

**LEGAL NOTICE**

TOWN OF AVON, CONNECTICUT

**INVITATION FOR BID FOR  
RADIO COMMUNICATIONS TOWER**

**December 8, 2017**

The Town of Avon invites sealed bids for a radio communications tower (antenna support structure) to support their mission critical communications system until 10:30 AM on December 28, 2017. At that time bids will be opened in public and read aloud.

The documents comprising the Invitation for Bid may be obtained in person at Avon Town Hall, Office of the Town Manager, 60 West Main Street, Avon, CT 06001, during the hours of 8:30 AM – 4:30 PM Monday through Friday or on the Town’s website, [www.avonct.gov](http://www.avonct.gov), (under “QUICK LINKS”) Public Bids & RFPs.

The Town of Avon reserves the rights to amend or terminate this Invitation for Bid, accept all or any part of a bid, reject all bids, waive any informalities or non-material deficiencies in a bid, and award the contract to the lowest bid that meets the criteria set forth in the Invitation for Bid and is in the best interests of the Town.

**TOWN OF AVON, CONNECTICUT**

**INVITATION FOR BID FOR  
RADIO COMMUNICATIONS TOWER  
IFB #17/18-8**

**Bid Opening Date:** December 28, 2017

**Bid Opening Time:** 10:30 AM

**Bid Place:** Avon Town Hall, Office of the Town Manager

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The Town of Avon, Connecticut (Town) invites Bids for the provision of a radio communications tower (antenna support structure) to support its mission critical communications system.

The Town is in the process of replacing its radio communications system used by public safety first responders and public service users. As part of this project, they must relocate legacy radio communications equipment from an existing radio tower to a 60-foot replacement tower at the Avon Police Department’s Headquarters located at 60 West Main Street in Avon, Connecticut.

One (1) original bound, one (1) copy bound, and one (1) electronic version on USB/flash drive of sealed Bids must be received in the Avon Town Hall, Town Manager’s Office, 60 West Main Street, Avon, CT 06001, by the date and time noted above. The Town will not accept submissions by e-mail, fax, or other communication methods. The Town will not accept Bids received after the date and time noted above.

The documents comprising this Invitation for Bid (IFB) can be found on the Town’s website, [www.avonct.gov](http://www.avonct.gov), (under “QUICK LINKS”) Public Bids & RFPs. They can also be obtained in person at the Avon Town Hall, Office of the Town Manager, 60 West Main Street, Avon, CT 06001, during the hours of 8:30 AM – 4:30 PM, Monday through Friday. **Each bidder is responsible for checking the Town’s website to determine if the Town has issued any addenda to this Bid and, if so, to complete its Bid in accordance with the IFB as modified by the addenda.**

Bids must be held firm and cannot be withdrawn for ninety (90) calendar days after the opening date.

The Town reserves the rights to amend or terminate this IFB, accept all or any part of a Bid, reject all Bids, waive any informalities or non-material deficiencies in a Bid, and award the Bid to the lowest Bid that meets the criteria set forth in the IFB and that is in the best interest of the Town.

This Bid includes:

- Standard Instructions to Bidders	- Bidder’s Non Collusion Affidavit Form
- Required Contract Terms	- Bidder’s Statement of References Form
- Technical Specifications	- IFB Compliance Matrix
- Insurance Requirements	- Legacy Tower and Equipment Exhibit
- Bid Form	- Addenda, if any
- Bidder’s Legal Status Disclosure Form	- The Contract in the form attached

**TOWN OF AVON, CONNECTICUT**  
**STANDARD INSTRUCTIONS TO BIDDERS**

**1. INTRODUCTION**

The Town of Avon (the “Town”) is soliciting Bids for a radio communications tower (antenna support structure) to support its mission critical communications system. This IFB is not a contract offer, and **no contract will exist unless and until a written contract (the “Contract”) is signed by the Town and the successful bidder.**

Interested parties should submit a Bid in accordance with the requirements and directions contained in this IFB. **Bidders are prohibited from contacting any Town employee, officer or official concerning this IFB, except as set forth in Section 6, below. A bidder’s failure to comply with this requirement may result in disqualification.**

Except as otherwise provided in the Contract, if there are any conflicts between the provisions of these Standard Instructions to Bidders and any other documents comprising this IFB, these Standard Instructions to Bidders shall prevail.

**2. RIGHT TO AMEND OR TERMINATE THE IFB OR CONTRACT**

The Town may, before or after Bid opening and in its sole discretion, clarify, modify, amend or terminate this IFB if the Town determines it is in the Town’s best interest. Any such action shall be effected by a posting on the Town’s website, [www.avonct.gov](http://www.avonct.gov), (under “QUICK LINKS”) Public Bids & RFPs. **Each bidder is responsible for checking the Town’s website to determine if the Town has issued any addenda and, if so, to complete its Bid in accordance with the IFB as modified by the addenda.**

If this IFB provides for a multi-year Contract, the Town also reserves the right to terminate the Contract in subsequent years in the event that the Town Council declines to appropriate sufficient funds. The Town shall have no obligation or liability to the successful bidder for any unfunded year or years.

**3. KEY DATES**

Bidders are required to attend a mandatory Pre-Bid Conference and Site Visit on **December 15, 2017 at 10:30 a.m.** at the **Avon Police Department**, 60 West Main Street in Avon, CT. Please confirm attendance via email to Grace Tiezzi [gtiezzi@avonct.gov](mailto:gtiezzi@avonct.gov) by December 14, 2017 at 12 noon.

Bid Opening: December 28, 2017 at 10:30 AM

Preliminary Notice of Award: January 15, 2017

Contract Execution: February 1, 2017

The Preliminary Notice of Award and Contract Execution dates are anticipated, not certain, dates.

#### **4. OBTAINING THE IFB**

All documents that are a part of this IFB can be found on the Town's website, [www.avonct.gov](http://www.avonct.gov), (under "QUICK LINKS") Public Bids & RFPs. They can also be obtained in person at the Avon Town Hall, Office of the Town Manager, 60 West Main Street, Avon, CT 06001, during the hours of 8:30 AM – 4:30 PM, Monday through Friday.

#### **5. BID SUBMISSION INSTRUCTIONS**

Bids must be received in the Avon Town Hall, Town Manager's Office, 60 West Main Street, Avon, CT 06001 prior to the date and time the Bids are scheduled to be opened publicly. Postmarks prior to the opening date and time do **NOT** satisfy this condition. The Town will **NOT** accept late Bids. The Town will **NOT** accept submissions by e-mail or fax. Bidders are solely responsible for ensuring timely delivery.

