

ENGINEERING TECHNICAL STATEMENT
COMPLIANCE WITH §73.3801 OF FCC RULES
SIMULCASTING DURING ATSC 3.0 TRANSITION

The **KIAH-DT** (ATSC 3.0 Host) full-power digital television broadcast facility (File Number 0000071734) is licensed to operate on Channel 34 with an ERP of 1,000 kW using a nondirectional antenna mounted on a tower with Antenna Structure Registration Number (ASRN) 1047348 located in Missouri City, TX. The **KHOU-DT** (ATSC 1.0 Host #1) full-power television facility (File Number BLC DT-20120620ACK) is licensed to operate on Channel 11 with an ERP of 60 kW using a directional antenna mounted on a tower with ASRN 1011350 located in Missouri City, TX. The **KPRC-DT** (ATSC 1.0 Host #2) full-power television facility (File Number BLC DT-19991022ABJ) is licensed to operate on Channel 35 with an ERP of 1,000 kW using a nondirectional antenna mounted on a tower with ASRN 1047348 located in Missouri City, TX and co-located with KIAH. The **KTMD-DT** (ATSC 1.0 Host #3) full-power television facility (File Number 0000073375) is licensed to operate on Channel 22 with an ERP of 1,000 kW using a directional antenna mounted on a tower with ASRN 1064696 located in Missouri City, TX. The **KUHT-DT** (ATSC 1.0 Host #4) full-power television facility (File Number 0000129908) is licensed to operate on Channel 8 with an ERP of 49.8 kW using a directional antenna mounted on a tower with ASRN 1028555 located in Missouri City, TX.

The aforementioned stations plan to partner in a simulcasting arrangement for purposes of airing ATSC 1.0 and ATSC 3.0 programming streams as follows:

- KIAH-DT ATSC 1.0 Tenant at KHOU-DT ATSC 1.0 Host
- KIAH-DT ATSC 1.0 Tenant at KPRC-DT ATSC 1.0 Host
- KIAH-DT ATSC 1.0 Tenant at KTMD-DT ATSC 1.0 Host
- KIAH-DT ATSC 1.0 Tenant at KUHT-DT ATSC 1.0 Host
- KHOU, KPRC, KTMD & KUHT ATSC 3.0 Tenants at KIAH-DT ATSC 3.0 Host

All five stations are assigned to the same DMA (Houston, TX).

Pursuant to section 73.3801(f)(6)(i) of FCC Rules, the following information is required for these types of applications.

Stations serving as the ATSC 1.0 Hosts:

- ATSC1.0 Host #1: KHOU-DT (BLCDT-20120620ACK)
- ATSC1.0 Host #2: KPRC-DT (BLCDT-19991022ABJ)
- ATSC1.0 Host #3: KTMD-DT (0000073375)
- ATSC1.0 Host #4: KUHT-DT (0000129908)

Technical Facilities of ATSC 1.0 Host #1 Station:

- Station: KHOU-DT
- Frequency: 201 MHz (Channel 11)
- ERP: 60 kW
- Antenna: Directional
- Antenna Center Height: 590.0 m AGL
- Antenna Model: THV-12A11-R S190
- Antenna Polarization: Elliptical
- Antenna Beam Tilt: 1.0°
- Coordinates: 29° 33' 41.0" N, 095° 30' 05.0" W
- ASRN: 1011350
- DMA: Houston, TX (all stations)

Technical Facilities of ATSC 1.0 Host #2 Station:

- Station: KPRC-DT
- Frequency: 599 MHz (Channel 35)
- ERP: 1,000 kW
- Antenna: Nondirectional

- Antenna Center Height: 581.0 m AGL
- Antenna Model: TFU-26GTH-R 04
- Antenna Polarization: Horizontal
- Antenna Beam Tilt: 0.75°
- Coordinates: 29° 34' 07.0" N, 095° 29' 58.0" W
- ASRN: 1047348
- DMA: Houston, TX (all stations)

Technical Facilities of ATSC 1.0 Host #3 Station:

- Station: KTMD-DT
- Frequency: 521 MHz (Channel 22)
- ERP: 1,000 kW
- Antenna: Directional
- Antenna Center Height: 592.7 m AGL
- Antenna Model: ATW19HS6-ETCX-22H
- Antenna Polarization: Elliptical
- Antenna Beam Tilt: 1.5°
- Coordinates: 29° 34' 16.0" N, 095° 30' 38.0" W
- ASRN: 1064696
- DMA: Houston, TX (all stations)

Technical Facilities of ATSC 1.0 Host #4 Station:

- Station: KUHT-DT
- Frequency: 183 MHz (Channel 8)
- ERP: 49.8 kW
- Antenna: Directional
- Antenna Center Height: 572.1 m AGL
- Antenna Model: JCPD-10/4(40) BIII
- Antenna Polarization: Elliptical
- Antenna Beam Tilt: 1.25°

- Coordinates: 29° 34' 16.0" N, 095° 30' 38.0" W
- ASRN: 1064696
- DMA: Houston, TX (all stations)

Pursuant to section 73.3801(f)(6)(ii) of FCC Rules, the following information is also required for these types of applications.

