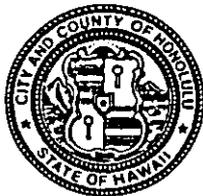


*PCS cell site at Waikiki Resort Hotel*

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



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'96 AUG 27 A8:57

OFF. OF ENVIRONMENTAL  
QUALITY CONTROL

PATRICK T. ONISHI  
DIRECTOR

LORETTA K.C. CHEE  
DEPUTY DIRECTOR

(jt)

August 21, 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 : Waikiki Resort, Inc.  
Applicant : DCR Communications, Inc.  
Agent : Kusao & Kurahashi, Inc.  
Location : 2460 Koa Avenue - Waikiki  
Tax Map Key : 2-6-23: 16  
Request : Zoning Variance  
Proposal : Install a personal communication system  
cell site atop the existing Waikiki  
Resort 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.

We have enclosed a completed OEQC Bulletin Publication Form and four copies of the FEA. If you have any questions, please contact Joan Takano of our staff at 527-5038.

Very truly yours,

PATRICK T. ONISHI  
Director of Land Utilization

PTO:am  
Enclosures  
g:fea96ed3.jht

106

1996-09-08-OA-*FEA-PCS Cell Site at Waikiki Resort Hotel*

SEP 8 1996

1996 AUG 15 PM 2: 51

DEPT. OF LAND UTILIZATION  
CITY & COUNTY OF HONOLULU

**FILE COPY**

**FINAL ENVIRONMENTAL ASSESSMENT**

**PCS CELL SITE AT WAIKIKI RESORT HOTEL  
WAIKIKI SITE (T-01C)  
2460 Koa Avenue, Waikiki, Oahu, Hawaii  
Tax Map Key: 2-6-23: 16**

**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**

1996 AUG 15 PM 2: 53

DEPT. OF LAND UTILIZATION  
CITY & COUNTY OF HONOLULU

**FINAL ENVIRONMENTAL ASSESSMENT**  
**PCS CELL SITE AT THE WAIKIKI RESORT HOTEL**  
**WAIKIKI SITE (T-01C)**  
2460 Koa Avenue, Waikiki, Oahu, Hawaii  
Tax Map Key: 2-6-23: 16

**I. INTRODUCTION**

- A. Recorded Fee Owner : Waikiki Resort, Inc.  
2460 Koa Avenue  
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 : 2-6-23: 16
- F. Location : 2460 Koa Avenue, Waikiki, Oahu  
(Exhibit 1)
- G. Lot Area : 48,440 square feet

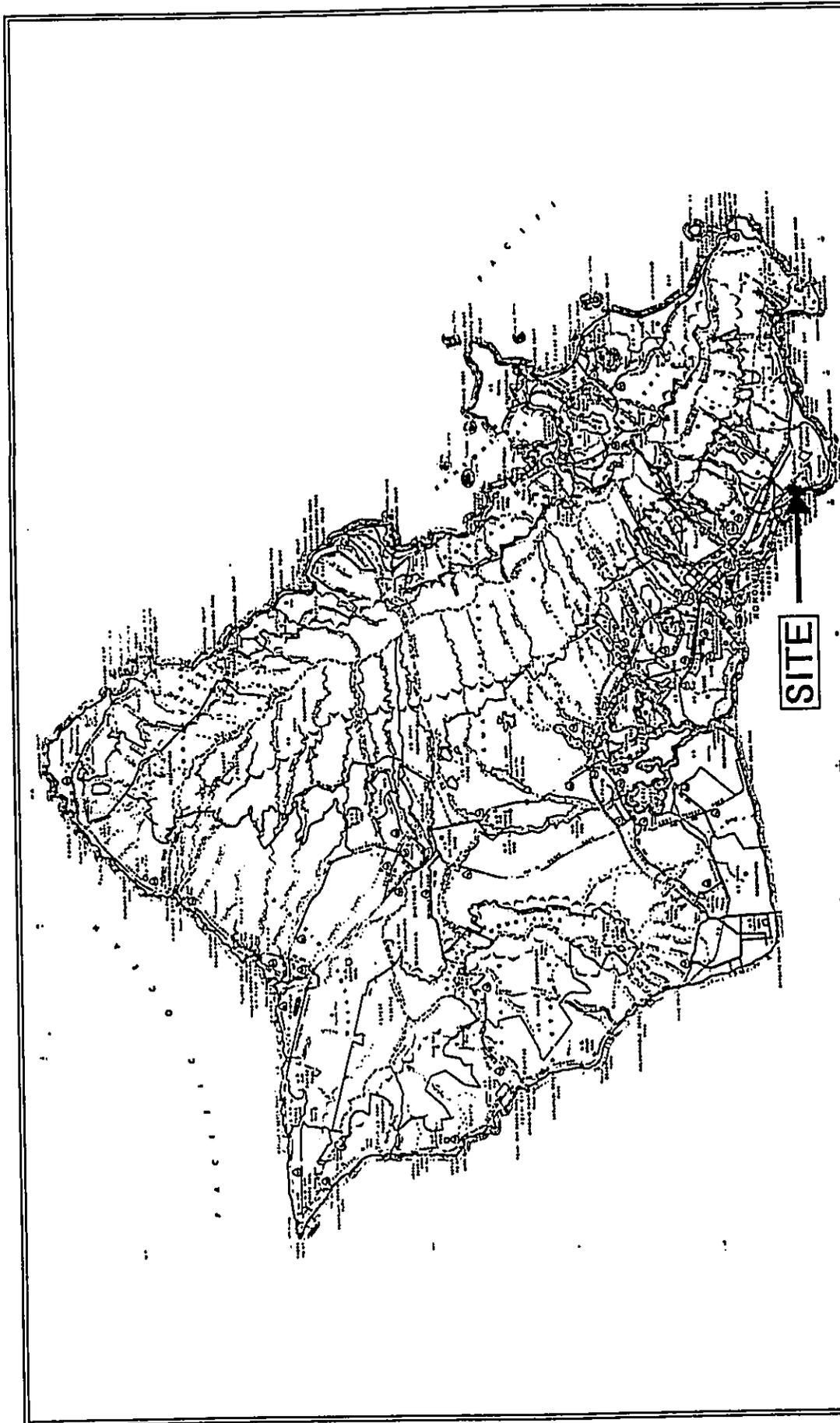


EXHIBIT 1

LOCATION MAP

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

## II. PROPERTY DESCRIPTION

### A. Location

The subject property is located at 2460 Koa Avenue and is bounded by Koa Avenue, Liliuokalani Avenue, Prince Edward Street, and Uluniu Avenue in Waikiki.

### B. Topography

The subject site is level, T-shaped and is located in an urban setting of Waikiki.



### III. TECHNICAL CHARACTERISTICS

This environmental assessment was triggered by an application for a variance from Section 7.80-5 of the Land Use Ordinance (LUO) pertaining to permitted uses in the Resort Hotel 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 7.80-5 seeks relief from this use regulation which does not permit utility installations in the Resort Hotel Precinct.

### IV. BACKGROUND

This parcel is bounded by Koa Avenue, Liliuokalani Avenue, Prince Edward Street, and Uluniu Avenue. The site is developed with a high-rise, hotel building called the Waikiki Resort Hotel. The applicant proposes to locate six panel antennas on the side of the upper level of the machine room which is located on the roof of this 19-story building and two base transceiver station (BTS) cabinets which are also planned on the roof of this 192'-3½" building.

The proposed transmitter equipment cabinets will be placed on the hotel roof on concrete pavers, sub-base, and a mounting base (See Sheet 2, Roof Location Plan). Each cabinet will be approximately 4'-3" x 2'-4" x 5'-9" in size (See Sheet 7, Transmitter Equipment Plan and Section).

The six proposed panel antennas will be located on the side of the upper level of the machine room. Each of the six panel antennas will be approximately 4'-5.3" x 6.3" x 2.7", rectangular in shape and will weigh approximately 20 lbs. The antennas will be mounted on mechanical down tilt brackets and the pipe mast will be painted to match the existing building. The finished height of each antenna (approximately 192'-3½") from existing grade, will not extend above the existing height of the upper level of the machine room roof. All proposed antennas and improvements will remain below the maximum permitted height of 240'-0" for this district (See Sheets 3-6, Elevation Drawings).

Antennas 1A and 1B will be located on the Prince Edward Street side of the building, approximately 10'-0" apart. Antenna 2A and 2B will be located on the side of the building fronting Liliuokalani Avenue, also approximately 10'-0" apart. The remaining two antennas, 3A and 3B will be located on the Uluniu Avenue side of the building (See Sheet 2, Roof Location Plan).

## V. SOCIO-ECONOMIC CHARACTERISTICS

### A. Existing Use and Surrounding Uses

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

The site is bounded on its mauka side by the Kuhio Village Resort. On its Ewa side, is The Seashore Condos. In the makai direction, across Koa Avenue is the Waikiki Beach Tower, and finally, in the Kokohead direction is the Pacific Beach Hotel.

### 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 the 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 existing building.

The impacts from this use are minimal, being limited to visual impacts. The antennas will be of similar form and appearance as other rooftop structures, such as vent pipes, fans, roof access stairwells, and structures housing utility equipment and machinery. Given the height and location of the antennas on the side of the upper level of the machine room which is set back a minimum of 12 feet from the edge of the roof top, the antennas will not be visible to pedestrians and passengers in vehicles on the nearby streets.

## 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 involving grading and excavating 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 3900 feet mauka (north) of the subject lot. The Pacific Ocean (Waikiki Beach) is located approximately 1500 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 rooftop structures, such as vent pipes, fans, roof access stairwells, and ground level structure 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 services 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. 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-01C      WAIKIKI 1  
PROJECT NO. 3HUO

## INDEX OF DRAWINGS

SHEET NO.	DESCRIPTION
T-1	INDEX OF DRAWINGS, SYMBOLS & ABBREVIATIONS, PROJECT SUMMARY AND VICINITY MAP
1	PLOT PLAN
2	ROOF LOCATION PLAN AND ANTENNA EXCLUSION ZONES
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	BTS EQUIPMENT PLAN
8	ELEVATION
9	ELEVATION AND SECTIONS
10	ANTENNA DETAILS
11	GENERAL NOTES & ANTENNA AND COAXIAL CABLE SCHEDULE
E-1	ELECTRICAL SYMBOLS, GENERAL NOTES, SINGLE LINE DIAGRAM, GROUND CONNECTION DETAIL
E-2	ELECTRICAL ROOF PLAN, EQUIPMENT PLAN, PANEL SCHEDULE

## SYMBOLS & ABBREVIATIONS

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

## PROJECT SUMMARY

THIS PROJECT INCLUDES:

INSTALLATION OF BASE TRANSCIVER STATION (BTS) MOUNTED ON THE ROOF OF THE 19TH FLOOR.

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  
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# PROJECT

WAIKIKI 1

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CITY & COUNTY OF HONOLULU

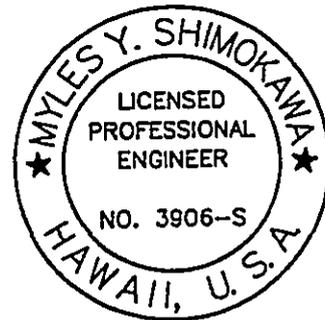
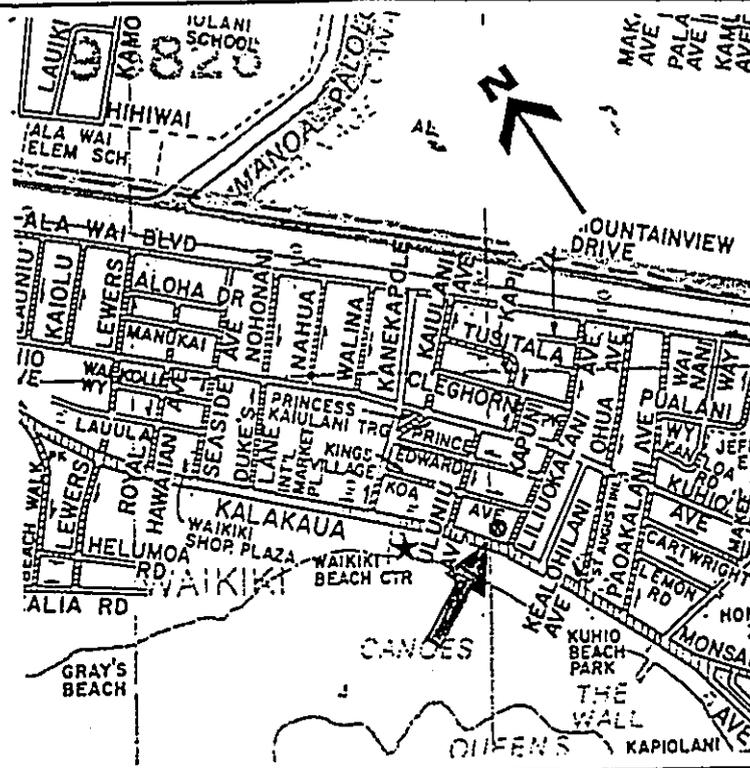
DCR  
COMMUNICATIONS,  
INC.