One (1) original bound, one (1) copy bound, and one (1) electronic version on USB/flash drive of sealed Bids must be submitted in sealed, opaque envelopes clearly labeled with the bidder's name, the bidder's address, the words "**BID DOCUMENTS,**" and the **Bid Title, Bid Number and Bid Opening Date**. The Town may decline to accept Bids submitted in unmarked envelopes that the Town opens in its normal course of business. The Town may, but shall not be required to, return such Bid documents and inform the bidder that the Bid documents may be resubmitted in a sealed envelope properly marked as described above.

Bid prices must be submitted on the Bid Form included in this IFB. All blank spaces for Bid prices must be completed in ink or be typewritten; Bid prices must be stated in both words and figures. The person signing the Bid Form must initial any errors, alterations or corrections on that form. Ditto marks or words such as "SAME" shall not be used in the Bid Form.

Bids may be withdrawn personally or in writing provided that the Town receives the withdrawal prior to the date and time the Bids are scheduled to be opened. Bids are considered valid, and may not be withdrawn, cancelled or modified, for ninety (90) calendar days after the opening date, in order to give the Town sufficient time to review the Bids, investigate the bidders' qualifications, secure any required municipal approvals, and execute a binding contract with the successful bidder.

An authorized person representing the legal entity of the bidder must sign the Bid Form and all other forms included in this IFB.

#### **6. QUESTIONS AND AMENDMENTS**

Questions concerning the process and procedures applicable to this IFB are to be submitted **only in writing** (including by e-mail or fax) and directed **only to:**

Name: Grace Tiezzi  
Department: Town Manager's Office  
E-mail: [gtiezzi@avonct.gov](mailto:gtiezzi@avonct.gov)  
Fax: 860-409-4368

Questions concerning IFB Specifications are to be submitted **only in writing** (including by e-mail or fax) and directed **only to**:

Name: Police Chief Mark Rinaldo  
Department: Police Department  
E-mail: mr0202@avonct.gov

**Bidders are prohibited from contacting any other Town employee, officer or official concerning this IFB. A bidder's failure to comply with this requirement may result in disqualification.**

The appropriate Town representative listed above must receive any questions from bidders no later than **seven (7) business days** before the Bid opening date. That representative will confirm receipt of a bidder's questions by e-mail.

The Town will answer all relevant written questions by issuing one or more addenda, which shall be a part of this IFB and the resulting Contract, containing all questions received as provided for above and decisions regarding same.

At least four (4) calendar days prior to Bid opening, the Town will post any addenda on the Town's website, [www.avonct.gov](http://www.avonct.gov), (under "QUICK LINKS"), Public Bids & RFPs. **Each bidder is responsible for checking the website to determine if the Town has issued any addenda and, if so, to complete its Bid in accordance with the IFB as modified by the addenda.**

No oral statement of the Town, including oral statements by the Town representatives listed above, shall be effective to waive, change or otherwise modify any of the provisions of this IFB, and no bidder shall rely on any alleged oral statement.

#### **7. ADDITIONAL INFORMATION**

The Town reserves the right, either before or after the opening of Bids, to ask any bidder to clarify its Bid or to submit additional information that the Town in its sole discretion deems desirable.

#### **8. COSTS FOR PREPARING BID**

Each bidder's costs incurred in developing its Bid are its sole responsibility, and the Town shall have no liability for such costs.

#### **9. OWNERSHIP OF BIDS**

All Bids submitted become the Town's property and will not be returned to bidders.

#### **10. FREEDOM OF INFORMATION ACT**

All information submitted in a Bid or in response to a request for additional information is subject to disclosure under the Connecticut Freedom of Information Act as amended and judicially interpreted. A bidder's responses may contain financial, trade secret or other data that it claims should not be public (the "Confidential Information"). A bidder must identify specifically the pages and portions of its Bid or additional information that contain the claimed Confidential Information

by visibly marking all such pages and portions. Provided that the bidder cooperates with the Town as described in this section, the Town shall, to the extent permitted by law, protect from unauthorized disclosure such Confidential Information.

If the Town receives a request for a bidder's Confidential Information, it will promptly notify the bidder in writing of such request and provide the bidder with a copy of any written disclosure request. The bidder may provide written consent to the disclosure, or may object to the disclosure by notifying the Town in writing to withhold disclosure of the information, identifying in the notice the basis for its objection, including the statutory exemption(s) from disclosure. The bidder shall be responsible for defending any complaint brought in connection with the nondisclosure, including but not only appearing before the Freedom of Information Commission, and providing witnesses and documents as appropriate.

#### **11. REQUIRED DISCLOSURES**

Each bidder must, in its Bid Form, make the disclosures set forth in that form. A bidder's acceptability based on those disclosures lies solely in the Town's discretion.

#### **12. REFERENCES**

Each bidder must complete and submit the Bidder's Statement of References Form included in this IFB.

#### **13. LEGAL STATUS**

If a bidder is a corporation, limited liability company, or other business entity that is required to register with the Connecticut Secretary of the State's Office, it must have a current registration on file with that office. The Town may, in its sole discretion, request acceptable evidence of any bidder's legal status. Each bidder must complete the Bidder's Legal Status Disclosure Form included in this IFB.

#### **14. BID SECURITY**

This item is not applicable to this IFB.

#### **15. PRESUMPTION OF BIDDER'S FULL KNOWLEDGE**

Each bidder is responsible for having read and understood each document in this IFB and any addenda issued by the Town. A bidder's failure to have reviewed all information that is part of or applicable to this IFB, including but not limited to any addenda posted on the Town's website, shall in no way relieve it from any aspect of its Bid or the obligations related thereto.

Each bidder is deemed to be familiar with and is required to comply with all federal, state and local laws, regulations, ordinances, codes and orders that in any manner relate to this IFB or the provision of goods or performance of the work described herein.

By submitting a Bid, each bidder represents that it has thoroughly examined and become familiar with the scope of work outlined/the goods described in this IFB, and it is capable of performing the work/delivering/installing the goods to achieve the Town's objectives. If applicable, each bidder shall visit the site, examine the areas and thoroughly familiarize itself with all conditions of the property before preparing its Bid.

**16. SUBSTITUTION FOR NAME BRANDS**

This item is not applicable to this IFB.

**17. TAX EXEMPTIONS**

The Town is exempt from the payment of federal excise taxes and Connecticut sales and use taxes per Federal Tax Exempt #06-6001957 and pursuant to Conn. Gen. Stat. Chapter 219, § 12-412(1).

**18. INSURANCE**

The successful bidder shall, at its own expense and cost, obtain and keep in force at least the insurance listed in the Insurance Requirements that are a part of this IFB. The Town reserves the right to request from the successful bidder a complete, certified copy of each required insurance policy.

