

**BROWARD COUNTY
REGIONAL EMERGENCY SERVICES AND COMMUNICATIONS
COMMUNICATIONS TECHNOLOGY DIVISION
EMERGENCY RESPONDER COMMUNICATION ENHANCEMENT SYSTEM (ERCES) GUIDELINES**

Broward County FCC license holders

1. Broward County
Regional Emergency Services and Communications, Communications Technology Division
1801 NW 64th St., Ste. 106A
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Contact Information:

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COMMUNICATIONS TECHNOLOGY DIVISION
EMERGENCY RESPONDER COMMUNICATION ENHANCEMENT SYSTEM (ERCES) GUIDELINES**

General Information – RESC-CTD:

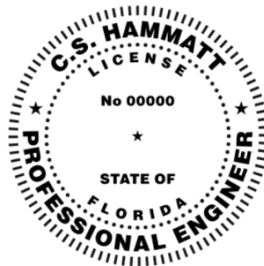
1. The currently adopted BORA ERCES guidelines shall be referenced for any item not specifically addressed in these guidelines.
<https://www.broward.org/CodeAppeals/Documents/BORA%20ERCES%20Guidelines%20%28Approved%2010-14-2021%29.pdf>¹
2. Plans for all BDA/DAS installations in Broward County, shall require review and authorization by the Broward County Regional Public Safety Radio System FCC license holder (RESC-CTD).¹
3. Plans will be submitted electronically. There shall be one file containing the design plan and equipment specifications.^{1,2}
4. All plans shall be signed and sealed. There are two methods of signing; “Digitally” or “Electronically”, recognized by the [Florida Board of Professional Engineers](#) that RESC-CTD will accept. Plan sets not adhering to the proper digital or electronic signing methods described below will not be approved. Printed copies of digitally signed, dated, and sealed documents are not considered signed and sealed. Simply encrypting, securing, or locking an electronic file does not constitute a digital or electronic signature or seal.^{1,2}
 - A. “Digitally” Signing and Sealing:
 - i. A “digital signature” must be unique to the Professional Engineer using it, obtained from a third-party certification authority, and capable of verification. The certification authority will vet the PE and provide a password-protected digital signature file. (FBPE does not approve or provide a list of authorities.
 - ii. **The use of the digital option provided in Adobe Acrobat shall not be used as it is self-authenticated and does not use a third party.**
 - iii. The digital signature must be linked to the document in such a way that any change invalidates the signature and document.

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General Information – RESC-CTD (cont.)

- iv. The digital signature along with an image of the engineers' seal shall be placed on the first page of the document. The digitally signed and sealed document may include as many sheets as necessary. Each sheet must contain a title block, and a text box with text stating: **This item has been digitally signed and sealed by _____ (engineer's name), PE, on _____ (date signed). Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.** Please note that while the formatting may be altered, the text located within the text box must remain identical to the examples below, must be placed on all the electronic plan sheets, and must not be a part of the digital signature itself. On pages where a digitally created seal is not used, the signature block must contain all the information that would appear in the seal. Examples with seal and without are below:

- a. Digital signature WITH seal:



This item has been digitally signed and sealed by C.S. Hammatt, PE, on 05/01/2020.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

- b. Digital signature WITHOUT seal:

C.S. Hammatt, Professional Engineer, State of Florida, License No. 000000

This item has been digitally signed and sealed by C.S. Hammatt, PE, on 05/01/2020.

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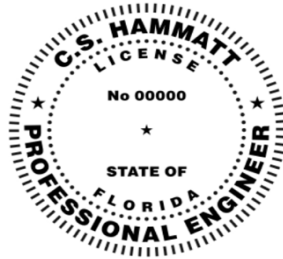
General Information – RESC-CTD (cont.)

