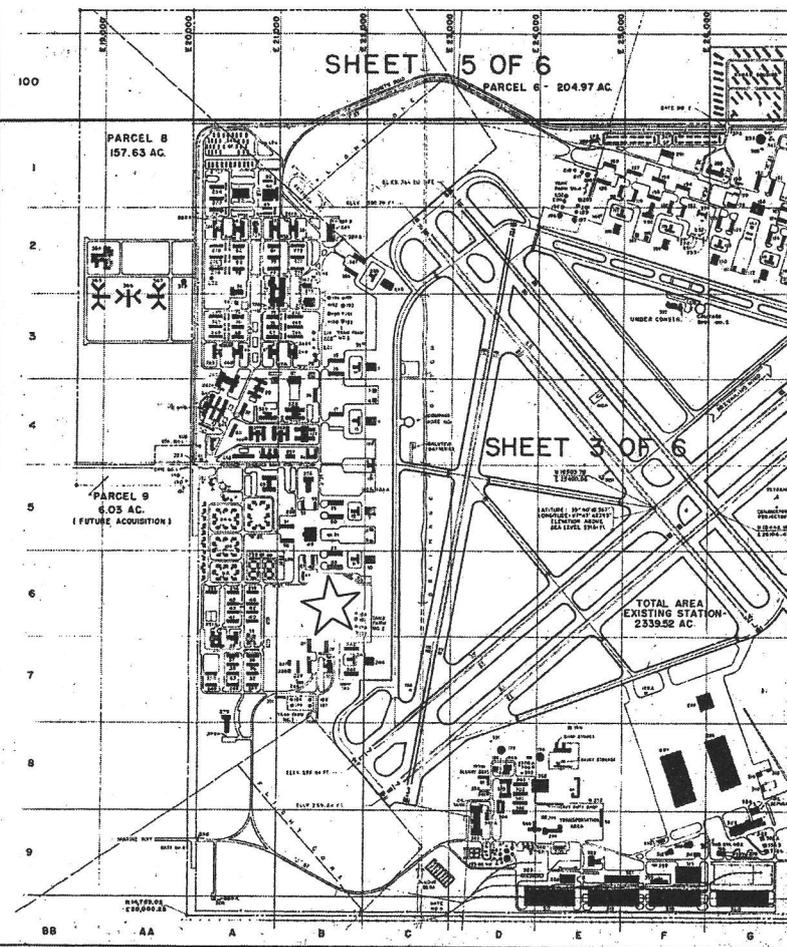
BLDG	GRI	DESCRIPTION	TENANT	CATCO	CAC	SIZE
121	N8	Maint Hangar 01 Space	HMM-268	21106	EBVO	2000 SF
122	N9	Maint Hangar 01 Space	HMM-161	21106	EBVO	5340 SF
122	N9	Maint Hangar 02 Space	HMM-161	21107	EBVO	9000 SF
123	N9	Maint Hangar 01 Space	HMM-161	21106	EBVO	5340 SF
123	N9	Maint Hangar 02 Space	HMM-161	21107	EBVO	9000 SF
124	N9	Maint Hangar 01 Space	HMM-163	21106	EBVO	4224 SF
124	N9	(Snack Bar #14)	Vacant		EBVO	400 SF
125	N9	Maint Hangar 01 Space	HMM-163	21106	EBVO	4224 SF
126	N9	Maint Hangar 02 Space	HMM-163	21109	EBVO	4224 SF
127	N9	Tire Storage Paint	MALS-11	44112	EBDO	4026 SF
129	M9	Aviation Armament	MALS-11	21154	EBVO	3900 SF
130	M9	Aviation Paint Area	MALS-11	21106	EBVO	2906 SF
131	M9	Storage	MALS-11	44112	EBDO	6240 SF
132	M9	Aviation Armament Shop	MALS-11	21154	EBVO	6240 SF
133	M9	Office/Training Facility	PMO			3390 SF
134	M8	Hangar Maint Admin	HMM-268	21107	EBVO	6240 SF
135	M8	(EM Mess)	Vacant	72210	EBHO	6240 SF
136	M8	NBC Storage	MAG-11	44112	EBDO	6240 SF
137	M8	Academic Instruction	MATCS-38(17110	EBAO	3120 SF
137	M8	Storage	MAG-11	44112	EBDO	3120 SF
138	M7	Electronics Maint Div	Sta/G-6	21710	EBBO	6240 SF
139	M7	3rd MAW Embark	3rd MAW	44112	EBDO	6240 SF
142	N9	Hazardous/Flam Storage	MALS-11	44130	EBDO	640 SF
146	P3	Standby Generator Bldg	Installation	81159	EAAO	360 SF
147	N4	Post Office Boxes Bldg	CSSD-14	73085	EBLO	829 SF
152	Q3	Grnds Equip Shed	Installation	21920	EBBO	112 SF
155	T6	Grnds Equip Shed	Installation	21920	EBBO	260 SF
156	T6	Storage Tank/Potable Water	Installation	84140	EAQO	10000
163	Q12	(Inert Storehouse)	Vacant	42132	EBDO	1250 SF
164	Q12	(Inert Storehouse)	Vacant	42132	EBDO	1250 SF
165	R12	Haz/Flam Storage (AVN Sup)	MALS-11	44130	EBDO	1250 SF
166	R11	(Inert Storehouse)	Vacant	42132	EBDO	1250 SF
167	S11	(Inert Storehouse)	Vacant	42132	EBDO	1250 SF
169	R12	NBC Storage	MALS-11	44112	EBDO	140 SF
170	Q13	(Inert Storehouse)	Vacant	42132	EBDO	1250 SF
171	Q13	(Inert Storehouse)	Vacant	42132	EBDO	140 SF
172	P13	(Inert Storehouse)	Vacant	42132	EBDO	1250 SF
174	T7	Storage Tank/Potable Water	Installation	84140	EAQO	1000000
175	T6	Storage Tank/Potable Water	Installation	84140	EAQO	1000000
189	O4	Waste Oil Storage	Supply	41182	ECJO	50000
191	O4	Waste Oil Storage	InactiveSupp	41182	ECJO	25000
206	N10	Storage Premium Gas	Supply	12450	ECJO	50000
207	N10	Storage Premium Gas	Supply	12450	ECJO	50000
230	M9	Paint Locker	HMM-163	21931	EBBO	78 SF
231	N8	Paint Locker	HMM-163	21931	EBBO	78 SF
240	R4	EOD Storage	EOD	44110	EBDO	2000 SF