KIAH-DT ATSC 1.0 Tenant at KHOU-DT ATSC 1.0 Host

- Predicted population within the noise limited service contour served by the station's original ATSC 1.0 signal: **7,308,397 persons** based on U.S. Census 2020 data (See Exhibit 1).
- Predicted population within the noise limited service contour served by the station's original ATSC 1.0 signal that will lose the station's ATSC 1.0 service as a result of the simulcasting arrangement, including identifying areas of service loss by providing a contour overlap map: **3,543 Persons (See Exhibits 2-3)**
- Will the ATSC 1.0 simulcast signal aired on the host station serve at least 95% of station's original ATSC 1.0 population? **Yes, it will serve 99.95% (See Exhibits 1-3).**

KIAH-DT ATSC 1.0 Tenant at KPRC-DT ATSC 1.0 Host

- Predicted population within the noise limited service contour served by the station's original ATSC 1.0 signal: **7,308,397 persons** based on U.S. Census 2020 data (See Exhibit 1).
- Predicted population within the noise limited service contour served by the station's original ATSC 1.0 signal that will lose the station's ATSC 1.0 service as a result of the simulcasting arrangement, including identifying areas of service loss by providing a contour overlap map: **1,051 Persons (See Exhibits 4-5)**
- Will the ATSC 1.0 simulcast signal aired on the host station serve at least 95% of station's original ATSC 1.0 population? **Yes, it will serve 99.99% (See Exhibits 1, 4, 5)**

KIAH-DT ATSC 1.0 Tenant at KTMD-DT ATSC 1.0 Host

- Predicted population within the noise limited service contour served by the station's original ATSC 1.0 signal: **7,308,397 persons** based on U.S. Census 2020 data (See Exhibit 1).
- Predicted population within the noise limited service contour served by the station's original ATSC 1.0 signal that will lose the station's ATSC 1.0 service as a result of the simulcasting arrangement, including identifying areas of service loss by providing a contour overlap map: **13,223 Persons (See Exhibits 6-7)**
- Will the ATSC 1.0 simulcast signal aired on the host station serve at least 95% of station's original ATSC 1.0 population? **Yes, it will serve 99.8% (See Exhibits 1, 6, 7).**

KIAH-DT ATSC 1.0 Tenant at KUHT-DT ATSC 1.0 Host

- Predicted population within the noise limited service contour served by the station's original ATSC 1.0 signal: **7,308,397 persons** based on U.S. Census 2020 data (See Exhibit 1).
- Predicted population within the noise limited service contour served by the station's original ATSC 1.0 signal that will lose the station's ATSC 1.0 service as a result of the simulcasting arrangement, including identifying areas of service loss by providing a contour overlap map: **10,342 Persons (See Exhibits 8-9)**
- Will the ATSC 1.0 simulcast signal aired on the host station serve at least 95% of station's original ATSC 1.0 population? **Yes, it will serve 99.9% (See Exhibits 1, 8, 9).**


Pursuant to §73.3801(c) of FCC Rules, full power broadcasters that elect temporarily to relocate their ATSC 1.0 signal to the facilities of a host station(s) for purposes of deploying ATSC 3.0 service must continue to cover the station's entire community of license with the ATSC 1.0 simulcast signal and must be assigned to the same Designated Market Area (DMA) as the originating station. Referring to Exhibits 3, 5, 7 and 9 it can be seen that the KIAH-DT ATSC 1.0 "Tenant" station will continue to completely encompass the Houston,

TX community of license with the KHOU-DT F(50,90) 43.0 dBu “Host #1” station’s principal community contour, the KPRC-DT F(50,90) 48.0 dBu “Host #2” station’s principal community contour, the KTMD-DT F(50,90) 48.0 dBu “Host #3” station’s principal community contour and the KUHT-DT F(50,90) 43.0 dBu “Host #4” station’s principal community contour. Also pursuant to §73.3801(c) and §73.3801(d) of FCC Rules, the KIAH-DT, KHOU-DT, KPRC-DT, KTMD-DT and KUHT-DT stations are all assigned to the same DMA (Houston, TX).