- B. “Electronically” Signing and Sealing:
- i. An electronic signature for a file of engineering documents is created by a piece of software called a secure hash standard (or SHA) authentication code generator.
 - ii. Prior to submitting a project, the file is run through a SHA code generator, which provides a string of numbers and letters (the SHA authentication code) that is used in your document’s signature report. The printable signature report must include your name, license number, and must list all items to which the electronic signature applies. The signature report must be printed, hand signed, dated, and sealed.
 - iii. The signed and sealed report must be sent along with the electronically signed and sealed file either by hardcopy or electronic scan. If the signature report is scanned and sent electronically, the engineer must retain the hardcopy as required in Rule 61G15-30.009, F.A.C., Retention of Engineering Documents.
 - iv. The digital signature along with an image of the engineers’ seal shall be placed on the first page of the document. The electronically signed and sealed file may include as many sheets as necessary. Each sheet must contain a title block, and a text box with text stating: **This item has been electronically signed and sealed by _____ (engineer’s name), PE, on _____ (date signed) using a SHA authentication code. Printed copies of this document are not considered signed and sealed and the SHA authentication code must be verified on any electronic copies.** Please note that while the formatting may be altered, the text located within the text box must remain identical to the examples below, must be placed on all the electronic plan sheets, and must not be a part of the digital signature itself. On pages where an electronically created seal is not used, the signature block must contain all the information that would appear in the seal. Examples with seal and without are below:

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General Information – RESC-CTD (cont.)

- a. “Electronic” signature WITH seal:



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- b. “Electronic” signature WITHOUT seal:

C.S. Hammatt, Professional Engineer, State of Florida, License No. 000000

This item has been electronically signed and sealed by C.S. Hammatt, PE, on 05/01/2020 using a SHA authentication code.

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5. All plan changes or modifications requested by RESC-CTD, the municipal code official(s), Fire AHJ, or other FCC license holders will require a re-submission of the entire design plan, signed and sealed, to RESC-CTD with a written document explaining all changes and who requested them. ¹
6. DAQ Testing and RF grid surveys: ** For all buildings, new and existing, the need for a 700MHz BDA must be confirmed by an RF grid survey performed by a licensed BDA contractor, and a DAQ test performed by the Fire AHJ, prior to a system being installed. RESC-CTD must witness the pre-installation and/or pre 700MHz turn-up DAQ test(s), if the results of the RF grid survey indicate that a 700MHz BDA/DAS may be needed. ** ¹

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General Information – RESC-CTD (cont.)

7. All predictive heat maps used in design plans and RF grid surveys shall list the four (4) 700MHz control channels used by the Regional 700MHz radio system and indicate which is being used for testing: ¹

774.90625MHz (primary)	774.63125MHz
774.38125MHz	773.73125MHz

- A. RF Grid surveys:
- i. Shall be generated by a licensed BDA/DAS contractor using the Regional 700MHz P25 control channel(s).
 - ii. Will be submitted to the FCC license holder(s) and Fire AHJ for review.
 - iii. Notes on the grid report should include a description for each critical area that was tested (inside stairwell, elevator lobby, etc.)
 - iv. Should include FBER and SINR in addition to RSSI levels. * FBER and SINR are not used for scoring.
- B. NFPA no longer refers to a quantitative signal measurement (dBm) to ensure proper indoor radio coverage. NFPA 1221 and NFPA 1225 now refer to signals that are sufficient to provide a minimum of DAQ 3.0 for either, narrowband analog or digital transmissions. RESC-CTD allows -102dBm as the minimum quantitative relative signal strength (RSSI) measurement on the 700MHz P25 phase 2 radio system, providing that the minimum DAQ requirement is met. -102dBm is a numeric value, to be used solely as a reference point (threshold) for RSSI grid reports on the Regional Phase II 700MHz system and not for determining sufficient indoor radio coverage.
- C. **Predictive** Heat Maps
- i. Shall be in full color.
 - ii. Shall have a legend that includes RSSI level and band(s) being displayed.
 - iii. Shall show propagation prediction for entire floor area.
- D. If a Fire AHJ chooses not to perform DAQ testing as outlined:
- i. RESC-CTD can perform a DAQ test for a flat fee of \$300.00, plus an additional hourly rate of \$120.00 for each technician, billable to the Fire AHJ.

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General Information – RESC-CTD (cont.)

8. Multi-building complexes (campuses) where the buildings fall under the same ownership and/or are located on the same parcel of land: ¹
 - A. Will utilize a single head-end unit (One donor antenna for the complex/campus).
 - B. Will be issued a single provisional retransmission authorization when the headend is activated and the noise floor and uplink signals are confirmed to be within limits.
 - C. Will be issued one installation completion certificate when the last building is successfully activated, and the AHJ confirms that coverage in all buildings is satisfactory.
 - D. RESC-CTD will only require turn-up and final inspections for buildings with active equipment. Buildings with only passive equipment will not require RESC-CTD inspections.
 - E. Exceptions to this section may be made due to extenuating circumstances and will be reviewed on a case-by-case basis.