The 1997 MCAS El Toro Building Guide does not include a Building 179.



Annotations made by the writer of the Summary Report are identified with a star symbol or an arrow.

☆ Star symbol identifies the approximate location of former UST 179.



102
101
100
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NOTES

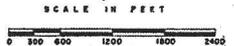
- FOR PROPOSED & FUTURE BUILDINGS SEE SHEETS 3 THROUGH 6
- DECLARATION OF TAKING FILED FOR PARCELS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

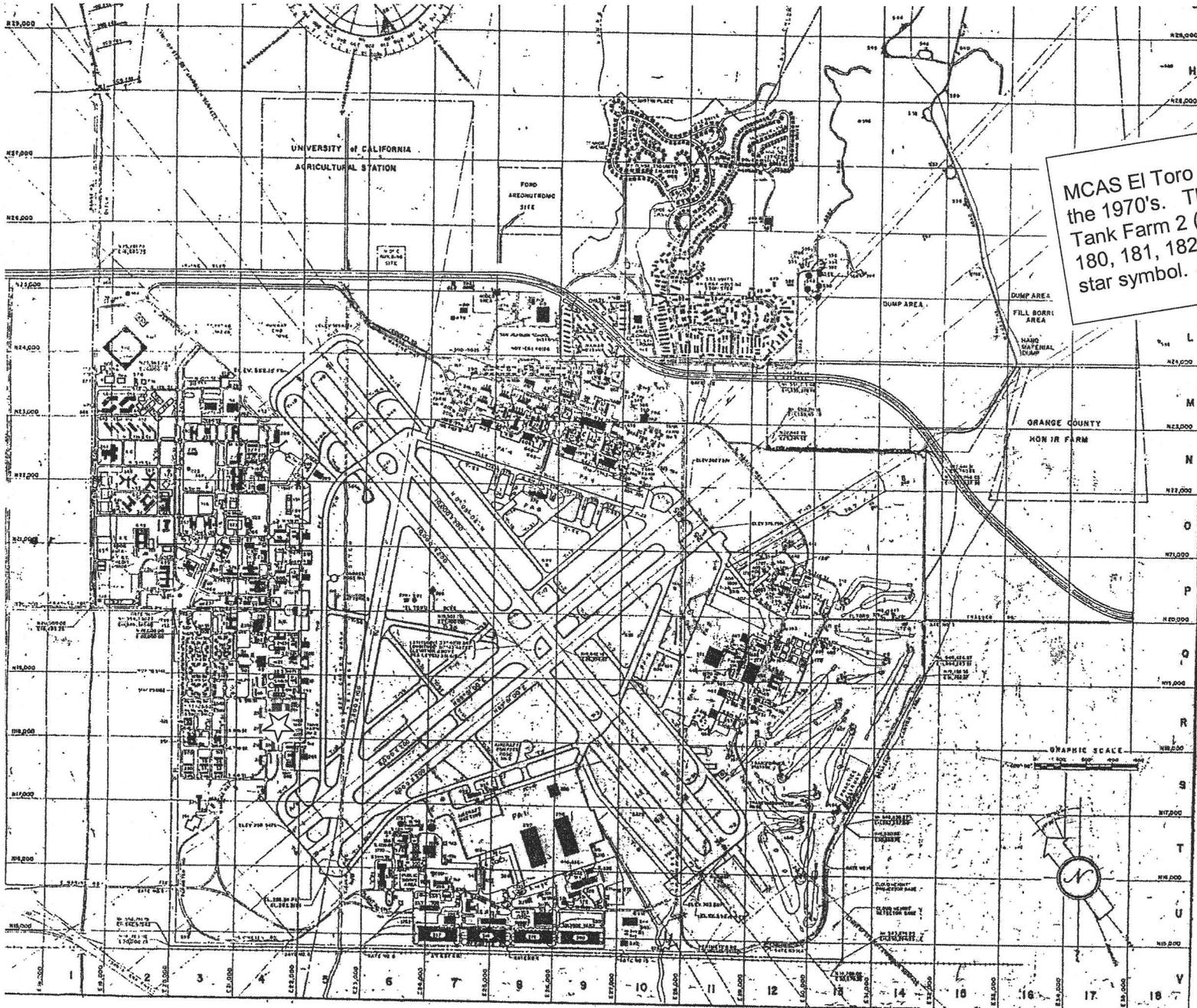
CONDITIONS AS OF 30 JUNE 1954

APPROVED FOR SHORE STATION DEVELOPMENT BOARD	DATE
APPROVED FOR BUREAU OF YARDS AND DOCKS	DATE
APPROVED FOR BUREAU OF AERONAUTICS	DATE
APPROVED FOR LOCAL DEVELOPMENT BOARD	DATE

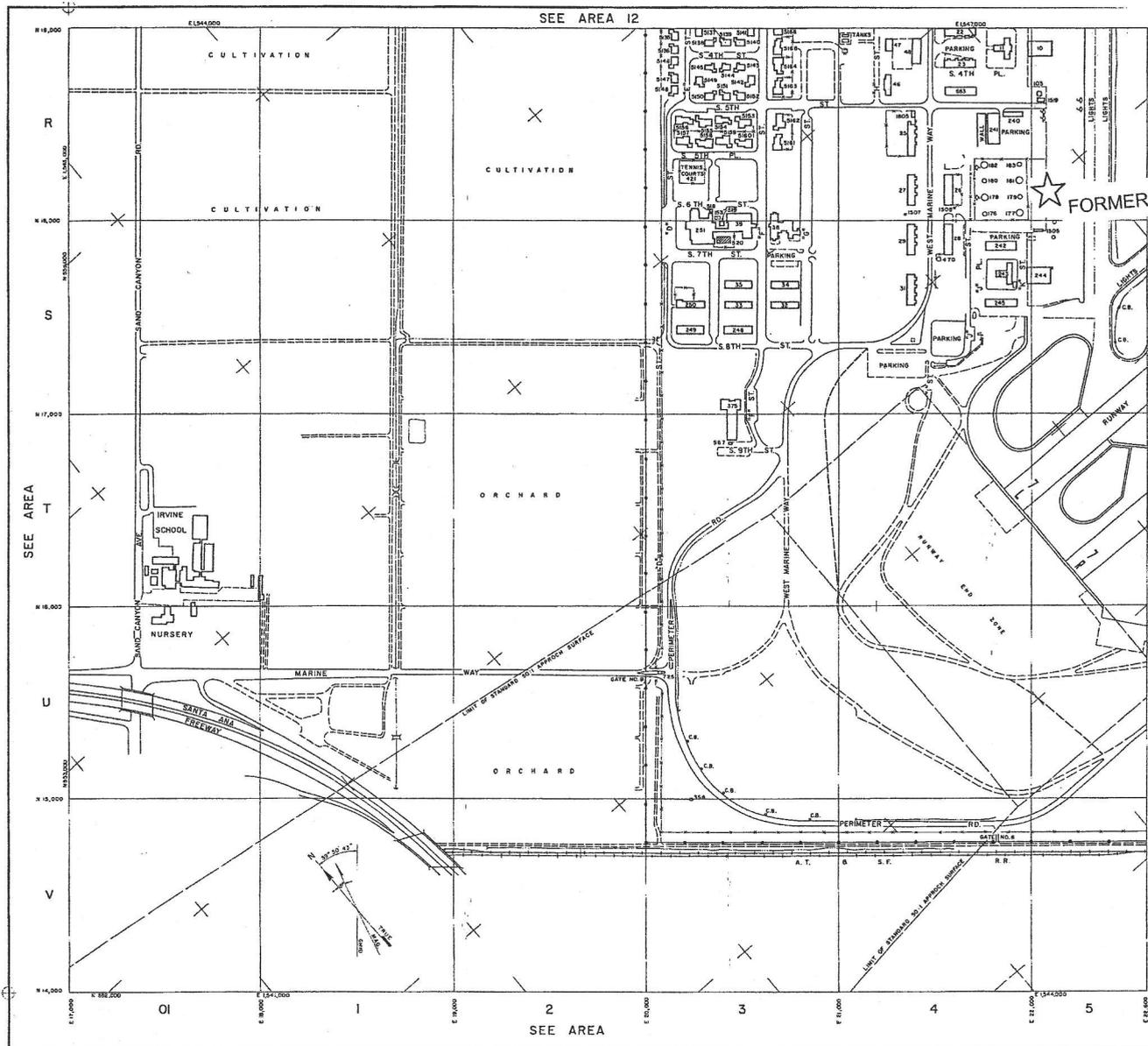
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DRAWN BY:	
TRACED BY:	
REVIEWED:	
CHECKED BY:	
SUBMITTED BY:	
APPROVED:	
DESIGN DIRECTOR:	
APPROVED:	
DATE:	
COMMANDING OFFICER:	