HONOLULU, HAWAII

## MARY

## VICINITY MAP

(BTS) MOUNTED ON THE  
ACHED TO THE CONCRETE  
EEN THE BTS AND ANTENNAS.  
BTS AND TELEPHONE ROOM  
THROUGH CONCRETE LANDINGS  
IT. INSTALL CONDUIT AND  
BTS AND ELECTRIC UTILITY  
ONCRETE LANDINGS AT THE  
ALL CONDUIT AND WRING.



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AND CONSTRUCTION OF THIS  
PROJECT WILL BE UNDER MY  
OBSERVATION.  
KSF, INC.

SITE NO.: T-01C  
SITE NAME: WAIKIKI 1

ADDRESS:  
WAIKIKI RESORT HOTEL  
2460 KOA AVENUE  
HONOLULU, HAWAII 96815  
TMK: (16) 2-6-23 : 16

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

OWNER APPROVAL	
OWNER REPRESENTATIVE	DATE

REVIEWED BY:	
RF ENGINEERING	DATE
CONSTRUCTION	DATE

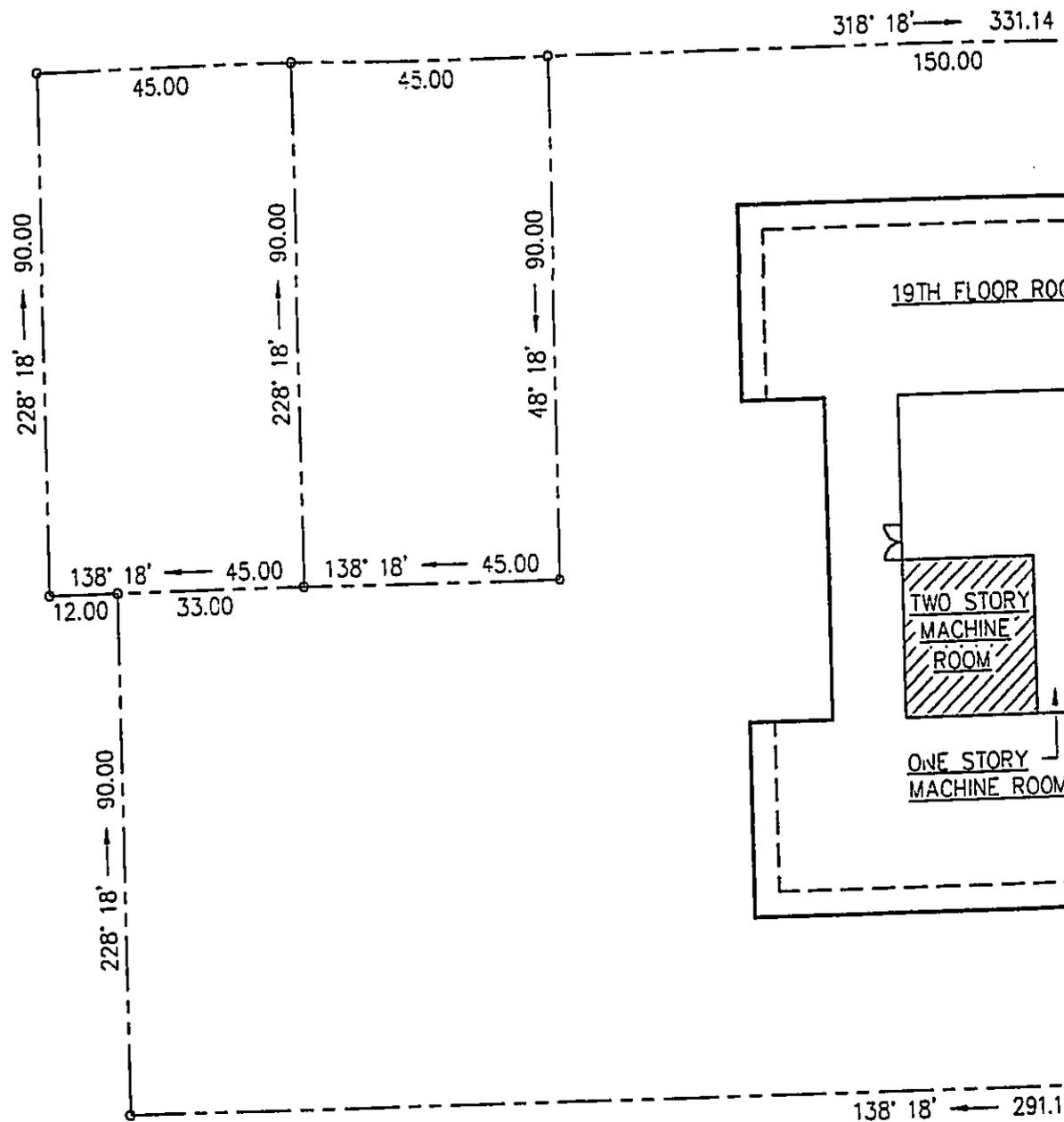
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△	5/7/96	ISSUED FOR ZONING REVISED 6/6/96

Date	MAY 7, 1996
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T-1

Of 14 Sheets

PRINCE EDWARD STREET



KOA AVENUE

**PLOT PLAN**

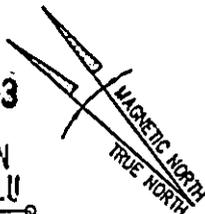
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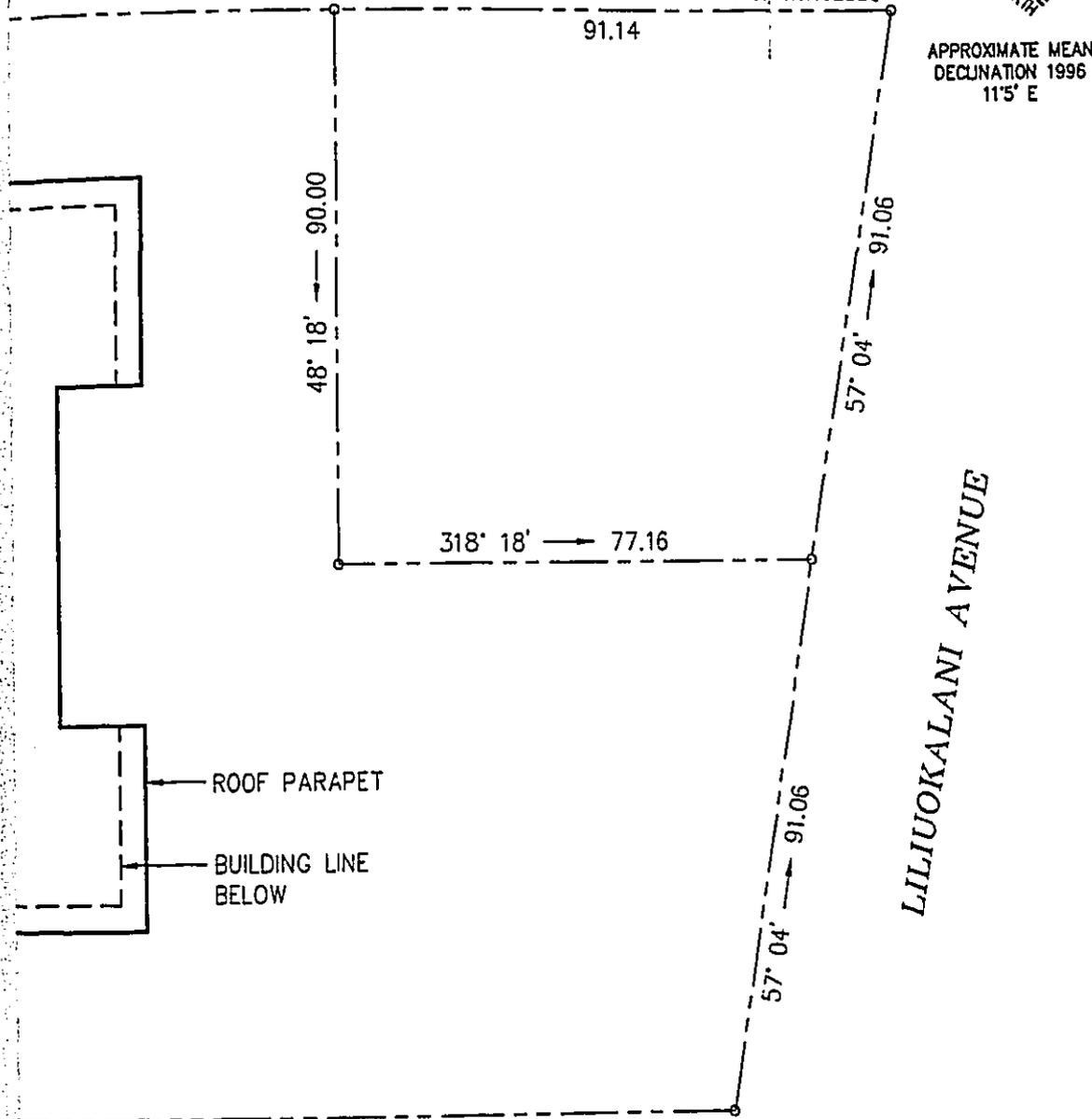
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APPROXIMATE MEAN  
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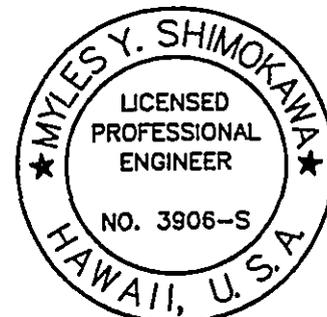
ROOF PARAPET

BUILDING LINE  
BELOW

LILUOKALANI AVENUE

DCR  
COMMUNICATIONS,  
INC.

HONOLULU, HAWAII



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SITE NO.: T-01C SITE NAME: WAIKIKI 1

ADDRESS:  
WAIKIKI RESORT HOTEL  
2460 KOA AVENUE  
HONOLULU, HAWAII 96815  
TMK: (16) 2-6-23 : 16

PLOT PLAN

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△ B	6/18/96	ISSUED FOR CONSTRUCTION
△ A	5/7/96	ISSUED FOR ZONING REVISED 6/6/96