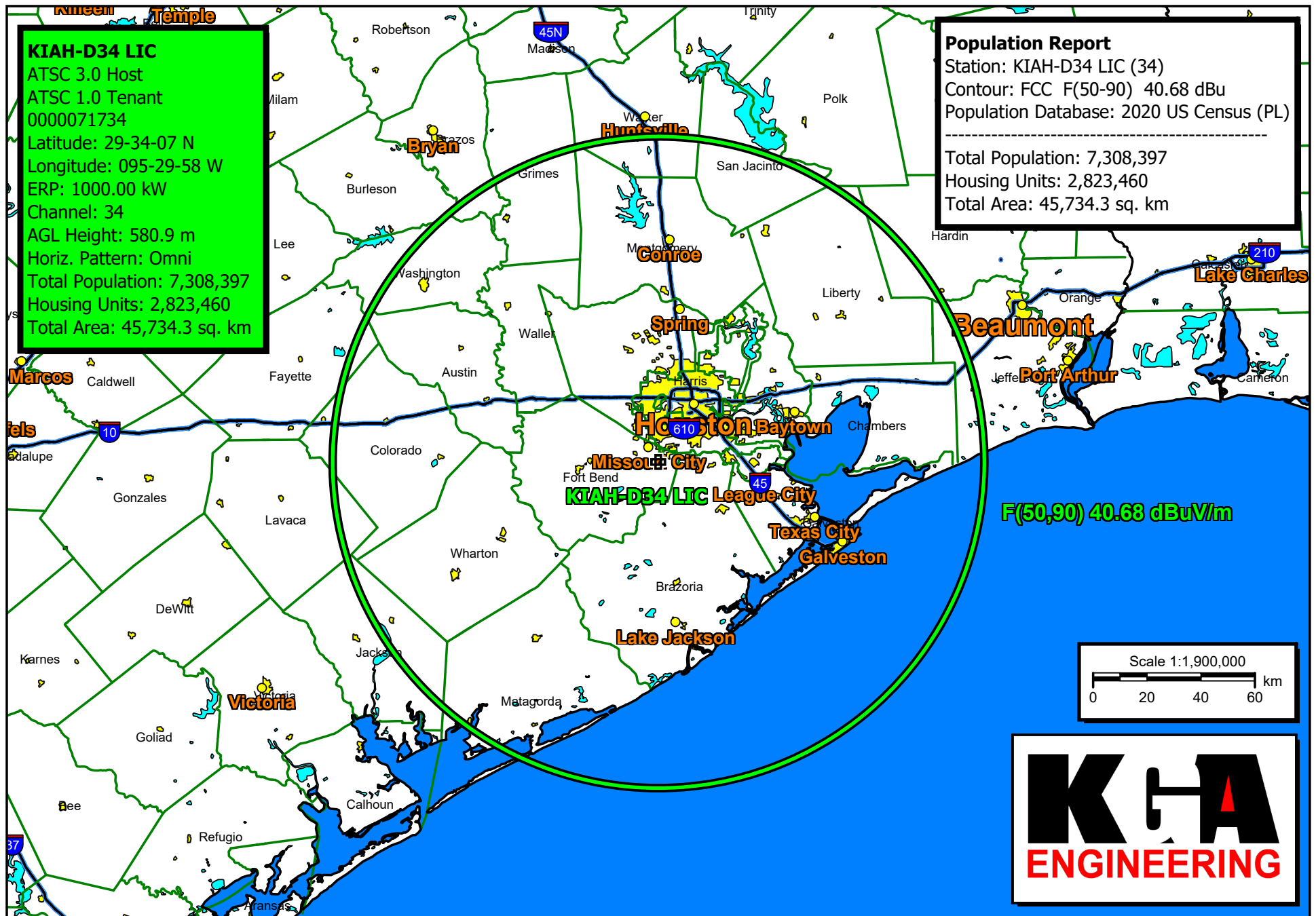
Accordingly, as demonstrated above and in enclosed Exhibits 1-9, the proposed KIAH-DT “ATSC 1.0 Tenant” facility operating with an ATSC 1.0 signal and sharing frequencies with the KHOU-DT, KPRC-DT, KTMD-DT and KUHT-DT “ATSC 1.0 Host” facilities (Coverage requirements for the ATSC 1.0 simulcast signal) and the proposed KHOU-DT, KPRC-DT, KTMD-DT and KUHT-DT “ATSC 3.0 Tenant” facilities operating with an ATSC 3.0 signal and sharing frequencies with the KIAH-DT “ATSC 3.0 Host” facility (Coverage requirements for ATSC 3.0 signals) fully satisfy the FCC rules pursuant to §73.3801 and these applications should therefore be granted with expedited processing in accordance with the streamlined 1-step process specified in the rules.

