ENGINEERING EXHIBIT

Application for Digital Television Translator Construction Permit

prepared for

Hawaii Public Television Foundation

K66AY Waipake, Hawaii
Facility ID 26444
Ch. 21 (Digital) 0.11 kW

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This material supplies a "hard copy" of the engineering portions of this application as entered March 30, 2006 for filing electronically. Since the FCC's electronic filing system may be accessed by anyone with the applicant's name and password, and electronic data may otherwise be altered in an unauthorized fashion, we cannot be responsible for changes made subsequent to our entry of this data and related attachments.

SECTION III - ENGINEERING DATA (Digital)

TECHNICAL SPECIFICATIONS
Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.

TECH BOX

1. Channel Number:
21

2. Translator Input Channel No. : 36

3. Primary station proposed to be rebroadcast:

Call Sign	City	State	Channel
KHET	HONOLULU	HI	11

4. Antenna Location Coordinates: (NAD 27)
Latitude:
Degrees 22 Minutes 11 Seconds 9.9 (•) North ( ) South

Longitude:
Degrees 159 Minutes 20 Seconds 9.8 (•) West ( ) East

5. Antenna Structure Registration Number:
[x] Not Applicable [Exhibit 10] [ ] Notification filed with FAA

6. Antenna Location Site Elevation Above Mean Sea Level: 100.3 meters

7. Overall Tower Height Above Ground Level: 6.1 meters

8. Height of Radiation Center Above Ground Level: 5.5 meters

9. Maximum Effective Radiated Power (ERP): 0.11 kW

10. Transmitter Output Power: 0.031 kW

11. a.Transmitting Antenna:
Before selecting Directional "Off-the-Shelf", refer to "Search for Antenna Information" under CDBS Public Access (http://svartifoss2.fcc.gov/prod/cdbs/pubacc/prod/cdbs_pa.htm). Make sure that the Standard Pattern is marked Yes and that the relative field values shown match your values. Enter the Manufacturer (Make) and Model exactly as displayed in the Antenna Search.
( ) Nondirectional (•) Directional "Off-the-shelf" ( ) Directional composite

Manufacturer SCA Model 4DR-4-2HW

b. Electrical Beam Tilt: degrees [x] Not Applicable

c. Directional Antenna Relative Field Values: [x] N/A (Nondirectional or Directional "Off-the-shelf")

Rotation (Degrees): 215 [ ] No Rotation

Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value
0		10		20		30		40		50	
60		70		80		90		100		110	
120		130		140		150		160		170	
180		190		200		210		220		230	
240		250		260		270		280		290	
300		310		320		330		340		350	

Additional Azimuths

Relative Field Polar Plot

	NOTE: In addition to the information called for in this section, an explanatory exhibit providing full particulars must be submitted for each question for which a "No" response is provided.
12.	**Out-of-channel Emission Mask:** (•) Simple ( ) Stringent
CERTIFICATION	
13.	**Interference** : The proposed facility complies with all of the following applicable rule sections. 47.C.F.R Sections 74.709, 74.793(e), 74.793(f), 74.793(g), 74.793(h), 74.794(b) and 73.1030. (•) Yes ( ) No See Explanation in [Exhibit 11]
14.	**Environmental Protection Act.** The proposed facility is excluded from environmental processing under 47. C.F.R. Section 1.1306 (i.e., The facility will not have a significant environmental impact and complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments). Unless the applicant can determine RF compliance, an **Exhibit is required.** (•) Yes ( ) No See Explanation in [Exhibit 12] By checking "Yes" above, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic exposure in excess of FCC guidelines.
15.	**Channels 52-59.** If the proposed channel is within channels 52-59, the applicant certifies compliance with the following requirements, as applicable: ☐ The applicant is applying for a digital companion channel for which no suitable channel from channel 2-51 is available. ☐ Pursuant to Section 74.786(d), the applicant has notified, within 30 days of filing this application, all commercial wireless licenses of the spectrum comprising the proposed TV channel and the first adjacent channels thereto, for which the proposed digital LPTV or TV translator antenna site lies inside the licensed geographic boundaries of the wireless licensees or within 75 miles and 50 miles, respectively, of the geographic boundaries of co-channel and adjacent-channel wireless licensees.
16.	**Channels 60-69.** If the proposed channel is within channels 60-69, the applicant certifies compliance with the following requirements, as applicable: ☐ Pursuant to Section 74.786(e), the applicant has notified, within 30 days of filing this application , all commercial wireless licenses of the spectrum comprising the proposed TV channel and the first adjacent channels thereto, for which the proposed digital LPTV or TV translator antenna site lies inside the licensed geographic boundaries of the wireless licensees or within 75 miles and 50 miles, respectively, of the geographic boundaries of co-channel and adjacent-channel wireless licensees. ☐ Pursuant to Section 74.786(e), the applicant proposing operation on channel 63, 64, 68 and 69 ("public safety channels") has secured a coordinated spectrum use agreements(s) with 700 MHz public safety regional planning committee(s) and state administrator(s) of the region(s) and state(s) within which the antenna site of the digital LPTV or TV translator station is proposed to locate, and those adjoining regions and states with boundaries within 75 miles of the proposed station location. ☐ Pursuant to Section 74.786(e), the applicant for a channel adjacent to channel 63, 64, 68 or 69 has notified, within 30 days of filing this application, the 700 MHz public safety regional planning committee(s) and state administrator (s) of the region and state containing the proposed digital LPTV or TV translator antenna site and regions and states whose geographic boundaries lie within 50 miles of the proposed LPTV or TV translator antenna site.