**19. PERFORMANCE SECURITY**

This item is not applicable to this IFB.

**20. DELIVERY ARRANGEMENTS**

The successful bidder shall deliver the items that are the subject of the IFB, at its sole cost and expense, to the location(s) listed in the Specifications.

**21. AWARD CRITERIA; PRELIMINARY SELECTION; CONTRACT EXECUTION**

All Bids will be publicly opened and read aloud as received on the date, at the time, and at the place identified in this IFB. Bidders may be present at the opening.

The Town reserves the right to correct, after bidder verification, any mistake in a Bid that is a clerical error, such as a price extension, decimal point error or FOB terms. If an error exists in an extension of prices, the unit price shall prevail. In the event of a discrepancy between the price quoted in words and in figures, the words shall control.

The Town reserves the rights to accept all or any part of a Bid, reject all Bids, and waive any informalities or non-material deficiencies in a Bid. The Town also reserves the right, if applicable, to award the purchase of individual items under this IFB to any combination of separate Bids or bidders.

The Town will select the lowest Bid that meets the criteria set forth in the IFB and is in the best interests of the Town; meaning that, in addition to price, due consideration will be given to factors such as a bidder's experience, references, capabilities, past performance, and other relevant criteria. The Town may reject any bidder if, in the sole judgment of the Town, the bidder's past performance gives rise to a substantial risk that the bidder may not provide satisfactory performance.

The Town generally will not award the Bid to any business that or person who is in arrears or in default to the Town with regard to any tax, debt, contract, security or any other obligation.

The Town will issue a Preliminary Notice of Award. The preliminary notice of award may be subject to further negotiations with the bidder. **The making of a preliminary award to a bidder does not provide the bidder with any rights and does not impose upon the Town any obligations. The Town is free to withdraw a preliminary award at any time and for any reason. A bidder has rights, and the Town has obligations, only if and when a Contract is executed by the Town and the bidder.**

If the bidder does not provide all required documents and execute the Contract within ten (10) business days of the date of the Preliminary Notice of Award, unless extended by the Town, the Town may call any Bid security provided by the bidder and may enter into discussions with another bidder.

The Preliminary Notice of Award and Contract Execution dates in Section 3's Key Dates are anticipated, not certain, dates.

## **22. NONRESIDENT REAL PROPERTY CONTRACTORS**

This item is not applicable to this IFB.

## **23. COMPLIANCE WITH IMMIGRATION LAWS**

By submitting a Bid, each bidder confirms that it has complied, and during the term of the Contract will comply, with the Immigration Reform and Control Act ("IRCA") and that each person it provides under the Contract will at all times be authorized for employment in the United States of America. Each bidder confirms that it has a properly completed Employment Eligibility Verification, Form I-9, for each person who will be assigned under the Contract and that it will require each subcontractor, if any, to confirm that it has a properly completed Form I-9 for each person who will be assigned under the Contract.

The successful bidder shall defend, indemnify, and hold harmless the Town, its employees, officers, officials, agents, volunteers and independent contractors, including any of the foregoing sued as individuals (collectively, the "Town Indemnified Parties"), against any and all proceedings, suits, actions, claims, damages, injuries, awards, judgments, losses or expenses, including fines, penalties, punitive damages, attorney's fees and costs, brought or assessed against, or incurred by, the Town Indemnified Parties related to or arising from the obligations under IRCA imposed upon the successful bidder or its subcontractor. The successful bidder shall also be required to pay any and all attorney's fees and costs incurred by the Town Indemnified Parties in enforcing any of the successful bidder's obligations under this provision, whether or not a lawsuit or other proceeding is commenced. The successful bidder's obligations under this section shall survive the termination or expiration of the Contract.



**24. NON-COLLUSION AFFIDAVIT**

Each bidder shall submit a completed Bidder's Non-Collusion Affidavit Form that is part of this IFB.

**END OF STANDARD INSTRUCTIONS TO BIDDERS**

**TOWN OF AVON, CONNECTICUT**  
**REQUIRED CONTRACT TERMS**

The following provisions will be mandatory terms of the Town's Contract with the successful bidder. If a bidder is unwilling or unable to meet, or seeks to clarify or modify, any of these Contract Terms, the bidder must disclose that inability, unwillingness, clarification and/or modification in its Bid Form (see Section 11 of the Standard Instructions to Bidders):

**1. DEFENSE, HOLD HARMLESS AND INDEMNIFICATION**

The successful bidder agrees, to the fullest extent permitted by law, to defend, indemnify, and hold harmless the Town, its employees, officers, officials, agents, volunteers and independent contractors, including any of the foregoing sued as individuals (collectively, the "Town Indemnified Parties"), from and against all proceedings, suits, actions, claims, damages, injuries, awards, judgments, losses or expenses, including attorney's fees, arising out of or relating, directly or indirectly, to the successful bidder's malfeasance, misconduct, negligence or failure to meet its obligations under the IFB or the Contract. Without limiting the foregoing, the obligation to defend, indemnify, and hold harmless includes injuries to persons (including injuries resulting in death) and injuries to property (including injuries to the environment). The successful bidder's obligations under this section shall not be limited in any way by any limitation on the amount or type of the successful bidder's insurance. Nothing in this section shall obligate the successful bidder to indemnify the Town Indemnified Parties against liability for damage arising out of bodily injury to persons or damage to property caused by or resulting from the negligence of the Town Indemnified Parties.

In any and all claims against the Town Indemnified Parties made or brought by any employee of the successful bidder, or anyone directly or indirectly employed or contracted with by the successful bidder, or anyone for whose acts or omissions the successful bidder is or may be liable, the successful bidder's obligations under this section shall not be limited by any limitation on the amount or type of damages, compensation or benefits payable by the successful bidder under workers' compensation acts, disability benefit acts, or other employee benefits acts.

The successful bidder shall also be required to pay any and all attorney's fees incurred by the Town Indemnified Parties in enforcing any of the successful bidder's obligations under this section. The successful bidder's obligations under this section shall survive the termination or expiration of the Contract.

As a municipal agency of the State of Connecticut, the Town will NOT defend, indemnify, or hold harmless the successful bidder.

**2. NO ASSIGNMENT; SUBCONTRACTING**

The successful bidder may not subcontract, transfer or assign any of its obligations under the Contract except as follows:

Prior to entering into any subcontract agreement(s) for the work described in the Contract, the successful bidder shall provide the Town with written notice of the identity (full legal name, street address, mailing address (if different from street address), and telephone number) of each proposed

subcontractor. The Town shall have the right to object to any proposed subcontractor by providing the successful bidder with written notice thereof within seven (7) business days of receipt of all required information about the proposed subcontractor. If the Town objects to a proposed subcontractor, the successful bidder shall not use that subcontractor for any portion of the work described in the Contract.

