

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

The **KTVI-DT** (ATSC 1.0 Host #1) full-power digital television broadcast facility (File Number 0000108077) is licensed to operate on Channel 33 with an ERP of 1,000 kW using a nondirectional antenna mounted on a tower with Antenna Structure Registration Number (ASRN) 1044421 located in Sappington, MO. The **KDNL-DT** (ATSC 1.0 Host #2) full-power television facility (File Number BLCDT-20021216AAE) is licensed to operate on Channel 31 with an ERP of 1,000 kW using a nondirectional antenna mounted on a tower with ASRN 1003525 located in Shrewsbury, MO. The **KSDK-DT** (ATSC 1.0 Host #3) full-power television facility (File Number BLCDT-19991202ABM) is licensed to operate on Channel 35 with an ERP of 838 kW using a nondirectional antenna mounted on a tower with ASRN 1001160 located in Shrewsbury, MO. The **KMOV-DT** (ATSC 1.0 Host #4) full-power television facility (File Number BLCDT- BLCDT-20090626ACG) is licensed to operate on Channel 24 with an ERP of 1,000 kW using a nondirectional antenna mounted on a tower with ASRN 1004407 located in Lemay Township, MO. The **KPLR-DT** (ATSC 1.0 Tenant and ATSC 3.0 Host) full-power television facility (File Number 0000160290) is licensed to operate on Channel 26 with an ERP of 1,000 kW using a nondirectional antenna mounted on a tower with ASRN 1044421 located in Sappington, MO.

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:

- KPLR-DT ATSC 1.0 Tenant at KTVI-DT ATSC 1.0 Host
- KPLR-DT ATSC 1.0 Tenant at KDNL-DT ATSC 1.0 Host
- KPLR-DT ATSC 1.0 Tenant at KSDK-DT ATSC 1.0 Host
- KPLR-DT ATSC 1.0 Tenant at KMOV-DT ATSC 1.0 Host
- KTVI, KDNL, KSDK & KMOV ATSC 3.0 Tenants at KPLR-DT ATSC 3.0 Host

All five stations are assigned to the same DMA (St. Louis, MO).

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: KTVI-DT (0000108077)
- ATSC1.0 Host #2: KDNL-DT (BLCDT-20021216AAE)
- ATSC1.0 Host #3: KSDK-DT (BLCDT-19991202ABM)
- ATSC1.0 Host #4: KMOV-DT (BLCDT-20090626ACG)

**Technical Facilities of ATSC 1.0 Host #1 Station:**

- Station: KTVI-DT
- Frequency: 587 MHz (Channel 33)
- ERP: 1,000 kW
- Antenna: Nondirectional
- Antenna Center Height: 313.0 m AGL
- Antenna Model: TFU-20GTH/VP-R O4
- Antenna Polarization: Elliptical
- Antenna Beam Tilt: 0.75°
- Coordinates: 38° 32' 07.0" N, 090° 22' 23.0" W
- ASRN: 1044421
- DMA: St. Louis, MO (all stations)

**Technical Facilities of ATSC 1.0 Host #2 Station:**

- Station: KDNL-DT
- Frequency: 575 MHz (Channel 31)
- ERP: 1,000 kW
- Antenna: Nondirectional

- Antenna Center Height: 323.9 m AGL
- Antenna Model: TFU-30GBH-RO6
- Antenna Polarization: Horizontal
- Antenna Beam Tilt: 1.00°
- Coordinates: 38° 34' 50.0" N, 090° 19' 45.0" W
- ASRN: 1003525
- DMA: St. Louis, MO (all stations)

### **Technical Facilities of ATSC 1.0 Host #3 Station:**

- Station: KSDK-DT
- Frequency: 599 MHz (Channel 35)
- ERP: 838 kW
- Antenna: Nondirectional
- Antenna Center Height: 344.0 m AGL
- Antenna Model: TWSC 22
- Antenna Polarization: Horizontal
- Antenna Beam Tilt: 0.75°
- Coordinates: 38° 34' 05.0" N, 090° 19' 55.0" W
- ASRN: 1001160
- DMA: St. Louis, MO (all stations)

### **Technical Facilities of ATSC 1.0 Host #4 Station:**

- Station: KMOV-DT
- Frequency: 533 MHz (Channel 24)
- ERP: 1,000 kW
- Antenna: Nondirectional
- Antenna Center Height: 358.5 m AGL
- Antenna Model: TFU-30GTH-R 04
- Antenna Polarization: Horizontal

- Antenna Beam Tilt: 0.75°
- Coordinates: 38° 31' 47.0" N, 090° 17' 58.0" W
- ASRN: 1004407
- DMA: St. Louis, MO (all stations)

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

**KPLR-DT ATSC 1.0 Tenant at KTVI-DT ATSC 1.0 Host**

- Predicted population within the licensed KPLR-DT (ATSC 1.0 Tenant) protected noise limited service contour served by the station's original ATSC 1.0 signal: **2,991,873 persons (See Exhibit 1)** based on U.S. Census 2010 data.
- Predicted population within the licensed KTVI-DT (ATSC 1.0 Host) protected 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: **0 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 100% (See Exhibits 1-3).**

**KPLR-DT ATSC 1.0 Tenant at KDNL-DT ATSC 1.0 Host**

- Predicted population within the licensed KPLR-DT (ATSC 1.0 Tenant) protected noise limited service contour served by the station's original ATSC 1.0 signal: **2,991,873 persons (See Exhibit 1)** based on U.S. Census 2010 data.
- Predicted population within the licensed KDNL-DT (ATSC 1.0 Host) protected 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: **23,198 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 99.2% (See Exhibits 1, 4, 5).**

**KPLR-DT ATSC 1.0 Tenant at KSDK-DT ATSC 1.0 Host**

- Predicted population within the licensed KPLR-DT (ATSC 1.0 Tenant) protected noise limited service contour served by the station's original ATSC 1.0 signal: **2,991,873 persons (See Exhibit 1)** based on U.S. Census 2010 data.
- Predicted population within the licensed KSDK-DT (ATSC 1.0 Host) protected 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: **19,390 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 99.3% (See Exhibits 1, 6, 7).**