U.S. MARINE CORPS AIR STATION EL TORO, CALIFORNIA PUBLIC WORKS DEPARTMENT	
MASTER SHORE STATION DEVELOPMENT PLAN PART III SECTION 2 GENERAL DEVELOPMENT PLAN KEY MAP	
APPROVED	DATE
PUBLIC WORKS OFFICER	
APPROVED	DATE
STATION DEVELOPMENT BOARD	
SCALE 1" = 600'	SHEET 1 OF 6
T & D	DWG. NO. 870 818

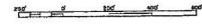
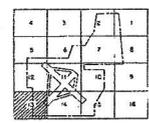




MCAS El Toro facility map published in the 1970's. The approximate location of Tank Farm 2 (USTs 176, 177, 178, 179, 180, 181, 182, and 183 is shown with a star symbol.



- LEGEND**
- EXISTING STRUCTURES
 - EXISTING ROADS OR PAVED AREA
 - DIRT ROADS
 - SIDEWALK
 - CONCRETE SLAB
 - UTILITY LINE
 - RAILWAY
 - NAVY PROPERTY BOUNDARY
 - NAVY PROPERTY BOUNDARY WITH FENCE
 - FENCE
 - MAIN STATION ENTRANCE
 - BOUNDARIES OF END & APPROACH ZONE
 - TRANSMISSION LINE
 - OBSTRUCTION LIGHT
 - TANKS
 - CATCH BASIN
 - TOWER
 - BENCH MARK
 - HORIZONTAL CONTROL
 - UNDERGROUND TANK
 - MONUMENT
 - HIGH VOLTAGE
 - FUEL PUMP



NO.	REVISION	DESCRIPTION	PREP'D BY	DATE	APPROVED
DEPARTMENT OF THE NAVY - NAVAL FACILITIES ENGINEERING DIVISION					
WESTERN DIVISION, SAN BRUNO, CALIF.					
A & E CARTOGRAPHER C. J. [Signature]			MCAS EL TORO SANTA ANA, CALIFORNIA GENERAL DEVELOPMENT MAP EXISTING CONDITIONS		
BRANCH MGR. [Signature]					
DIRECTOR [Signature]					
DATE					
DATE	SCALE	NO. OF SHEETS	NO. OF SHEETS DRAWN	SHEET 13 OF 18	
1978-12	1"=500'	80091	6084143	P	

1978 GENERAL DEVELOPMENT MAP

05/19/82

SOUTHWESTNAVFACENGCOM
CODE 06CC.LMH
SAN DIEGO, CA 92101

No Further Action Decision Document for UST 179 (Former Tank Farm 2) and nearby TAA 765

Mr. Gould

- 2 -

March 27, 2000

If you should have any questions, please call me at (909) 782-4498.