All permitted subcontracting shall be subject to the same terms and conditions as are applicable to the successful bidder. **The successful bidder shall remain fully and solely liable and responsible to the Town for performance of the work described in the Contract.** The successful bidder also agrees to promptly pay each of its subcontractors within thirty (30) days of receipt of payment from the Town or otherwise in accordance with law. The successful bidder shall assure compliance with all requirements of the Contract. The successful bidder shall also be fully and solely responsible to the Town for the acts and omissions of its subcontractors and of persons employed, whether directly or indirectly, by its subcontractor(s).

### **3. W-9 FORM**

The successful bidder must provide the Town with a completed W-9 form before Contract execution.

### **4. GENERAL PROVISIONS CONCERNING PAYMENTS**

Except as otherwise noted in the Specifications or Contract, all payments are to be made 30 days after the appropriate Town employee receives and approves the invoice, unless otherwise specified in the Specifications.

### **5. TOWN INSPECTION OF WORK**

The Town may inspect the successful bidder's work at all reasonable times. This right of inspection is solely for the Town's benefit and does not transfer to the Town the responsibility for discovering patent or latent defects. The successful bidder has the sole and exclusive responsibility for performing in accordance with the Contract.

### **6. REJECTED WORK OR MATERIALS**

The successful bidder, at its sole cost and expense, shall remove from the Town's property rejected items, commodities and/or work within 48 hours of the Town's notice of rejection. Immediate removal may be required when safety or health issues are present.

### **7. MAINTENANCE AND AVAILABILITY OF RECORDS**

The successful bidder shall maintain all records related to the work described in the IFB for a period of five (5) years after final payment under the Contract or until all pending Town, state and federal audits are completed, whichever is later. Such records shall be available for examination and audit by Town, state and federal representatives during that time.

**8. ADVERTISING**

The successful bidder shall not name the Town in its advertising, news releases, or promotional efforts without the Town's prior written approval.

If it chooses, the successful bidder may list the Town in a Statement of References or similar document required as part of its response to a public procurement. The Town's permission to the successful bidder to do so is not a statement about the quality of the successful bidder's work or the Town's endorsement of the successful bidder.

**9. PREVAILING WAGES**

This item is not applicable to this IFB.

**10. PREFERENCES**

This item is not applicable to this IFB.

**11. WORKERS COMPENSATION**

This item is not applicable to this IFB.

**12. SAFETY**

This item is not applicable to this IFB.

**13. NONDISCRIMINATION AND AFFIRMATIVE ACTION**

In the performance of the Contract, the successful bidder will not discriminate or permit discrimination in any manner prohibited by the laws of the United States or of the State of Connecticut against any person or group of persons on the grounds of race, color, religious creed, age (except minimum age), marital status or civil union status, national origin, ancestry, sex, sexual orientation, mental retardation, mental disability or physical disability, including but not limited to blindness, unless the successful bidder shows that such disability prevents performance of the work involved.

In the performance of the Contract, the successful bidder will take affirmative action to insure that applicants with job-related qualifications are employed and that employees are treated when employed without regard to their race, color, religious creed, age (except minimum age), marital status or civil union status, national origin, ancestry, sex, sexual orientation, mental retardation, mental disability or physical disability, including but not limited to blindness, unless the successful bidder shows that such disability prevents performance of the work involved.

In accordance with the Town's Affirmative Action Plan, the successful bidder shall comply with all provisions of the Civil Rights Act of 1964, the Equal Employment Opportunity Act of 1972,

United States Executive Orders 11246, 11375, 11478, and if applicable, the Connecticut Fair Employment Practice Law and Executive Order No. 3 of Governor Meskill.

Any violation of these provisions shall be considered a material violation of the Contract and shall be grounds for the Town's cancellation, termination or suspension, in whole or in part, of the Contract and may result in ineligibility for further Town contracts.

**14. STATE GRANT/LOAN AGREEMENT**

This item is not applicable to this IFB.

**15. SUCCESSFUL BIDDER PERSONNEL MUST BE AUTHORIZED TO WORK**

The Successful bidder confirms that it has complied with the obligations under the Immigration Reform and Control Act (IRCA) and that the employees, independent contractors and other personnel it provides under this Contract are authorized for employment in the United States. The successful bidder further confirms that it has properly completed I-9s for all employees assigned to the Town's place of business. The successful bidder agrees to hold harmless and indemnify the Town in the event that any of the employees or other personnel provided by the successful bidder are found not to be authorized to work under the law or in the event that there is a determination that the obligations set forth under IRCA, including, but not limited to, the failure to correctly prepare and maintain I-9s, have not been complied with by the successful bidder. The successful bidder agrees to indemnify, defend and hold the Town harmless against any claims brought against the successful bidder or the Town as a result of these obligations, including but not limited to, settlement fees, judgments and attorneys' fees and costs.

**16. CESSATION OF BUSINESS/BANKRUPTCY/RECEIVERSHIP**

If the successful bidder ceases to exist, dissolves as a business entity, ceases to operate, files a petition or proceeding under any bankruptcy or insolvency laws or has such a petition or proceeding filed against it, the Town has the right to terminate the Contract effective immediately. In that event, the Town reserves the right, in its sole discretion as it deems appropriate and without prior notice to the successful bidder, to make arrangements with another person or business entity to provide the services described in the Contract and to exercise any or all of its rights at Law, in equity, and/or under the Contract.

**17. NON-EMPLOYMENT RELATIONSHIP**

The Town and the successful bidder are independent parties. Nothing contained in the Contract shall create, or be construed or deemed as creating, the relationships of principal and agent, partnership, joint venture, employer and employee, and/or any relationship other than that of independent parties contracting with each other solely for the purpose of carrying out the terms and conditions of the Contract. The successful bidder understands and agrees that it is not entitled to employee benefits, including but not limited to workers compensation and employment insurance coverage, and disability. The successful bidder shall be solely responsible for any applicable taxes.

**18. VALIDITY**

The invalidity of one or more of the phrases, sentences or clauses contained in the Contract shall not affect the remaining portions so long as the material purposes of the Contract can be determined and effectuated.

**19. COMPLIANCE WITH LAWS; PERMITS**

The successful bidder shall comply with all applicable laws, regulations, ordinances, codes and orders of all governmental bodies, including the United States, the State of Connecticut and the Town, related to its Bid and the performance of the Contract. The successful bidder shall also, at its own expense, obtain all permits and approvals from all such governmental bodies required for performance of the Contract, and shall immediately notify the Town in writing of the loss or suspension of any such approval or permit.