**KPLR-DT ATSC 1.0 Tenant at KMOV-DT ATSC 1.0 Host**

- Predicted population within the licensed KPLR-DT (ATSC 1.0 Tenant) protected noise limited service contour served by the station's original ATSC 1.0 signal: **2,991,873 persons (See Exhibit 8)** based on U.S. Census 2010 data.
- Predicted population within the licensed KMOV-DT (ATSC 1.0 Host) protected 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: **6,738 Persons (See Exhibits 2 and 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 99.8% (See Exhibits 2, 8, 9).**

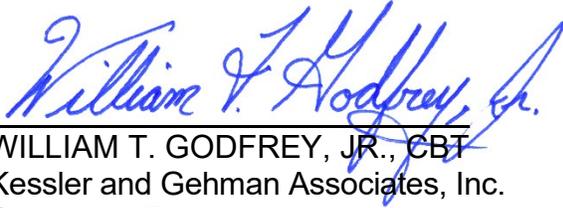
Pursuant to §73.3801(c) of FCC Rules, full power broadcasters that elect temporarily to relocate their ATSC 1.0 signal to the facilities of a host station(s) for purposes of deploying ATSC 3.0 service must continue to cover the station's entire community of license with the ATSC 1.0 simulcast signal 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 KPLR-DT ATSC 1.0 "Tenant" station will continue to completely encompass the St. Louis, MO community of license with the KTVI-DT F(50,90) 48.0 dBu "Host #1" station's principal community contour, the KDNL-DT F(50,90) 48.0 dBu "Host #2" station's principal community contour, the KSDK-DT F(50,90) 48.0 dBu "Host #3" station's principal community contour and the KMOV-DT F(50,90) 48.0 dBu "Host #4" station's principal community contour. Also pursuant to §73.3801(c) and §73.3801(d) of FCC Rules, the KPLR-DT, KTVI-DT, KDNL-DT, KSDK-DT and KMOV-DT stations are all assigned to the same DMA (St. Louis, MO).

Accordingly, as demonstrated above and in enclosed Exhibits 1-9, the proposed KPLR-DT "ATSC 1.0 Tenant" facility operating with an ATSC 1.0 signal and sharing frequencies with the KTVI-DT, KDNL-DT, KSDK-DT and KMOV-DT "ATSC 1.0 Host" facilities (Coverage requirements for the ATSC 1.0 simulcast signal) and the proposed KTVI-DT, KDNL-DT, KSDK-DT and KMOV-DT "ATSC 3.0 Tenant" facilities operating with an ATSC 3.0 signal and sharing frequencies with the KPLR-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**

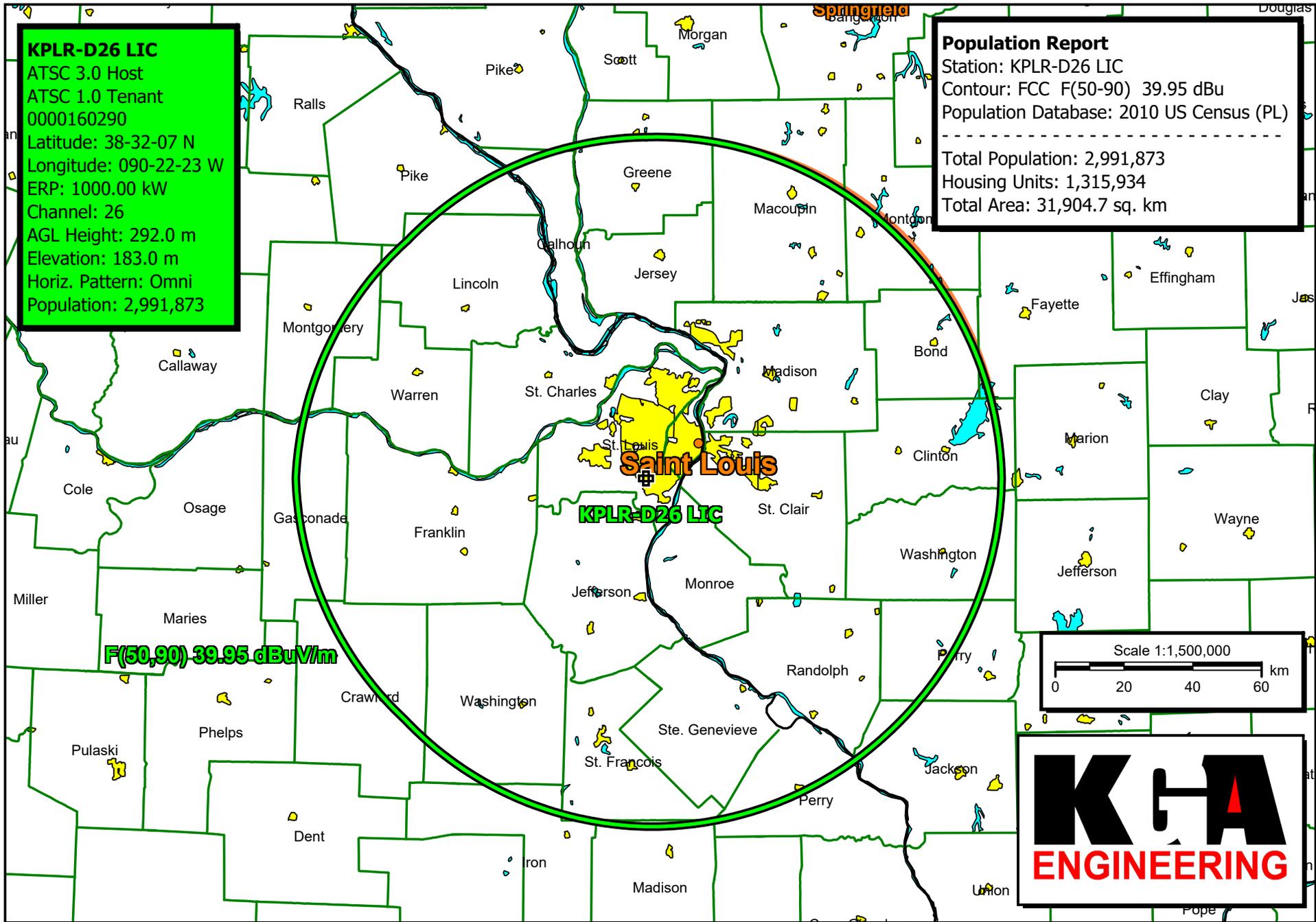
This technical statement was prepared by William T. Godfrey, Jr., Engineering Associate with the firm Kessler and Gehman Associates, Inc. having offices in Gainesville, Florida, and has been working with the firm in the field of radio and television broadcast consulting since 1998. Mr. Godfrey was a 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.