Date MAY 7, 1996

Scale AS SHOWN

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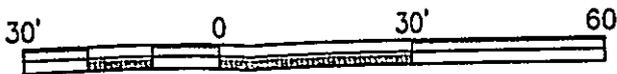
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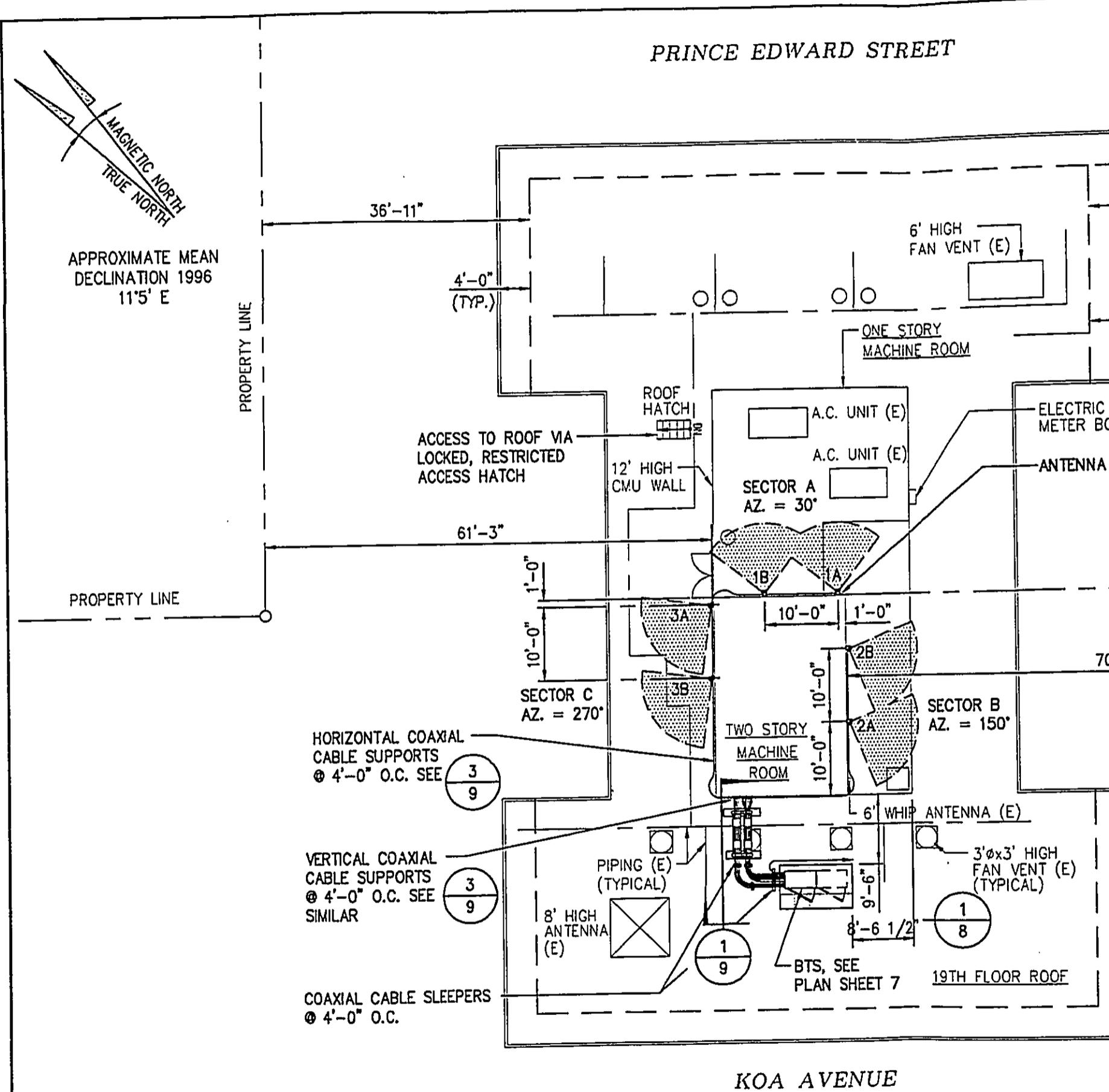
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GRAPHIC SCALE:



SCALE: 1" = 30'



# ROOF LOCATION PLAN AND ANTENNA EXCLUSION ZONES

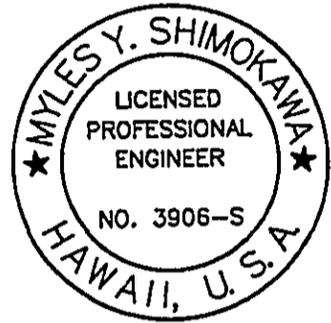
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HONOLULU, HAWAII



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**KSF, INC.**

SITE NO.: T-01C  
SITE NAME: WAIKIKI 1

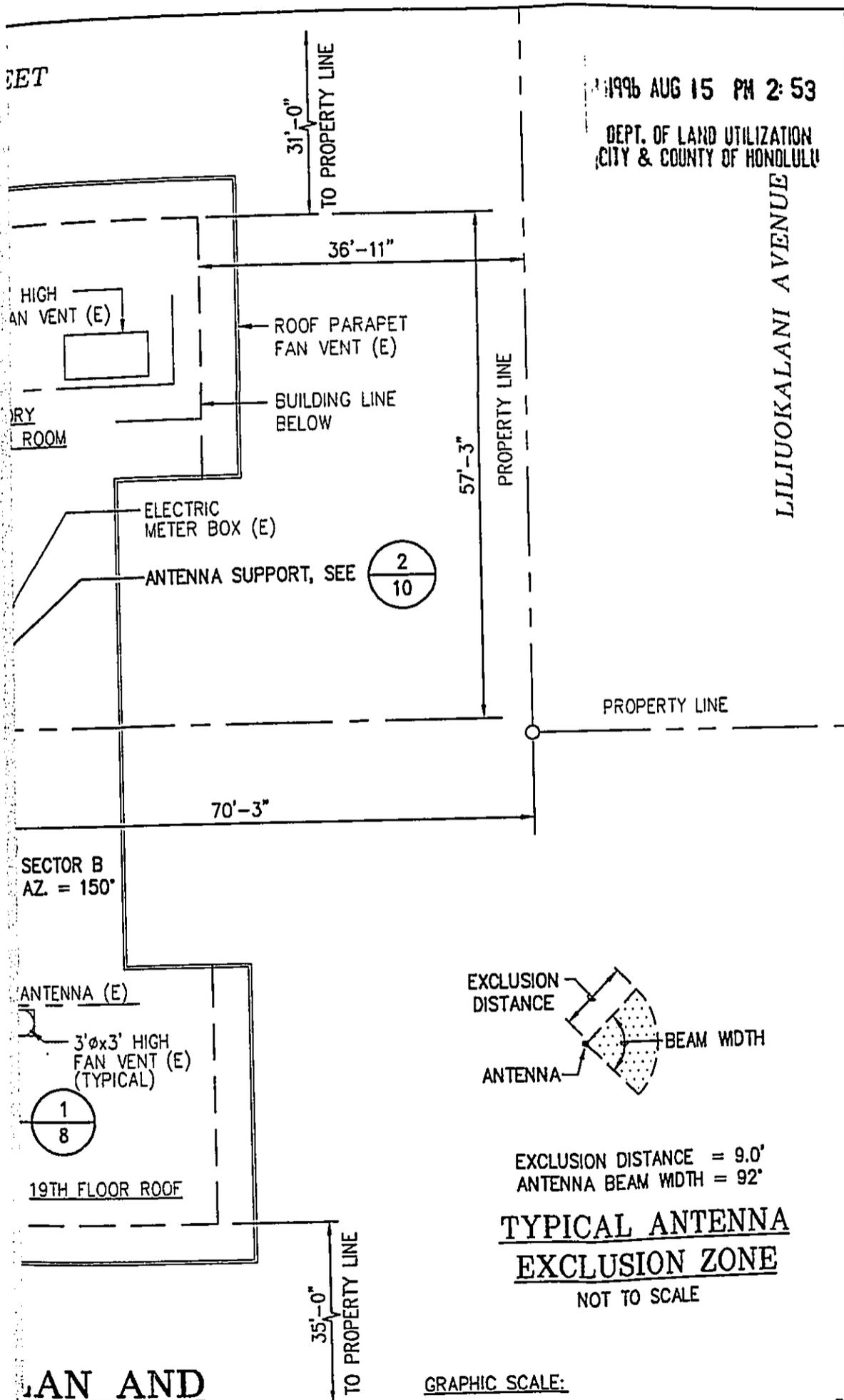
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WAIKIKI RESORT HOTEL  
2460 KOA AVENUE  
HONOLULU, HAWAII 96815  
TMK: (16) 2-6-23 : 16

**ROOF LOCATION PLAN  
AND ANTENNA EXCLUSION  
ZONES**

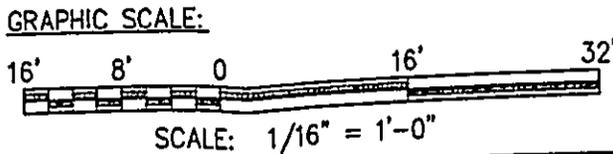
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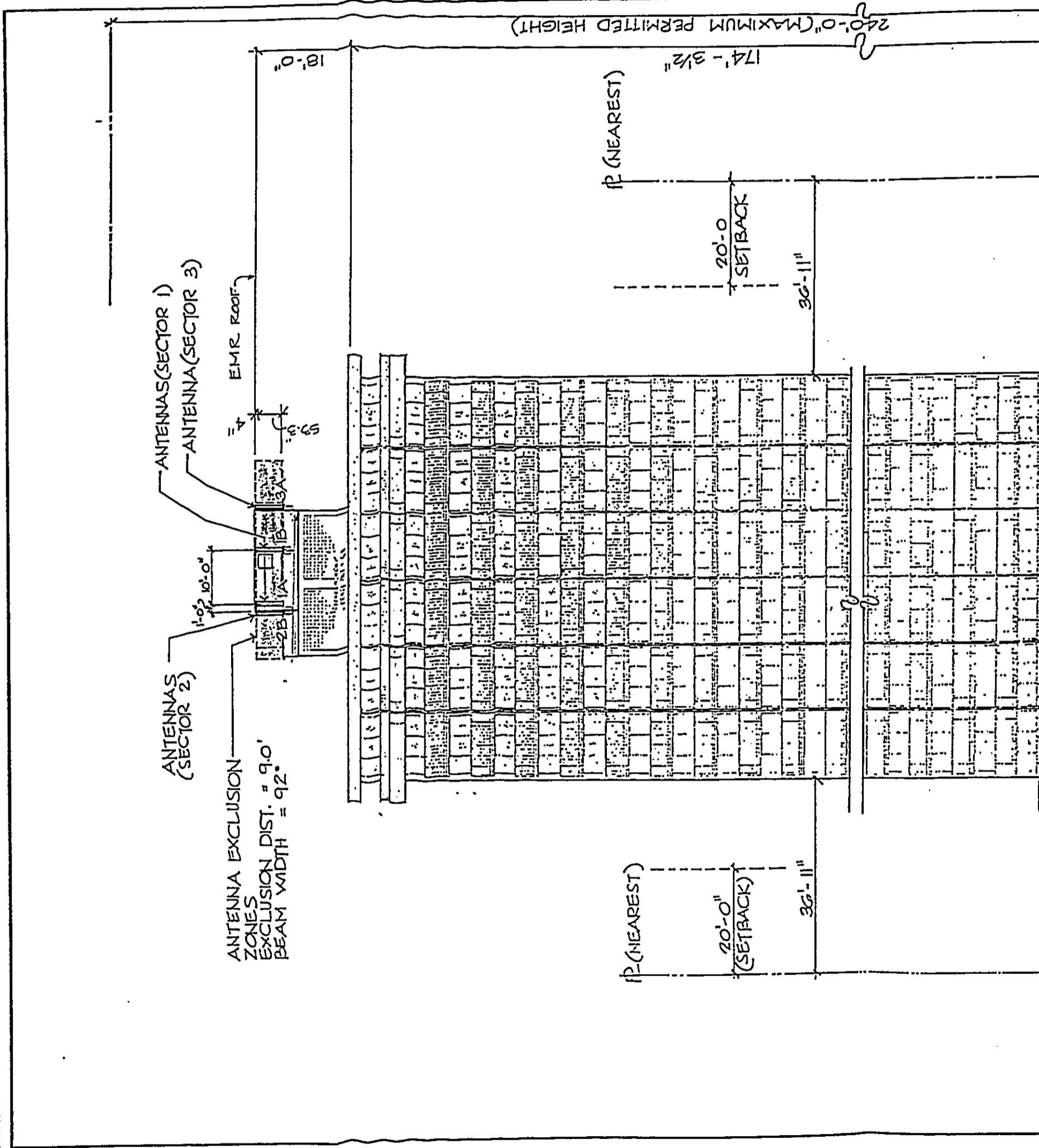
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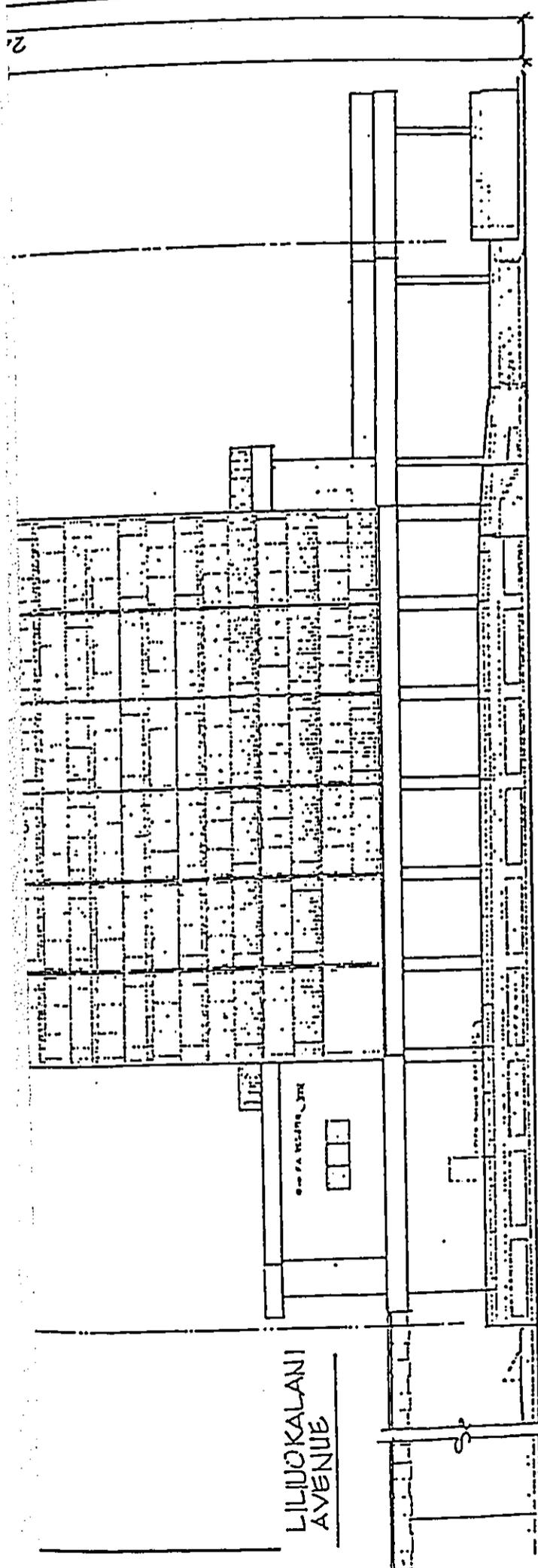