CERTIFICATION

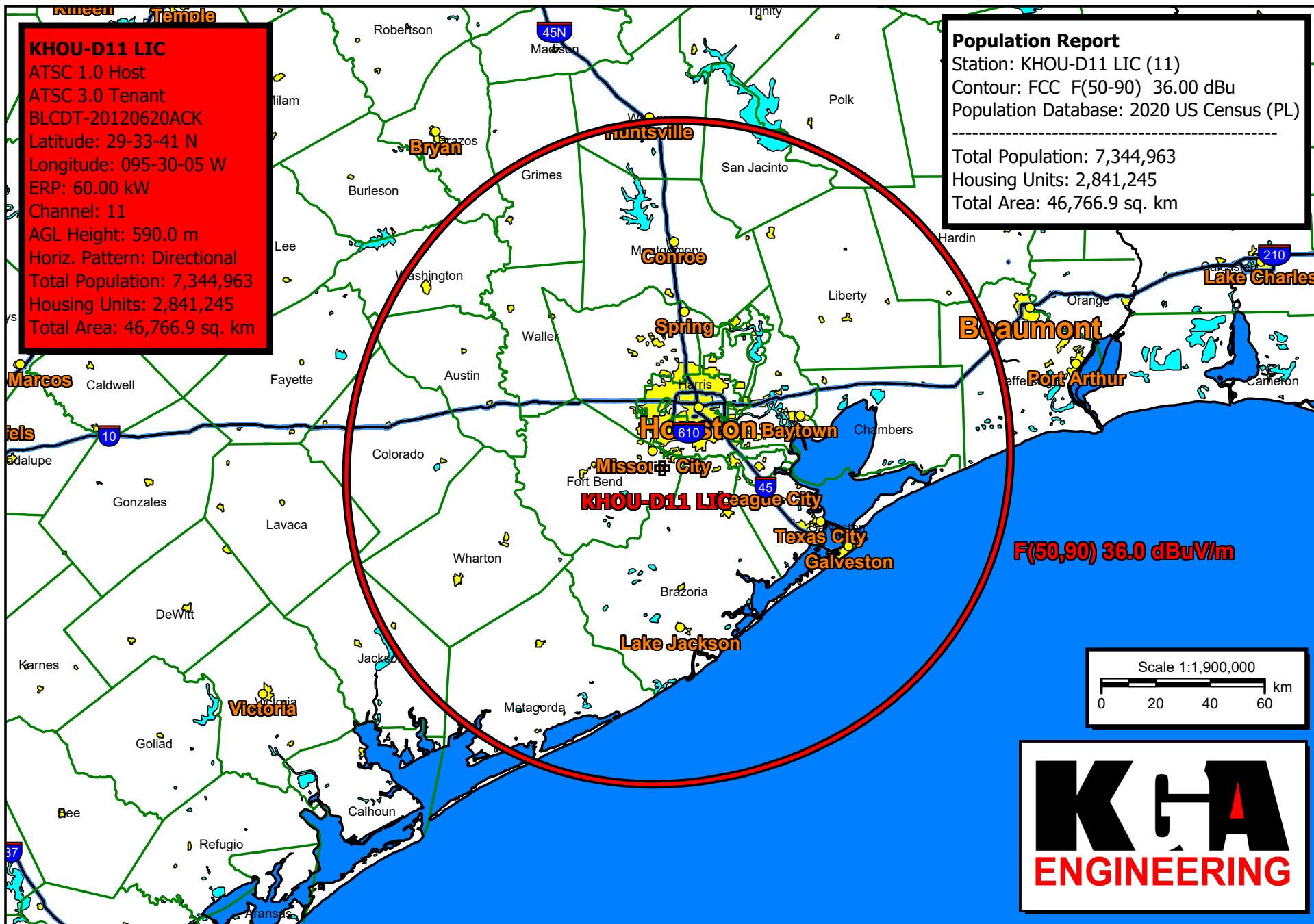
This technical statement was prepared by William T. Godfrey, Jr., Engineering Associate with the firm Kessler and Gehman Associates, Inc. having offices in Gainesville, Florida, and has been working with the firm in the field of radio and television broadcast consulting since 1998. Mr. Godfrey was a graduate from the University of North Florida and a Distinguished Military Graduate from the University of Florida. As a Professional in the field of Telecommunications he states under penalty of perjury that the information contained in this report is true and correct to the best of his knowledge and belief.


WILLIAM T. GODFREY, JR., CBT
Kessler and Gehman Associates, Inc.
Consulting Engineers