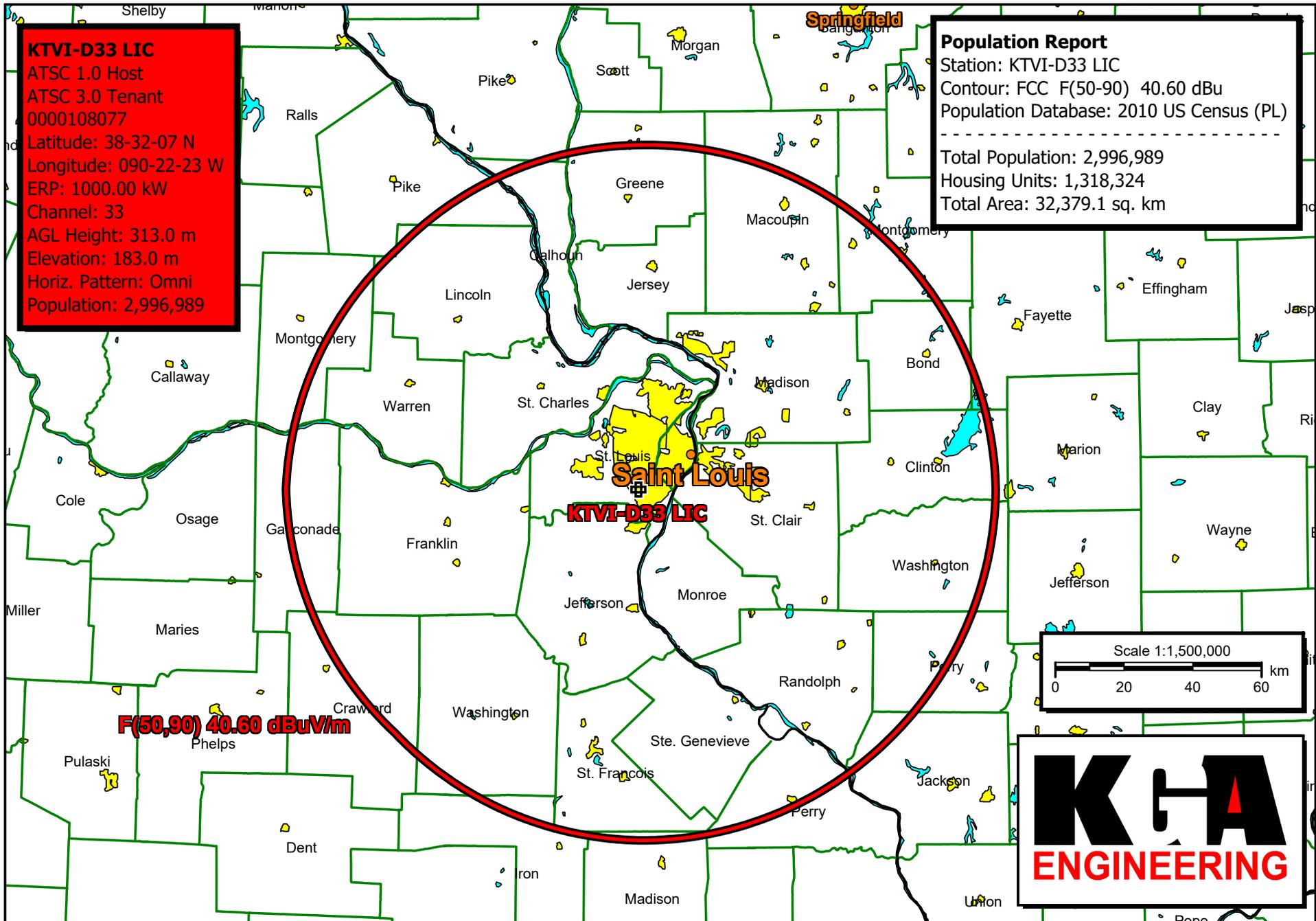
A handwritten signature in blue ink that reads "William T. Godfrey, Jr." with a stylized flourish at the end.

