PCS Cell Sites at Waikiki Gateway Hotel

DEPARTMENT OF LAND UTILIZATION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 523-4414 • FAX: (808) 527-6743

JEREMY HARRIS
MAYOR

PATRICK T. ONISHI
DIRECTOR

LORETTA K.C. CHEE
DEPUTY DIRECTOR

96/ED-004(DT)
96-05187

August 28, 1996

The Honorable Gary Gill, Director
Office of Environmental Quality Control
220 South King Street, 4th Floor
State of Hawaii
Honolulu, Hawaii 96813

Dear Mr. Gill:

CHAPTER 343, HRS
Environmental Assessment/Determination
Finding of No Significant Impact ✓

Recorded Owner	:	Tenn Hilda B Trust and Tenn Chong Hing Trust
Applicant	:	DCR Communications, Inc.
Agent	:	Kusao & Kurahashi, Inc.
Location	:	376 Olohana Street and 2070 Kalakaua Avenue, Waikiki, Oahu
Tax Map Keys	:	2-6-16: 30 and 65
Request	:	Zoning Variance within the Waikiki Special District
Proposal	:	Install two equipment cabinets and six panel antennas atop the Waikiki Gateway Hotel
Determination	:	A Finding of No Significant Impact is issued

Attached and incorporated by reference is the Final Environmental Assessment (FEA) prepared by the applicant for the project. Based on the significance criteria outlined in Chapter 200, State Administrative Rules, we have determined that preparation of an Environmental Impact Statement is not required.

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We have enclosed a completed OEQC Bulletin Publication Form and four copies of the FEA. If you have any questions, please contact Dana Teramoto of our staff at 523-4107.

Very truly yours,

PATRICK T. ONISHI
Director of Land Utilization

PTO:am
Enclosures

g:fea96ed4.djt

1996-10-23-OA-FEA-PCS Cell Site at Waikiki Gateway Hotel

FINAL ENVIRONMENTAL ASSESSMENT

PCS CELL SITE AT WAIKIKI GATEWAY HOTEL
WAIKIKI SITE (T-04B)
2070 Kalakaua Avenue, Waikiki, Oahu, Hawaii
Tax Map Key: 2-6-16: 65 and 30

DCR Communications, Inc.
2550 M. Street, NW, Suite 200
Washington, DC 20037

APPLICANT

Kusao & Kurahashi, Inc.
Planning and Zoning Consultants
210 Ward Avenue, Suite 124
Honolulu, Hawaii 96814

AGENT

AUGUST 1996

TABLE OF CONTENTS

LIST OF EXHIBITS

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FINAL ENVIRONMENTAL ASSESSMENT
PCS CELL SITE AT THE WAIKIKI GATEWAY HOTEL
WAIKIKI SITE (T-04B)
2070 Kalakaua Avenue, Waikiki, Oahu, Hawaii
Tax Map Key: 2-6-16: 65 & 30

I. INTRODUCTION

A.	Recorded Fee Owners	:	Tenn Hilda B Trust Tenn Chong Hing Trust c/o Paul Luckfield, Trustee 3721 Kanaaina Avenue, #21B Honolulu, Hawaii 96815
B.	Applicant	:	DCR Communications, Inc. 2550 M. Street, NW, Suite 200 Washington, DC 20037 Douglas Logan, Project Manager
C.	Approving Agency	:	Department of Land Utilization
D.	Agent	:	Kusao & Kurahashi, Inc. Planning and Zoning Consultants 210 Ward Avenue, Suite 124 Honolulu, Hawaii 96814 Keith H. Kurahashi, President (808) 538-6652
E.	Tax Map Key	:	2-6-16: 65 & 30
F.	Location	:	2070 Kalakaua Avenue, Waikiki (Exhibit 1)
G.	Lot Area	:	16,339 sf
H.	State Land Use	:	Urban

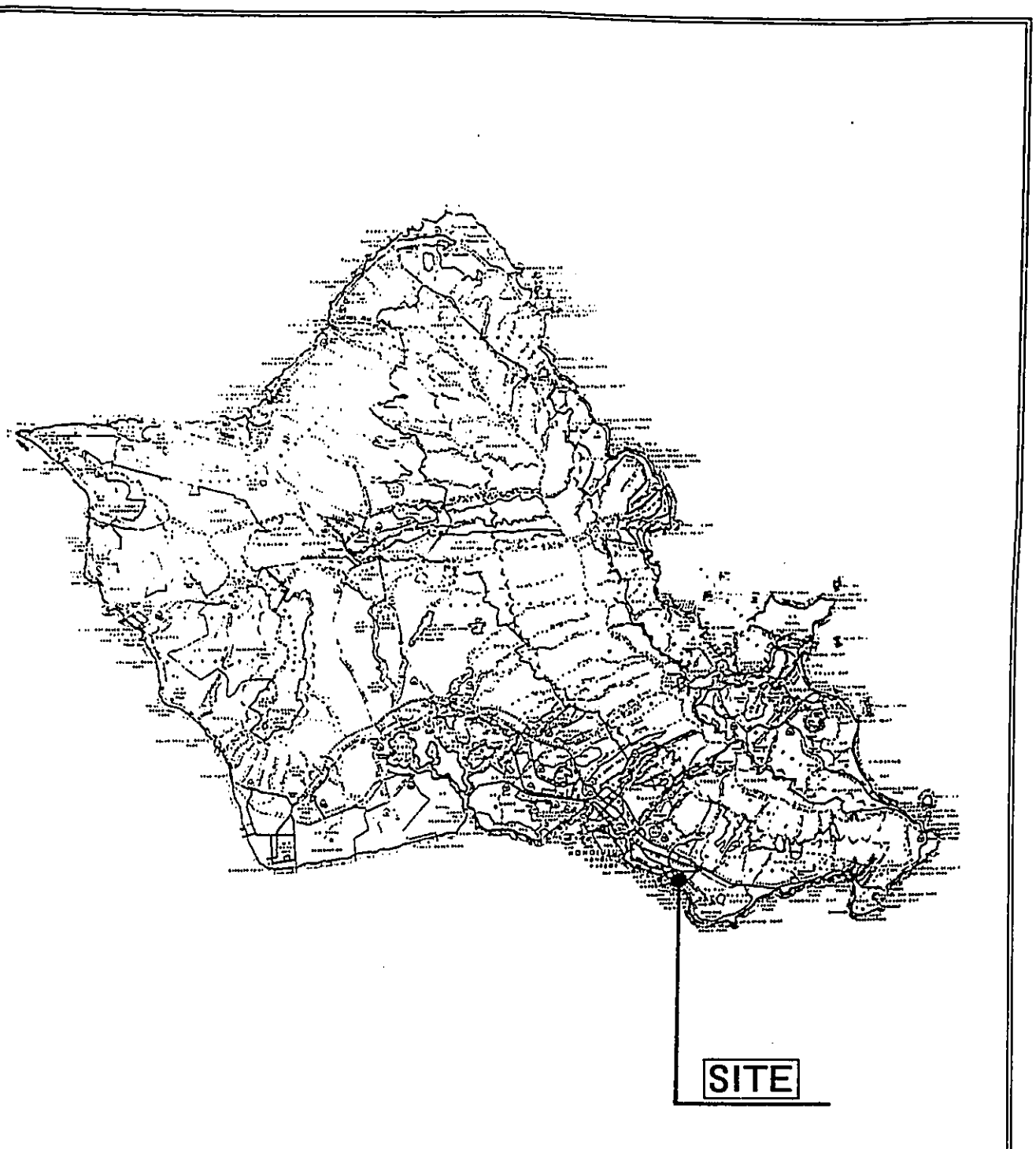


EXHIBIT 1

LOCATION MAP

I.	Development Plan		
	Land Use Map	:	Resort Mixed Use
	Public Facilities Map	:	No improvements affecting this site
J.	Zoning	:	Resort Commercial Precinct (Exhibit 2)
K.	Special District	:	Waikiki Special District
L.	Existing Use	:	Waikiki Gateway Hotel

II. PROPERTY DESCRIPTION

A. Location

The subject property is located at 2070 Kalakaua Avenue and is bounded by Kuhio Avenue, Kalakaua Avenue and Olohana Street in Waikiki.

B. Topography

The subject site is level and rectangular in shape and is located in an urban setting.

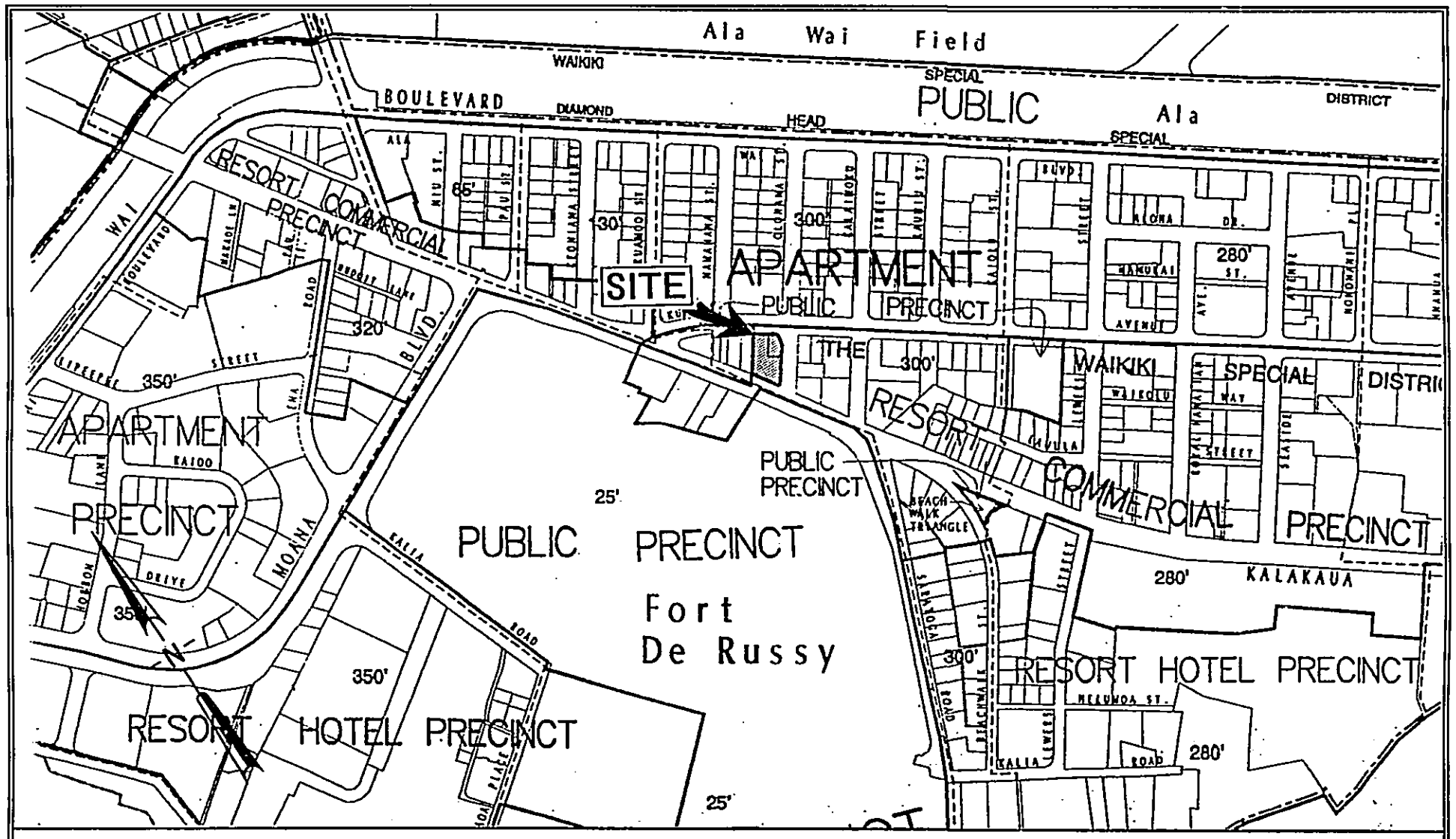


EXHIBIT 2

ZONING MAP

III. TECHNICAL CHARACTERISTICS

This environmental assessment was triggered by an application for a variance from Section 7.80-6 of the Land Use Ordinance (LUO) pertaining to permitted uses in the Resort Commercial Precinct of the Waikiki Special District. The proposed Utility Installation, Type B is not included in the list of permitted uses in this section of the LUO. The variance from Section 7.80-6 seeks relief from this use regulation which does not permit this utility installation in the Resort Commercial Precinct.

IV. BACKGROUND

This parcel is bounded by Kuhio Avenue, Kalakaua Avenue and Olohana Street. The site is developed with a high-rise, hotel building called the Waikiki Gateway Hotel (Waikiki Gateway). The Waikiki Gateway is approximately 146'-0" feet in height, including the elevator/mechanical room on the roof. The applicant proposes to locate six panel antennas and

two transmitter equipment cabinets on the elevator machine room roof (See Sheet 1, Plot Plan and Antenna Exclusion Zones).

The two transmitter equipment cabinets on the existing elevator machine room roof will be placed at the center of the roof on new concrete pavers and a mounting base (See Sheet 1, Roof Location Plan). Each cabinet will be approximately 4'-3" x 2'4" x 5'9" in size (See Sheet 7, Transmitter Equipment Layout Plan and Section).

The six panel antennas will be located on the roof parapet of the existing machine room (See Sheet 8, Elevation and Section of Antenna Attachment). Each of the six panel antennas will be approximately 4.4'-0" x 0'-6.5" x 0'-2.5" in size. These rectangular shaped panel antennas will weigh approximately 20 lbs. each. The finished height of each panel antenna (approximately 153') will be approximately 5'-3" above the existing parapet wall (See Sheets 3-6, Elevation Drawings).