PREPARERS CERTIFICATION ON PAGE 3 MUST BE COMPLETED AND SIGNED.

SECTION III PREPARER'S CERTIFICATION

I certify that I have prepared Section III (Engineering Data) on behalf of the applicant, and that after such preparation, I have examined and found it to be accurate and true to the best of my knowledge and belief.

Name ROBERT J. CLINTON	Relationship to Applicant (e.g., Consulting Engineer) CONSULTANT
Signature	Date 3/31/2006
Mailing Address CAVELL, MERTZ & DAVIS, INC. 7839 ASHTON AVENUE	

City MANASSAS	State or Country (if foreign address) VA	Zip Code 20109 - 2883
Telephone Number (include area code) 7033929090	E-Mail Address (if available) BCLINTON@CMDCONSULTING.COM	

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).

Exhibits

Exhibit 10
Description: EXHIBIT 10

EXHIBIT 10 - SEE EXHIBIT 11 - STATEMENT A FOR ANTENNA STRUCTURE DISCUSSION.

Attachment 10

Exhibit 11
Description: EXHIBIT 11 - STATEMENT A

EXHIBIT 11 - STATEMENT A - ALLOCATION CONSIDERATIONS

Attachment 11

Description
EXHIBIT 11 - STATEMENT A

Exhibit 12
Description: EXHIBIT 12 - STATEMENT B

EXHIBIT 12 - STATEMENT B - ENVIRONMENTAL CONSIDERATIONS

Attachment 12

Description
EXHIBIT 12 - STATEMENT B

Exhibit 12 - Statement B

ENVIRONMENTAL CONSIDERATIONS

prepared for

Hawaii Public Television Foundation

K66AY Waipake, Hawaii

Facility ID 26444

Ch. 21 (Digital) 0.11 kW

Introduction

The instant proposal is not believed to have a significant environmental impact as defined under Section 1.1306 of the Commission's Rules. Consequently, preparation of an Environmental Assessment is not required.

Hawaii Public Television Foundation ("Hawaii PTV") proposes to convert television translator station K66AY, Channel 66, Waipake, HI, Facility ID 26444 (BLTT-19790605IH) to digital operation on a new channel. A replacement transmitting antenna will be side-mounted on the existing antenna support structure employed by K66AY. No change in structure overall height is necessary to carry out this proposal.

The use of existing transmitting locations has been characterized as being environmentally preferable by the Commission, according to Note 1 of §1.1306 of the FCC Rules. No change in structure height is proposed, thus no change in current structure marking and lighting requirements is anticipated. Therefore, it is believed that this application may be categorically excluded from environmental processing pursuant to §1.1306 of the Commission's rules.

Human Exposure to Radiofrequency Electromagnetic Field

The K66AY antenna will continue to be located on the existing structure associated with its current license. The transmitting location is on "Puu Auau," an elevated area south and east of Waipake. While the predicted RF exposure from the proposed facility is approximately 8.0 percent of the MPE limit, Puu Auau is a multi-user site.

Hawaii PTV will participate in a radiofrequency ("RF") electromagnetic field exposure safety program, along with any other FCC licensees that utilize the Puu Auau area. Following construction of the proposed facility, *Hawaii PTV* will conduct RF exposure measurements (and/or detailed

calculations) to evaluate the level of RF exposure resulting from the K66AY facility. As necessary, based on these results and considering all emitters, appropriate exposure abatement procedures will be established and followed, in order to comply with the Commission's exposure limits. Such abatement procedures may involve the restriction of access to certain areas and/or facility modifications to reduce RF levels.

Considering the post-construction measurement and an appropriate abatement program, the general public and workers will not be exposed to RF levels in excess of the Commission's guidelines. RF exposure warning signs will continue to be posted.

Safety of Tower Workers and the General Public

With respect to worker safety, authorized personnel will be trained and/or supervised as necessary for access to any "controlled" areas. A site exposure policy will be employed protecting maintenance workers from excessive exposure when work must be performed on the tower in areas where high RF levels may be present. Such protective measures may include, but will not be limited to, restriction of access to areas where levels in excess of the guidelines may be expected, power reduction, or the complete shutdown of facilities when work or inspections must be performed in areas where the exposure guidelines will be exceeded. RF exposure measurements may also be undertaken to establish the bounds of safe working areas. *Hawaii PTV* will coordinate exposure procedures with all pertinent stations.

Conclusion

Based on the preceding, it is believed that the instant proposal may be categorically excluded from environmental processing under Section 1.1306 of the Rules, hence preparation of an Environmental Assessment is not required.