Sincerely,



Patricia A. Hannon
SLIC/DoD/AGT Section

cc: Dept. of Toxic Substances Control - Triss Chesney
Naval Facility Engineering Command, SWDIV - Lynn Hornecker
U. S. EPA, Region IX - Glenn Kistner
Kutak Rock, Attorneys - Gregory F. Hurley
Orange County Hall of Administration - Polin Modanlou

2000 MAR 29 P 3:51

BRAC OFFICE

California Environmental Protection Agency

 Recycled Paper

Site Assessment-Closure Report

Underground Storage Tank Removals at Tank Farm #2, United States Marine Corps Air Station (USMCAS) El Toro, California

1.0 INTRODUCTION

This report details the methods and findings of the underground tank removals conducted by Toxguard Systems, Inc. (Toxguard) at Tank Farm #2, United States Marine Corps Air Station (USMCAS), El Toro, California. See Figure 1--Site Location Map. The tank removals were conducted under the direction of the Orange County Health Care Agency (OCHCA). This project involved the removal and disposal of the following:

- Four 25,000 gallon steel-reinforced concrete underground storage tanks,
→ Tank numbers 176, 179, 180 and 183 (See Figure 2--Site Plan);
- Four 50,000 gallon steel-reinforced concrete underground storage tanks,
Tank numbers 177, 178, 181 and 182;
- One 2,000 gallon fiber-steel recovery tank;
- Associated fuel piping, pumps, valves, vents, vaults and pits;
- Associated electrical and concrete encased electrical lines and wiring;
- Perimeter fencing.

All figures and tables for this report can be found in Appendix I. Permits for the removal and disposal of the above items are included in Appendix II. This project also involved proper backfilling and compaction of the site to restore the surface condition to match with existing grade. This project was supervised by a Project Superintendent, a Quality Control Manager (QC) and a Certified Industrial Hygienist (CIH).

2.0 EXCAVATION & FUEL TANK REMOVAL

Prior to the beginning of excavation procedures on Tank Farm #2, a geophysical survey was conducted in July 1995 by Rietman Consultants to verify the location of utility lines. The storm drain and water line at the west edge of the site, which were the only utility lines scheduled to remain intact, were properly marked on the surface. No official report was generated for this geophysical survey.

Excavation procedures at Tank Farm #2 began on August 9, 1995 by exposing four dry wells, DW177, DW179, DW181 and DW183, on the east end of the project site. See Figure 3--Sampling

locations for associated piping and dry wells. (The sampling procedures for the dry wells will be discussed in a later section--Analytical Soil and Product Testing). Nine dry wells were removed and backfilled with native soil, which consisted of sandy silt. Tank excavation procedures began by removing the soil above Tank 176. The soil was separated and stored either in a clean stockpile or a contaminated stockpile, dependent on photo-ionization detection (PID) readings measured by the on-site CIH. The contaminated stockpile soil was contained in a holding cell with a plastic liner base.

Excavation procedures were executed sequentially, starting from Tank 176 and proceeding to Tanks 178, 180, 182, 183, 181, 179 and 177. While exposing the tops of the tanks, the concrete pits containing the sump pumps, ventilation ducts and transfer pumps were removed. Concrete from the pits was broken and stockpiled and all piping and valves were dismantled and stored in bins. No excavated soil was removed from the project site as per the direction of the ROICC. The estimated volume of the native soil which was excavated and subsequently backfilled was 4,768 cubic yards. The excavation limits for Tank Farm #2 are shown in Figure 2.

3.0 TANK CLEANING

In order to properly clean the fuel tanks, two 3 by 3 foot square saw cut openings were made in the concrete tops of the tanks. The tank content product was then pumped out and disposed under a uniform hazardous waste manifest. See Appendix III--Uniform Hazardous Waste Manifests. A confined space entry cleaning crew, provided by ACTI, was used to properly clean the insides of the tanks. A mixture of water with Mirachem cleaning solution was used to high pressure wash and scrub the ceilings, walls and floors of the tanks. The cleaning mixture rinsate was then pumped out and disposed under a uniform hazardous waste manifest. See Appendix III--Uniform Hazardous Waste Manifests.

After each tank was cleaned, the tank top was broken out and the concrete was stockpiled. The CIH certified each tank as clean. See Appendix IV--Certificates. The excavation process continued by removing and stockpiling the remaining tank walls and floors. Additionally, associated piping was triple rinsed, removed, dismantled and disposed of in bins. The electrical lines encased in concrete were removed and broken in the concrete stockpile.

4.0 BACKFILL AND COMPACTION

It was determined by the ROICC to backfill the site with the native existing stockpiled soil. The contaminated stockpiled soil was placed in Tank Pit #183, with the approval of the ROICC and the OCHCA. See Figure 4--Tank Pit #183 Map and Profile Views. The remaining stockpiled soil was distributed in the rest of the tank pits across the site.