Antennas 1A and 1B will be located on the Kuhio Avenue side of the building, approximately 10'-0" apart. Antenna 2A and 2B will be located on the side of the building fronting Olohana Street, approximately 10'-0" apart. The remaining two antennas, 3A and 3B will be located on the ewa

side of the building approximately 10'-0" apart (See Sheet 1, Plot Plan and Antenna Exclusion Zones).

V. SOCIO-ECONOMIC CHARACTERISTICS

A. Existing Use and Surrounding Uses

The site is occupied by an existing hotel, the Waikiki Gateway. It is situated in an urban setting surrounded by other hotel and apartment structures.

The site is bounded on its mauka side by the Maile Sky Court Hotel. On its ewa side, is the Waikiki Mini Park. In the makai direction, across Kalakaua Avenue, is the Kyoya Restaurant. And finally, in the Kokohead direction are a number of two-story shops.

B. Employment

There will be no change in the existing hotel operation or employees.

VI. ENVIRONMENTAL CHARACTERISTICS

The addition of six panel antennas and two transmitter equipment cabinets to this site will have negligible environmental impact on the building or the surrounding area. There would be no increase in the cubic content of the existing structure or the footprint (building area) since all improvements occur on the rooftop of the building.

The impacts from this use are minimal, being limited to visual impacts. The antennas will be of similar form and appearance as other roof top structures, such as vent pipes, fans, roof access stairwells, and structures housing utility equipment and machinery. Given the height and the antennas location on the roof top elevator mechanical room which is set back 4 to 5 feet from the edge of the main building and 30 feet from the property line, the antennas will not be visible from pedestrians and passengers in vehicles on the nearby streets. Access to the project site is restricted by a locked door to the roof.

VII. AFFECTED ENVIRONMENT

The affected environment is an urban area which is fully developed. There is no endangered flora, fauna or significant habitats in this urban area. Since the area is fully developed and no additional site work will be done on the subject lot, the project will not impact on historical/archaeological and cultural sites.

The Ala Wai Canal is located approximately 550 feet mauka (north) of the subject lot. The Pacific Ocean (Fort DeRussy Beach) is located approximately 2,150 feet makai (south) of the subject lot. The project will not have any effect on these two bodies of water.

VIII. MAJOR IMPACTS AND ALTERNATIVES CONSIDERED

As discussed throughout this report, the construction of six panel antennas and two transmitter equipment cabinets will have negligible impact on the building or the surrounding area. The antennas will be of similar form and appearance as other roof top structures, such as vent pipes, fans,

roof access stairwells, and structures housing utility equipment and machinery.

The only other alternative considered was a no action alternative which would cause DCR Communications, Inc. difficulties with reception of personal communication in a very densely occupied and heavily utilized urban area. This alternative is not acceptable, particularly in light of the minimal impact that the proposed antennas would have on the surrounding area.

IX. AGENCY COMMENTS

No agency comments received by the applicant or the Department of Land Utilization regarding this project.

X. MITIGATION MEASURES

Since impacts of the proposed antenna additions on the rooftop of this existing hotel are negligible, no mitigation measures are planned.

APPENDIX I

SITE PLANS

DCR HONOLULU PCS PROJECT

SITE T-04B WAIKIKI 4
PROJECT NO. 3HU0106

INDEX OF DRAWINGS

SHEET NO.	DESCRIPTION
T-1	INDEX OF DRAWINGS, SYMBOLS & ABBREVIATIONS, PROJECT SUMMARY AND VICINITY MAP
1	PLOT PLAN AND ANTENNA EXCLUSION ZONES
2	ROOF LOCATION PLAN
3	BUILDING ELEVATIONS WITH ANTENNA LOCATIONS
4	BUILDING ELEVATIONS WITH ANTENNA LOCATIONS
5	BUILDING ELEVATIONS WITH ANTENNA LOCATIONS
6	BUILDING ELEVATIONS WITH ANTENNA LOCATIONS
7	TRANSMITTER EQUIPMENT PLAN AND SECTION
8	ANTENNA AND WAVEGUIDE DETAILS
9	GENERAL NOTES & ANTENNA AND COAXIAL CABLE SCHEDULE

SYMBOLS & ABBREVIATIONS

———	PROPERTY LINE	DET. / SHT.	DETAIL NO. SHEET NO.
—— G ——	GROUND WIRE		
1A	ANTENNA MARK	W/	WITH
℄	CENTERLINE		
(E)	EXISTING		
(N)	NEW		

PROJECT SUMMARY

THIS PROJECT INCLUDES:

INSTALLATION OF BASE TRANSCEIVER STATION (BTS) MOUNTED ON THE ROOF OF THE ELEVATOR MACHINE ROOM

INSTALLATION OF 3 PAIRS OF ANTENNAS ATTACHED TO THE CONCRETE WALLS OF THE ELEVATOR MACHINE ROOM.

INSTALLATION OF COAXIAL CABLE RUNS BETWEEN THE BTS AND ANTENNAS

NEW TELEPHONE SERVICE RUN BETWEEN THE BTS AND TELEPHONE ROOM IN THE BASEMENT OF THE BUILDING. CORE THROUGH CONCRETE LANDINGS AT THE STAIR WELL FROM ROOF TO BASEMENT. INSTALL CONDUIT AND WIRING.

NEW 100A ELECTRICAL SERVICE BETWEEN THE BTS AND ELECTRIC UTILITY ROOM IN THE BASEMENT. CORE THROUGH CONCRETE LANDINGS AT THE STAIR WELL FROM ROOF TO BASEMENT. INSTALL CONDUIT AND WIRING.

PROVIDE GROUNDING OF ANTENNAS AND BTS.

FILE: T04B-T.DWG
PLOT: 1 = 1

S PROJECT

IKIKI 4
0106

MARY

(BTS) MOUNTED ON THE

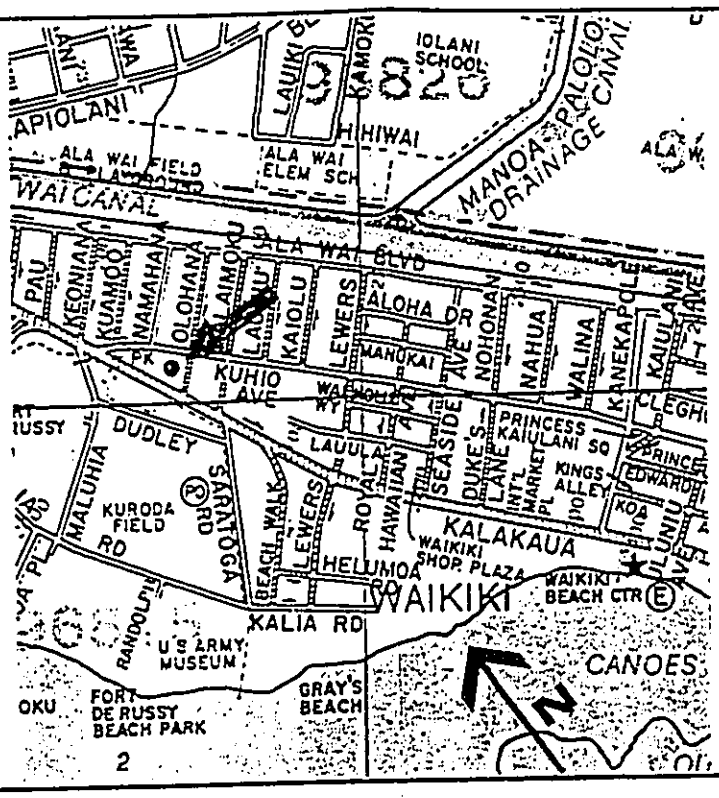
ACHED TO THE CONCRETE

EEN THE BTS AND ANTENNAS.

BTS AND TELEPHONE ROOM
HROUGH CONCRETE LANDINGS
T. INSTALL CONDUIT AND

BTS AND ELECTRIC UTILITY
NCRETE LANDINGS AT THE
LL CONDUIT AND WIRING.

VICINITY MAP



OWNER APPROVAL	
OWNER REPRESENTATIVE	DATE

REVIEWED BY:	
RF ENGINEERING	DATE
CONSTRUCTION	DATE

DCR
COMMUNICATIONS,
INC.

HONOLULU, HAWAII

MYLES Y. SHIMOKAWA
LICENSED PROFESSIONAL ENGINEER
NO. 3906-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

KSF, INC.

SITE NO.:	SITE NAME:
T-04B	WAIKIKI 4

ADDRESS:
WAIKIKI GATEWAY HOTEL
2070 KALAKAUA AVENUE
HONOLULU, HAWAII 96815
TMK: (1) 2-6-16 : 65

INDEX OF DRAWINGS, SYMBOLS & ABBREVIATIONS, PROJECT SUMMARY AND VICINITY MAP

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△		
A	5/3/96	ISSUED FOR ZONING

Date	MAY 3, 1996
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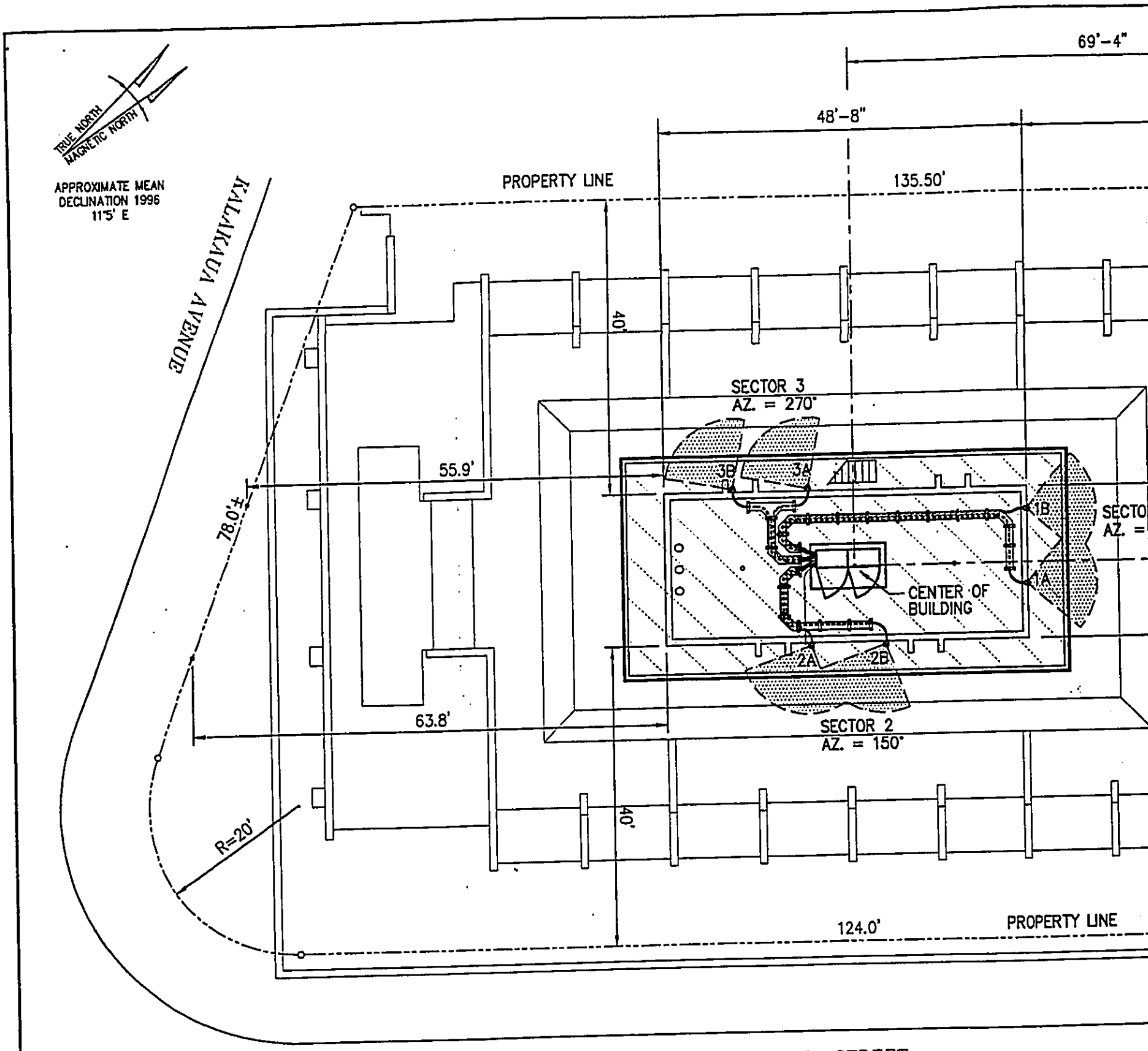