9. Cable selection and protection: ¹
 - A. The permitted use of protected cable shall be decided by the Fire and/or Electrical AHJ.
 - B. Fire protection requirements for the BDA/DAS, including its components and cables shall be decided by the Fire AHJ.
 - C. Either non-radiating (common) hardline, and/or radiating coaxial cable (leaky coax) may be used between the bi-directional amplifier and the in-building distribution antennas. LMR type flexible cables are not permitted. This includes, but is not limited to LMR200, LMR400 and LMR600 type cables.

10. Multi-Band BDA's ¹
 - A. RESC-CTD will not allow the use of any BDA that does not have independent control of the 700MHz and 800MHz uplink amplifiers.
 - B. The use of a public safety BDA for retransmitting cellular or LTE signals (including FirstNet) is strictly prohibited.
 - i. External filters must be installed where the 700MHz amplifier bandwidth cannot be adjusted to, or set at 6MHz, with a frequency range from 769MHz to 775MHz (772MHz center) for downlink and 799MHz to 805MHz (802MHz center) for uplink.

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General Information – RESC-CTD (cont.)

11. New construction projects: ^{1,2}
- A. Predictive RF signal levels overlaid on floor plans (full color heat maps) will be submitted to the FCC license holder (RESC-CTD) as part of the design plan submittal.
 - B. A BDA/DAS design plan should be generated for all new construction projects where a system may be required.
 - C. RESC-CTD recommends that BDA/DAS conduits and power provisions be provided during building construction, and that equipment not be installed until the necessity of a BDA/DAS is confirmed by RF grid survey and DAQ test as outlined below.
 - D. RESC-CTD will require an RF grid survey performed by a licensed BDA contractor, followed by a DAQ test performed by the Fire AHJ witnessed by RESC-CTD when the building under construction is nearing completion (Exterior walls, fire rated doors and windows are in place, and elevators are functional).
 - i. RESC-CTD must witness the pre-installation DAQ test if the results of the RF grid survey indicate that a BDA/DAS may be needed.
 - ii. The Fire AHJ shall submit to RESC-CTD a written summary of the DAQ test results, stating:
 - a. The date, time, and address of the building tested,
 - b. At the time the DAQ test was performed, the in-building radio coverage was sufficient or insufficient, and the areas that failed testing (if any).
 - iii. If the results of the RF grid survey and DAQ test indicate the BDA/DAS is necessary, installation may commence.
 - iv. Upon receipt of the RF grid survey and written confirmation from the Fire AHJ that a BDA/DAS is not needed, RESC-CTD will consider the project complete, and no further action will be necessary.

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General Information – RESC-CTD (cont.)

12. Existing buildings: ¹

- A. If a request is made to install a new 700MHz BDA/DAS:
 - i. RESC-CTD will require an RF grid survey, followed by a DAQ test if it has not already been done.
 - ii. RESC-CTD must witness the DAQ test if the results of the RF grid survey indicate that a BDA/DAS may be needed.
 - iii. The Fire AHJ shall submit to RESC-CTD a written summary of the DAQ test results, stating:
 - a. The date, time, and address of the building tested,
 - b. At the time the DAQ test was performed, the in-building radio coverage was sufficient or insufficient, and the areas that failed testing (if any).
 - iv. If a 700MHz BDA/DAS is needed, a design plan including the RF grid survey results and predictive heat maps will be submitted for review.
 - v. Upon receipt of the RF grid survey and written confirmation from the Fire AHJ that a BDA/DAS is not needed, RESC-CTD will consider the project complete, and no further action will be necessary.
- B. Turning up a 700MHz BDA/DAS where an 800MHz BDA/DAS is currently operational:
 - i. RESC-CTD will require an RF grid survey, followed by a DAQ test.
 - ii. RESC-CTD must witness the DAQ test if the results of the RF grid survey indicate that a BDA/DAS may be needed.
 - iii. The Fire AHJ shall submit to RESC-CTD a written summary of the DAQ test results, stating:
 - a. The date, time, and address of the building tested.
 - b. At the time the DAQ test was performed, the in-building radio coverage was sufficient or insufficient, and the areas that failed (if any).
 - iv. If a 700MHz booster is needed:
 - a. The as-built plans will be reviewed by RESC-CTD to confirm 700MHz compatibility.
 - b. The results of the RF grid survey and DAQ test will be reviewed by the FCC license holder (RESC-CTD).
 - c. Upon RESC-CTD approval of the plans and concurrence of the DAQ test results, a turn-up inspection will be scheduled.