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

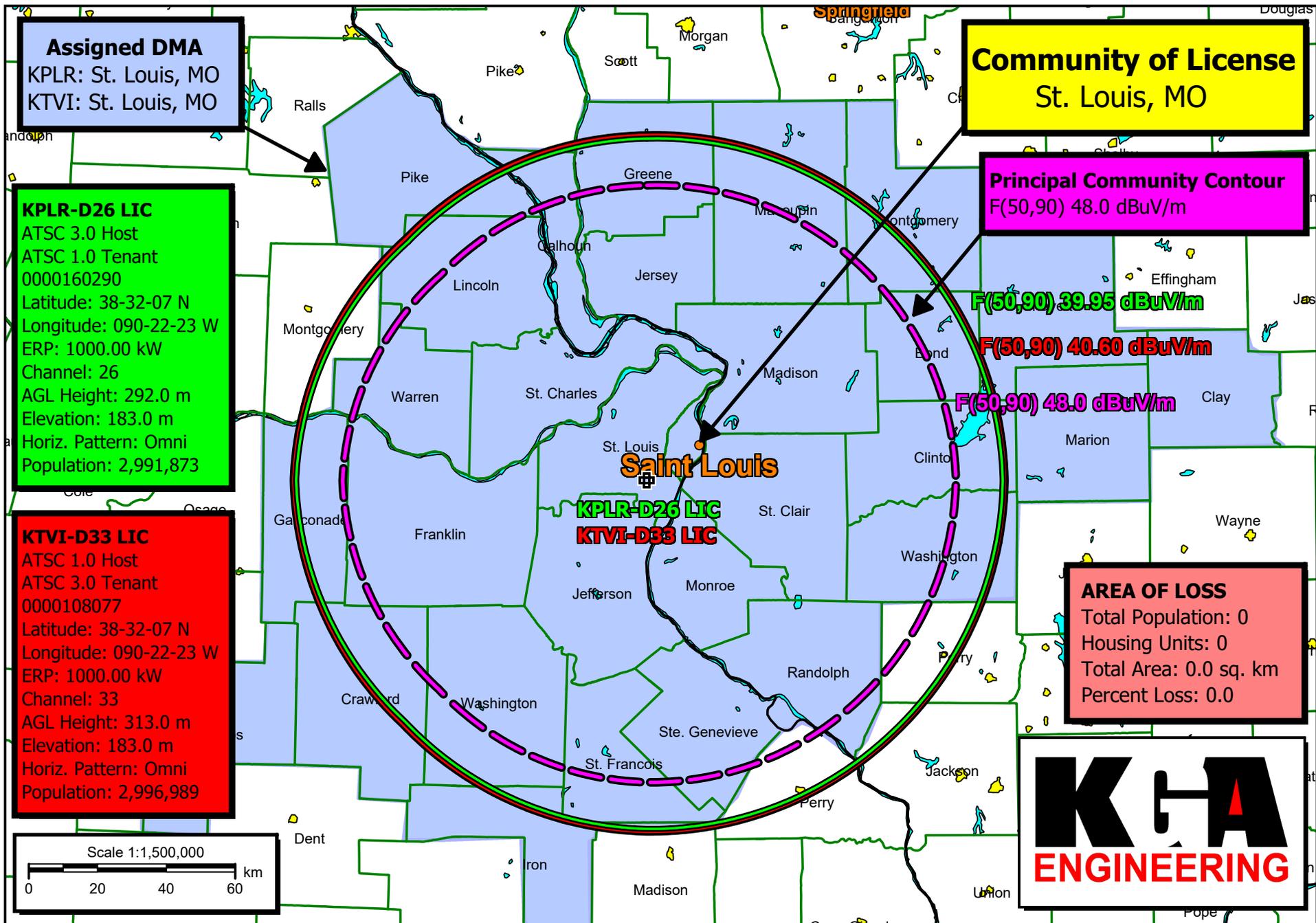
September 25, 2021



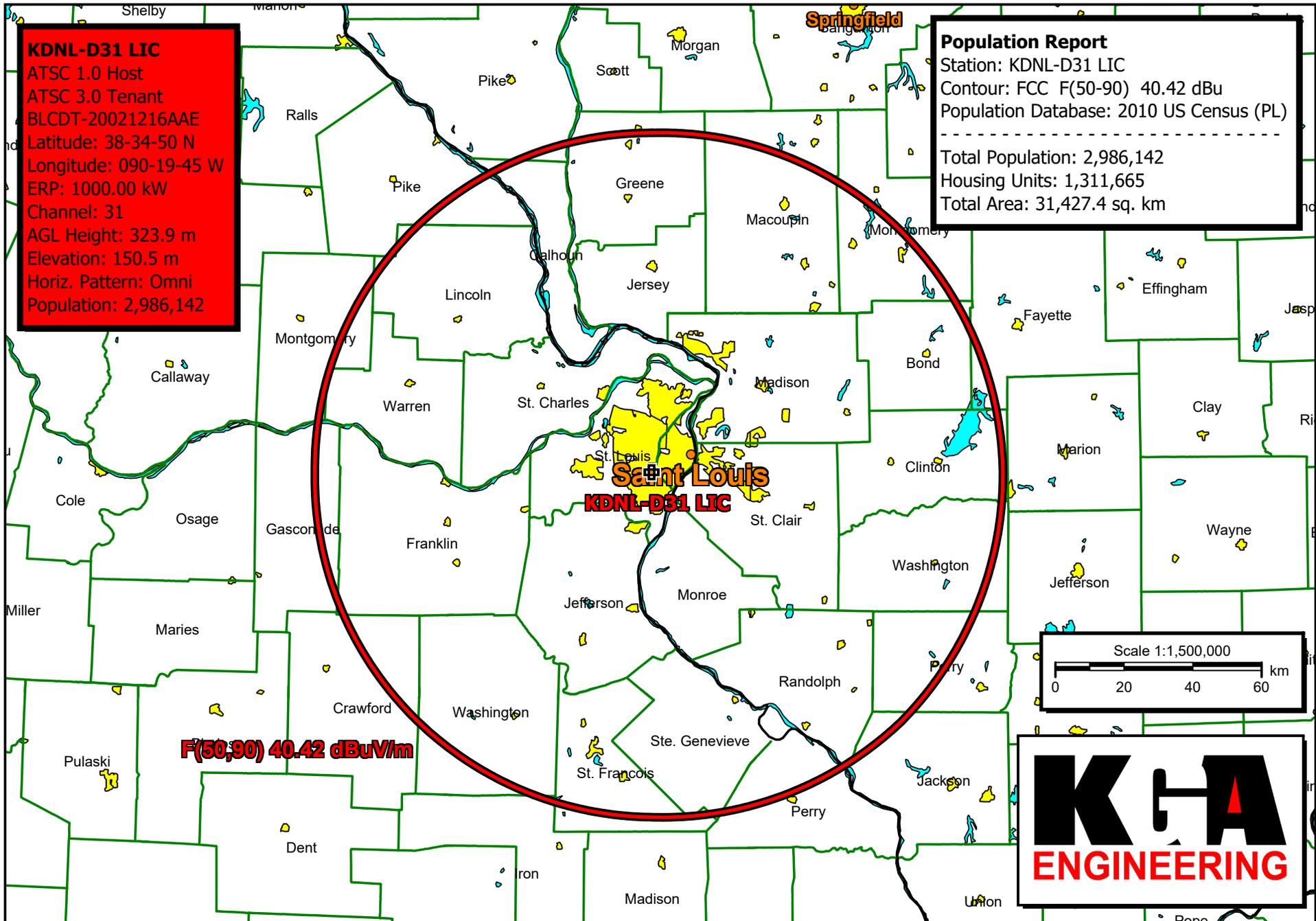
Population Within KPLR-D26 Licensed Protected Noise Limited Service Contour