EXCLUSION DISTANCE

BEAM WIDTH

ANTENNA

EXCLUSION DISTANCE = 9.0'
ANTENNA BEAM WIDTH = 90°

TYPICAL ANTENNA EXCLUSION ZONE

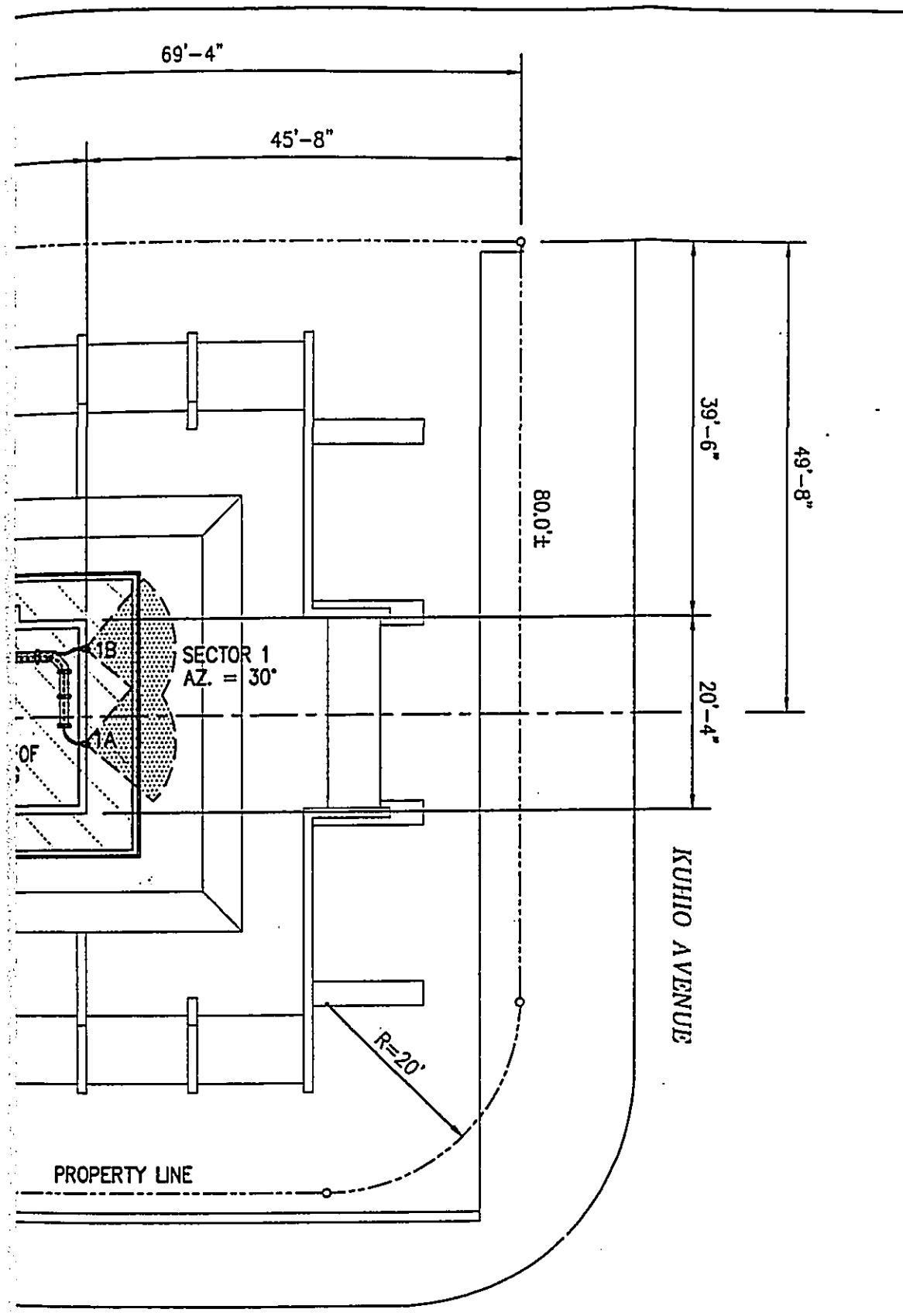
NOT TO SCALE

2070 KALAKAUA AVENUE
TMK: (1) 2-6-16: 65

PLOT PLAN AND ANTENNA EXCLUSION ZONES

SCALE: 1/16" = 1'-0"

FILE: 1U4B-12.DWG
PLOT: 1 = 1



ZONES

GRAPHIC SCALE:

16' 8' 0 16' 32'

SCALE: 1/16" = 1'--0"

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TMK: (1) 2-6-16 : 65

PLOT PLAN AND ANTENNA EXCLUSION ZONES

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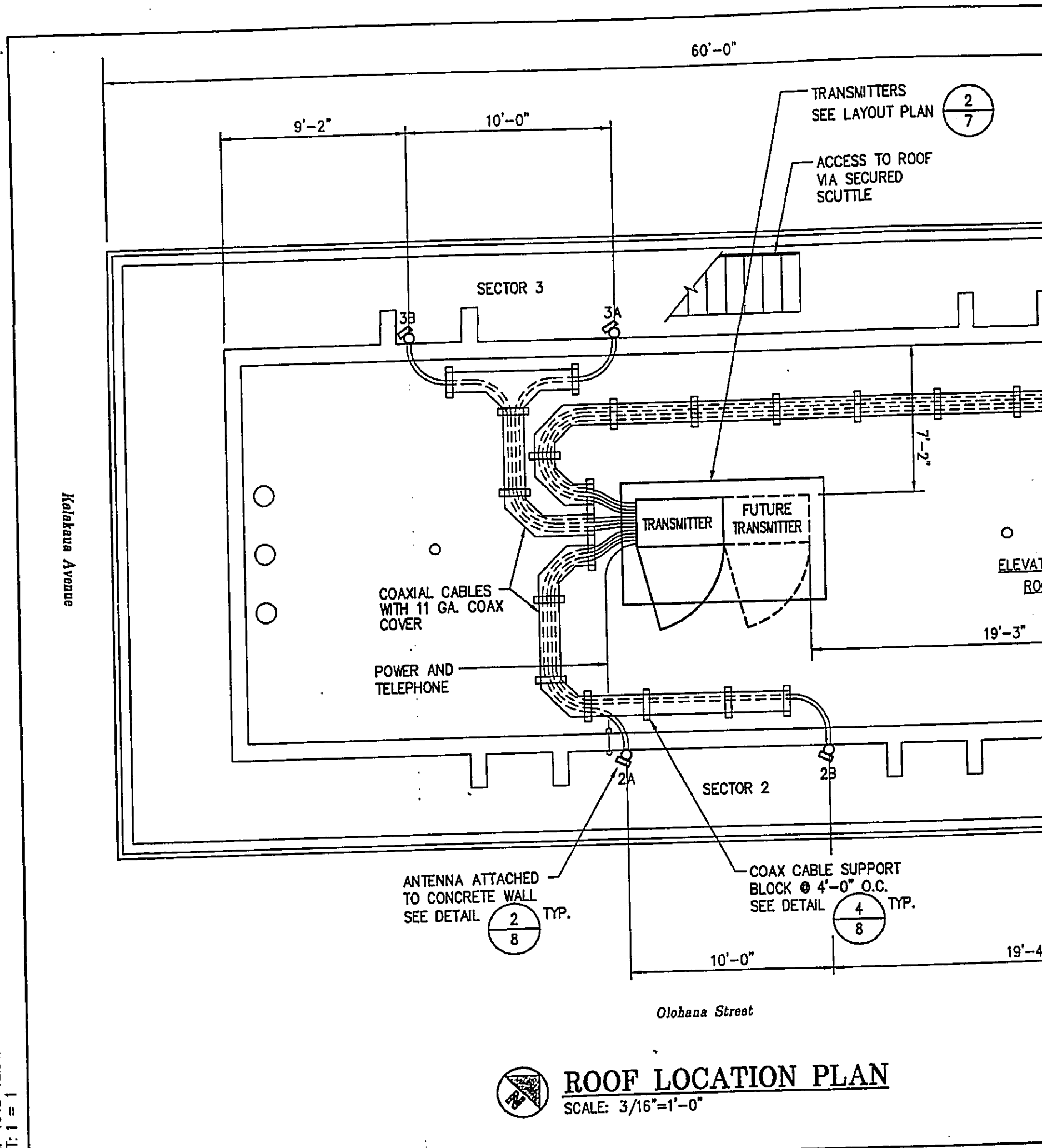


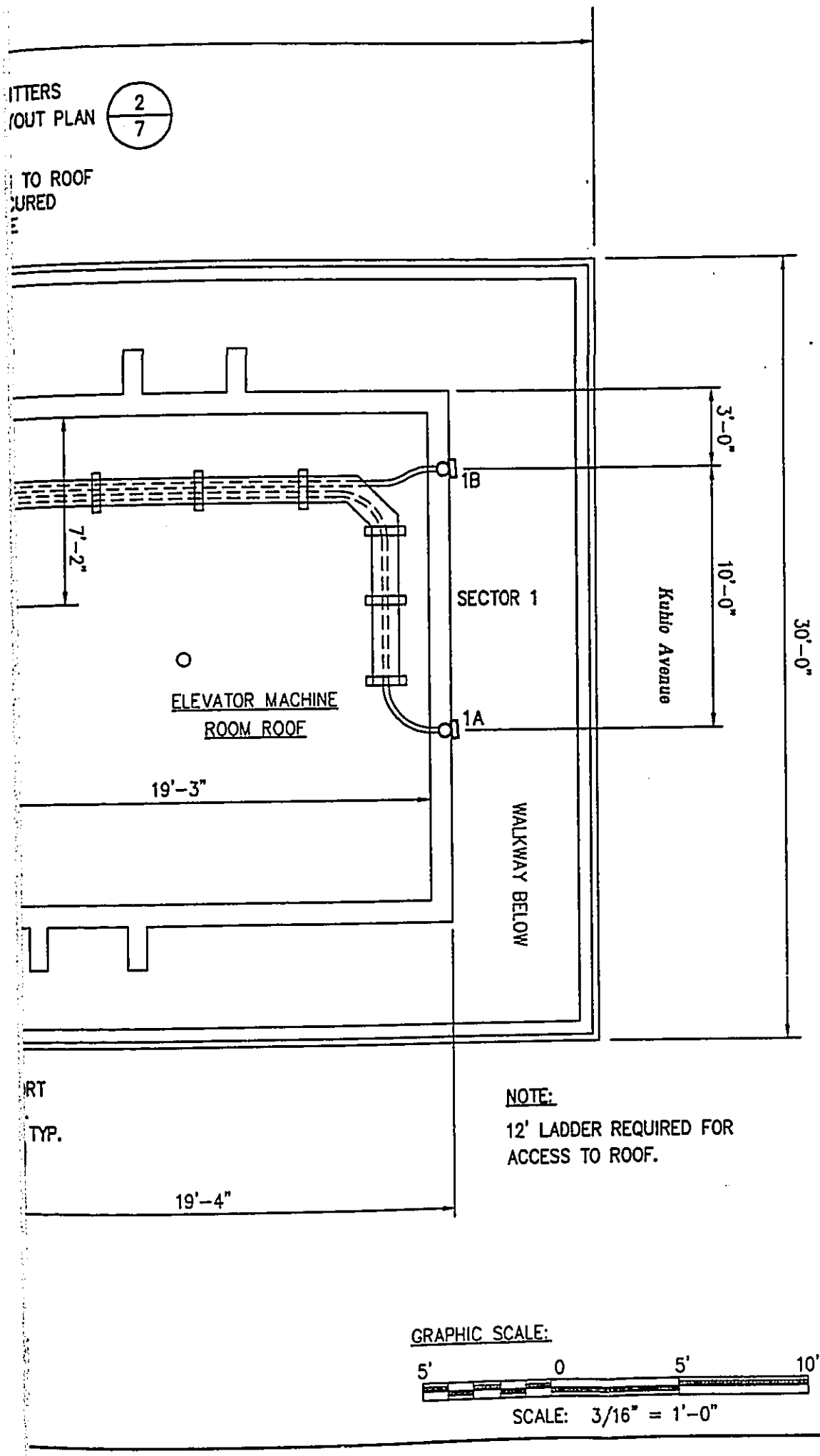
ROOF LOCATION PLAN

SCALE: 3/16"=1'-0"

FILE: T04B-12.DWG
PLOT: 1 = 1

ITTERS
/OUT PLAN (2/7)

I TO ROOF
CURED



RT

TYP.

NOTE:
12' LADDER REQUIRED FOR ACCESS TO ROOF.