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General Information – RESC-CTD (cont.)

- v. If a 700MHz booster is not needed:
 - a. At a minimum, power shall be removed from the unit and secured so as not to be accidentally restored, and photographic evidence shall be provided to RESC-CTD that the donor antenna has been disconnected from, and a terminator placed on the donor port of the BDA/headend.
 - b. The 800MHz booster registration must be deleted from the FCC database.
 - c. Evidence that the booster registration has been deleted shall be submitted to the FCC license holder (RESC-CTD) for filing.
 - d. At the building owner’s discretion, and with approval of the AHJ, the donor antenna and/or the amplifier(s) (head-end unit and/or remotes) may be completely removed.
 - e. Items “a through d” above do not apply in the Cities of Plantation, Coral Springs, Parkland, Coconut Creek, and Fort Lauderdale, where an 800MHz BDA/DAS may still be required.
- vi. If a 700MHz booster is not needed but the 800MHz booster must remain active:
 - a. The RF grid survey results and a letter from the Fire AHJ confirming that at the time the DAQ test was performed the 700MHz in-building radio coverage was sufficient and that a 700MHz BDA/DAS is not needed shall be submitted to the FCC license holder (RESC-CTD) for filing.
 - b. Photographic evidence shall be provided to the FCC license holder (RESC-CTD) that the 700MHz booster (uplink) is not active.
 - c. Confirmation that the Broward County 800MHz call signs have been removed from the FCC booster registration database shall be provided to the FCC license holder (RESC-CTD).

13. System Components shall be approved and compatible with the Regional 700MHz Public Safety Radio System, and if necessary, the municipal 800MHz radio systems. ^{1,2}

14. All 700MHz Public Safety signal boosters will be registered with the FCC by the FCC license holder (RESC-CTD). ¹

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General Information – RESC-CTD (cont.)

15. Signal Boosters shall have FCC Certification. ²

16. BDA's shall have at least two independent power supplies. The secondary power source shall consist of one of the following: ^{1,2}
 - A. A storage battery dedicated to the system with 12 hours of 100 percent system operation capacity.
 - B. An alternative power source of 12 hours at 100 percent system operation capacity as approved by the AHJ.

17. Retransmission Authorization: ¹
 - A. When the system is approved to remain operational for tuning and testing, RESC-CTD will provide the building owner/manager a provisional retransmission authorization that shall remain on site with the other BDA documentation.
 - B. The RESC-CTD retransmission authorization grants permission to the building owner, to retransmit the Broward County Regional 700MHz Public Safety radio system only and DOES NOT authorize the retransmission of any other signals, including any 700MHz signals outside of the 700MHz Public Safety Spectrum (769MHz -775MHz, 799MHz-805MHz) such as FirstNet.
 - C. The RESC-CTD retransmission authorization must be obtained prior to optimization, testing, and commissioning. This authorization is valid for a period not to exceed one (1) year from the date of issuance.
 - D. A new retransmission authorization will be provided by RESC-CTD upon receipt of:
 - i. Annual test results, indicating that the system has been tested as specified in the current NFPA standard(s), by a licensed BDA/DAS service provider, and is operating within the manufacturers specifications, applicable FCC rules and regulations, and local guidelines.
 - ii. Written confirmation from the AHJ that indoor radio coverage is still sufficient.
 - iii. Written confirmation of an active service/maintenance agreement
 - E. If deficiencies are noted and/or the system requires modifications to any physical components and/or settings:
 - i. RESC-CTD shall be immediately notified of the issues and/or required modifications.

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General Information – RESC-CTD (cont.)

- ii. The AHJ will be directed to have the system shut down until all issues are resolved.
 - iii. When the issues are resolved and/or modification(s) is/are complete, RESC-CTD will coordinate a turn-up inspection to re-test the noise floor and uplink signal level to confirm that the system is not causing any interference on the 700MHz regional public safety radio system.
- F. Buildings with a BDA/DAS installed within a 2-mile radius of the West Lake Park tower site prior to the site becoming active, will require a DAQ test, witnessed by RESC-CTD, to confirm the necessity of a BDA:
- i. This test will be similar to a turn-up inspection, where the DAQ will be tested with the BDA/DAS turned off.
 - ii. Will only be required for the issuance of the first retransmission authorization following the West Lake Park site becoming active.