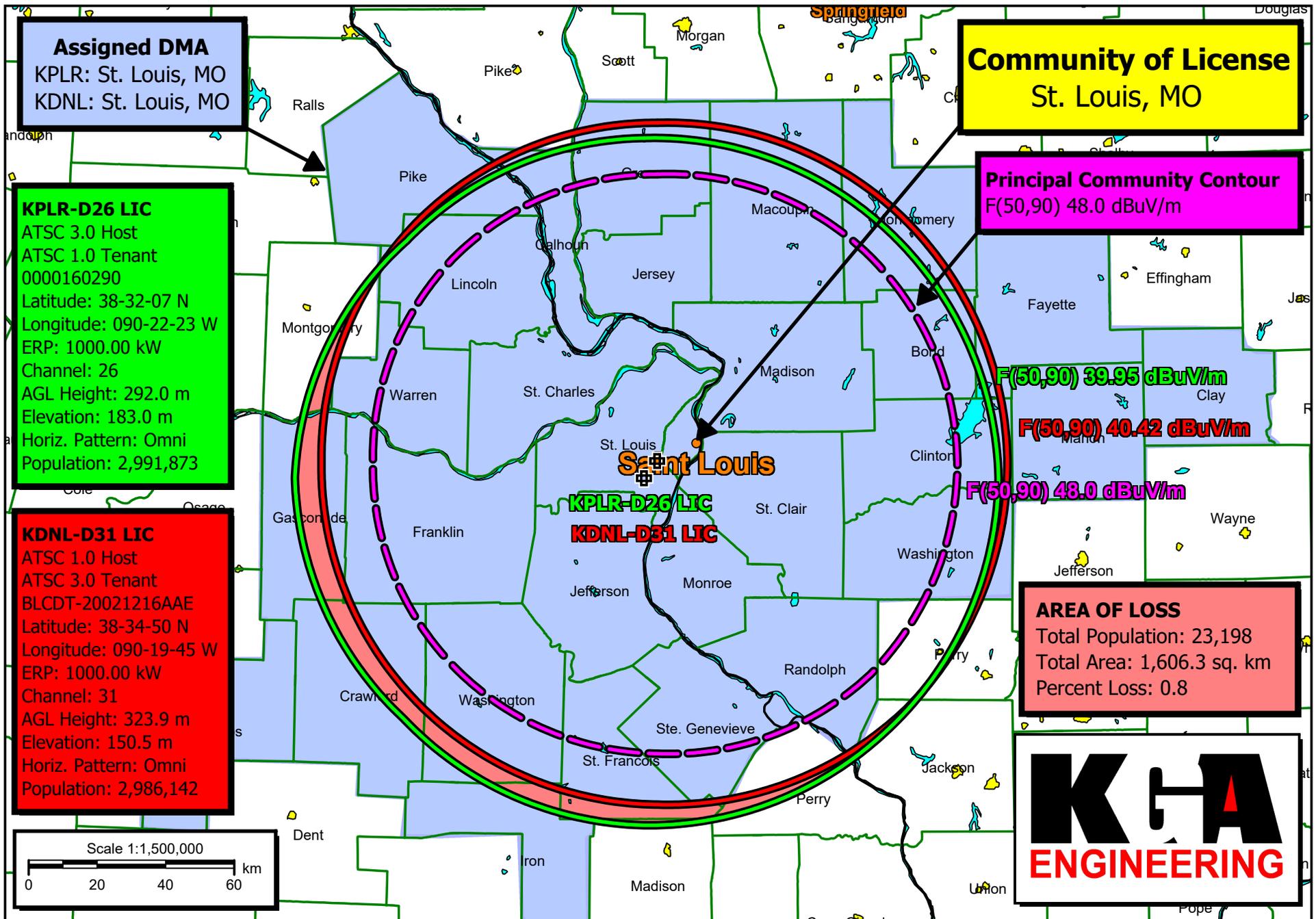
Population Within KTVI-D33 Licensed Protected Noise Limited Service Contour