GRAPHIC SCALE:
5' 0 5' 10'

SCALE: 3/16" = 1'-0"

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SITE NAME: WAIKIKI 4

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2070 KALAKAUA AVENUE
HONOLULU, HAWAII 96815
TMK: (1) 2-6-16 : 65

ROOF LOCATION PLAN

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Date	MAY 3, 1996
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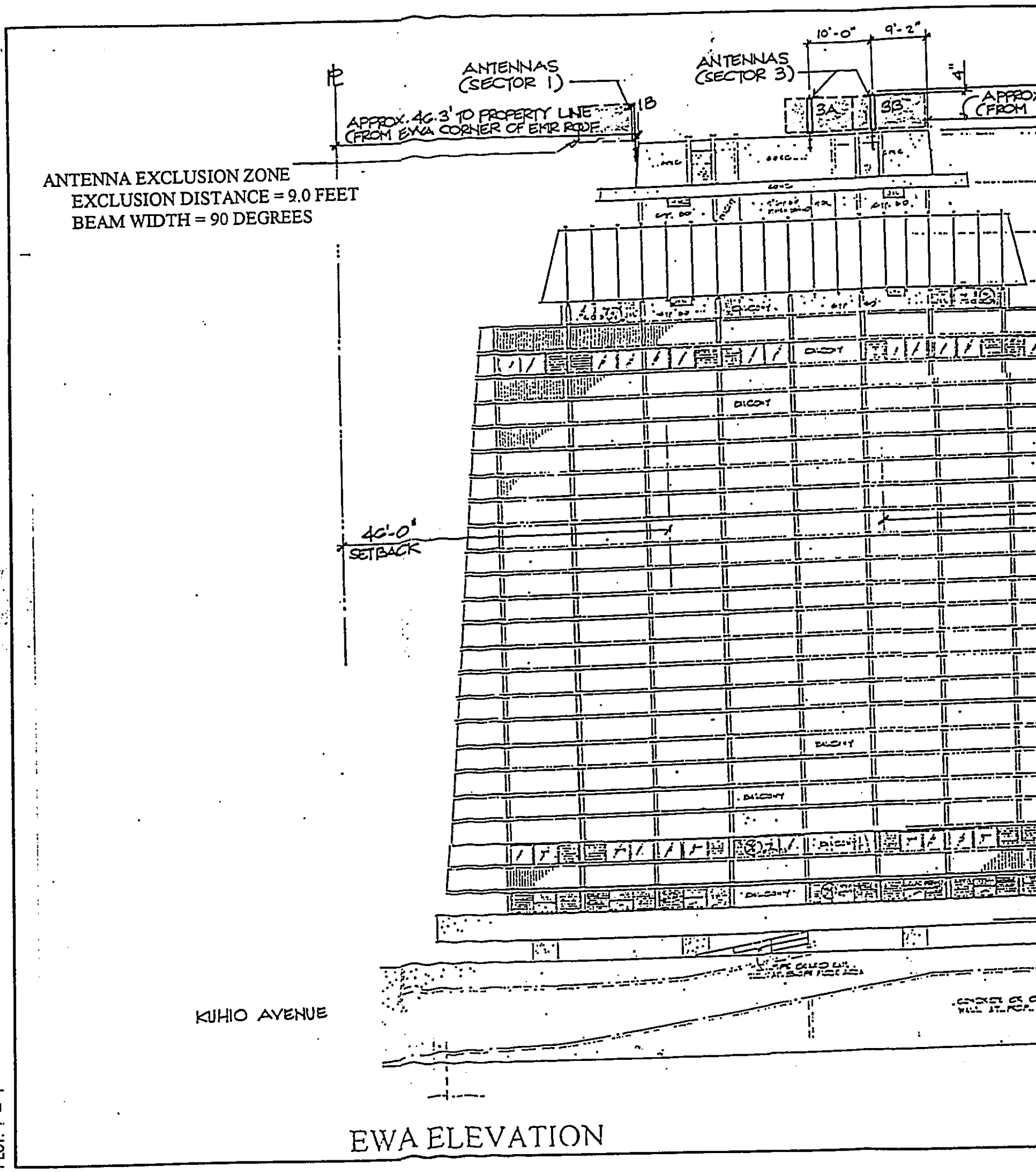
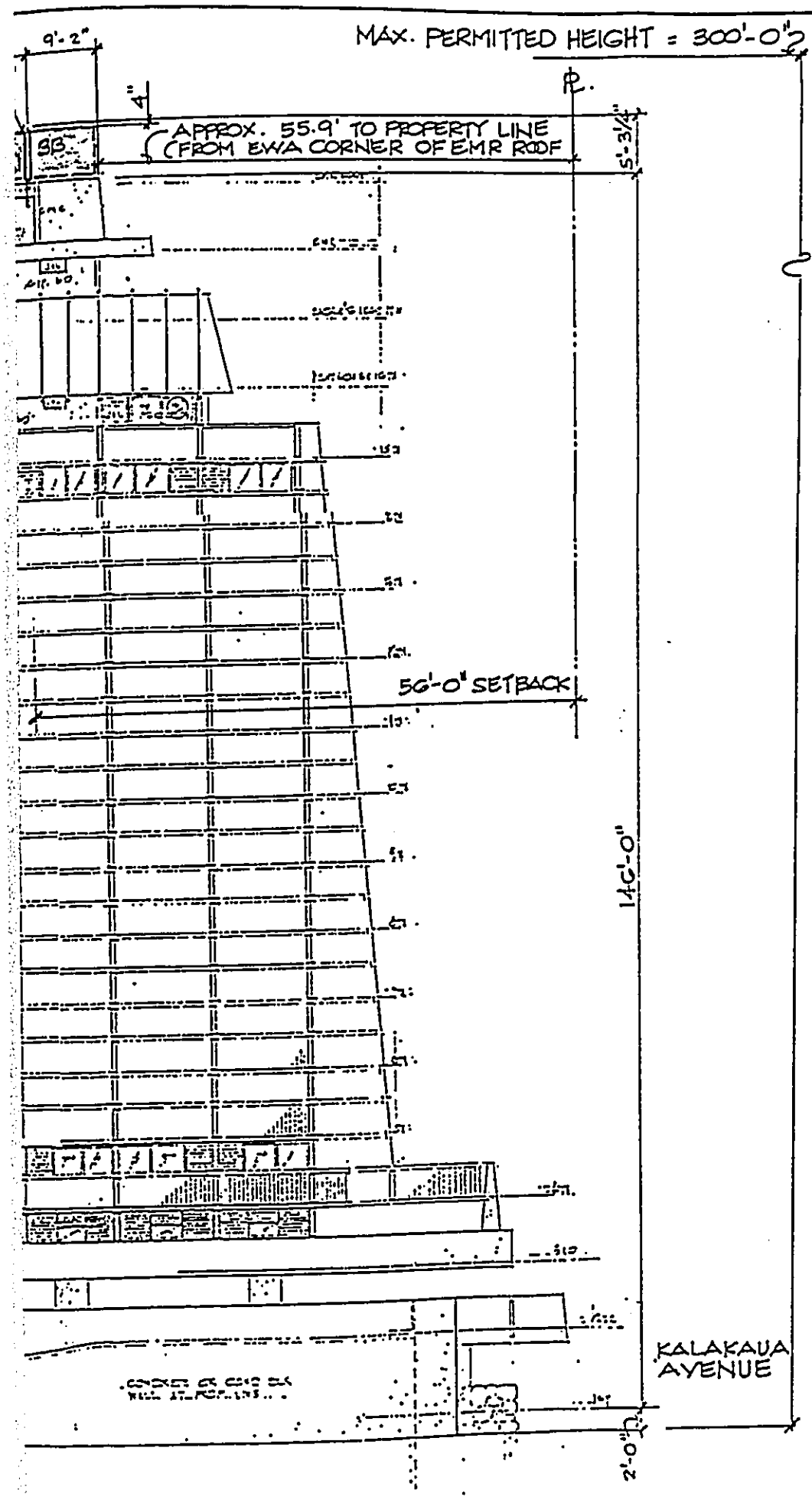


EWA ELEVATION

FILE: T04B3456.DWG
PLOT: 1 = 1



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HONOLULU, HAWAII 96815
TMK: (1) 2-6-16 : 65

BUILDING ELEVATION
WITH ANTENNA LOCATION

△		
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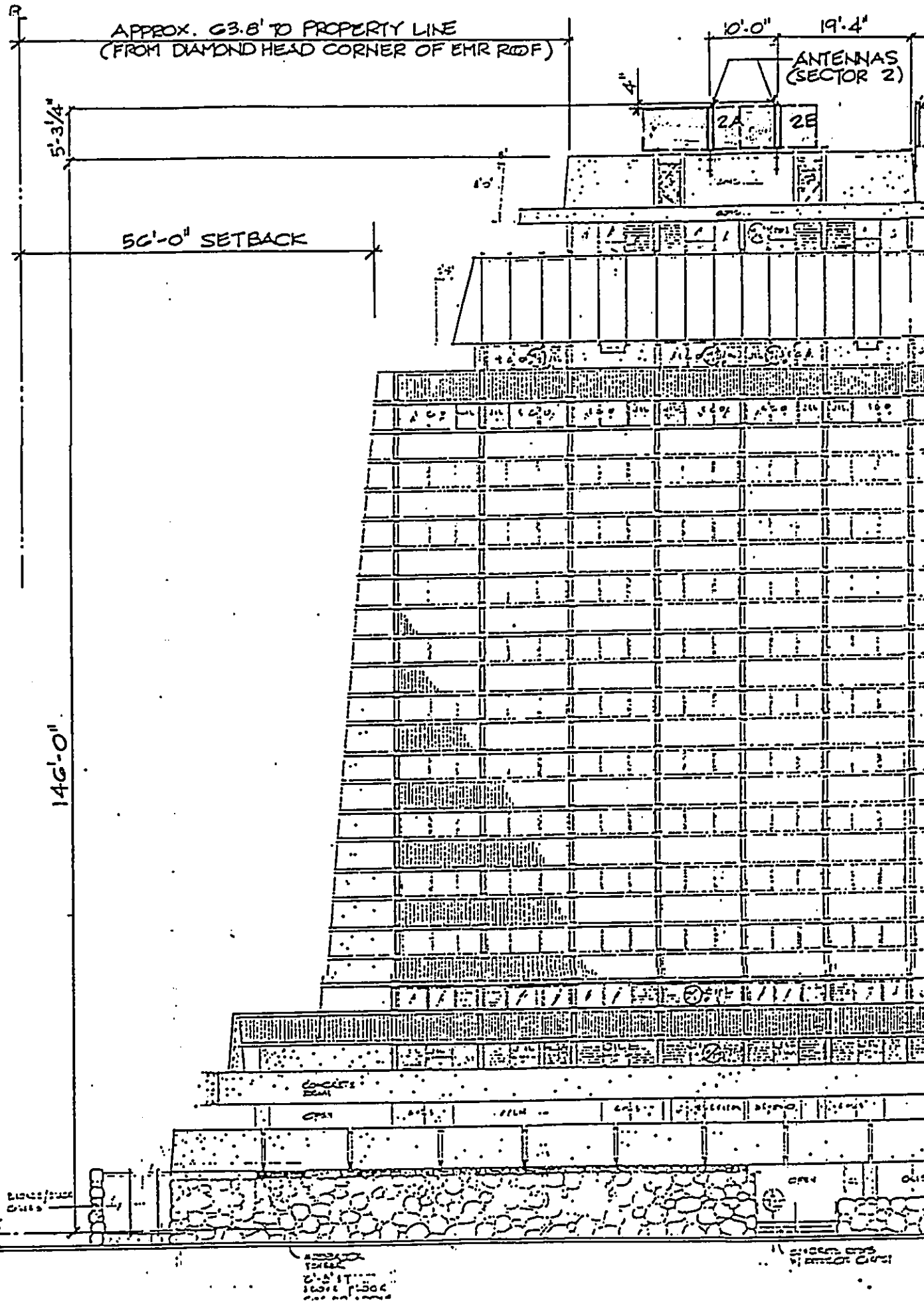

OLOHANA STREET ELEVATION

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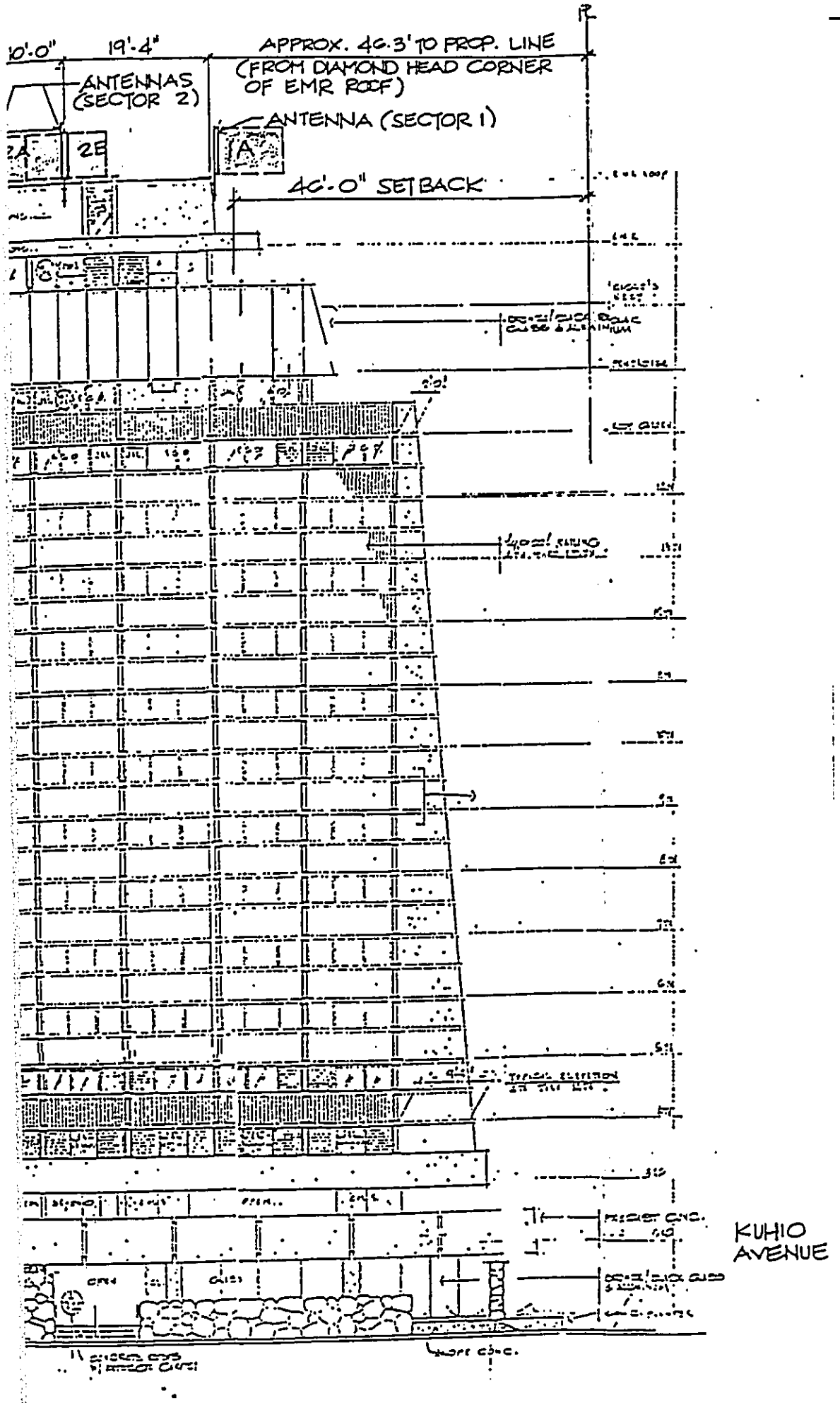