**20. CONNECTICUT LAW AND COURTS**

The Contract shall be governed by and construed in accordance with the internal laws (as opposed to the conflicts of law provisions) of the State of Connecticut, and the parties irrevocably submit in any suit, action or proceeding arising out of the Contract to the jurisdiction of the United States District Court for the District of Connecticut or of any court of the State of Connecticut, as applicable.

**END OF REQUIRED CONTRACT TERMS**

# **TOWN OF AVON, CONNECTICUT**

## **Technical Specifications For Radio Communications Tower IFB #17/18-8**

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## 1. Project Overview

### 1.1 Introduction

The Town of Avon, Connecticut (Town) invites bids for the provision of a **radio communications tower (antenna support structure)** to support their mission critical communications system.

### 1.2 Background

The Town is in the process of replacing their radio communications system used by public safety first responders and public service users. As part of this project, they must relocate legacy radio communications equipment from an existing radio tower to a 60-foot replacement tower at the Avon Police Department's Headquarters located at 60 West Main Street in Avon, Connecticut.

### 1.3 Proposal Format

- A. Bidders shall complete all mandatory submittals included within this Invitation to Bid (IFB) package. Failure to provide any of the mandatory submittals may be cause for rejection.
- B. Bidders' proposals shall provide clear, concise information in sufficient detail in the sequential order defined below to enable the Town to confirm conformance to the Technical Specifications.
- C. Bidders shall adhere to the IFB response format and page limitations provided here and organized by section:
  - 1. Cover page with Bidder's name and primary contact information (one page)
  - 2. Cover letter introducing bidder, corporate history, highlights of recent implementations, and other key information (one page)
  - 3. Table of Contents (one to two pages)
  - 4. Section 1: Compliance matrix (Attachment A)
    - a. Bidders shall indicate compliance with the Technical Specifications by completing the *Compliance Matrix* provided in Attachment A.
    - b. Bidders shall mark an "X" in the appropriate column for each line of the *Compliance Matrix*. Bidders are not required to address rows of the matrix marked with "N/A," as these rows do not require a statement of

compliance. Compliance statements are limited to the following three choices:

- 1) COMPLY - the bid meets the specified requirement, or the bidder acknowledges the statement in the specifications.
  - 2) COMPLY WITH CLARIFICATION - the bid does not meet the exact stated requirement; however, meets a substantial portion of, or meets the intent of the requirement. The bidder shall provide a detailed explanation when using this statement.
  - 3) EXCEPTION - the proposal does not meet the specified requirements. The bidder shall provide a detailed explanation when using this statement.
5. Section 2: Mandatory submittals per the requirements and forms provided in the Town's IFB package
  6. Section 3: Bidder information (no more than four pages):
    - a. Mission and history – Provide a mission statement and brief history of the Bidder
    - b. Proposed staffing – Provide an organizational chart identifying the key personnel and organizational divisions that will be involved in manufacturing, shipping, installing the new tower along with decommissioning and disposal of the legacy tower
    - c. Subcontractors – Bidders shall identify all subcontractors and their respective roles and responsibilities in addition to complying with the subcontracting requirements set forth in the Town's IFB package
    - d. Litigation – Provide a description of any litigation and resolutions in the past ten years related to the bidder's performance. Provide a copy of a letter from the bidder's attorney and/or in-house legal counsel concerning the status of lawsuits and pending litigation for the most recent year.
  7. Section 4: Description of products and services to be provided by the bidder (no more than ten pages):
    - a. New 60-foot self-supporting lattice or a monopole design radio communications tower per this Technical Specification
    - b. Concrete tower foundation suited for the proposed tower and ice bridge posts (assuming normative soil conditions)

Technical Specifications  
Radio Communications Tower

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- c. New electrical grounding system per this Technical Specification, including the:
    - 1) Transmission line (coaxial cable) grounding kits
    - 2) Tower ground bus bar
    - 3) Tower ground ring
    - 4) External ground bus bar
  - d. New ice bridge with support posts between the new tower and the transmission line entry panel location of the 60 West Main Street building per this Technical Specification
  - e. New radio communications system antennas, mounts, and transmission lines per this Technical Specification
  - f. Delivery, offload, and proper storage of all materials and equipment procured and used to implement the new tower and associated components
  - g. OPTIONAL geotechnical investigation at the prospective tower and ice bridge support post location
  - h. Tower foundation design certified and sealed by a Professional Engineer (PE) licensed in the State of Connecticut
  - i. Tower assembly and erection drawings certified and sealed by a PE licensed in the State of Connecticut per this Technical Specification
  - j. Concrete compressive strength tests
  - k. Tower erection, installation, testing and verification/acceptance
  - l. Coordination with the Town's radio communications maintenance provider facilitating cutover from the legacy antennas and transmission lines to the replacement equipment
  - m. Legacy tower, antenna, and transmission line decommissioning, removal, and proper disposal plan per this Technical Specification
  - n. No deductible warranty against all defects in materials and workmanship for a minimum period of five years from the date acceptance of the equipment per this Technical Specification
8. Section 5: Additional information (no more than two pages):
- a. Additional information bidders believe will substantiate their compliance with the Technical Specifications

## 2. Radio Communications Tower Technical Specifications

The proposed radio communications tower and associated components shall be compliant with the requirements described throughout this Technical Specification.

### 2.1 General Requirements

- A. Bidders shall propose a radio communications tower designed and configured in accordance with the *Telecommunications Industry Association (TIA) 222-G Structural Standard for Antenna Supporting Structures and Antennas* to support the existing equipment loads with the specified growth margins.
- B. *The Town does not have an inventory of existing antennas, transmission lines, and other equipment located on the legacy radio communications tower that requires replacement and installation on the new tower.* Bidders are responsible for identifying all parameters required to replace the legacy equipment on the new tower, including the quantities, types, lengths, and other information pertaining to the antennas and antenna mounts, transmission lines, and connectors.
- C. For reference purposes only, Attachment B provides bidders with photographs and estimated listing of antennas installed on the legacy tower that require replacement. **NOTE** – This exhibit does not relieve bidders from identifying all parameters necessary to replace the equipment.
- D. Bidders shall propose a radio communications tower that complies with all applicable federal, state, and local laws, ordinances, codes, regulations, along with the standards, rules, regulations, and industry guidelines Section 2.2 defines.