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Plan Review – RESC-CTD:

1. All Plans shall include the following information: ^{1,2}
 - A. Building owner, address, site coordinates (decimal degrees), building description showing building construction, building occupancy, total square footage, number of floors, total height of building and if the building is proposed or existing.
 - B. Name of certified designer and company.
 - C. Applicable codes and edition dates
 - D. System radio frequencies (Control Channels)
 - E. Detailed riser diagrams
 - F. Detailed floor plans showing:
 - i. Device locations (including, but not limited to: BDA, remote(s) if applicable, antennas, remote annunciator, FACP., etc.)
 - ii. Fire-rated enclosures.
 - iii. Conduit / cable runs including approximate lengths.
 - iv. Propagation modeling showing the Radio System’s Control Channels and predictive propagation legend.
 - G. Specification sheets for all equipment with (if applicable):
 - i. Manufacturer’s part numbers highlighted.
 - ii. Mechanical specifications.
 - iii. Electrical specifications.
 - iv. RF specifications.
 - v. Temperature limits.
 - vi. Certifications / listings.
 - H. Consolidated equipment list including:
 - i. Pictograms.
 - ii. Manufacturer’s part numbers.
 - iii. Quantity being used.
 - I. Pictogram legend.
 - J. Cables legend.

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Plan Review – RESC-CTD (cont.)

- K. Calculation Tables:
 - i. Battery backup (Provide calculation at 100%)
 - ii. Uplink budget:
 - a. Signal at RESC-CTD Tower Sites not to exceed -70dBm.
 - b. Items to be included in calculation:
 - i. Maximum BDA output.
 - ii. Donor antenna cable loss (from BDA to antenna).
 - iii. Antenna gain.
 - iv. Approx ERP of donor antenna.
 - v. Calculated, unobstructed free space loss.
 - vi. Approximate signal level at tower site.
- L. BDA configuration:
 - i. BDA Frequency band(s): 700MHz, 700MHz + FirstNet, 800MHz, 700MHz + 800MHz, 700MHz + FirstNet + 800MHz as listed in specification sheet.
 - a. Band(s) required by jurisdiction.
 - ii. Detailed configuration:
 - a. Uplink and downlink frequency range(s) being used to include:
 - i. Start frequency.
 - ii. Stop frequency.
 - b. Class “A” or “B” (20 frequency pairs/filters are required for Class “A” systems being used on the Regional 700MHz Radio system).
 - c. Number of channels (filters) being used and filter bandwidth.
 - d. Propagation delay (maximum delay 30 microseconds).
 - e. FCC license holder radio site(s) location (site name), azimuth and approximate distance to site, and effective radiated power (ERP).
- M. Mounting and grounding illustrations and details for:
 - i. Antenna.
 - ii. Mast.
 - iii. Surge protector.
 - iv. Coaxial grounding clamp.
 - v. BDA and BBU Power supply, battery enclosure (block diagram).

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Plan Review – RESC-CTD (cont.)

2. Notes on plans shall state: ²
 - A. The uplink amplifier(s) shall never be turned on, for testing or operation until written, or on site, approval is obtained from all applicable FCC license holders.
 - B. Inbound signal level shall be sufficient to provide a minimum of DAQ 3.0.
Outbound signal level shall be sufficient to provide a minimum of DAQ 3.0
 - C. Isolation shall be a minimum of 20 dB above the (maximum) signal booster gain under all operating conditions.
 - D. System shall be capable of transmitting all radio frequencies, as required by the Fire AHJ assigned to the jurisdiction and be capable of using any modulation technology.
 - E. Frequency changes: Systems shall be upgradeable.

END OF SECTION

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INSPECTIONS – RESC-CTD:

Initial Inspection

1. The uplink amplifier(s) shall never be turned on, for testing or operation until written, or onsite approval is obtained from the FCC license holder(s). ^{1,2}

2. The following items must be received by the FCC license holder (RESC-CTD) prior to the initial inspection: ^{1,2}
 - A. Written confirmation from the Engineer of Record or licensed BDA/DAS service provider stating that the system installation is complete, has been installed as per design plans, and is ready to be energized for testing.
 - B. RESC-CTD Provisional Retransmission Authorization form, complete and electronically signed.
 - C. Pre-installation/turn-up RF grid survey.
 - D. Written confirmation from the Fire AHJ stating that the system has passed all necessary rough inspections (Fire, Electrical, and/or any other discipline deemed necessary by the AHJ) to permit the system to be powered up.
 - E. Photographs of the installed major components including, but not limited to:
 - i. BDA, labeled with the following information:
 - a. Permit number.
 - b. Serviced by (company name).
 - c. Service company telephone.
 - ii. BDA / remote serial numbers.
 - iii. Enclosures with battery charger and batteries installed, wired with a label showing the battery's date of manufacture and installation date.
 - iv. Equipment, antenna, mast, and coaxial cable surge protection/grounding.
 - F. Written confirmation from the BDA contractor or AHJ stating that the elevator(s) (if applicable) are functional.