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BUILDING ELEVATION
WITH ANTENNA LOCATION

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Date MAY 3, 1996
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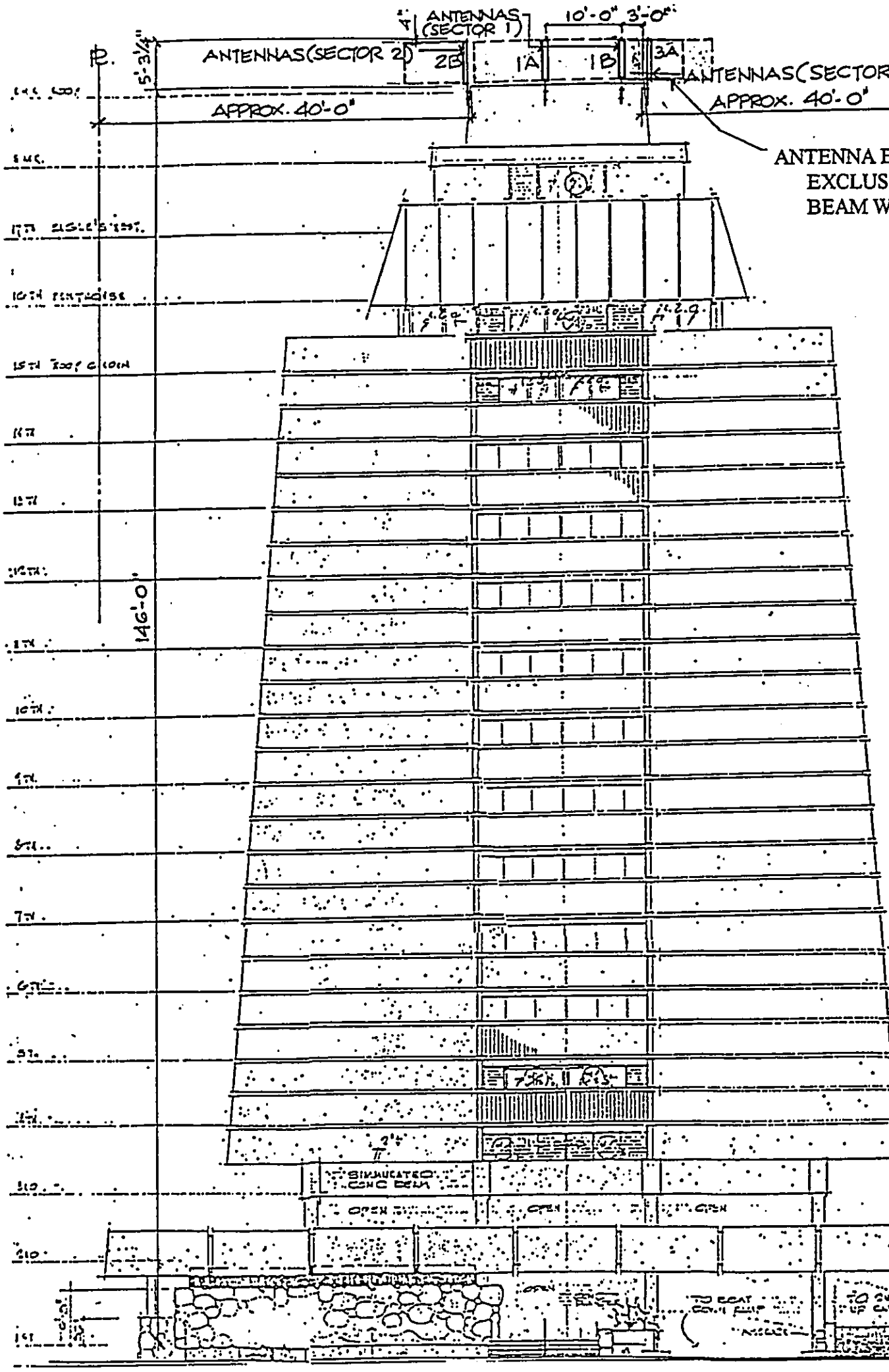

OLOHANA STREET

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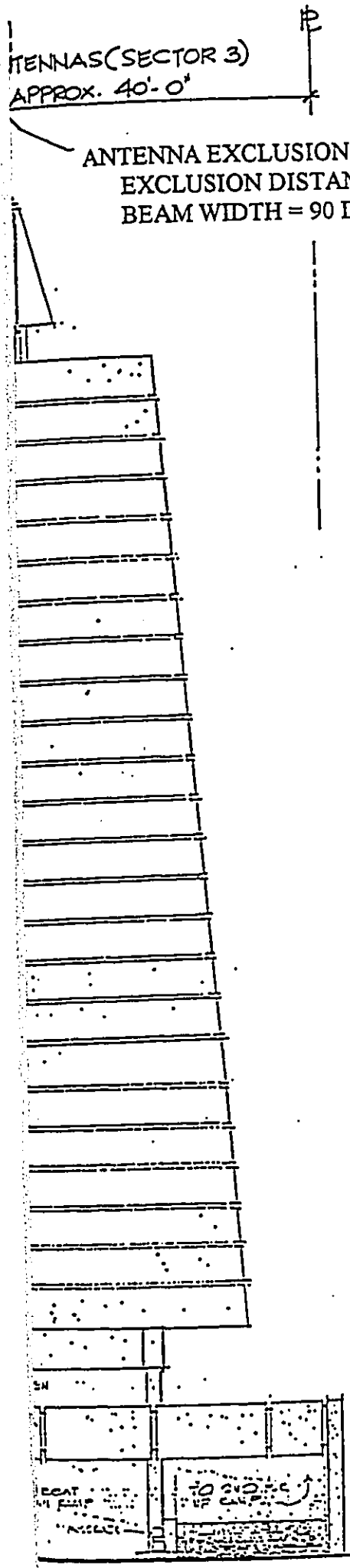

KUHIO AVENUE ELEVATION

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BUILDING ELEVATION
WITH ANTENNA LOCATION

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A	5/3/96	ISSUED FOR ZONING

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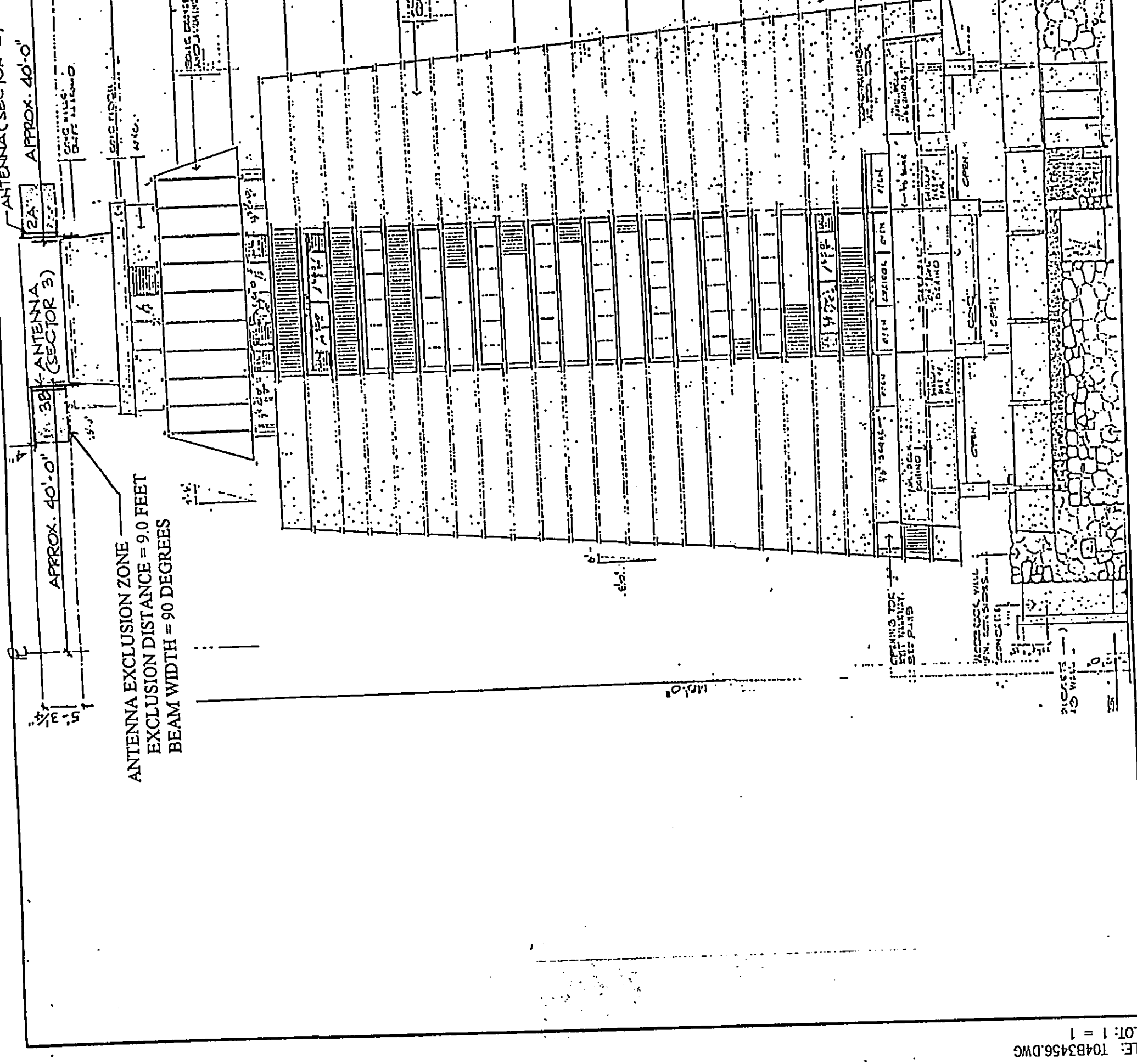
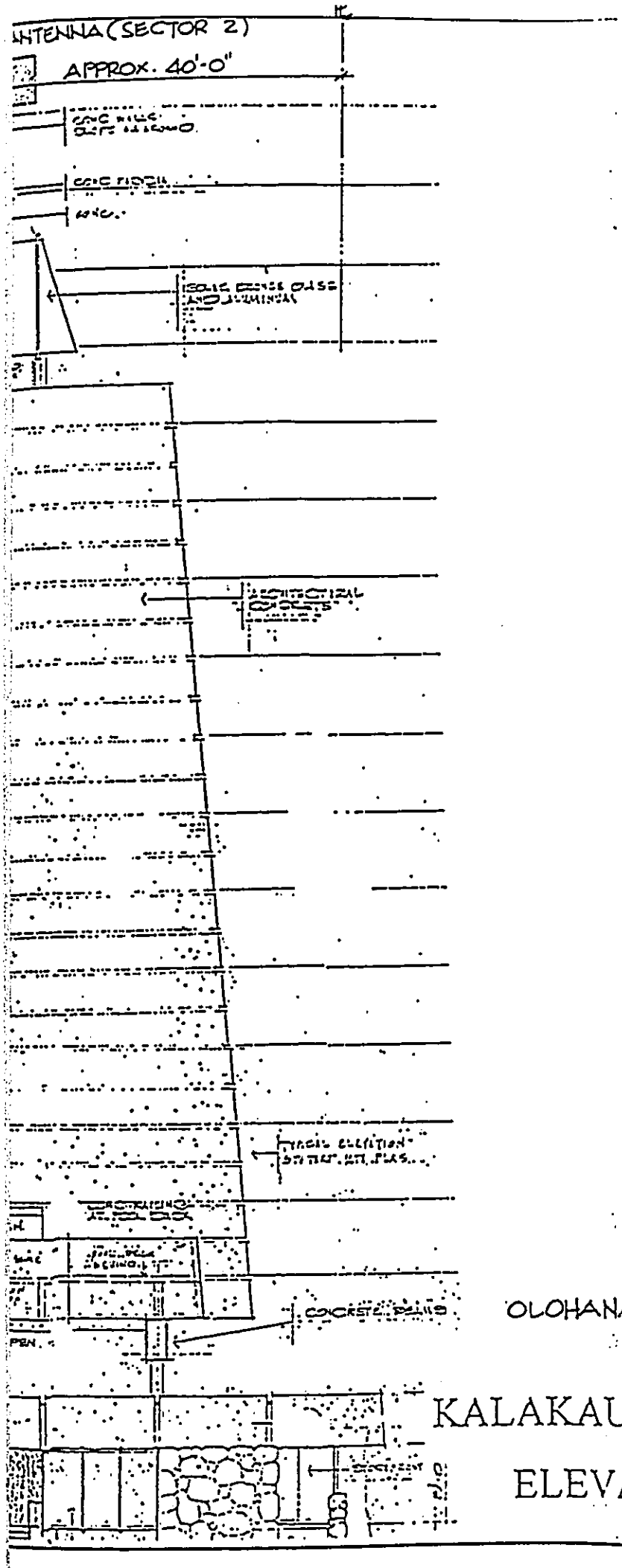