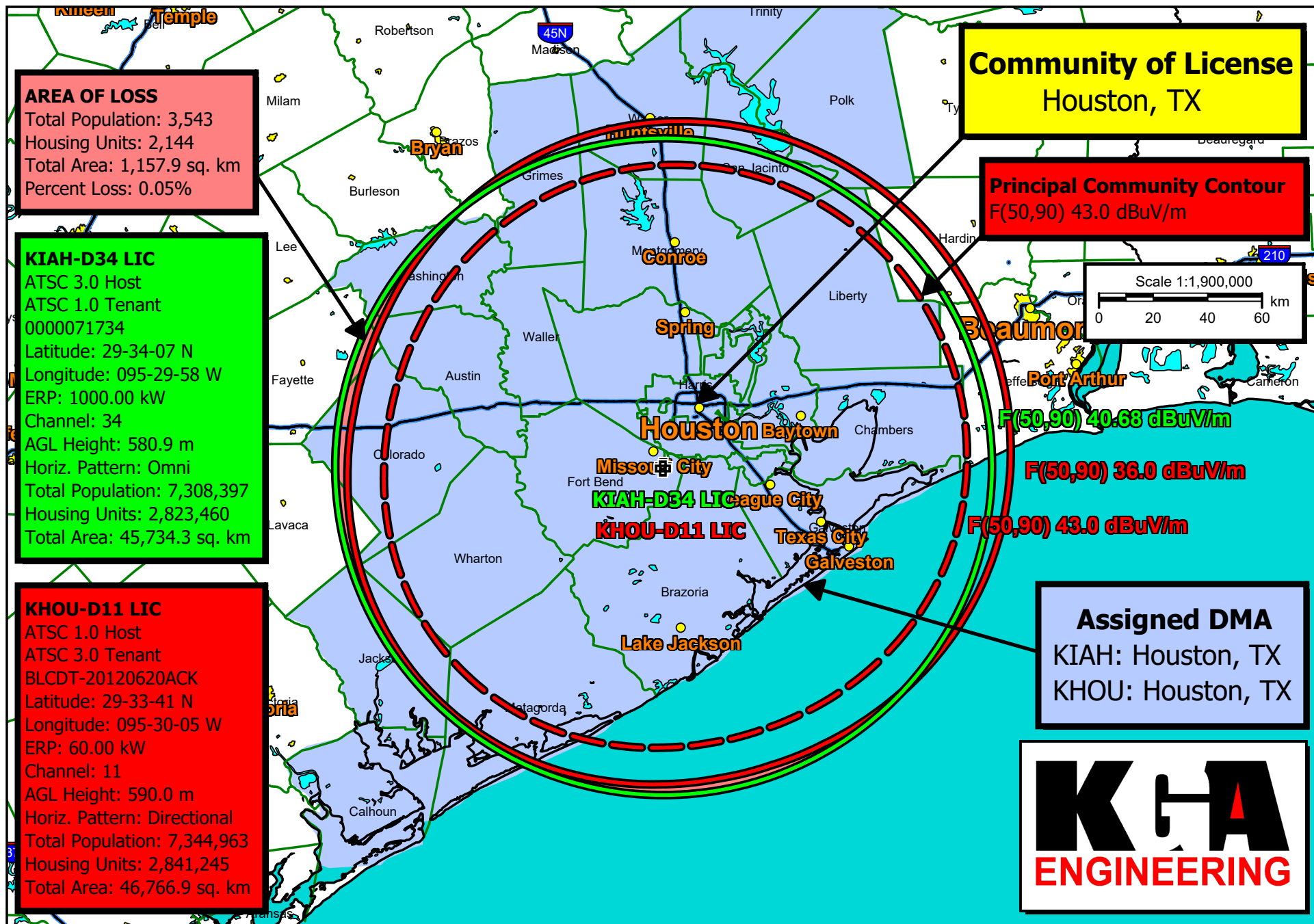
October 19, 2021



Population Within KIAH-D34 Licensed Protected Noise Limited Contour

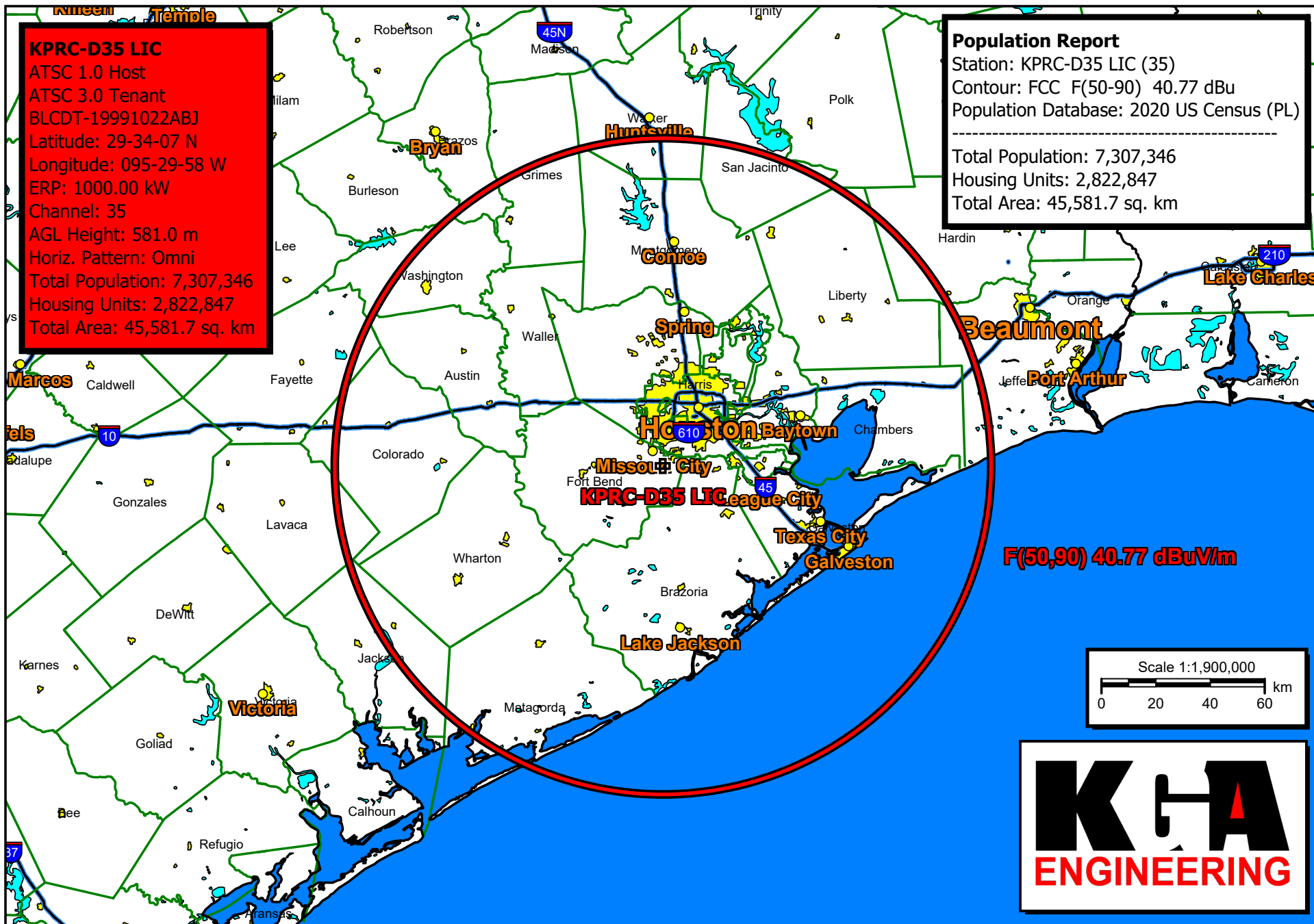