**PLAN AND  
EXCLUSION ZONES**



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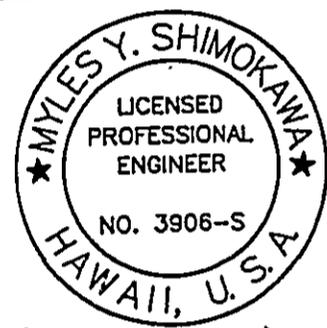
LILUOKALANI AVENUE

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 CITY & COUNTY OF HONOLULU

PRINCE EDWARD ST. ELEVATION

SCALE: 1/4" = 2'-0"

DCR  
 COMMUNICATIONS,  
 INC.  
 HONOLULU, HAWAII



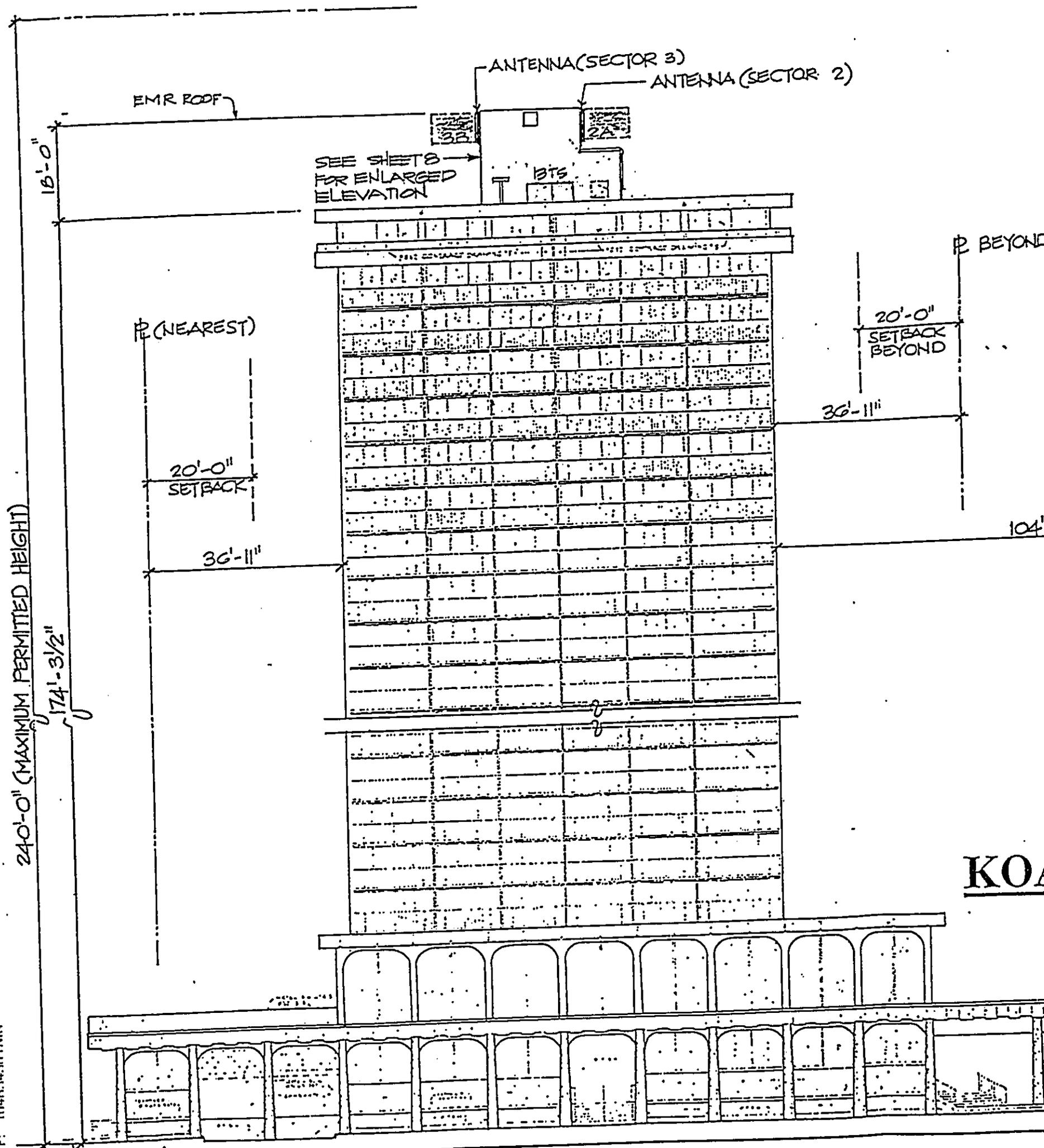
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 KSF, INC.

SITE NO.: T-01C    SITE NAME: WAIKIKI 1

ADDRESS:  
 WAIKIKI RESORT HOTEL  
 2460 KOA AVENUE  
 HONOLULU, HAWAII 96815  
 TMK: (16) 2-6-23 : 16

BUILDING ELEVATION  
 WITH ANTENNA LOCATION

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△	6/18/96	ISSUED FOR CONSTRUCTION
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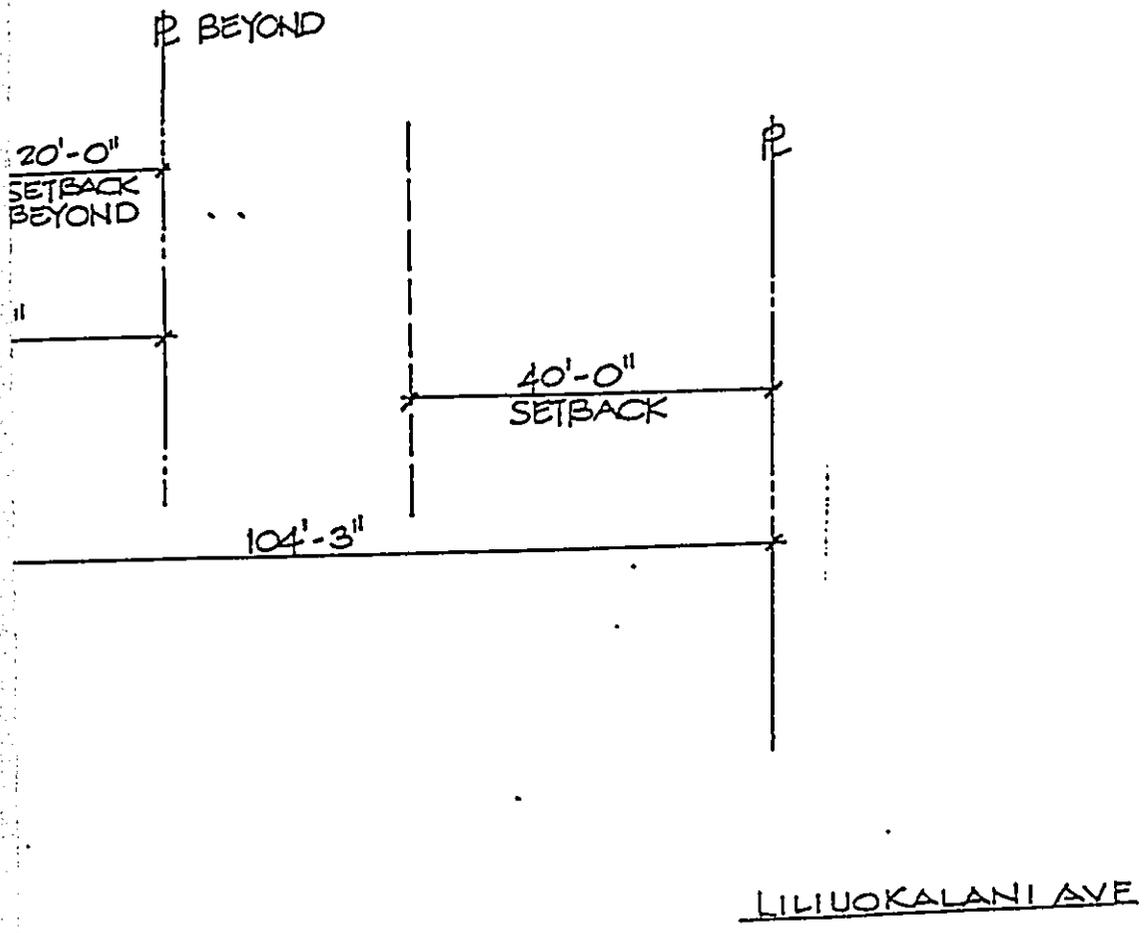


**KOA**

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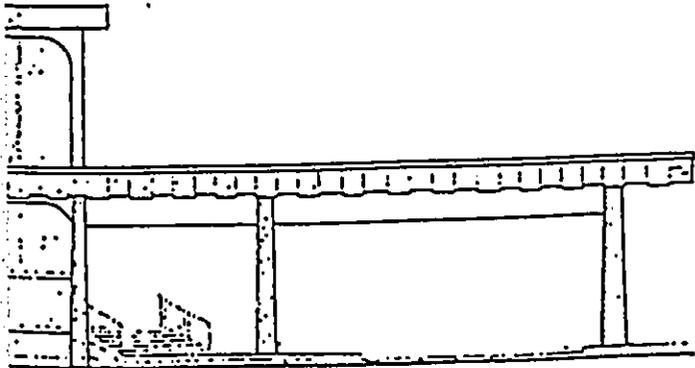
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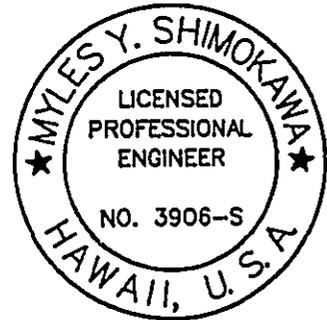
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SCALE: 1"=20'



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SITE NO.: T-01C    SITE NAME: WAIKIKI 1

ADDRESS:  
WAIKIKI RESORT HOTEL  
2460 KOA AVENUE  
HONOLULU, HAWAII 96815  
TMK: (16) 2-6-23 : 16

BUILDING ELEVATION  
WITH ANTENNA LOCATION

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△	8/14/96	REVISED PER DLU COMMENTS
△	6/18/96	ISSUED FOR CONSTRUCTION
△	5/7/96	ISSUED FOR ZONING REVISED 6/6/96