ANTENNA (SECTOR 2)
APPROX. 40'-0"
2A
ANTENNA (SECTOR 3)
APPROX. 40'-0"
3B
ANTENNA EXCLUSION ZONE
EXCLUSION DISTANCE = 9.0 FEET
BEAM WIDTH = 90 DEGREES
5'-3¼"
FILE: T04B3456.DWG
PLOT: 1 = 1



KALAKAUA AVENUE

ELEVATION

DCR
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2070 KALAKAUA AVENUE
HONOLULU, HAWAII 96815
TMK: (1) 2-6-16 : 65

BUILDING ELEVATION .
WITH ANTENNA LOCATION

△		
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A	5/3/96	ISSUED FOR ZONING

Date MAY 3, 1996
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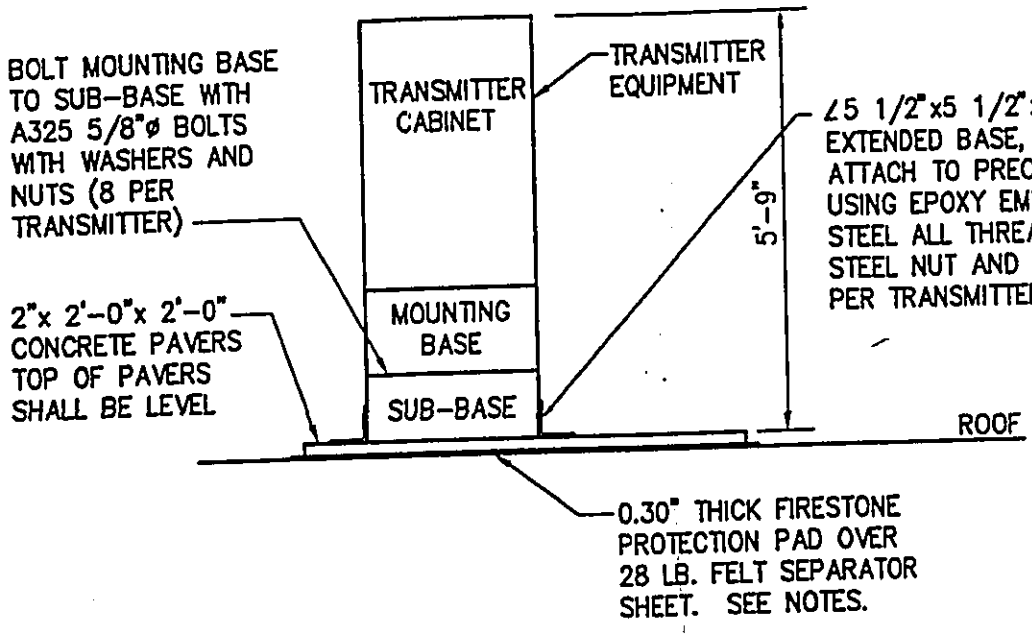
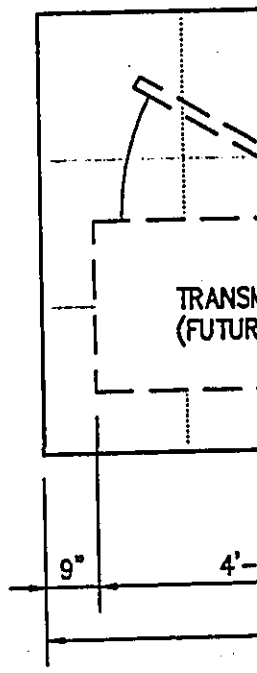
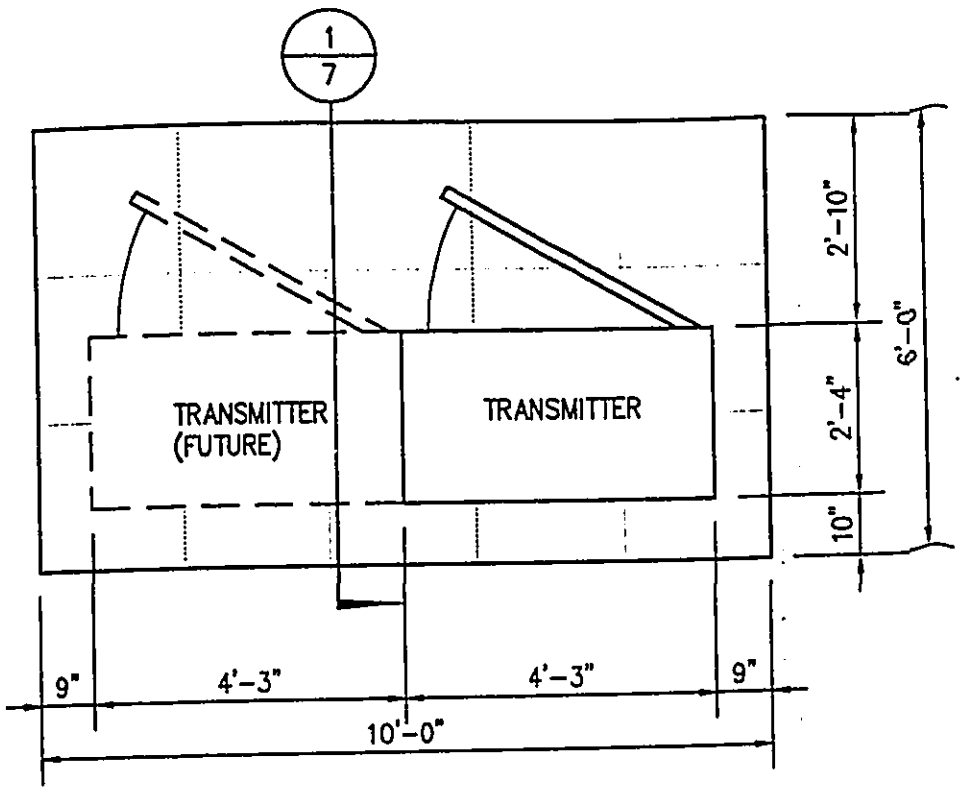


1/7 **SECTION**
SCALE: 3/8" = 1'-0"



2/7 **TRANSMITT**
SCALE: 3/8" = 1'-0"

FILE: T04B-7.DWG
PLOT: 1 = 1



TRANSMITTER EQUIPMENT LAYOUT PLAN

SCALE: 3/8" = 1'-0"

DCR
COMMUNICATIONS,
INC.

HONOLULU, HAWAII

MYLES Y. SHIMOKAWA
LICENSED
PROFESSIONAL
ENGINEER
NO. 3906-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

KSF, INC.

SITE NO.: T-04B
SITE NAME: WAIKIKI 4

ADDRESS:
WAIKIKI GATEWAY HOTEL
2070 KALAKAUA AVENUE
HONOLULU, HAWAII 96815
TMK: (1) 2-6-16 : 65

TRANSMITTER EQUIPMENT PLAN AND SECTION

△		
△		
△		
△A	5/3/96	ISSUED FOR ZONING

Date	MAY 3, 1996
Scale	AS SHOWN
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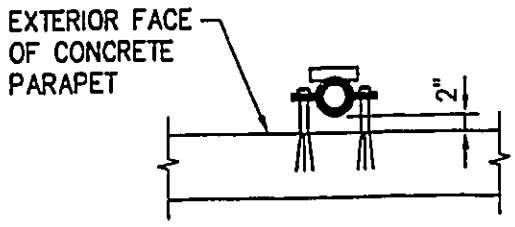
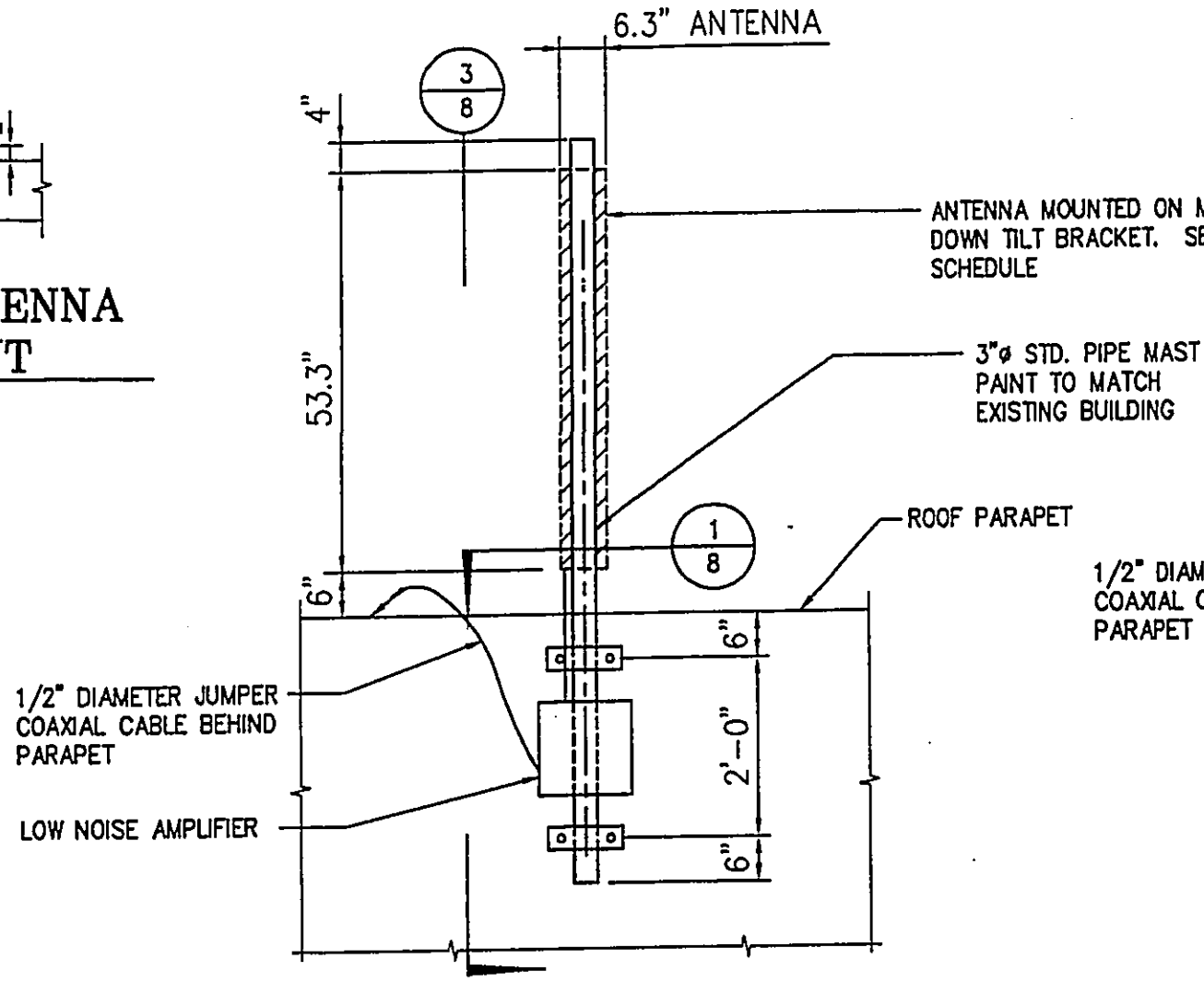
Proj. No.	
SHEET	7
Of	_____ Sheets



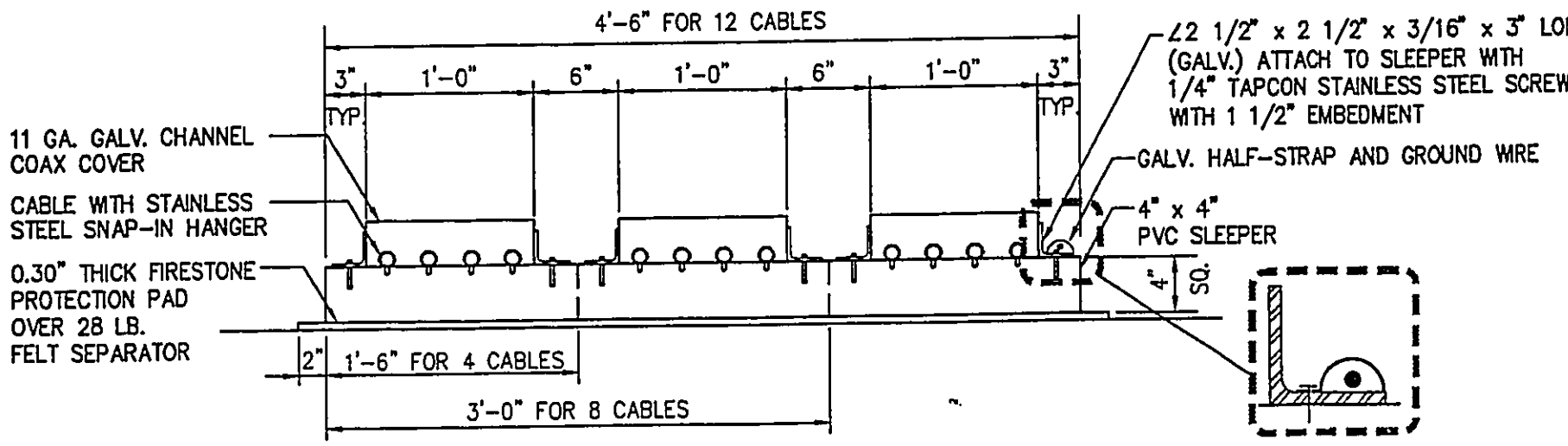
PLAN - ANTENNA ATTACHMENT

1/8 SCALE: 1/2" = 1'-0"



ELEVATION ANTENNA ATTACHMENT

2/8 SCALE: 1/2" = 1'-0"



TYPICAL COAXIAL SUPPORT AT 4' O.C.