Population Within KHOU-D11 Licensed Protected Noise Limited Contour

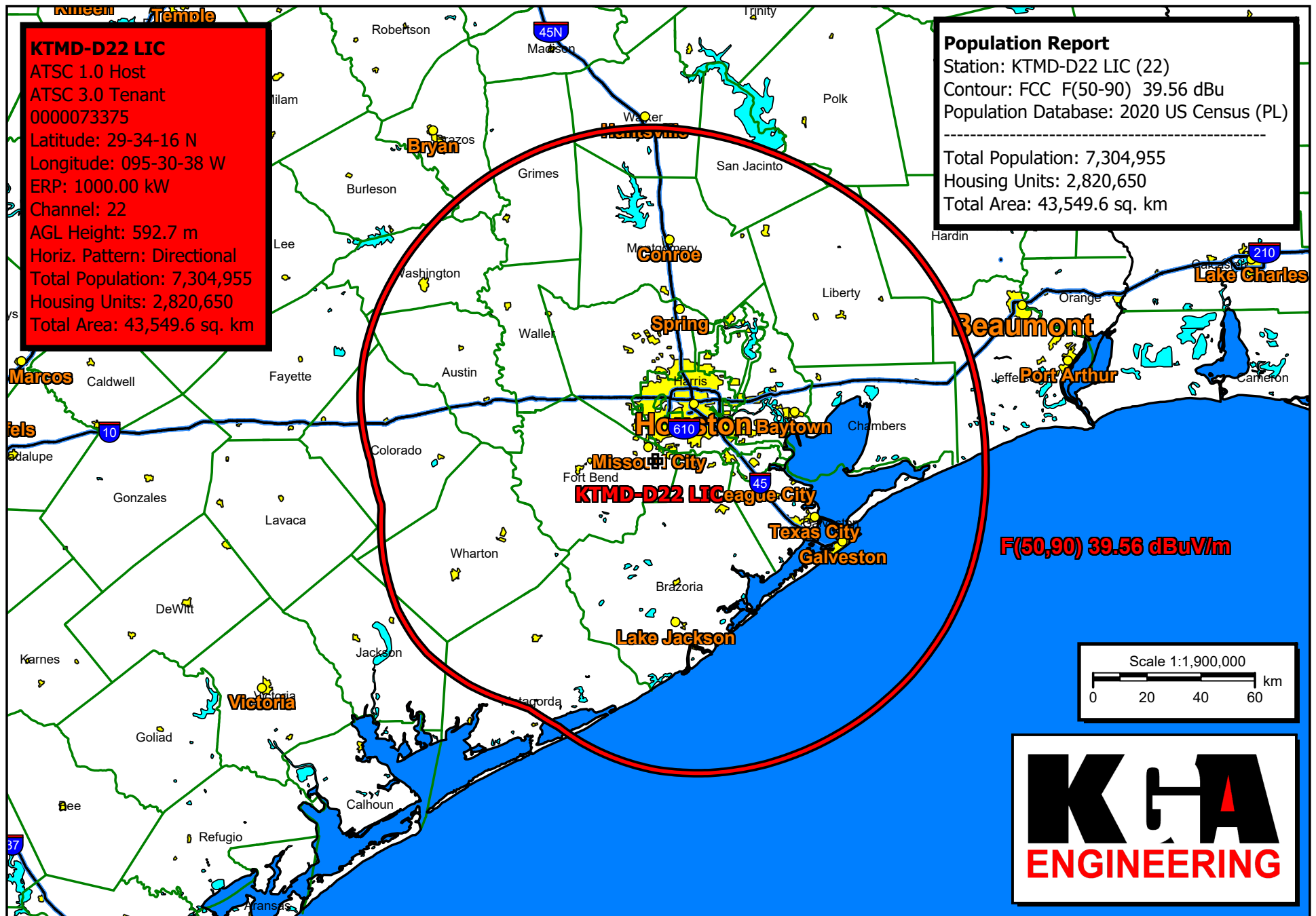


ATSC 1.0 Host: KHOU-D11 / ATSC 1.0 Tenant: KIAH-D34 (ATSC 3.0 Host)