### 2.2 Standards and Guidelines

- A. Bidders shall comply with all applicable portions of the following standards, rules, regulations, and industry guidelines (presented here in alphabetical order; not reflective of priority):
  - 1. American National Standards Institute (ANSI)
  - 2. American Society of Testing Materials (ASTM)
  - 3. Federal Aviation Administration (FAA)
  - 4. Federal Communications Commission (FCC)
  - 5. Institute of Electrical and Electronics Engineers (IEEE)
  - 6. International Building Code (IBC)

7. National Electrical Code (NEC®) (NFPA®-70)
  8. National Electrical Manufacturer's Association (NEMA®)
  9. National Fire Protection Association (NFPA®) 1221
  10. Occupational Safety and Health Administration (OSHA®)
  11. Telcordia® GR-63-CORE (Network Equipment-Building System) NEBS™ Requirements: Physical Protection
  12. Telecommunications Distribution Methods Manual (TDMM)
  13. Telecommunications Industry Associations (TIA®)
  14. Underwriters Laboratories, Inc. (UL)
- B. Bidders shall comply with industry best practices for system installation, grounding, bonding, and transient voltage surge suppression (TVSS), as outlined in the following standards:
1. Motorola R56 - *Standards and Guidelines for Communication Sites* (latest revision)
  2. Harris® *Communications Site Grounding and Lightning Protection Guidelines* (AE/LZT - 123 4618/1 - latest revision)
  3. MIL-STD-188-124B – *Grounding, Bonding, and Shielding for Common Long Haul/Tactical Communications Systems Including Ground Based Communications-Electronics Facilities and Equipment*
  4. Other industry standards – Bidders shall provide to the Town for review and approval

### **2.3 Governing Codes and Conflicts**

- A. If the requirements in these Technical Specifications differ with those of the governing codes and regulations, then the more stringent of the two shall become applicable.
- B. If the requirements in these Technical Specifications conflict with those of the governing codes and regulations, the Successful Bidder is responsible for identifying the conflict(s) and resolving to the satisfaction of the Town.
- C. If the Successful Bidder cannot meet any of the standards and/or guidelines listed in this Technical Specification, the Successful Bidder shall list all deviations for approval by the Town in their proposal.

## **2.4 Radio Communications Tower Design**

### **2.4.1 Design Criteria**

- A. The radio communications tower design shall be based on the minimum wind and ice requirements as specified for Class III structures in the latest revision of TIA 222-G – *Structural Standard for Antenna Supporting Structures and Antennas* to support the existing equipment loads with the specified growth margins.
- B. The tower and foundation shall be designed for all equipment, appurtenances, ancillary equipment, antenna loading and include 25% future capacity.
- C. The tower shall be manufactured as a self-supporting lattice or a monopole design.
- D. The tower height shall be 60-feet not including the lightning protection rod.
- E. For self-supporting towers, the Town prefers (but does not require) solid rod construction.
  - 1. Bidders shall clearly state whether the proposed radio communications tower is solid, hollow rod (i.e., tubular), or angular construction.
- F. All structural steel and hardware shall be galvanized after fabrication in accordance with the appropriate standards:
  - 1. All tower materials shall be hot dip galvanized after fabrication; with a minimum zinc coating of 2 oz. per sq. ft.
  - 2. Bolts shall be hot dip galvanized according to ASTM A-325, or the latest version of this standard.
- G. The make, model, serial number, and height of the tower shall be clearly labeled at the base of the tower.
  - 1. Labeling shall be weatherproof and durable such as a stamped metal plate or equivalent.
- H. Bidders shall include the proposed tower and ice bridge post foundation designs within Section 4 of their bid submissions (Description of products and services to be provided by the bidder) in accordance with Technical Specifications Section 1.3.
  - 1. ***For the purposes of this project, bidders shall assume normative soil conditions for the foundation designs.***

### **2.4.2 Transmission Line and Waveguide Support**

- A. There shall be a ladder type support system included with the tower to mount, route, and support the transmission lines and waveguides.
- B. In the case of a monopole, transmission lines and waveguide will be routed internally.
- C. The support system shall accommodate transmission line and waveguide mounting hardware at the proper intervals.
- D. The support system shall be equipped with precision punched or drilled holes to allow installation of snap-in type or bolt-in hangers.
- E. The support system shall be sized for 25% growth beyond initial system implementation.
- F. The support materials will be of similar construction as other tower materials, appearing integral to the tower structure.
- G. The support system shall be designed to meet rigidity specifications like the tower.

### **2.4.3 Ice Bridge**

- A. The tower shall be equipped with an ice bridge between the new tower and the transmission line entry panel location of the 60 West Main Street building.
- B. The ice bridge shall contain support posts spaced at intervals compliant to the wind loading specifications, but not more than 10 feet apart.
- C. There shall be posts placed on both lateral sides of the bridge to fully support the load.
- D. The ice bridge shall be designed to support all initial transmission lines and waveguide plus 25% growth capacity.
- E. The ice bridge and posts shall comply with the tower wind and ice requirements as specified in the latest revision of TIA 222-G.
- F. The following criteria shall govern the design of the ice bridge:
  - 1. Structurally sturdy to support live and dead loads
  - 2. Freestanding (i.e., not attached to the building or tower)

3. Minimum width of 2-feet
4. Length/height as required by the site specifics
5. Bridge/ice shield material shall be fabricated from galvanized bar grating or approved equivalent
6. All components of the ice bridge shall be hot-dipped galvanized after fabrication
7. Posts shall have galvanized caps
8. Posts shall be set in concrete foundations
9. Each post shall be separately grounded to the site ground system with 1/0 AWG stranded bare copper conductor
10. Ice bridge shall be adjustable in height to allow interface with the building entry panel and ports
11. Ice bridge shall be effectively grounded to the external ground bus bar

#### **2.4.4 Climbing Equipment**

- A. The tower shall be equipped with an Occupational Safety and Health Administration (OSHA)-approved climbing ladder and safety climbing cable with belt. The ladder may be integrated into the structural components of the tower.
- B. Tower maintenance climbers shall be able to climb the entire height of the structure without disconnecting from the cable.
- C. The equipment shall comply with latest revision of TIA 222-G.
- D. The Successful Bidder shall provide two approved climbing harnesses.