4/8 SCALE: 1" = 1'-0"

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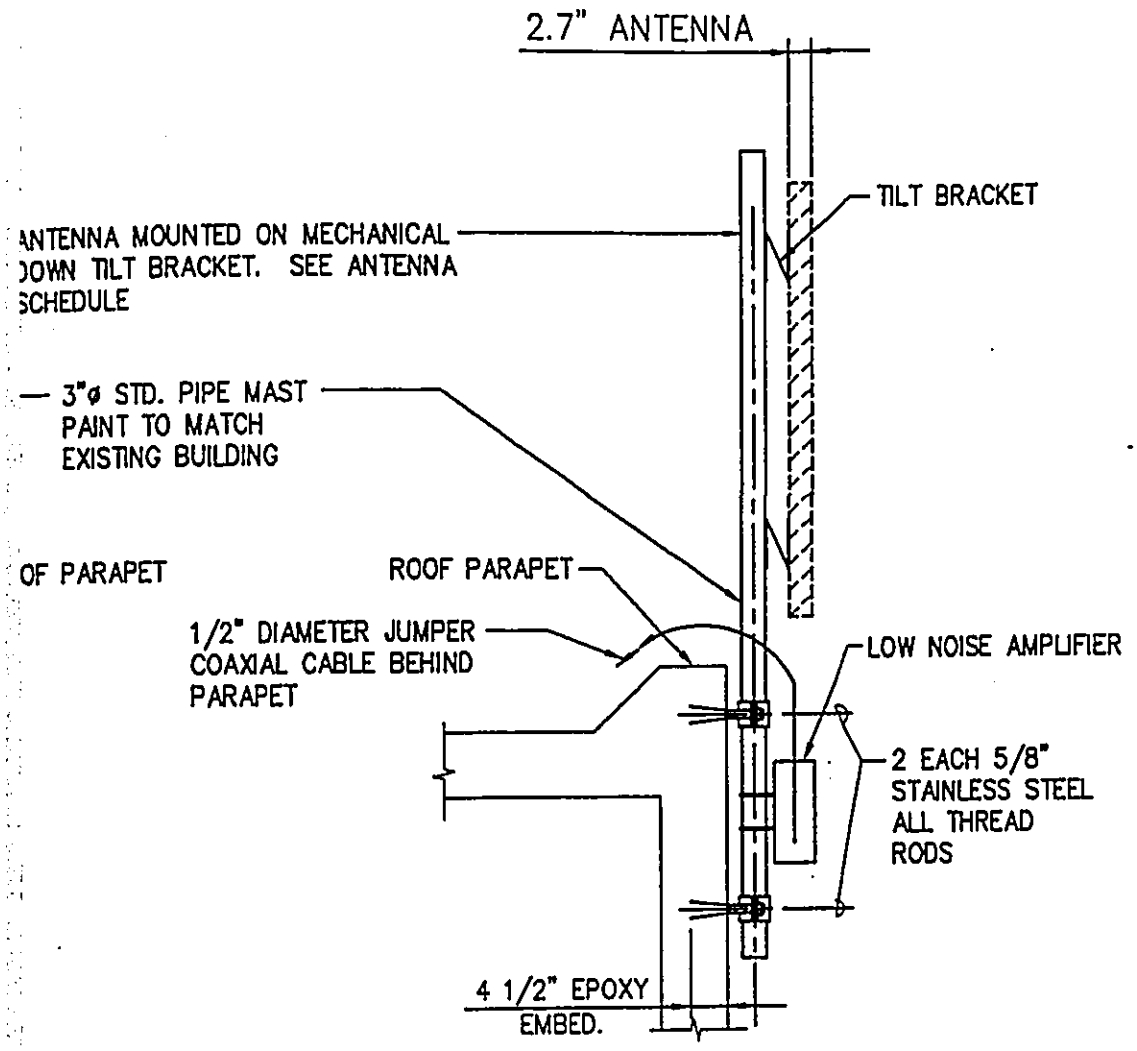
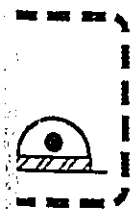
PLOT: 1 = 1



SECTION
ANTENNA ATTACHMENT
3/8 SCALE: 1/2" = 1'-0"

1/2" x 3/16" x 3" LONG
H TO SLEEPER WITH
STAINLESS STEEL SCREW
MBEDMENT

P AND GROUND WIRE



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ANTENNA AND WAVEGUIDE DETAILS

1		
2		
3		
A	5/27/96	ISSUED FOR ZONING AND REVIEW

Date	MAY 3, 1996
Scale	AS SHOWN
Drawn	MAI, VTY
Proj. No.	

SHEET
8
Of _____ Sheets

GENERAL NOTES:

1. CONFORM TO THE UNIFORM BUILDING CODE, 1991 EDITION

2. INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED BY FIELD MEASUREMENT AND FROM THE EXISTING STRUCTURAL DRAWINGS. THE GENERAL CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIALS OR PROCEEDING WITH CONSTRUCTION.

3. CONCRETE FOR FOUNDATIONS FOR MONOPOLES AND TOWERS SHALL ATTAIN A STRENGTH OF 3500 PSI AT 3 DAYS (72 HOURS). CONCRETE SHALL BE WORKABLE FOR AT LEAST ONE HOUR AFTER BEGINNING OF PLACEMENT OF CONCRETE.

4. ALL OTHER CONCRETE SHALL ATTAIN A STRENGTH OF 3000 PSI AT 28 DAYS.

5. CONCRETE TEST CYLINDERS FOR FOUNDATIONS FOR MONOPOLES AND TOWERS SHALL BE AS FOLLOWS:

   A. EIGHT TEXT CYLINDERS SHALL BE PREPARED FOR EACH SITE.

   B. TWO CYLINDERS SHALL BE TAKEN FROM EACH TRUCK. IF LESS THAN FOUR TRUCKS ARE REQUIRED, TEST CYLINDERS SHALL BE TAKEN FROM ALL TRUCKS, FOR A TOTAL OF 8 TEST CYLINDERS.

   C. CYLINDERS SHALL BE TESTED AS FOLLOWS:
      (1) TWO CYLINDERS AT 3 DAYS (72 HOURS). IF REQUESTED BY ERICSSON, THESE TEST CYLINDERS SHALL BE BROKEN THE MORNING OF THE THIRD DAY.
      (2) TWO CYLINDERS AT 7 DAYS.
      (3) TWO CYLINDERS AT 28 DAYS.
      (4) TWO CYLINDERS SHALL BE HELD IN RESERVE FOR USE AS REQUIRED.

6. STRUCTURAL STEEL

   A. STRUCTURAL STEEL SHALL BE HOT-DIPPED GALVANIZED, AFTER FABRICATION.

   B. ALL EXPOSED STEEL THAT IS NOT GALVANIZED SHALL BE COATED WITH A GALVANIZING PRODUCT IN THE FIELD.

   C. ALL FASTENERS TO BE STAINLESS STEEL STRUCTURAL FASTENERS FOR ANTENNA SUPPORT. ASSEMBLIES SHALL CONFORM TO ASTM A307 OR ASTM A36. ALL STRUCTURAL FASTENERS FOR STRUCTURAL STEEL FRAMING SHALL CONFORM TO ASTM A325. FASTENERS SHALL BE 5/8 INCH MINIMUM DIAMETER BEARING TYPE CONNECTIONS WITH THREADS INCLUDED IN THE SHEAR PLANE. ALL EXPOSED FASTENERS, NUTS, AND WASHERS SHALL BE GALVANIZED UNLESS OTHERWISE NOTED. CONCRETE EXPANSION ANCHORS SHALL BE HILTI KWIK BOLTS UNLESS OTHERWISE NOTED.

6. STRUCTURAL STEEL (CONTINUED)

   D. STRUCTURAL STEEL PIPES SHALL BE ASTM A501 OR ASTM A53, GRADE B. STRUCTURAL STEEL PLATES AND RODS SHALL BE ASTM A36. DESIGN, FABRICATION, AND ERECTION OF STEEL SHALL BE INACCORDANCE WITH THE "AISC SPECIFICATION FOR THE DESIGN FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS."

   E. WELDING SHALL BE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY (AWS) D.1.1-92. STRUCTURAL WELDING CODE-STEEL. WELD ELECTRODES SHALL BE E70XX. WELDS SHALL BE MADE BY AWS CERTIFIED WELDERS. PREQUALIFIED WELDING PROCEDURES ARE TO BE USED, UNLESS AWS QUALIFICATION IS SUBMITTED TO THE OWNER PRIOR TO FABRICATION.

7. EPOXY SHALL BE RAWL FOIL-FAST 2 COMPONENT CARTRIDGE SYSTEM OR EQUAL.

8. THE GENERAL CONTRACTOR AND OR HIS SUBCONSULTANTS SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED FOR THE WORK.

9. LUMBER SHALL COMPLY WITH THE REQUIREMENTS OF AMERICAN INSTITUTE FOR TIMBER CONSTRUCTION AND THE NATIONAL FOREST PRODUCTS ASSOCIATION'S NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION. ALL LUMBER SHALL BE PRESSURE TREATED AND SHALL BE STRUCTURAL GRADE NO. 2 OR BETTER.

10. ROOF PROTECTION PADS UNDER THE ANTENNA SUPPORT BASE SHALL BE 0.375 INCH THICK RUBBER ROHN PROTECTION PADS, OR EQUAL. THE ROOF PROTECTION PADS SHALL EXTEND A MINIMUM OF TWO INCHES BEYOND THE PERIMETER OF THE ANTENNA BASE AND SHALL BE PLACED WITH A MINIMUM 1/2" SPACE BETWEEN ADJACENT PADS TO FACILITATE DRAINAGE. PROVIDE A 28 LB. INORGANIC FELT SEPARATOR SHEET 2 INCHES LARGER THAN THE PROTECTION PAD, UNDER THE PROTECTION PAD, DIRECTLY ON THE ROOF.

11. ROOF PROTECTION PADS UNDER THE CONCRETE PAVERS AND WAVEGUIDE SUPPORTS SHALL BE 0.30 INCH THICK RUBBER FIRESTONE PROTECTION PADS. THE ROOF PROTECTION PADS SHALL EXTEND A MINIMUM OF TWO INCHES BEYOND THE PERIMETER OF THE PAVERS AND THE WOOD SLEEPERS AND SHALL BE PLACED WITH A MINIMUM 1/2" SPACE BETWEEN ADJACENT PADS TO FACILITATE DRAINAGE. PROVIDE A 28 LB. INORGANIC FELT SEPARATOR SHEET 2 INCHES LARGER THAN THE PROTECTION PAD DIRECTLY ON THE ROOF.

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ANTENNA AND COAXIAL CABLE SCHEDULE

ANTENNA MARK	SECTOR	ANTENNA	COAXIAL CABLE FEED LOCATION	AZIMUTH	COAXIAL CABLE MARK	COAXIAL CABLE
1A	1	DAPA SYSTEMS MODEL 58200/58210 90° 15.0 dBd PANEL (53.3" x 6.3" x 2.7")	BOTTOM	30	C-1	__ø FLC ___ 50J
1B	1	DAPA SYSTEMS MODEL 58200/58210 90° 15.0 dBd PANEL (53.3" x 6.3" x 2.7")	BOTTOM	30	C-2	__ø FLC ___ 50J
2A	2	DAPA SYSTEMS MODEL 58200/58210 90° 15.0 dBd PANEL (53.3" x 6.3" x 2.7")	BOTTOM	150	C-3	__ø FLC ___ 50J
2B	2	DAPA SYSTEMS MODEL 58200/58210 90° 15.0 dBd PANEL (53.3" x 6.3" x 2.7")	BOTTOM	150	C-4	__ø FLC ___ 50J
3A	3	DAPA SYSTEMS MODEL 58200/58210 90° 15.0 dBd PANEL (53.3" x 6.3" x 2.7")	BOTTOM	270	C-5	__ø FLC ___ 50J
3B	3	DAPA SYSTEMS MODEL 58200/58210 90° 15.0 dBd PANEL (53.3" x 6.3" x 2.7")	BOTTOM	270	C-6	__ø FLC ___ 50J

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PLOT: 1 = 1

12. ALL COAXIAL CABLE CONNECTORS AND TRANSMITTER EQUIPMENT SHALL BE AS SPECIFIED BY THE OWNER AND IS NOT INCLUDED IN THESE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL FURNISH ALL CONNECTION HARDWARE REQUIRED TO SECURE THE CABLES. CONNECTION HARDWARE SHALL BE STAINLESS STEEL.

13. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE BUILDING OWNER'S ROOF CONTRACTOR WHO WILL COMPLETE ALL WORK ASSOCIATED WITH THE ROOF. THE CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FROM THE BUILDING OWNER'S ROOF CONTRACTOR BEFORE INSTALLATION OF ANY ROOF MOUNTED EQUIPMENT.

14. CLOUDED PARTS OF DRAWINGS ARE AS-BUILT CONDITIONS OR SUPPOSED TO BE BUILT WHEN TRANSMITTER IS IN PLACE.

15. DURING CONSTRUCTION, BUILDING IS ACCESSIBLE MONDAY THROUGH SATURDAY, BETWEEN THE HOURS OF 8 AM AND 6 PM.

COAXIAL CABLE	TRX ANTENNA CONFIGURATION
FLC ___ 50J	TRX
FLC ___ 50J	TRX
FLC ___ 50J	TRX
FLC ___ 50J	TRX
FLC ___ 50J	TRX
FLC ___ 50J	TRX

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HONOLULU, HAWAII 96815
TMK: (1) 2-6-16 : 65

GENERAL NOTES AND ANTENNA AND COAXIAL CABLE SCHEDULE

A	5/3/96	ISSUED FOR ZONING

Date MAY 3, 1996
Scale AS SHOWN
Drawn MAI, VTY
Proj. No.