A soil engineer, provided by City & County Soil Engineering And Testing, tested the density and compaction of native soil and additional imported soil necessary for backfill. During the backfill and compaction process, the soil engineer ran compaction tests for 90% compaction at 30-inch lifts. The

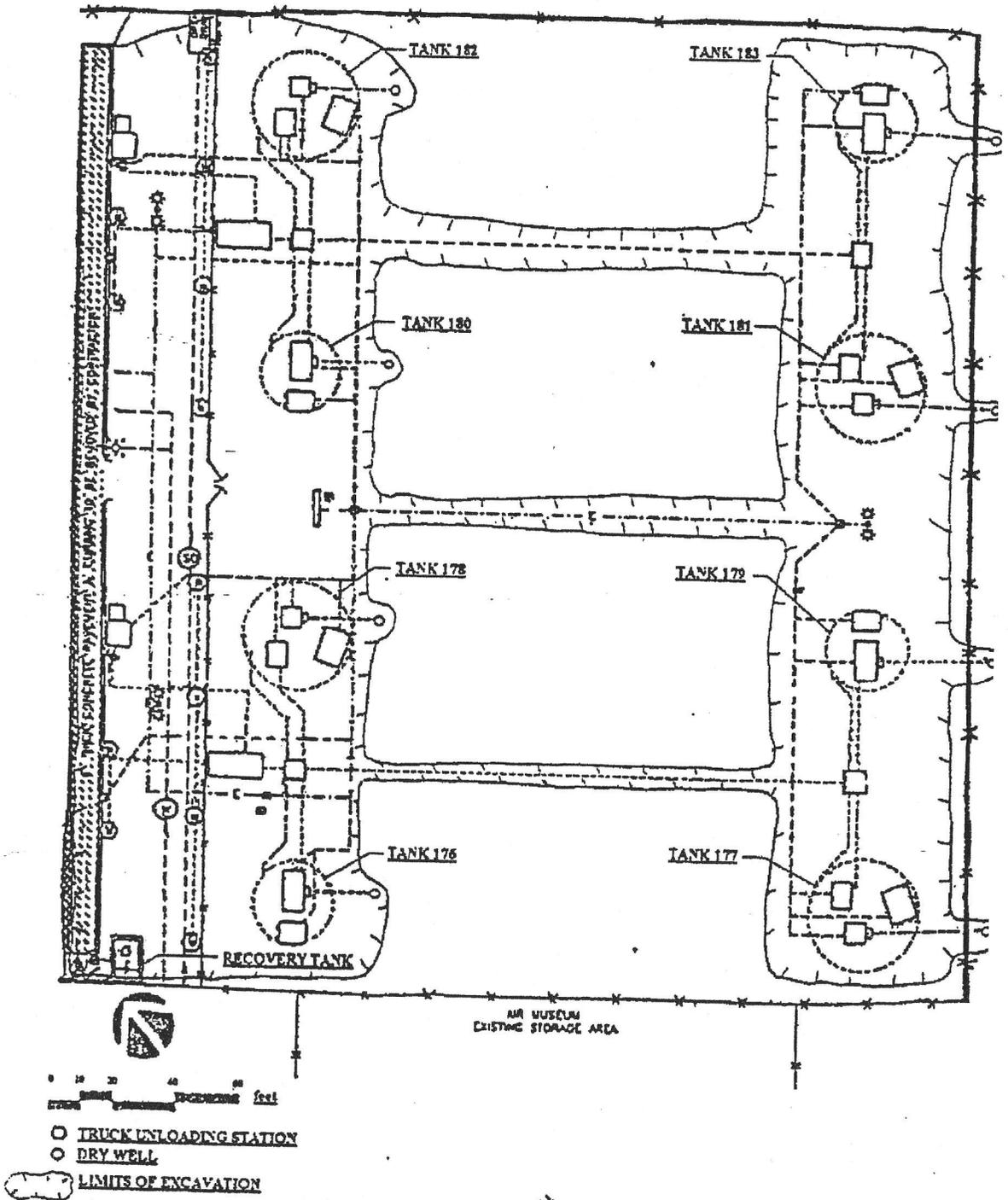
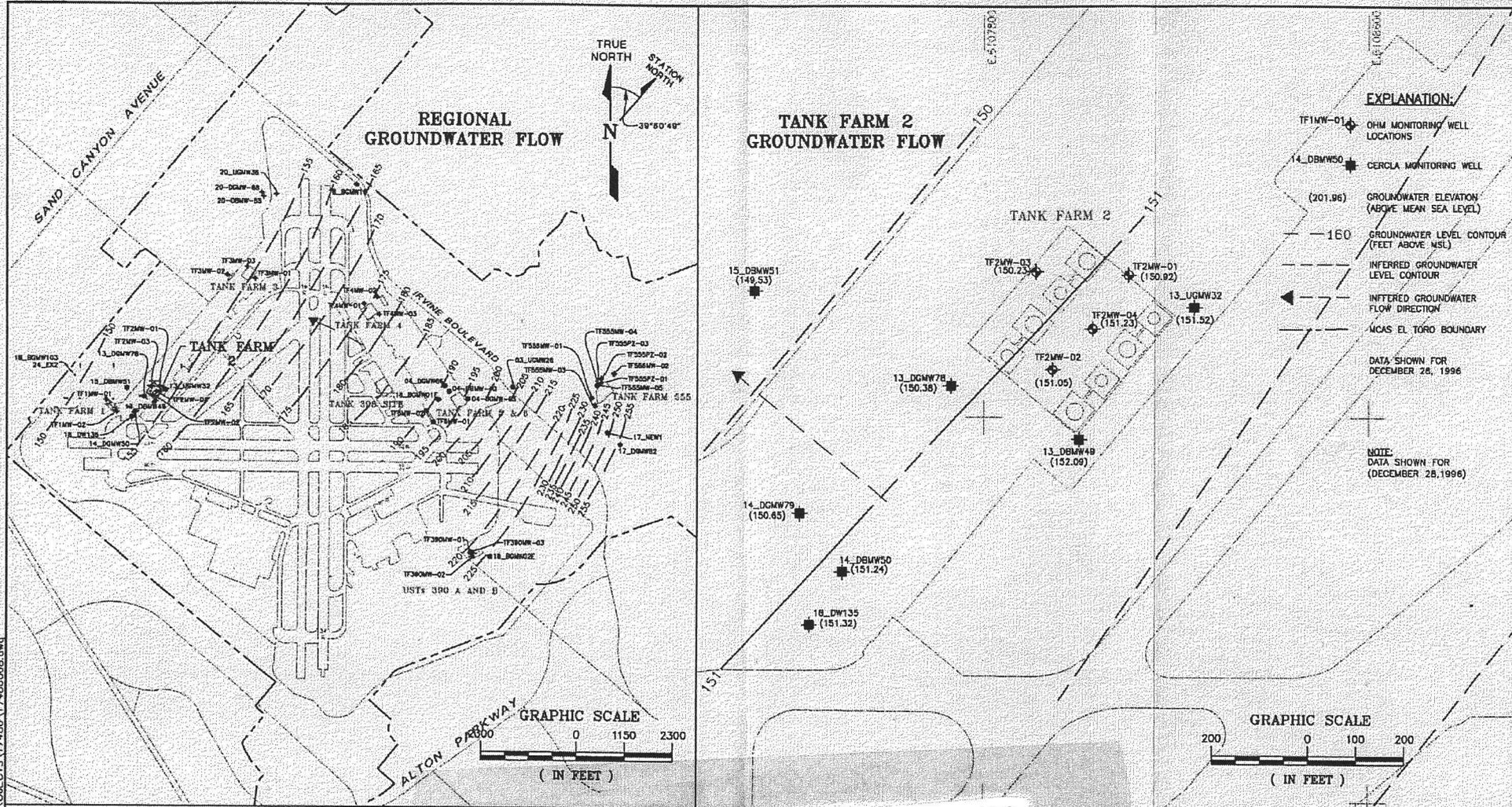