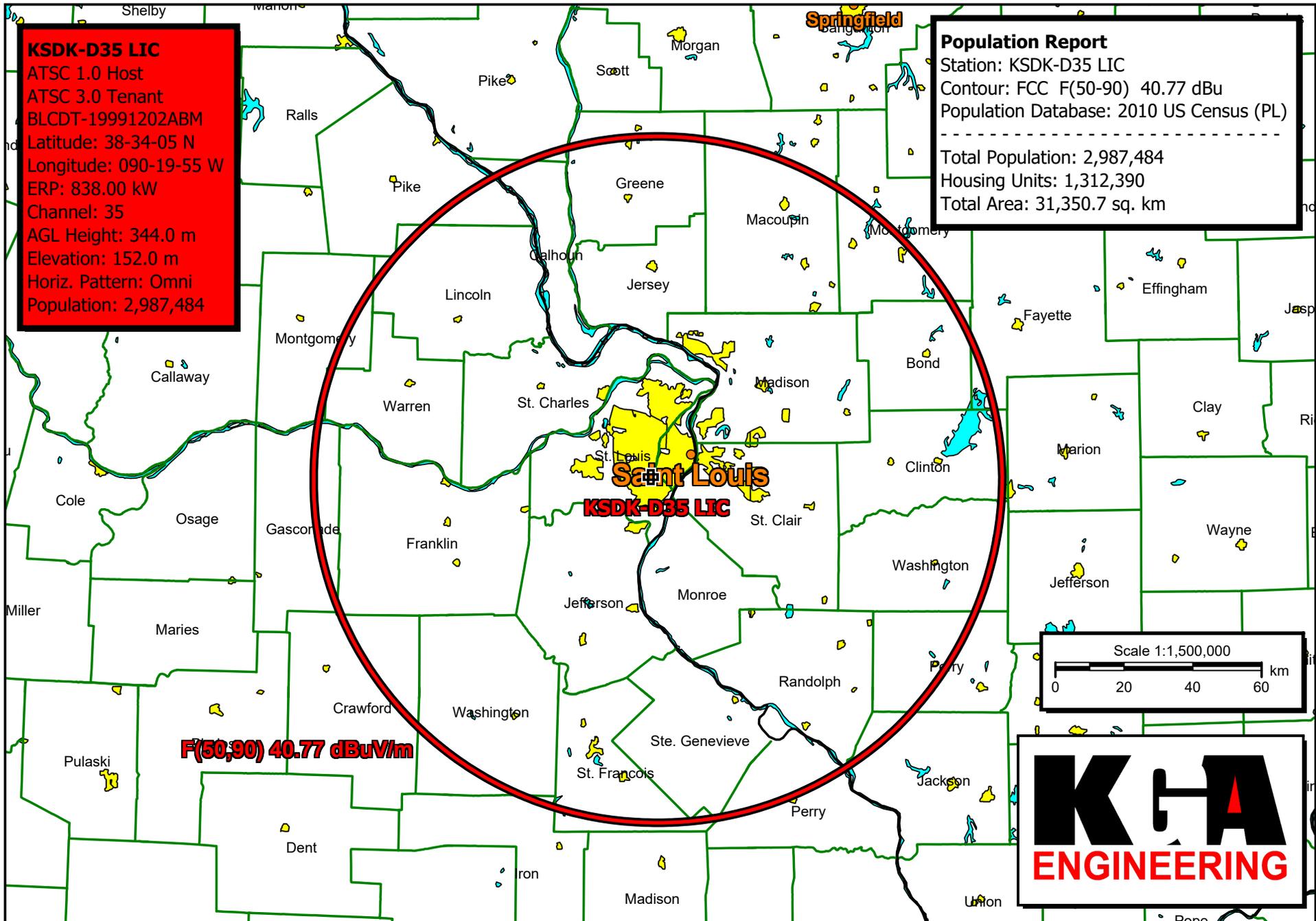
ATSC 1.0 Host: KTVI-D33 / ATSC 1.0 Tenant: KPLR-D26 (ATSC 3.0 Host)



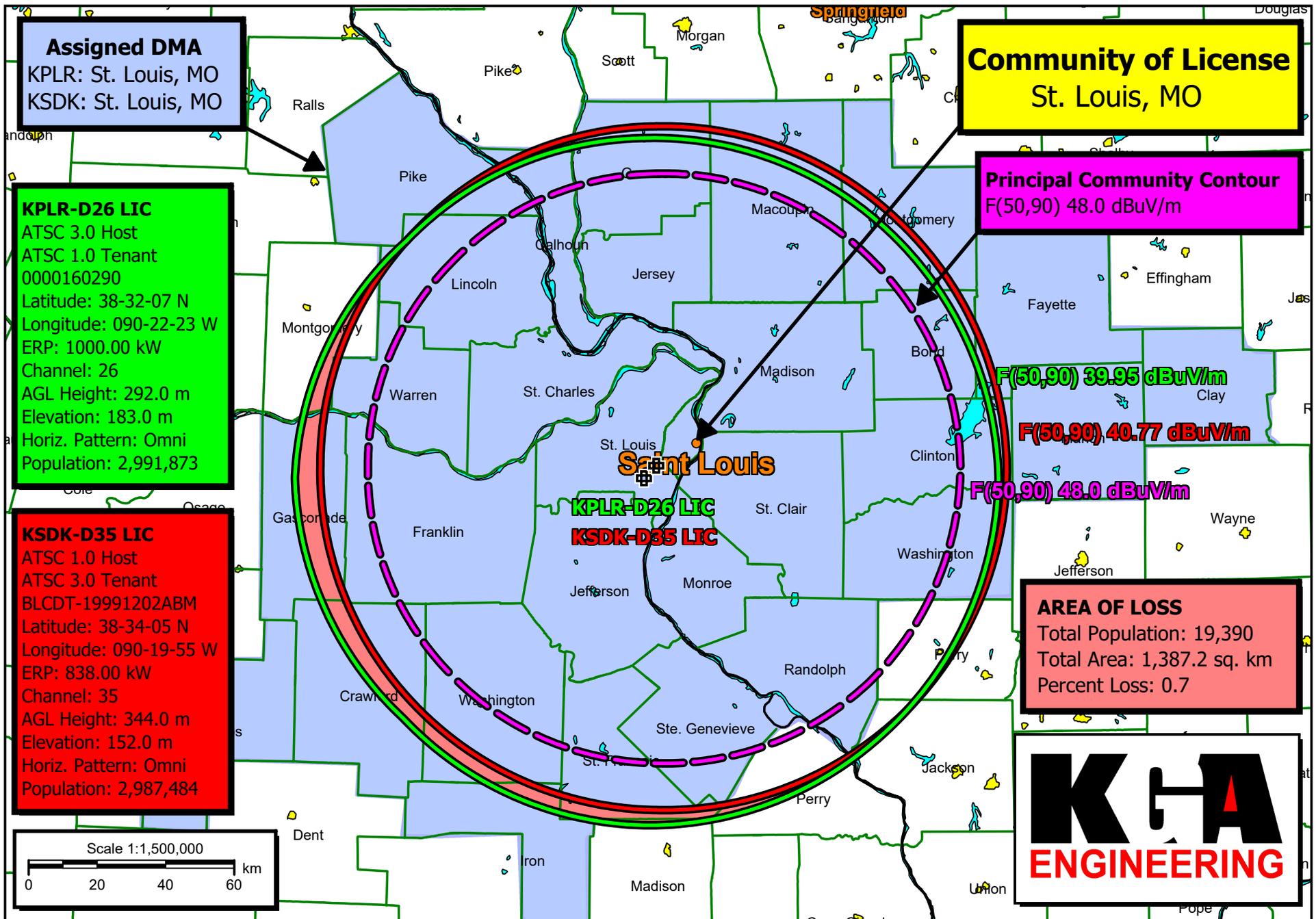
Population Within KDNL-D33 Licensed Protected Noise Limited Service Contour