#### **2.4.5 Tower Installation**

- A. The Successful Bidder shall furnish all materials, labor, equipment, and mounting hardware to provide a complete functional tower installation in compliance with applicable federal, state, and local laws, ordinances, codes, regulations, along with the standards and industry guidelines Section 2.2 defines.
- B. The Successful Bidder shall perform all operations required for the installation, including concrete work and excavation, which shall comply with manufacturer's recommendations for temperature, slump and air content.
- C. Two sets of fresh field concrete specimens shall be taken for each concrete pour:



1. One set of field-cured concrete specimens shall be tested for weight
2. One set for compressive strength with the tests to be taken at 7 days and at 28 days
3. The results of these tests shall be presented to the Town via email attachment
4. The compressive strength test shall be the average of the two specimens from the same composite sample

#### **2.4.6 Tower Erection**

- A. The Selected Vendor shall be responsible for all costs associated with tower delivery, offload, storage, and erection, including a crane or other equipment required during offloading and tower erection.
- B. The foundation shall be allowed to cure for at least seven (7) days before erecting the tower.
- C. Manufacturer recommended bolts shall be used for all connections in accordance with the installation documentation.
- D. Bolts should be of such lengths as to protrude beyond the nuts a minimum of 1/4 inch and a maximum of 1/2 inch.
- E. All bolts shall be equipped with self-locking nuts.
- F. Field reaming of coated metal components will be acceptable only upon determining there is no structural damage to the tower.
- G. Field remanufactured holes must be hot stick galvanized as specified and be completely filled using a larger diameter bolt.
- H. All bolts placed through slotted holes shall be equipped with flat washers.
- I. Mud, dirt, and other foreign matter shall be removed from the tower sections before erection.
  1. Special attention shall be given to cleaning the contact surfaces at joints before they are bolted together.

Technical Specifications  
Radio Communications Tower

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- J. When portions of the tower are ground assembled, such assembly shall be on rigid surfaces or blocking which will provide support to prevent distortion of tower steel and damage to surface finish.
  - 1. All bolts shall be installed in all connections of ground assembled portions of the tower.
  - 2. Temporary bracing of tower members shall be used to avoid overstressing or distortion.
- K. The tower structure shall be erected plumb.
- L. The method of assembling and erecting shall be such that no member will be subjected to a load more than that for which it was designed.
- M. Extreme care shall be taken to establish and maintain the true geometric shape of the portion of the tower assembled.
  - 1. All connections must lie flat where bolted together
  - 2. No gaps between butt flanges or connections are acceptable after the bolts are tensioned
- N. Slings or other equipment used for picking up members or portions of the tower shall be of such material or protected in such a way as to not damage the tower section, the finish, or distort or overstress the tower when lifts are made.
- O. Portions of the tower shall be raised in such a manner that no dragging on the ground or against other hard surfaces occurs.
- P. Damaged tower sections can be used if properly repaired.
  - 1. If a damaged portion cannot be repaired to the satisfaction of the Town, it shall be replaced.
  - 2. For any galvanized surfaces, damaged for any reason, zinc-based solder repair shall be used.
    - a. Solders in a rod form or a powder may be used
    - b. Surfaces must be cleaned using a wire brush or a light grinding action
    - c. Surface preparation shall extend into the surrounding undamaged galvanized coating

- d. The thickness of zinc solder repair shall be equivalent to the originally specified hot dip galvanizing process
  - e. Repairs shall be performed in accordance with the solder manufacturer's instructions
- Q. Only wrenches of proper size, which will not deform the nuts, nor injure the surface finish, are to be used.
- R. Standard ironworkers' 12-inch spud or 12-inch socket wrenches shall be used.
- S. Pipe extenders shall not be permitted.

#### **2.4.7 Electrical Grounding System**

- A. The tower and all appurtenances shall be installed in accordance with the Motorola R56, Harris® Communications 4Z/LZT 123 4618/1 R3A or MIL-STD-188-124B.
- B. All equipment mounted on the tower shall be properly bonded/grounded to the tower ground bus bar.
- C. All antenna systems shall be effectively grounded and provide surge protection to all equipment.
- D. All antenna transmission lines shall be properly bonded/grounded to the tower.
  - 1. At a minimum, transmission lines shall be bonded/grounded at the antenna base, at the base of the tower (tower ground bus bar), and at the exterior ground bus bar located at the entry to the building.
  - 2. Additionally, transmission lines shall be bonded/grounded to the tower or cable ladders at intervals recommended by the manufacturer.
  - 3. Antenna transmission line ground conductors shall be bonded to the tower in compliance with standards.
- E. Tower Ground Bus Bar:
  - 1. The radio communications tower shall be equipped with a tower ground bus bar.
  - 2. The tower ground bus bar shall be an integral part of the tower construction.
  - 3. The tower ground bus bar shall be large enough to support all proposed transmission lines plus a 25% margin for future growth and/or to accommodate configuration changes.

- F. The Successful Bidder shall provide and install the external ground bus bar at the appropriate location below the entry panel location of the 60 West Main Street equipment building.
- G. The site installation should have less than five (5) ohms resistance between any connected point on the ground bus and earth ground.
- H. The Successful Bidder shall test ground resistivity using the four-point method.
- I. The Successful Bidder shall supply an electrical grounding test report to the Town via email attachment that fully describes the testing methods used.

## **2.5 Antennas and Transmission Lines**

- A. The Successful Bidder shall be responsible for providing and installing new antennas and transmission lines (coaxial cables) on the new tower at the same height of the existing tower.
- B. As previously cited, the Town does not have an inventory of existing antennas, transmission lines (coaxial cables), and other equipment located on the legacy radio communications tower that requires replacement and installation on the new tower. The Town includes Attachment B within this IFB that provides bidders with photographs and an estimated listing of antennas installed on the legacy tower that requires replacement. **NOTE** – This exhibit does not relieve bidders from identifying all parameters necessary to replace the equipment.
- C. Bidders are responsible for identifying all parameters required to replace the legacy equipment on the new tower, including the quantities, types, lengths, and other information pertaining to the antennas and antenna mounts, transmission lines (coaxial cables), and connectors.
- D. The Successful Bidder or shall be responsible for providing necessary hardware for mounting antennas and transmission lines (coaxial cables) to the tower, ice bridge, and routing them through the entry panel ports.
- E. The Successful Bidder shall replace transmission line (coaxial cables) and lightning protection from the Town's existing radio communications equipment to the antenna. This includes coaxial cable lightning protection devices (e.g., PolyPhasers®) or equivalent.
- F. The demarcation point between the Successful Bidder's outside plant (OSP) responsibilities and the responsibility of others is the transmission line (coaxial

cable) lighting protection devices located on each cable after passing through the entry port panel within the Police Department's Headquarters building.

- G. The Successful Bidder shall sweep antennas and transmission lines and provide the results of the tests to the Town via email attachment. The Successful Bidder shall provide return loss and distance to fault information at minimum for each antenna.
- H. The Successful Bidder shall coordinate with the Town's radio communications maintenance provider to facilitate cutover from the legacy antennas and transmission lines to the replacement equipment.

## ***2.6 Decommissioning of Legacy Radio Communications Tower***

- A. The Successful Bidder shall provide all the required labor, equipment, materials, and services to dismantle, decommission, remove, and properly dispose of the legacy radio communications tower, including all antennas, transmission lines, mounts, and other components in a safe and efficient manner.
- B. The Successful Bidder shall decommission the legacy radio communications tower and associated equipment only after all new antennas systems are cutover and accepted.
- C. Upon removing old coaxial cables from the building and entry ports, the Successful Bidder shall seal all exposed holes, gaps, and other openings. Empty entry panel ports shall be sealed with boot covers.
- D. Upon decommissioning the legacy radio communications tower, the concrete foundation may remain in the ground.