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INSPECTIONS – RESC-CTD (cont.):

Initial Inspection (cont.)

3. RESC-CTD shall coordinate the inspection with the Contractor, Fire Official AHJ and any other FCC license holder(s). The BDA vendor representative shall have a computer and a fully charged analyzer to gain access to the BDA program and to check levels and settings.^{1,2}
 - A. The Contractor shall coordinate all other responsible parties. The following shall be present if requested or guided by the AHJ(s):
 - i. Owners' representative.
 - ii. Electrical AHJ.
 - iii. Electrical contractor.
 - iv. Fire alarm contractor.
 - v. System engineer of record.

4. The Initial Inspection process shall include the following:¹
 - A. Items in Section 2 above shall be inspected for compliance.
 - B. Baseline noise floor will be measured at the FCC license holder (RESC-CTD) tower site.
 - C. The System shall be energized.
 - D. Inbound signal strength shall be measured on a test frequency at the FCC license holder (RESC-CTD) tower site. Inbound signal shall be less than -70dBm.
 - E. The noise floor at FCC license holder (RESC-CTD) tower site will be rechecked. No change from the previously noted baseline should be noted.

If the inbound signal is greater than -70dBm and/or if a change in the noise floor is noted when the HPA(s) is/are turned on, immediate actions shall be taken to reduce the uplink signal and/or the noise floor change. If the remedial actions do not resolve the issue(s), the system shall be powered off until a full systemic evaluation can be performed.

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INSPECTIONS – RESC-CTD (cont.):

Final Inspection

1. Prior to the final inspection, the following documentation shall be provided to the FCC license holder and Fire AHJ: ^{1,2}
 - A. A set of signed and sealed “As-Built” plans, in a single file, that includes:
 - i. A post turn-up RF grid survey.
 - ii. A signed letter from the licensed BDA/DAS contractor stating that the system has been balanced and tested and is ready for the final inspection.
 - iii. Proof of a current service agreement signed by the building owner and the BDA vendor, for a 1-year minimum term.
 - iv. Copies of elevator variances if applicable.
 - v. Screen shots of all GUI settings including, but not limited to configuration, gain and attenuation.
 - B. An email or letter from the Fire AHJ stating that the system provides sufficient in building radio coverage.
 - C. RESC-CTD installation completion form.

2. RESC-CTD shall coordinate the inspection with the BDA contractor and any other FCC license holder(s). ^{1,2}
 - A. The Contractor shall coordinate with and ensure that the Owner/Owners’ representative is on site.
 - B. The following shall be notified by the contractor, but are not required to be present:
 - i. Electrical Contractor.
 - ii. Fire Alarm Contractor.
 - iii. System Engineer of Record, if requested by any of the participating AHJ’s.
 - iv. Electrical AHJ.
 - v. Fire Official AHJ.

3. The inspection process shall include the following: ¹
 - A. Review of the GUI gain settings.
 - B. The system shall be de-energized.
 - C. Initial inspection items 4B through 4E shall be repeated.

**BROWARD COUNTY
REGIONAL EMERGENCY SERVICES AND COMMUNICATIONS
COMMUNICATIONS TECHNOLOGY DIVISION
EMERGENCY RESPONDER COMMUNICATION ENHANCEMENT SYSTEM (ERCES) GUIDELINES**

INSPECTIONS – RESC-CTD (cont.):

Final Inspection (cont.)

4. If, according to the Fire AHJ, the system meets the minimum requirement of DAQ 3.0 as required, RF levels, and noise floor measurements are satisfactory, a certification of installation completion will be issued by RESC-CTD for the 700MHz radio system only. ¹

REFERENCES:

- 1) **RESC-CTD Guidelines. Original publication date 8/24/2022**
- 2) **Broward County Board of Rules and Appeals (BORA) Emergency Responder Communications Enhancement Systems (ERCES) guidelines released 10/14/2021**