ATSC 1.0 Host: KDNL-D31 / ATSC 1.0 Tenant: KPLR-D26 (ATSC 3.0 Host)



Population Within KSDK-D35 Licensed Protected Noise Limited Service Contour



**Assigned DMA**  
 KPLR: St. Louis, MO  
 KSDK: St. Louis, MO

**Community of License**  
 St. Louis, MO

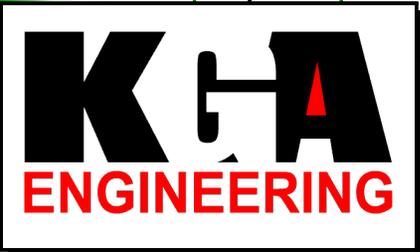
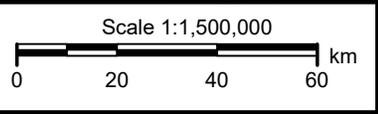
**KPLR-D26 LIC**  
 ATSC 3.0 Host  
 ATSC 1.0 Tenant  
 0000160290  
 Latitude: 38-32-07 N  
 Longitude: 090-22-23 W  
 ERP: 1000.00 kW  
 Channel: 26  
 AGL Height: 292.0 m  
 Elevation: 183.0 m  
 Horiz. Pattern: Omni  
 Population: 2,991,873

**Principal Community Contour**  
 F(50,90) 48.0 dBuV/m

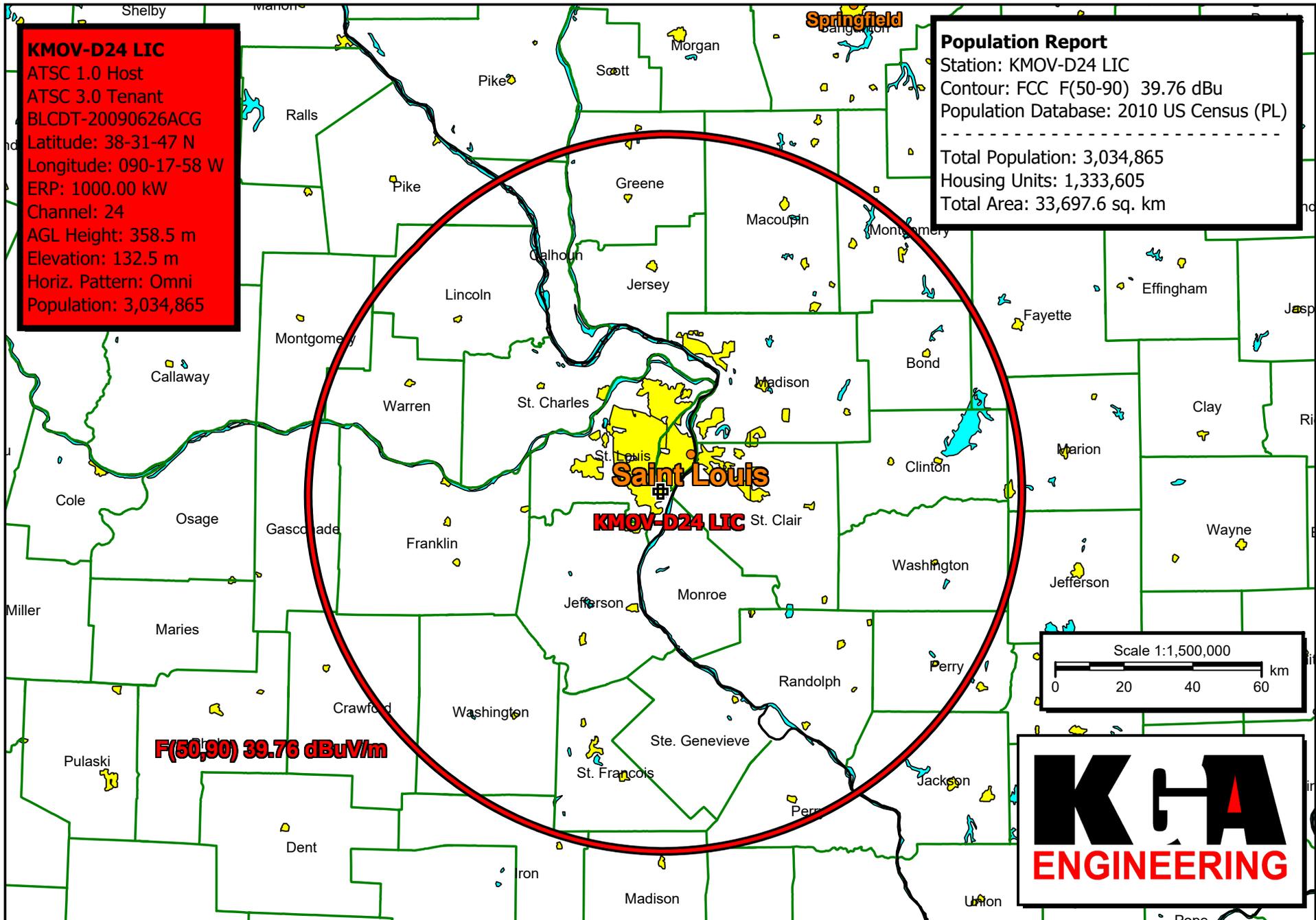
**KSDK-D35 LIC**  
 ATSC 1.0 Host  
 ATSC 3.0 Tenant  
 BLCDT-19991202ABM  
 Latitude: 38-34-05 N  
 Longitude: 090-19-55 W  
 ERP: 838.00 kW  
 Channel: 35  
 AGL Height: 344.0 m  
 Elevation: 152.0 m  
 Horiz. Pattern: Omni  
 Population: 2,987,484