Date            MAY 7, 1996

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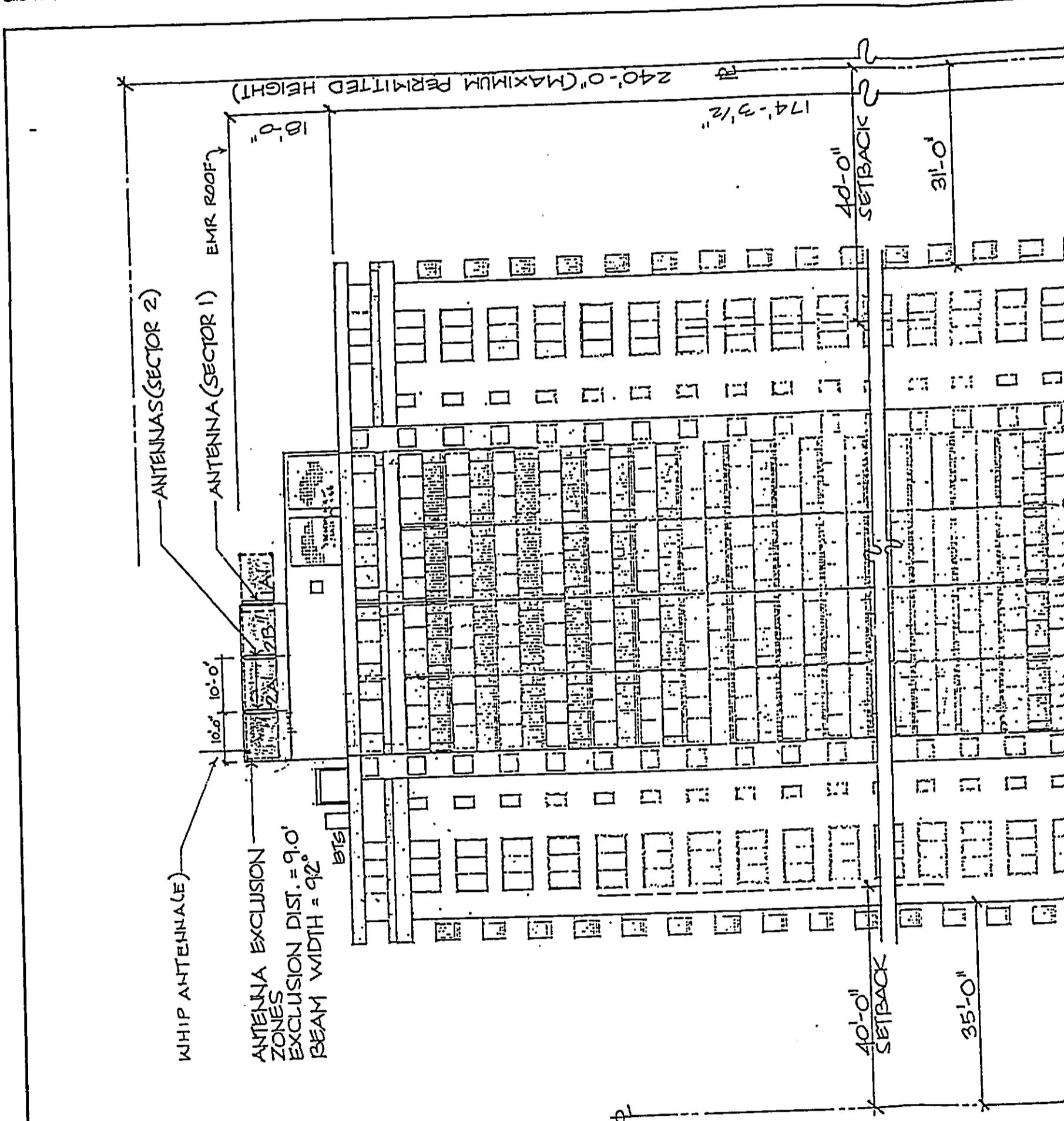
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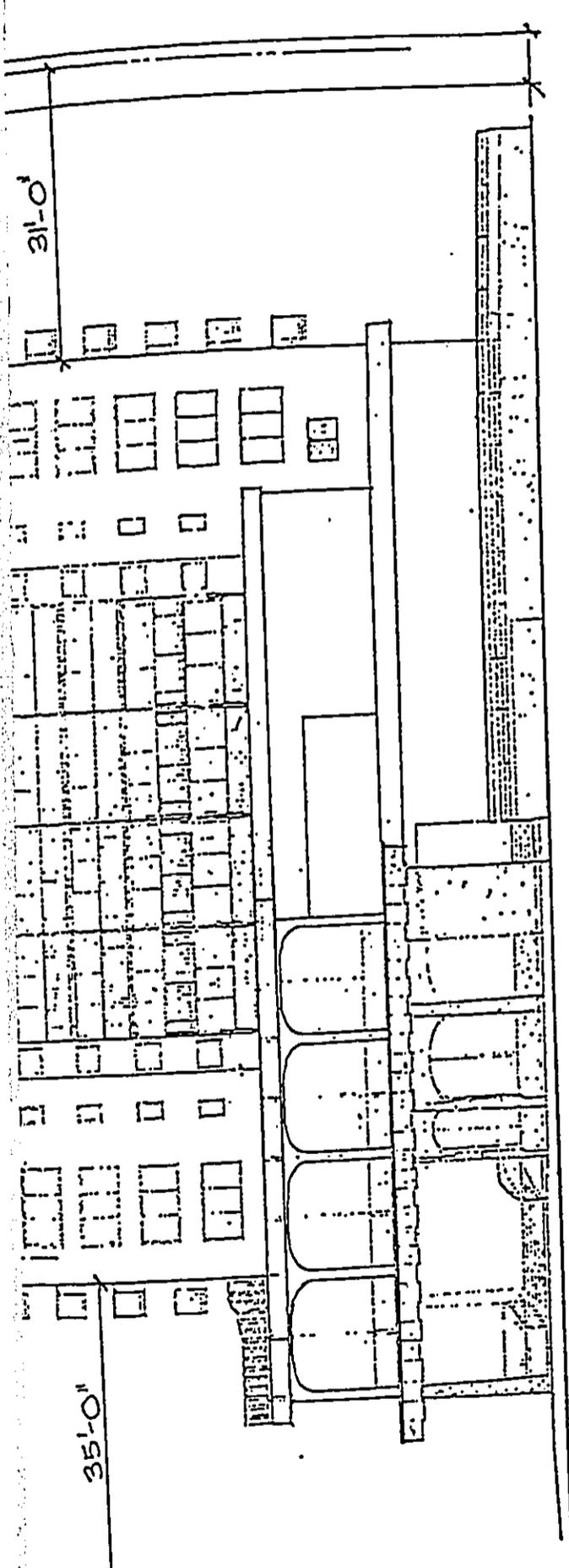
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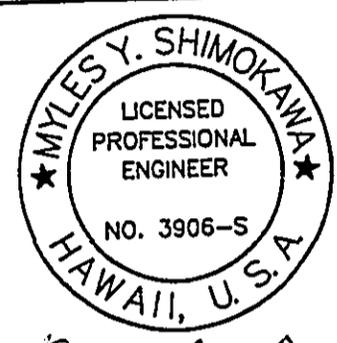
PRINCE  
EDWARD

1996 AUG 15 PM 2: 53  
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CITY & COUNTY OF HONOLULU

LILUOKALANI ST. ELEVATION  
SCALE: 1/8" = 1'-0"

KOA AVE

DCR  
COMMUNICATIONS,  
INC.  
HONOLULU, HAWAII



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KSF, INC.

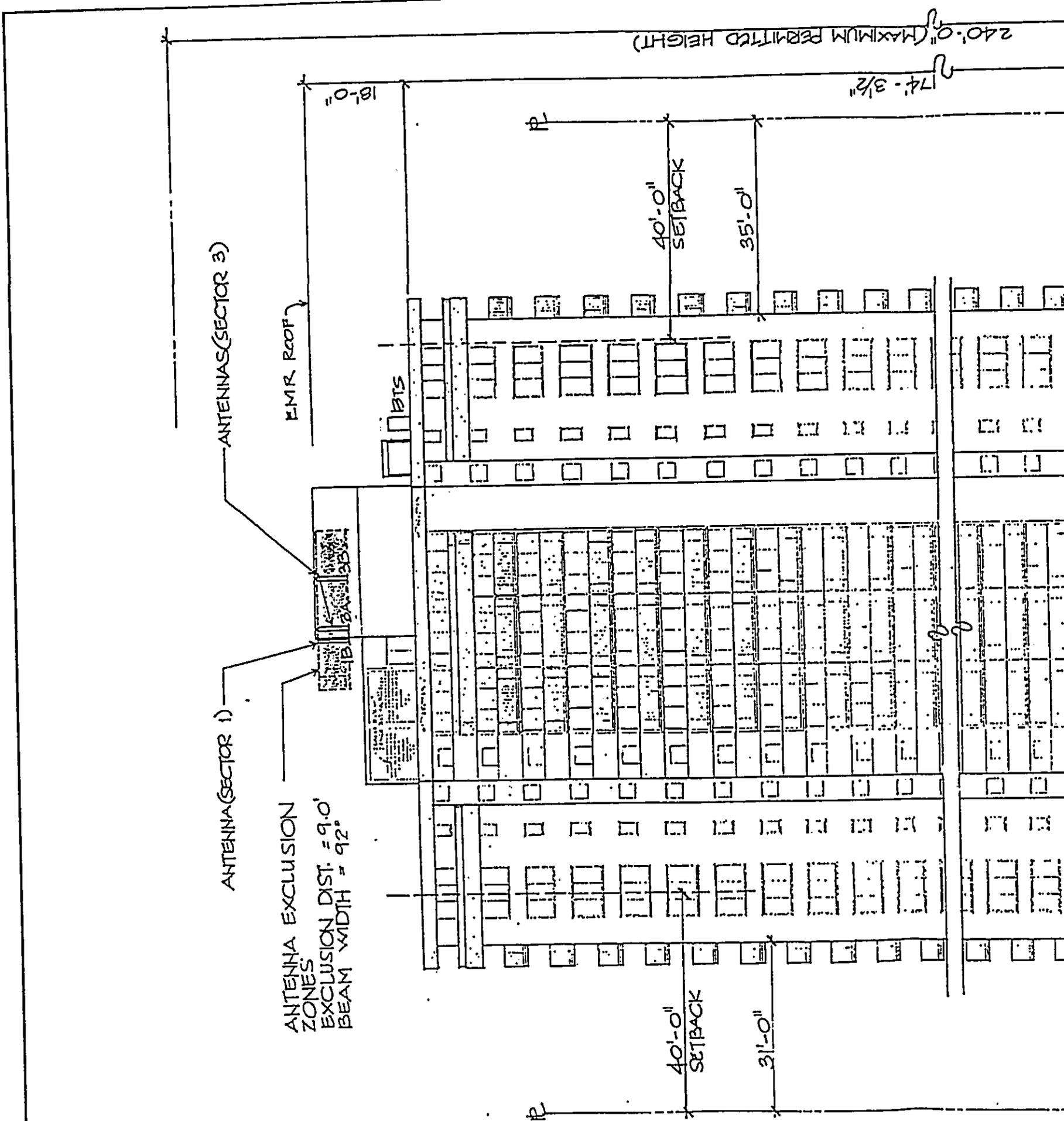
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SITE NAME: WAIKIKI 1