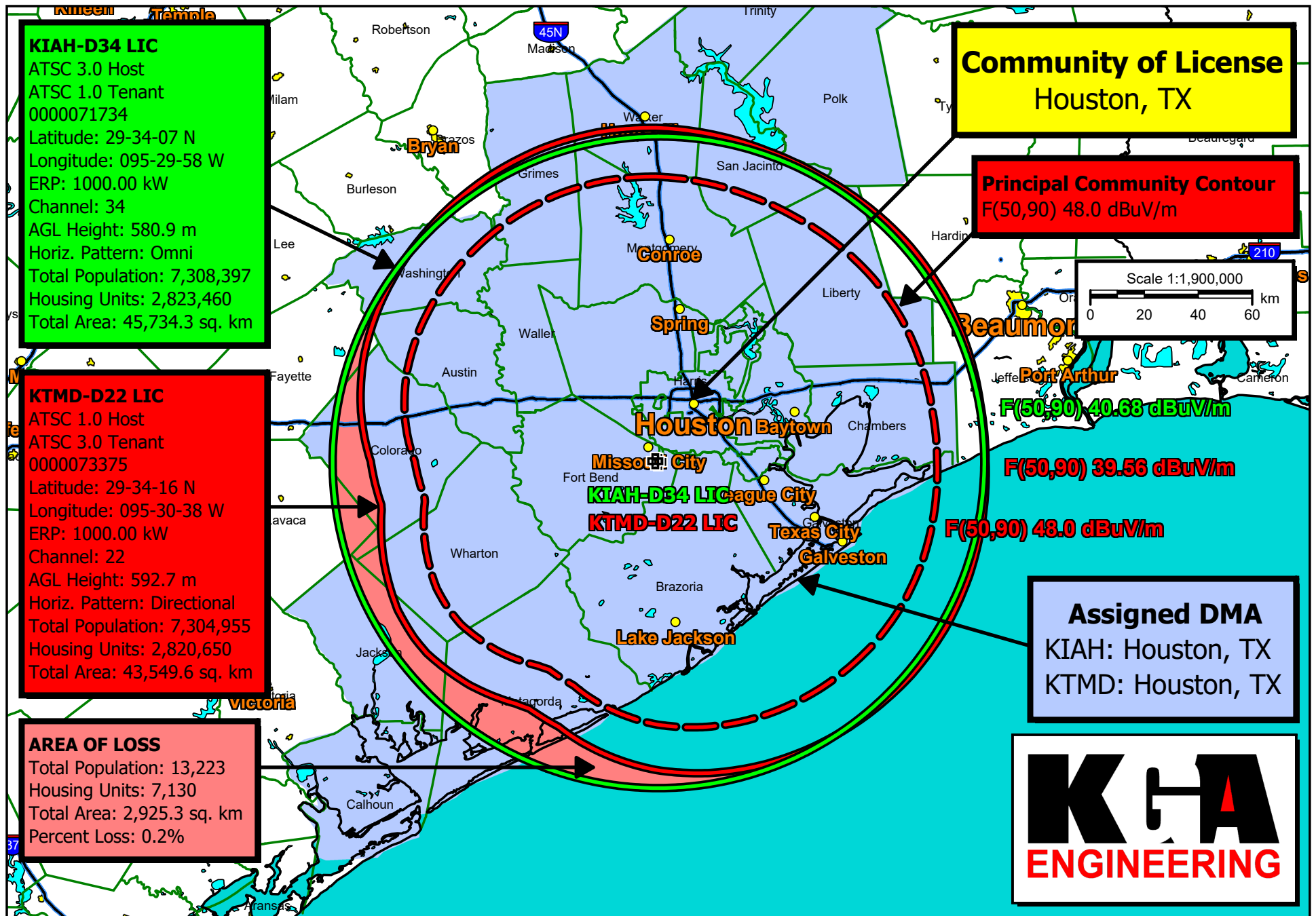
EXHIBIT 3



Population Within KPRC-D35 Licensed Protected Noise Limited Contour

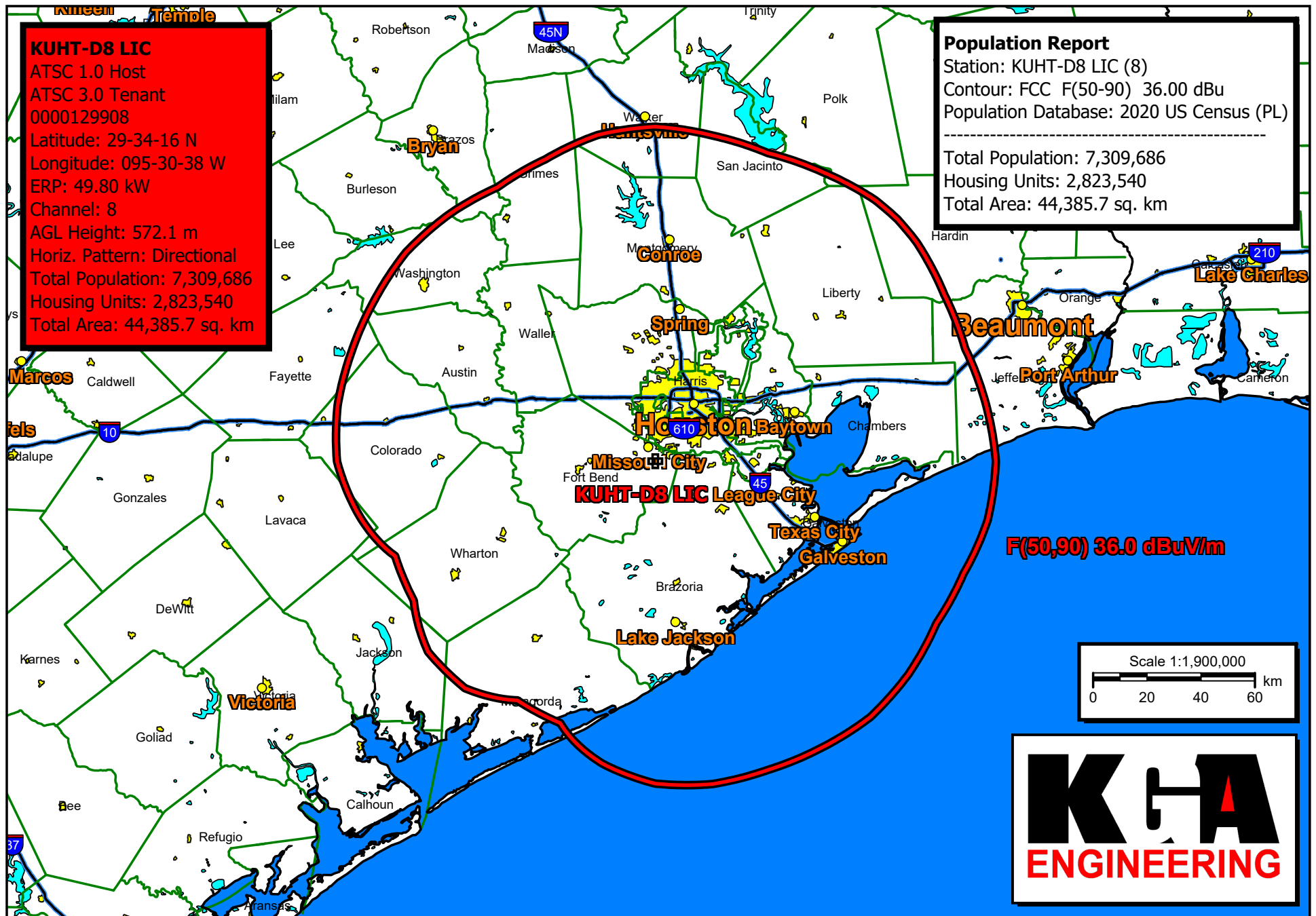


Population Within KTMD-D22 Licensed Protected Noise Limited Contour



ATSC 1.0 Host: KTMD-D22 / ATSC 1.0 Tenant: KIAH-D34 (ATSC 3.0 Host)

EXHIBIT 7



Population Within KUHT-D8 Licensed Protected Noise Limited Contour