F(50,90) 39.95 dBuV/m  
 F(50,90) 40.77 dBuV/m  
 F(50,90) 48.0 dBuV/m

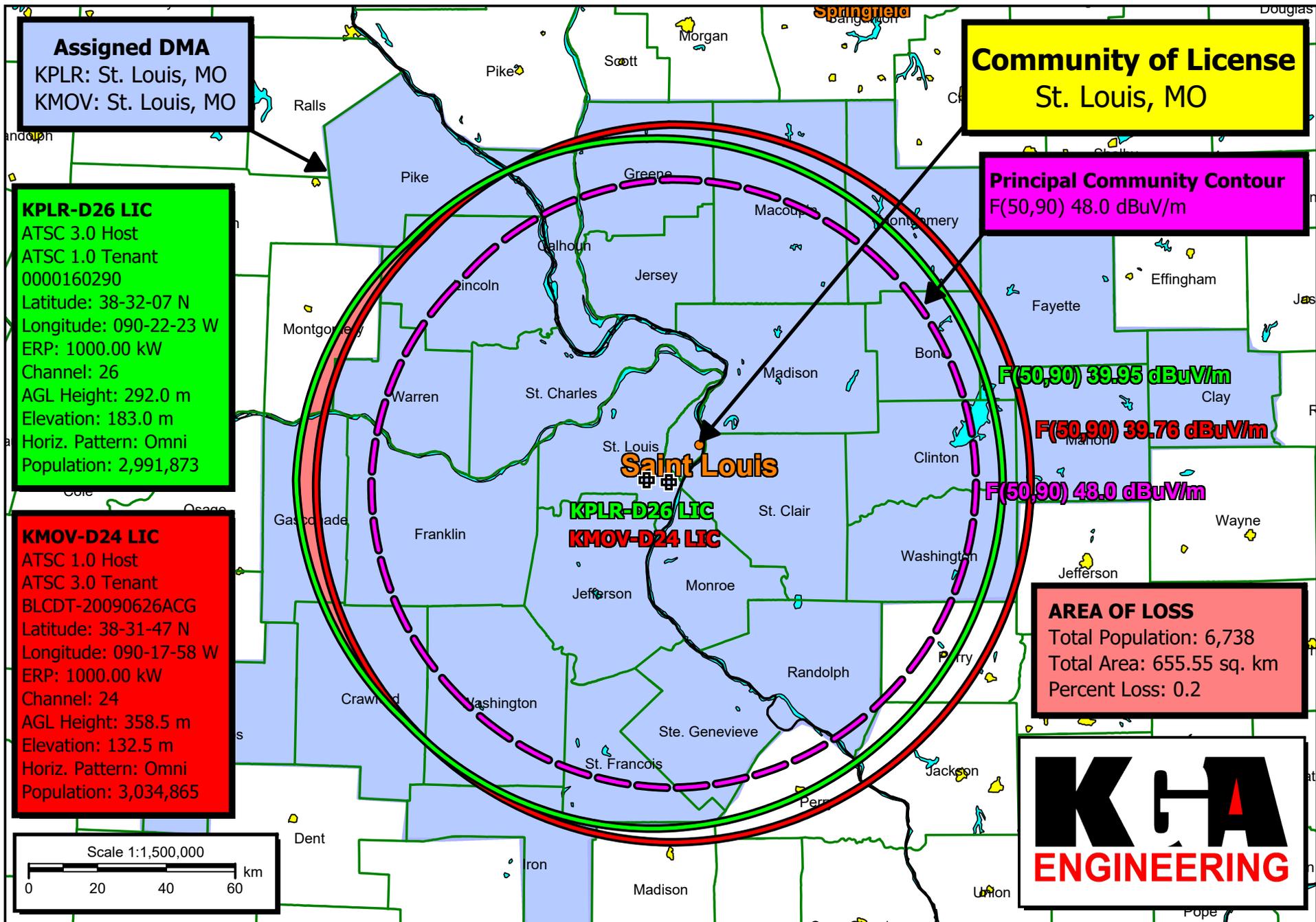
**AREA OF LOSS**  
 Total Population: 19,390  
 Total Area: 1,387.2 sq. km  
 Percent Loss: 0.7



ATSC 1.0 Host: KSDK-D35 / ATSC 1.0 Tenant: KPLR-D26 (ATSC 3.0 Host)



Population Within KMOV-D24 Licensed Protected Noise Limited Service Contour



**Assigned DMA**  
 KPLR: St. Louis, MO  
 KMOV: St. Louis, MO

**Community of License**  
 St. Louis, MO

**KPLR-D26 LIC**  
 ATSC 3.0 Host  
 ATSC 1.0 Tenant  
 0000160290  
 Latitude: 38-32-07 N  
 Longitude: 090-22-23 W  
 ERP: 1000.00 kW  
 Channel: 26  
 AGL Height: 292.0 m  
 Elevation: 183.0 m  
 Horiz. Pattern: Omni  
 Population: 2,991,873

**Principal Community Contour**  
 F(50,90) 48.0 dBuV/m

**KMOV-D24 LIC**  
 ATSC 1.0 Host  
 ATSC 3.0 Tenant  
 BLCDDT-20090626ACG  
 Latitude: 38-31-47 N  
 Longitude: 090-17-58 W  
 ERP: 1000.00 kW  
 Channel: 24  
 AGL Height: 358.5 m  
 Elevation: 132.5 m  
 Horiz. Pattern: Omni  
 Population: 3,034,865

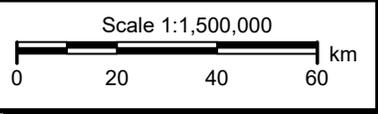
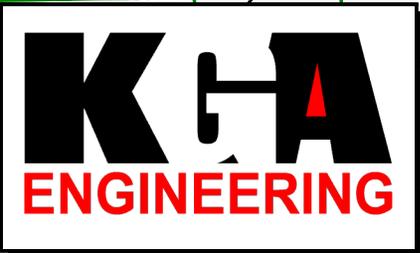
F(50,90) 39.95 dBuV/m

F(50,90) 39.76 dBuV/m

F(50,90) 48.0 dBuV/m

**KPLR-D26 LIC**  
**KMOV-D24 LIC**

**AREA OF LOSS**  
 Total Population: 6,738  
 Total Area: 655.55 sq. km  
 Percent Loss: 0.2



ATSC 1.0 Host: KMOV-D24 / ATSC 1.0 Tenant: KPLR-D26 (ATSC 3.0 Host)