FIGURE 2: Site Plan



EXPLANATION:

- TF1MW-01 OHM MONITORING WELL LOCATIONS
- 14_DBMW50 CERCLA MONITORING WELL
- (201.96) GROUNDWATER ELEVATION (FEET ABOVE MSL)
- 160 GROUNDWATER LEVEL CONTOUR (FEET ABOVE MSL)
- - - - - INFERRED GROUNDWATER LEVEL CONTOUR
- ← INFERRED GROUNDWATER FLOW DIRECTION
- - - - - MCAS EL TORO BOUNDARY

NOTE:
DATA SHOWN FOR
(DECEMBER 28, 1998)

EXTRACTED FROM CLOSURE DOCUMENTATION FOR TANK FARM 2 (USTs 176, 177, 178, 179, 180, 181, 182, & 183) (OHM 1998)

REV. NO.	DESCRIPTION	DATE	APPROVED
01	17486008.DWG		
02	18292023.DWG BY WITZEL-YANEZ DESIGN	9/12/97	
03	18292047.DWG OHM DRAWING BY R. PIRMORADIAN	9/12/97	
04	17486008.DWG OHM DRAWING BY R. PIRMORADIAN	2/27/98	

CONTRACT NAME SWDIV		OHM Remediation Services Corp. A Subsidiary of OHM Corporation SAN DIEGO, CA	
DESIGNED BY R. PIRMORADIAN	DATE 04/02/98	GROUNDWATER FLOW MAP	
CHECKED BY	DATE		
APPROVED BY OR	DATE 4/16/98		
PROJECT MANAGER	DATE		
AUTOCAD FILE No 17486008.DWG		MARINE CORPS AIR STATION EL TORO, CALIFORNIA	
SCALE AS NOTED	SHEET 1	OF 1	DRAWING No. FIG 7
DOCUMENT CONTROL No. SW4823	OHM PROJECT No. 17486		

Apr. 02, 1998 -- 14:59:10 G:\PROJECTS\17486\17486008.dwg

Department of Toxic Substances Control

Jesse R. Huff, Director
5796 Corporate Avenue
Cypress, California 90630

Pete Wilson
Governor

November 17, 1998

Peter M. F
Secret
Environ
Pro

Mr. Joseph Joyce
BRAC Environmental Coordinator
U.S. Marine Corps Air Station - El Toro
P. O. Box 95001
Santa Ana, California 92709-5001

Dear Mr. Joyce:

CLOSURE REPORT APPROVAL: TEMPORARY ACCUMULATION AREA (TAA) 765 SITE AT MARINE CORPS AIR STATION (MCAS) EI TORO

The Department of Toxic Substances Control (DTSC) has reviewed your response to comments dated October 15, 1998 on the above subject document, prepared by OHM Remediation Services Corp. As part of the Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA), TAA 765 was identified as a hazardous waste drum storage area for storage less than 90 days. The report summarizes the decontamination and sampling activities performed at the TAA 765 site located in the northwest quadrant of the Station.

DTSC is satisfied that comments emanating from our August 21, 1998 letter on the draft report have been adequately addressed in this submittal. As such, we hereby approve the closure report.

However, although the report conclusions are consistent with the risk assessment, we have the following comments regarding the risk calculations:

1) Residential risks and hazards are summarized in Table 6-1. The only chemicals of potential concern in soil are metals. Cancer risk at TAA 765 is due entirely to arsenic, and concentrations of arsenic at TAA 765 are within the ambient range. Thus, site-related cancer risks are insignificant.

2) The summed hazard index shown in Table 6-1 is 1.31, but this is an overestimate. Only thallium was actually detected at a concentration above the ambient range. The hazard quotient for thallium is 0.865. Thus, the actual estimate of hazard for the residential setting is less than 1.0.

California Environmental Protection Agency

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Mr. Joseph Joyce
November 17, 1998
Page 2

3) In Tables 6-1 and 6-2, the ambient hazard was subtracted from hazard at the site. This method is incorrect for non-carcinogenic hazards; please ensure that this method is not used in future reports. The toxicity criteria used for estimating non-cancer hazards are based on toxic effects exhibiting thresholds. Once the threshold is exceeded, the portions of the hazard quotient contributed by the site and by ambient conditions are immaterial. It is appropriate to subtract ambient concentrations for carcinogens.

4) Procedures for estimating carcinogenic and non-carcinogenic hazards are described in Chapter 2, Section 3.4, "Correction for Background", in *Supplemental Guidance for Human Health Multimedia Risk Assessment for Hazardous Waste Sites and Permitted Facilities* (DTSC, 1992; <http://cwo.com/~herdl/downset.htm>).

If you have any questions, please contact Mr. Tayseer Mahmoud, Remedial Project Manager, at (714) 485-5418.

Sincerely,



Sharon Fair
Unit Chief
Base Closure Unit
Office of Military Facilities

cc: Mr. Glenn Kistner, SFD-8-2
Remedial Project Manager
U. S. Environmental Protection Agency
Region IX
Superfund Division
75 Hawthorne Street
San Francisco, California 94105-3901

Ms. Patricia Hannon
Remedial Project Manager
California Regional Water Quality Control Board
Santa Ana Region
3737 Main Street, Suite 500
Riverside, California 92501-3339

Mr. Joseph Joyce
November 17, 1998
Page 3

cc: Mr. Gregory F. Hurley
Restoration Advisory Board Co-chair
620 Newport Center Drive, Suite 450
Newport Beach, California 92660-8019

Mr. Bill Sedlak
OHM Remediation Services Corp.
2031 Main Street
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