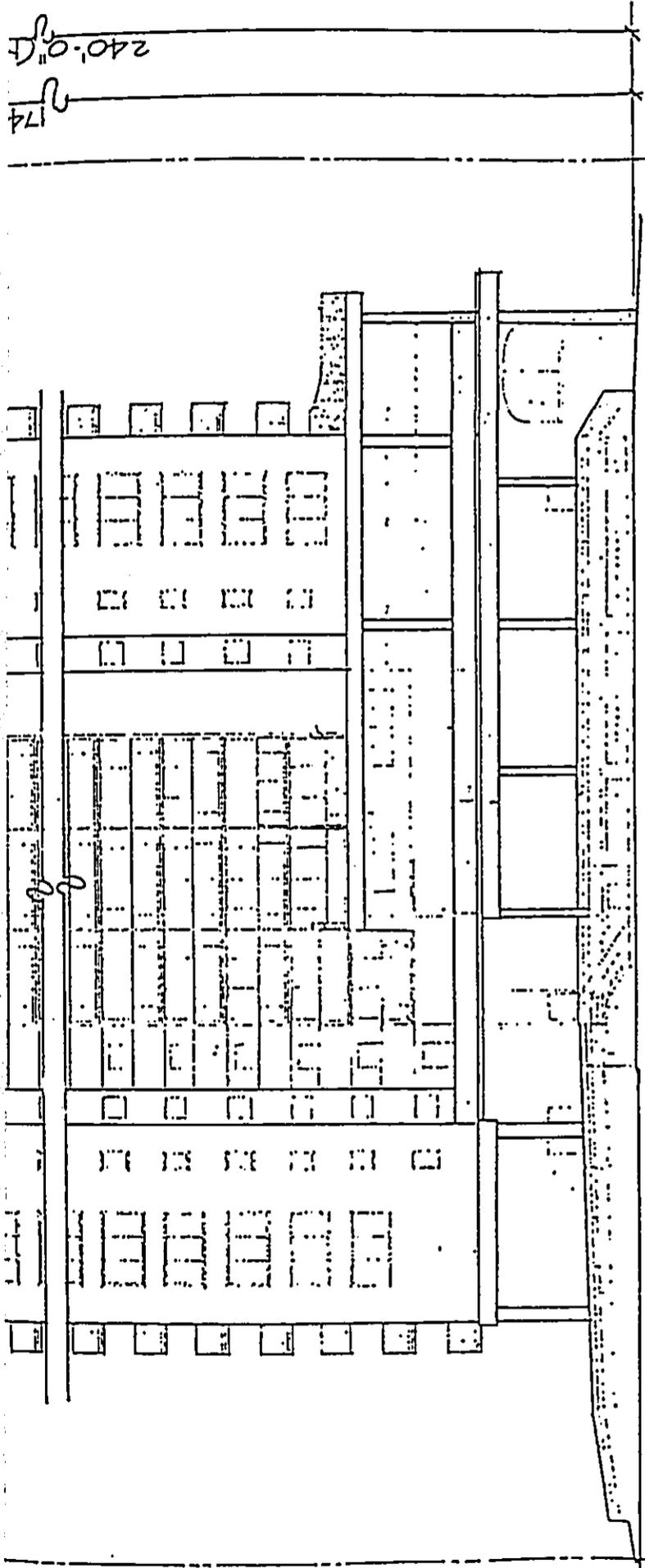
ADDRESS:  
WAIKIKI RESORT HOTEL  
2460 KOA AVENUE  
HONOLULU, HAWAII 96815  
TMK: (16) 2-6-23 : 16

BUILDING ELEVATION  
WITH ANTENNA LOCATION

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△ C	8/14/96	REVISED PER DLU COMMENTS
△ B	6/18/96	ISSUED FOR CONSTRUCTION
△ A	5/7/96	ISSUED FOR ZONING REVISED 6/6/96
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Of	14	Sheets

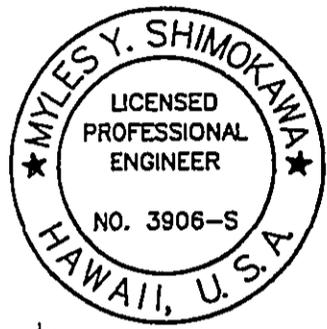
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 DEPT. OF LAND UTILIZATION  
 CITY & COUNTY OF HONOLULU

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 COMMUNICATIONS,  
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 HONOLULU, HAWAII



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 PROJECT WILL BE UNDER MY  
 OBSERVATION.  
 KSF, INC.

**EWA ELEVATION**

SCALE: 1"=20'

SITE NO.: T-01C  
 SITE NAME: WAIKIKI 1

ADDRESS:  
 WAIKIKI RESORT HOTEL  
 2460 KOA AVENUE  
 HONOLULU, HAWAII 96815  
 TMK: (16) 2-6-23 : 16

BUILDING ELEVATION  
 WITH ANTENNA LOCATION

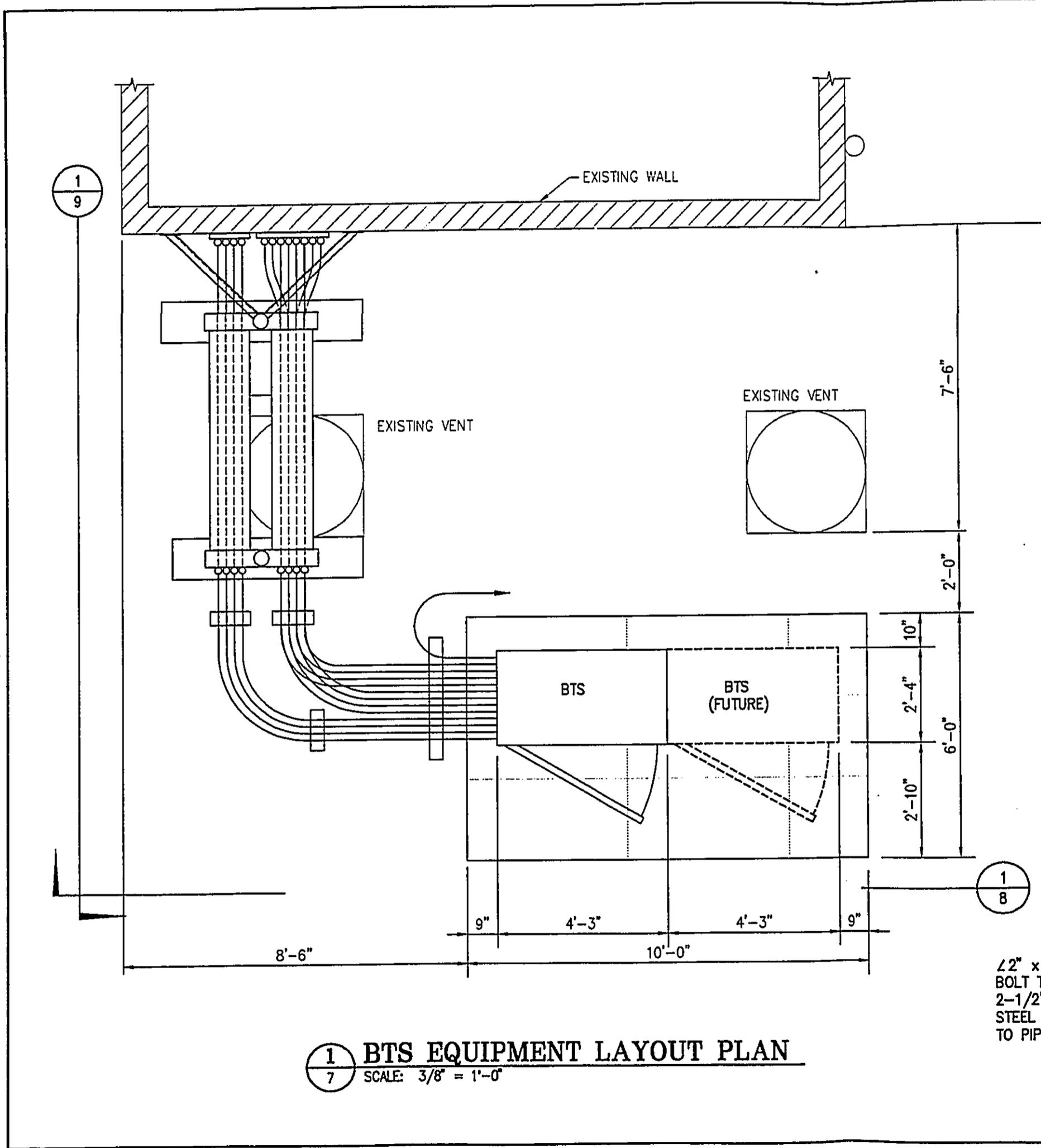
△		
△ C	8/14/96	REVISED PER DLU COMMENTS
△ B	6/18/96	ISSUED FOR CONSTRUCTION
△ A	5/7/96	ISSUED FOR ZONING REVISED 6/6/96

Date MAY 7, 1996  
 Scale AS SHOWN  
 Drawn RF  
 Proj. No.

SHEET  
 6  
 Of 14 Sheets

PRICE EDWARD

FILE: T04B--789.DWG  
PLOT: 1 = 1

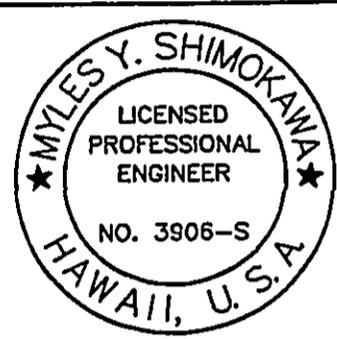


**1** **BTS EQUIPMENT LAYOUT PLAN**  
7 SCALE: 3/8" = 1'-0"

L2" x  
BOLT T  
2-1/2"  
STEEL  
TO PIPE

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 SITE NAME: WAIKIKI 1

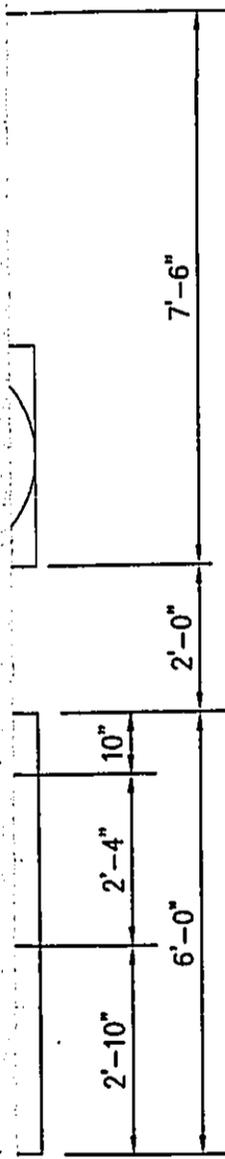
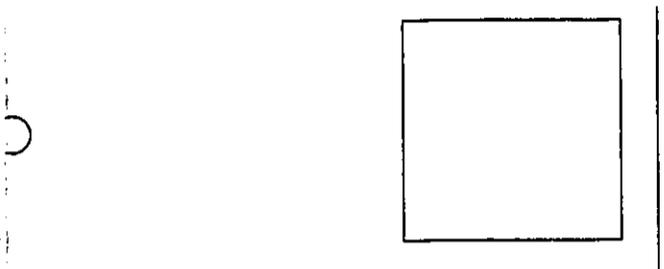
ADDRESS:  
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**BTS EQUIPMENT PLAN**

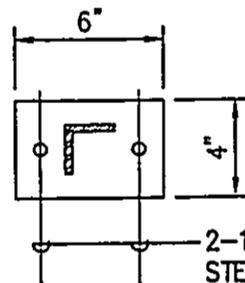
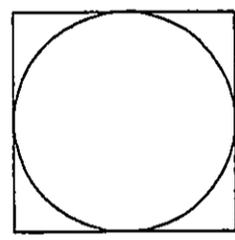
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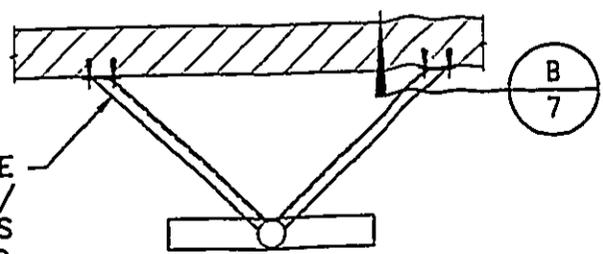


2-1/2"  $\phi$  HILTI STAINLESS  
 STEEL KWKBOLTS

**B**  
 7  
 DETAIL  
 SCALE: 1 1/2" = 1'-0"

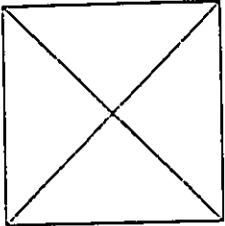
1  
 8

$\angle 2" \times 2" \times 1/4"$  BRACE  
 BOLT TO CONC. WALL W/  
 2-1/2"  $\phi$  HILTI STAINLESS  
 STEEL KWKBOLTS. WELD  
 TO PIPE COLUMN



**A**  
 7  
 DETAIL PLAN  
 SCALE: 3/8" = 1'-0"

ANTENNA BEYOND  
(TYPICAL)



HORIZONTAL COAX CABLE  
SUPPORTS, SEE



VERTICAL COAX CABLE  
SUPPORTS, SEE

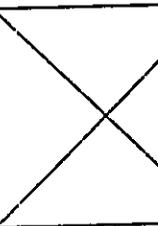


PIPE BRACE  
SEE



BTS

BTS  
(FUTURE)