SHEET 9
Of _____ Sheets

APPENDIX II

LIST OF PERMITTED USES

exceed 60 percent of the FAR stipulated for hotel use, stated above.

(d) Open Space Requirements.

A minimum of 50 percent of the zoning lot shall be devoted to open space for all developments within a resort hotel precinct.

7.80-6 Resort commercial precinct.

(a) Permitted Uses.

(1) Amusement and recreation facilities, indoor;

(2) Art galleries and museums;

(3) Automobile service stations and car rental establishments excluding repair facilities;

(4) Bars, taverns and nightclubs;

(5) Cabarets, dancehalls;

(6) Commercial parking lots and garages;

(7) Day-care facilities;

(8) Dwellings, multi-family, between Ala Wai Boulevard and Kuamoo Avenue;

(9) Eating establishments;

(10) Financial institutions;

(11) Marina accessories;

(12) Medical clinics;

(13) Meeting facilities;

(14) Office buildings;

(15) Photography studios;

(16) Public uses and structures;

(17) Recreation facilities, outdoor;

(18) Retail establishments including the incidental manufacturing of goods for sale only as retail on the premises; retail sales and display rooms, but storage of new or used vehicles, building materials or any scrap or salvage operations or storage or display of any scrap, salvage or secondhand building materials or automobile parts shall not be permitted;

(19) Theaters;

(20) Uses and structures customarily accessory and clearly incidental and subordinate to principal uses and structures, but amusement arcades shall not be permitted;

(21) Utility installations, Type A;

(22) Zoos.

(b) Yard Requirements.

(1) Front yards shall comply with the setback limits established in Section 7.80-3(c) and Figure 7.1.

(2) Within a resort commercial precinct, the following shall constitute yard and open space requirements:

(A) Where a resort commercial use adjoins an apartment precinct without an intervening street, alley or permanent open space over 25 feet in width, a side yard or rear yard equal to that required for the apartment use, Section 7.80-4(b), shall be provided.

(B) Except as required in subparagraph (A) of this paragraph, no rear or side yard shall be required.

(C) Within a resort commercial precinct, at least 50 percent of the front yard shall be landscaped.

(c) Density.

(1) The FAR of all buildings and structures situated on a lot shall not exceed 1.75. However, in addition to such maximum, five square feet of floor area may be added for each square foot of open space devoted to pedestrian use and landscape area at ground level, exclusive of the front 20 feet of the required yards, and three square feet of floor area may be added for each square foot of arcade area.

(2) For the purpose of subdivision, the lot area for resort commercial uses shall not be less than 5,000 square feet.

(3) In computing the permissible floor area, in the case of residential-commercial mixed use buildings, the FAR may be applied to the zoning lot area plus one-half the

CORRECTION

THE PRECEDING DOCUMENT(S) HAS BEEN REPHOTOGRAPHED TO ASSURE LEGIBILITY
SEE FRAME(S)
IMMEDIATELY FOLLOWING

(20) Uses and structures customarily accessory and clearly incidental and subordinate to principal uses and structures, but amusement arcades shall not be permitted;

(21) Utility installations, Type A;

(22) Zoos.

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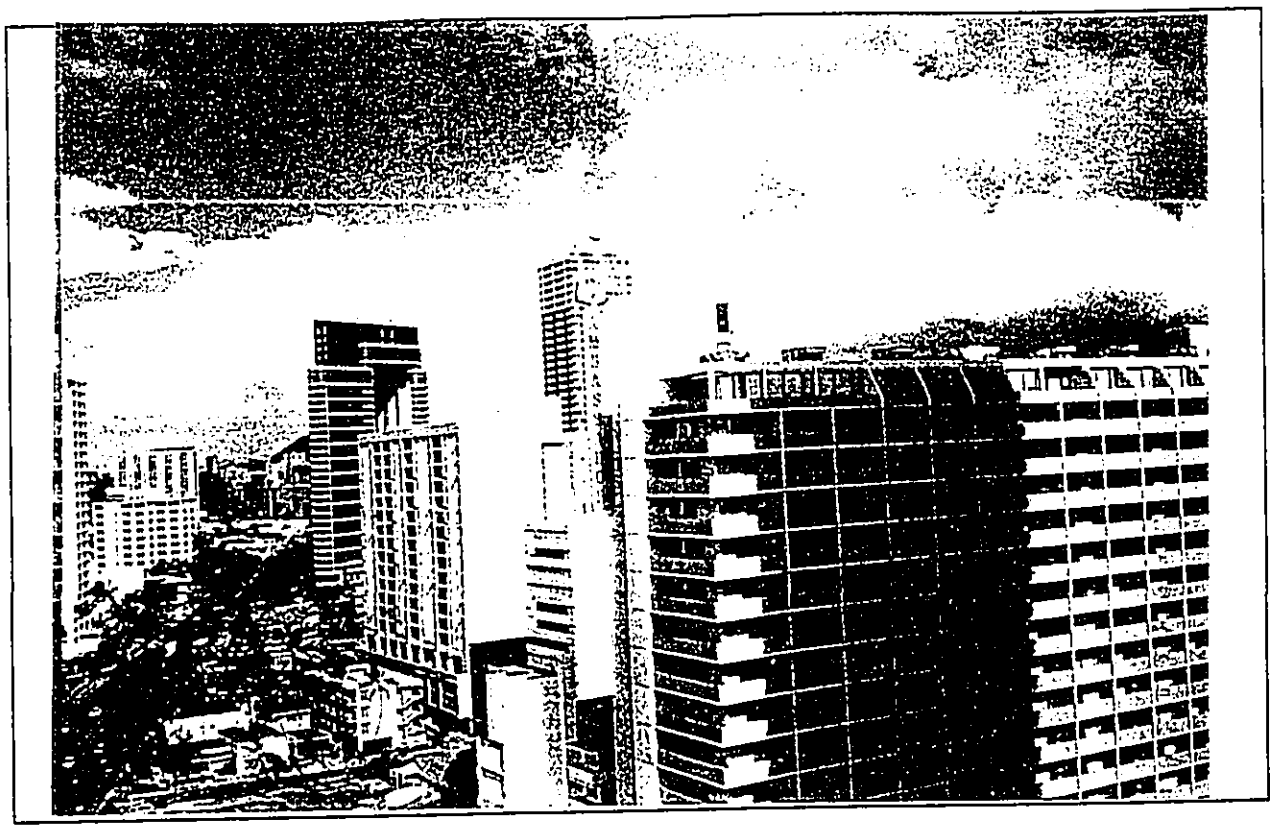
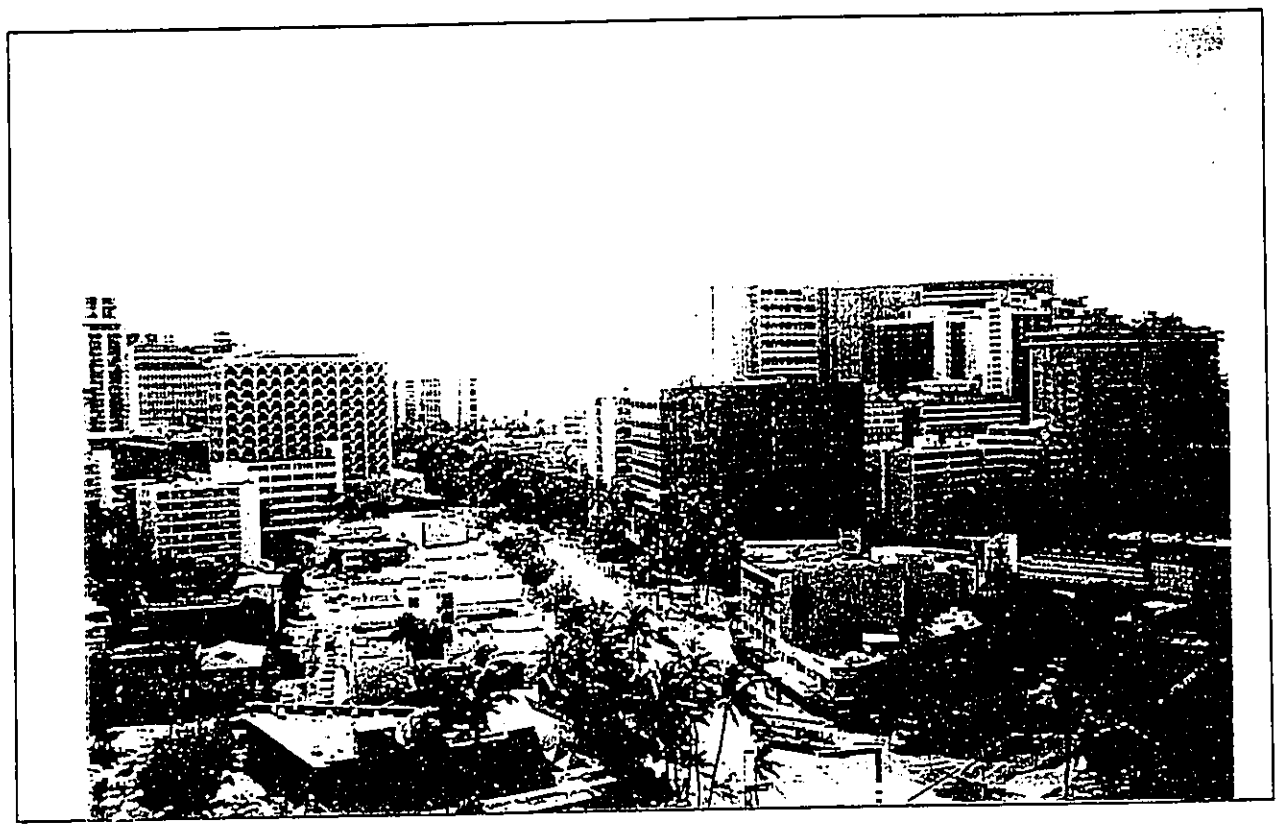
APPENDIX III

PHOTOGRAPHS OF THE SITE AND SURROUNDING AREA



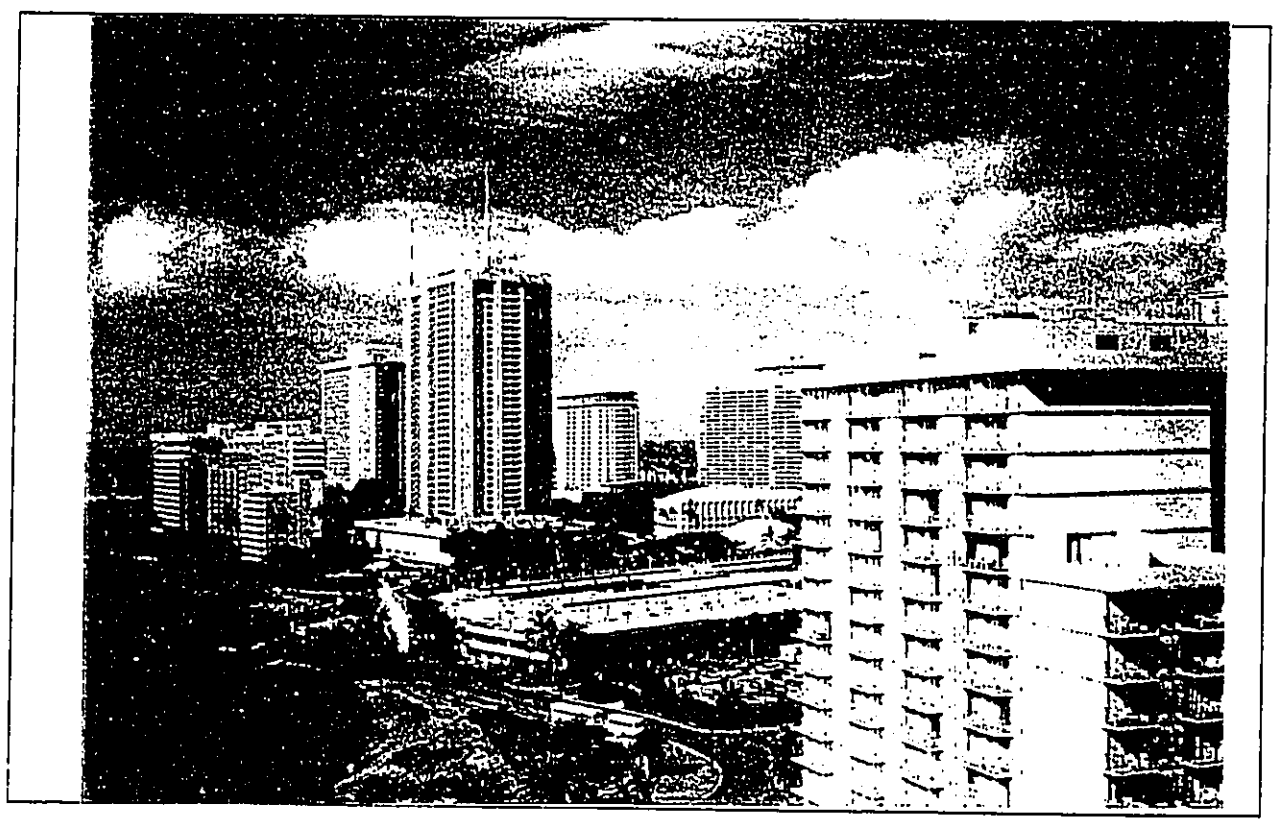
North View from Site



South View from Site

T-04B

East View from Site



West View from Site

View of Proposed Site