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

FILE: T04B-789.DWG  
PLOT: 1 = 1

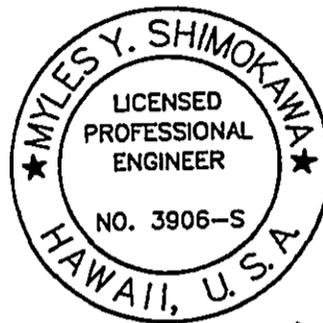
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HONOLULU, HAWAII

ANTENNA BEYOND  
(TYPICAL)



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ELEVATION

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Scale            AS SHOWN

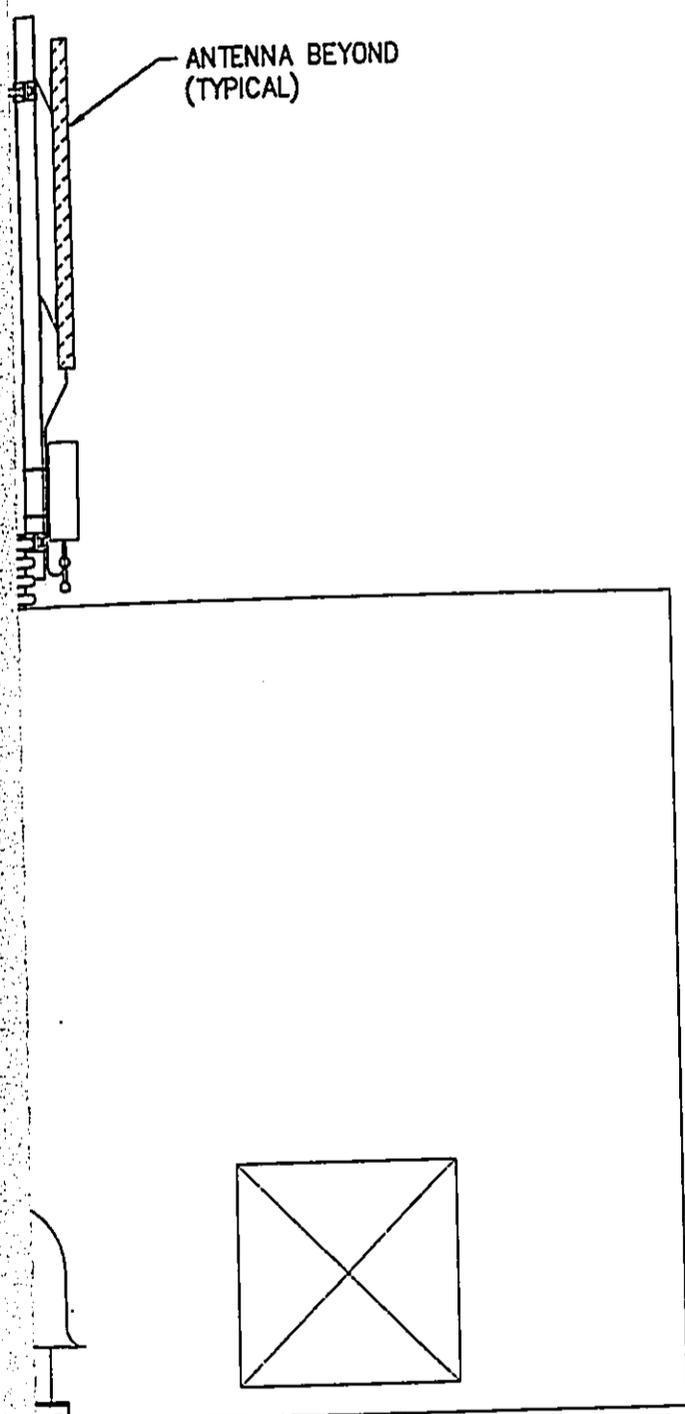
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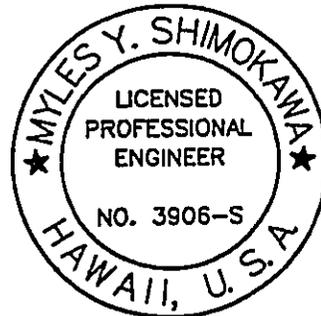


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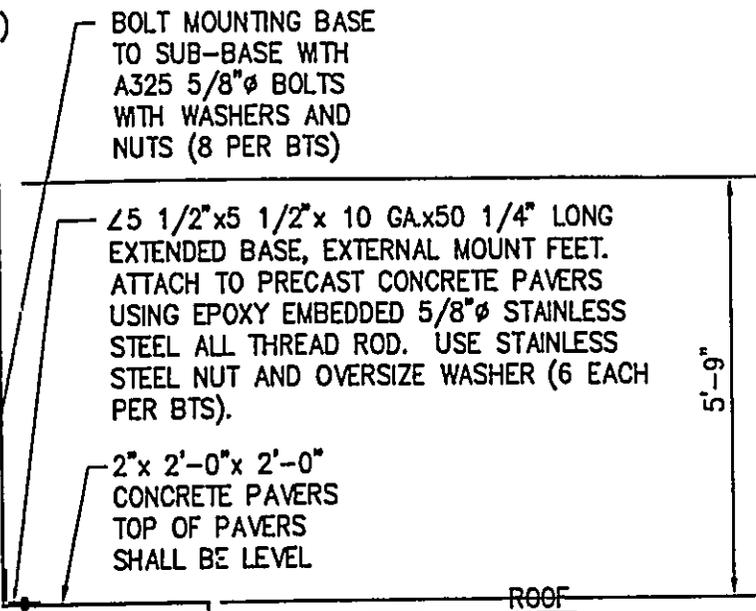
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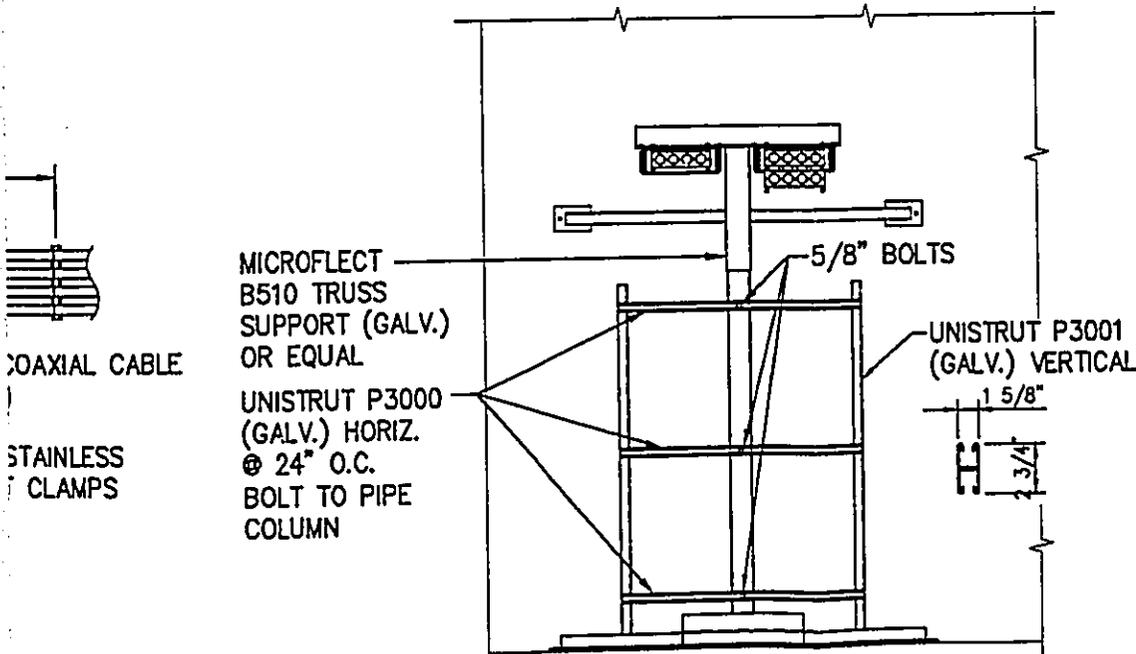
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HONOLULU, HAWAII 96815  
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ELEVATION AND SECTIONS



0.30" THICK FIRESTONE  
PROTECTION PAD OVER  
28 LB. FELT SEPARATOR  
SHEET. SEE NOTES.



KIAL

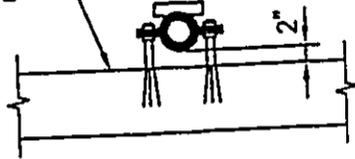
4  
9 ELEVATION - COAX. LADDER  
SCALE: 3/8" = 1'-0"

△		
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Proj. No.	

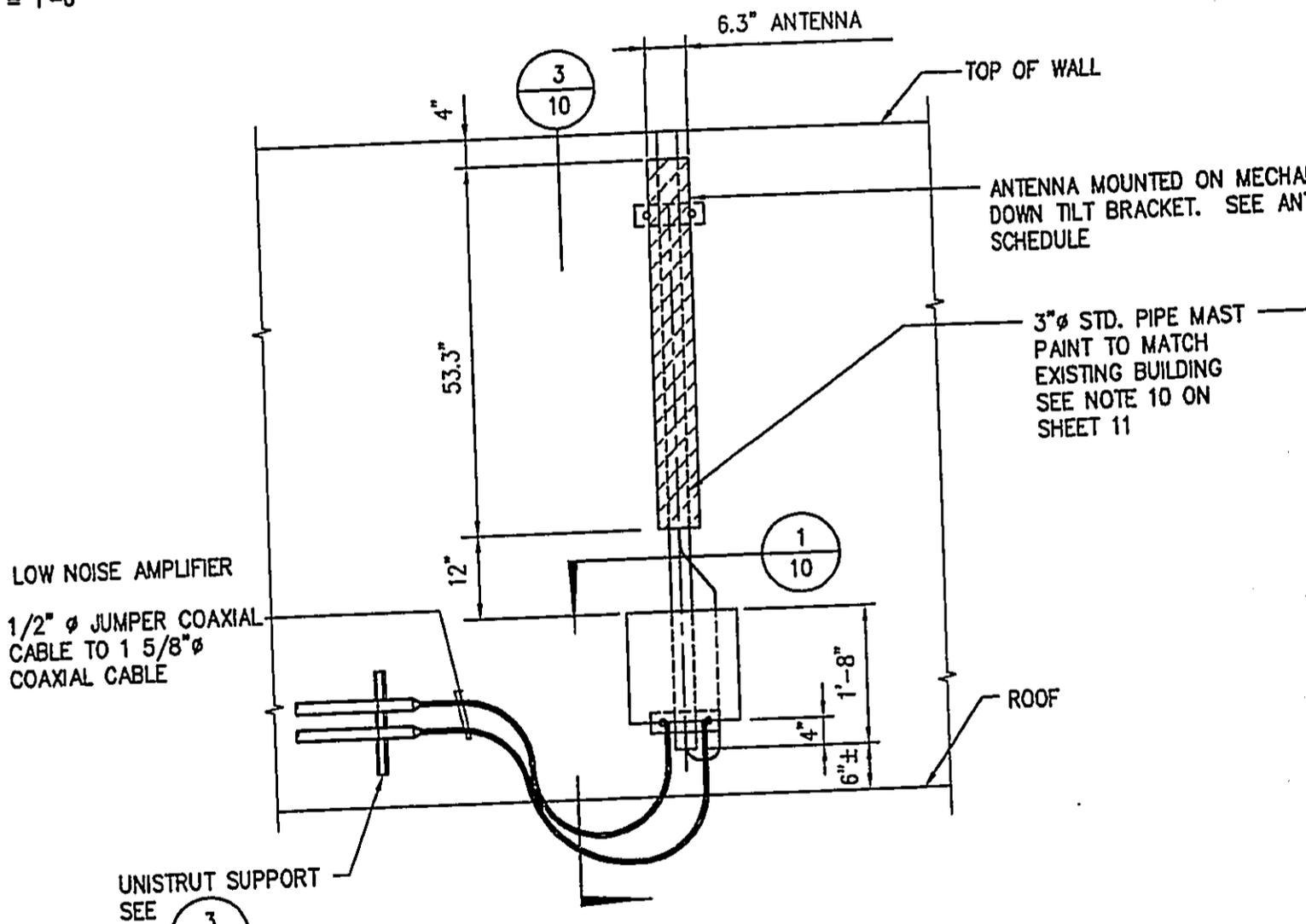
SHEET	9
Of	14 Sheets

EXTERIOR FACE  
OF CONCRETE  
WALL



### PLAN - ANTENNA ATTACHMENT

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

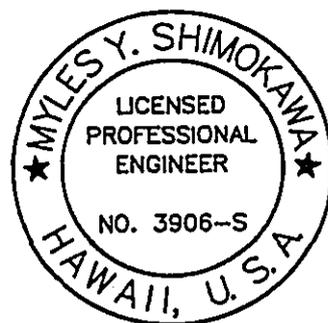


### ELEVATION ANTENNA ATTACHMENT

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

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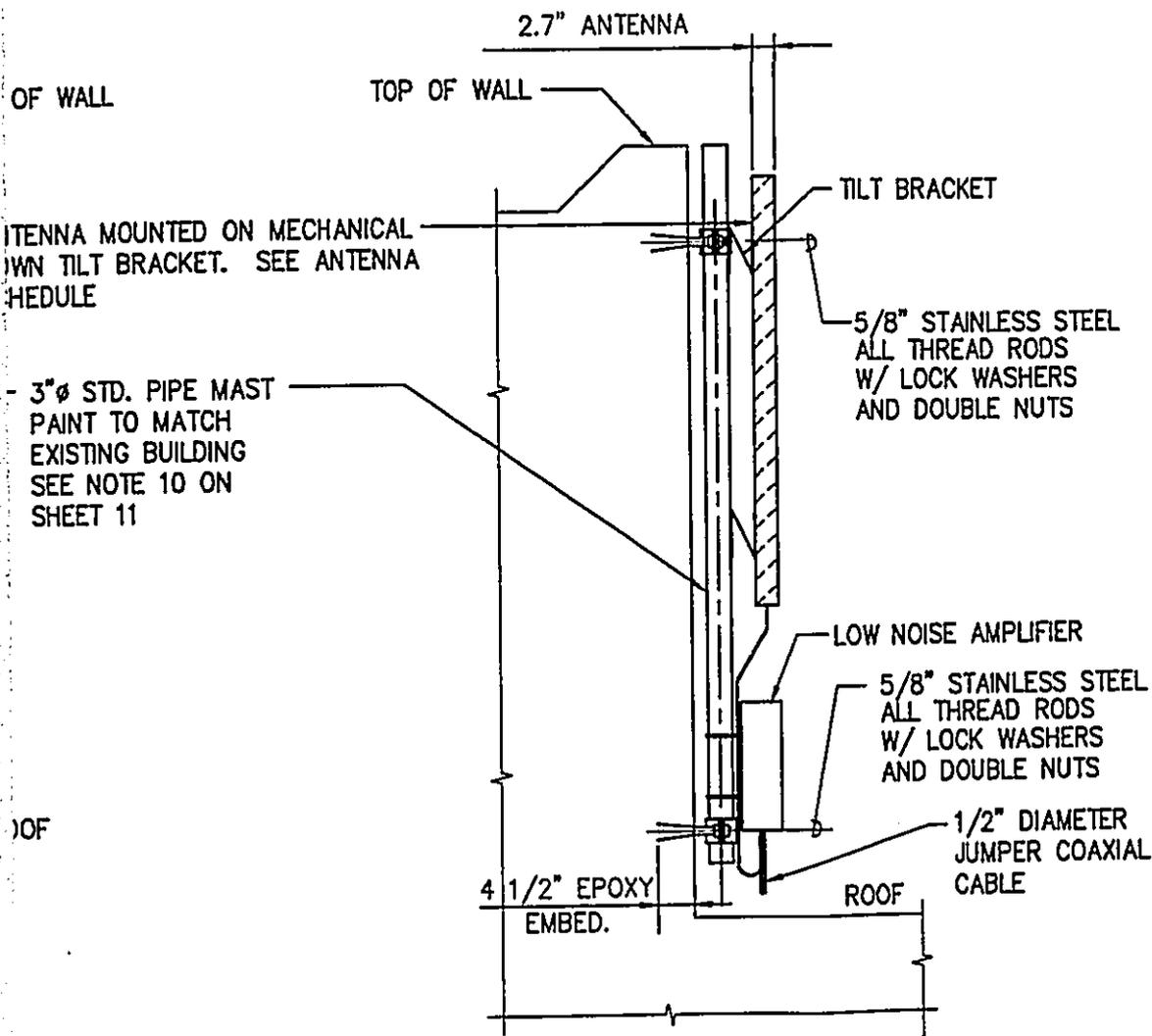
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 HONOLULU, HAWAII 96815  
 TMK: (16) 2-6-23 : 16

ANTENNA DETAILS



ANTENNA MOUNTED ON MECHANICAL  
 DOWN TILT BRACKET. SEE ANTENNA  
 SCHEDULE

3" Ø STD. PIPE MAST  
 PAINT TO MATCH  
 EXISTING BUILDING  
 SEE NOTE 10 ON  
 SHEET 11

2.7" ANTENNA  
 TOP OF WALL  
 TILT BRACKET  
 5/8" STAINLESS STEEL  
 ALL THREAD RODS  
 W/ LOCK WASHERS  
 AND DOUBLE NUTS  
 LOW NOISE AMPLIFIER  
 5/8" STAINLESS STEEL  
 ALL THREAD RODS  
 W/ LOCK WASHERS  
 AND DOUBLE NUTS  
 1/2" DIAMETER  
 JUMPER COAXIAL  
 CABLE  
 4 1/2" EPOXY  
 EMBED.  
 ROOF

SECTION  
**ANTENNA ATTACHMENT**

3  
 10 SCALE: 1/2" = 1'-0"

△		
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Date	MAY 7, 1996	
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SHEET	10	
	Of	14 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. 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, ZRC (OR EQUAL). TOUCH UP ALL FIELD WELDS, UNISTRUT END CUTS, ETC.
  - 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 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.
  - 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 IN ACCORDANCE 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.
4. EPOXY SHALL BE RAWL FOIL-FAST 2 COMPONENT CARTRIDGE SYSTEM OR EQUAL.
5. THE GENERAL CONTRACTOR AND OR HIS SUBCONSULTANTS SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED FOR THE WORK.
6. ROOF PROTECTION PADS UNDER THE ANTENNA SUPPORT BASE SHALL BE 0.375 INCH THICK RUBBER ROHN (OR EQUAL) PROTECTION PADS. THE ROOF PROTECTION PADS SHALL EXTEND A MINIMUM OF TWO INCHES BEYOND THE PERIMETER OF THE ANTENNA 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.
7. ALL COAXIAL CABLE CONNECTORS AND TRANSMITTER EQUIPMENT SHALL BE AS SPECIFIED BY THE OWNER AND IS NOT INCLUDED IN THESE CONSTRUCTION DOCUMENTS. CONNECTION HARDWARE SHALL BE STAINLESS STEEL.
8. CLOUDED PARTS OF DRAWINGS ARE AS-BUILT CONDITIONS OR SUPPOSED TO BE BUILT WHEN TRANSMITTER IS IN PLACE.
9. THE CONTRACTOR SHALL COORDINATE BUILDING ACCESS, WORKING HOURS, AND OTHER REQUIREMENTS WITH THE BUILDING MANAGEMENT.
10. PAINT COAX, ANTENNAS, ANTENNA MASTS AND ASSOCIATED HARDWARE TO BLEND IN WITH SURROUNDING AREA. ANTENNA PAINT TO BE SPECIFIED BY ERICSSON.
11. THE CONTRACTOR SHALL VERIFY ALL MATERIAL QUANTITIES AND DIMENSIONS PRIOR TO CONSTRUCTION.

**ANTENNA AND COAXIAL CABLE SCHEDULE**

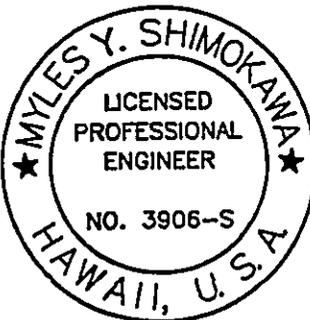
ANTENNA MARK	SECTOR	ANTENNA	COAXIAL CABLE FEED LOCATION	AZIMUTH	COAXIAL CABLE MARK	COAXIAL CABLE TYPE
1A	1	DAPA SYSTEMS MODEL 58210 92° 15.0 dBd PANEL (53.3" x 6.3" x 2.7")	BOTTOM	30	1AT/1AR	7/8"φ x 60" x 2 = 120
1B	1	DAPA SYSTEMS MODEL 58210 92° 15.0 dBd PANEL (53.3" x 6.3" x 2.7")	BOTTOM	30	1BT/1BR	7/8"φ x 60" x 2 = 120
2A	2	DAPA SYSTEMS MODEL 58210 92° 15.0 dBd PANEL (53.3" x 6.3" x 2.7")	BOTTOM	150	2AT/2AR	7/8"φ x 40" x 2 = 80
2B	2	DAPA SYSTEMS MODEL 58210 92° 15.0 dBd PANEL (53.3" x 6.3" x 2.7")	BOTTOM	150	2BT/2BR	7/8"φ x 40" x 2 = 80
3A	3	DAPA SYSTEMS MODEL 58210 92° 15.0 dBd PANEL (53.3" x 6.3" x 2.7")	BOTTOM	270	3AT/3AR	7/8"φ x 80" x 2 = 180
3B	3	DAPA SYSTEMS MODEL 58210 92° 15.0 dBd PANEL (53.3" x 6.3" x 2.7")	BOTTOM	270	3BT/3BR	7/8"φ x 80" x 2 = 180

SE SHALL  
N PADS.  
TWO INCHES  
LACED WITH A  
TE  
SHEET 2  
TECTION

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ENT SHALL  
HESE  
BE



R SUPPOSED

*Myles Y. Shimokawa*

RKING HOURS,

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ME OR UNDER MY SUPERVISION  
AND CONSTRUCTION OF THIS  
PROJECT WILL BE UNDER MY  
OBSERVATION.

HARDWARE  
) BE SPECIFIED

KSF, INC.

AND DIMENSIONS

SITE NO.: T-01C SITE NAME: WAIKIKI 1

ADDRESS:  
WAIKIKI RESORT HOTEL  
2460 KOA AVENUE  
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TMK: (16) 2-6-23 : 16

GENERAL NOTES AND  
ANTENNA AND COAXIAL  
CABLE SCHEDULE

COAXIAL CABLE TYPE	TRX ANTENNA CONFIGURATION	MECHANICAL DOWN TILT
1/8"φ x 60" x 2 = 120	TRX\RX	0°
1/8"φ x 60" x 2 = 120	TRX\RX	0°
1/8"φ x 40" x 2 = 80	TRX\RX	0°
1/8"φ x 40" x 2 = 80	TRX\RX	0°
1/8"φ x 80" x 2 = 180	TRX\RX	0°
1/8"φ x 80" x 2 = 180	TRX\RX	0°

△		
△		
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**APPENDIX II**  
**LIST OF PERMITTED USES**

(d) Open Space Requirements.

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

7.80-5 Resort hotel precinct.

(a) Permitted Uses.

- (1) Art galleries and museums;
- (2) Car rental establishments, excluding repair facilities;
- (3) Commercial parking lots and garages;
- (4) Day-care facilities;
- (5) Hotels;
- (6) Marina accessories;
- (7) Meeting facilities;
- (8) Other uses and structures: Uses and structures customarily associated with and clearly incidental and subordinate to permitted uses and structures;
- (9) Public uses and structures;
- (10) Recreational facilities, outdoor;
- (11) Retail establishments, provided there is no outdoor storage or display of merchandise, financial institutions, office buildings for visitor industry-oriented activities, including eating establishments, theaters, indoor amusement and recreation facilities, excluding amusement arcades;
- (12) Time sharing;
- (13) Transient vacation units;
- (14) Utility installations, Type A.

(b) Yard Requirements.

- (1) Front yards shall comply with the requirements established in Section 7.80-3(c). Additionally, all front yards shall be maintained in landscaping.
- (2) Where a resort hotel precinct abuts an apartment precinct or an apartment use, the abutting side and/or rear yard shall be at least 10 feet, provided that the nearest five feet of such yards to the lot line shall be maintained in landscaping.