### **3. Project Management**

#### **3.1 Project Staffing**

- A. In accordance with Section 1.3 – *Proposal Format*, bidders shall provide an organizational chart identifying the key personnel and organizational divisions that will be involved in manufacturing, shipping, installing the new tower along with decommissioning and disposal of the legacy tower.
- B. The Successful Bidder shall identify via email the primary and secondary points of contact (POCs) who shall be responsible for coordinating all project activities with the Town’s project manager and consultant.
- C. The Successful Bidder shall address all written and verbal correspondence from the Town and/or the Town’s consultant during normal business hours on the same day or following business day. Response time shall not exceed 24-hours from receipt of correspondence except on weekends and official holidays.

#### **3.2 Project Meetings**

- A. The Successful Bidder shall attend project and construction meetings as deemed necessary by the Town throughout the period of the contract.
- B. Additional meetings that the Successful Bidder shall also attend may be scheduled at the discretion of the Town.
- C. If any changes in the overall timeline occur, the Successful Bidder shall update the project schedule for discussion during these project meetings.

#### **3.3 Project Schedule**

- A. The Successful Bidder shall develop and maintain a project schedule including tasks, milestones, start and end dates, task predecessors, and task owners.
- B. The schedule shall represent tasks associated with completing work on all items identified.
- C. The Successful Bidder shall update the project schedule with actual dates as tasks are completed.
- D. The Successful Bidder shall present all schedule updates to the Town during the project meetings.

### **3.4 Project Punch List**

- A. The Successful Bidder shall establish and maintain a punch list, as mutually agreed to with the Town.
- B. The punch list shall address all open issues including those related to the design, preparation, shipment/delivery, inventory, erection and installation, testing and documentation of the new radio communications tower along with decommissioning and disposal of the legacy tower.
- C. The Successful Bidder shall maintain the punch list in real time.
- D. The Successful Bidder shall distribute the punch list it to the Town weekly via e-mail.
- E. The punch list shall include the following at a minimum:
  - 1. Sequential punch list item number
  - 2. Date identified
  - 3. Item description
  - 4. The party responsible for resolution
  - 5. Expected resolution date
  - 6. Resolution date
  - 7. Details about how each punch list item was resolved and tested
  - 8. Notes about the item
- F. The Successful Bidder shall be responsible for reviewing each punch list item and advising Town of revisions.

### **3.5 Project Submittals**

- A. The Selected Bidder shall provide all project submittals and deliverables in accordance with the following considerations and requirements:
  - 1. All project submittals shall be subject to review and approval by the Town and their Consultant.
  - 2. The Successful Bidder may provide all draft submittals for review electronically.
  - 3. The Town requires one properly bound hard copy and one electronic copy via email attachment and/or USB flash/thumb drive for all final submittals

comprising the tower assembly and erection drawings along with the tower foundation design.

- B. All submittals shall include a cover letter or letter of transmittal, signed, dated, and fully describing the contents of the submittal.
- C. As Section 1.3 requires, the tower assembly and erection drawings and the foundation design shall be certified and sealed by a PE licensed in the State of Connecticut.



#### **4. Radio Communications Tower Warranty**

- A. Bidders shall propose a no deductible warranty against all defects in materials, equipment, and workmanship for five years from the date of acceptance of the equipment per this Technical Specification.
- B. All equipment provided shall be new and covered by the 5-year warranty, *commencing with the Town's final acceptance of the tower*. Should the warranty period start upon delivery or receipt of the tower, materials, and other equipment, the Successful Bidder shall extend the warranty an additional six months from the delivery date.
- C. The warranty shall cover all return, exchange, restocking, replacement, and other costs associated with equipment and materials found to be defective or damaged during the warranty period.

## 5. Project Acceptance and Contract Completion

- A. The Town shall deem the project ready for final acceptance following successful completion and approval of the following:
1. Final tower assembly, erection drawings, and foundation design certified and sealed by a PE licensed in the State of Connecticut
  2. OPTIONAL geotechnical investigation report
  3. Concrete compressive strength test results
  4. Provision, installation, and verification of the new 60-foot radio communications tower, antennas, mounts, transmission lines, and connection to the electrical grounding systems
  5. Provision, installation, and verification of the ice bridge
  6. Provision, installation, and verification of the necessary electrical grounding systems, including the:
    - a. Transmission line (coaxial cable) grounding kits
    - b. Tower ground bus bar
    - c. Tower ground ring
    - d. External ground bus bar
  7. Coordination with the Town's radio communications maintenance provider facilitating cutover from the legacy antennas and transmission lines to the replacement equipment
  8. Legacy tower, antenna, and transmission line decommissioning, removal, and proper disposal
  9. Provision of a document containing the no deductible warranty against all defects in materials and workmanship for a minimum period of five years from the date of the Town's acceptance
- B. The Successful Bidder shall provide all final written deliverables in accordance to the requirements Section 3.5 – *Project Submittals*, of this Technical Specification sets forth.
- C. The Town shall not grant any conditional acceptances to the Successful Bidder.

**END OF TECHNICAL SPECIFICATIONS**

**TOWN OF AVON, CONNECTICUT**

**INSURANCE REQUIREMENTS FOR**

**RADIO COMMUNICATIONS TOWER**

**IFB #17/18-8**

- a. Commercial General Liability:
- |                                             |             |
|---------------------------------------------|-------------|
| Each Occurrence:                            | \$1,000,000 |
| Personal/Advertising Injury Per Occurrence: | \$1,000,000 |
| General Aggregate:                          | \$2,000,000 |
| Product/Completed Operations Aggregate      | \$2,000,000 |
| Damage to Rented Premises                   | \$ 100,000  |
- b. Automobile Liability:
- |                                |             |
|--------------------------------|-------------|
| Each Accident:                 | \$1,000,000 |
| Hired/Non-owned Auto Liability | \$1,000,000 |
- c. Worker's Compensation, as required by Connecticut State statutes.
- d. The "Town of Avon" is to appear as an additional insured on the contractor's general liability and automobile liability Certificates of Insurance.
- e. All insurance is to be provided by a company authorized to issue such insurance in the State of Connecticut with a Best rating of no less than A- : VII.
- f. The contractor shall furnish the Town with certificates of insurance effecting coverage required by this clause. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. The certificates and endorsements are to be received and approved by the Town before work commences. Renewal of expiring certificates shall be filed thirty (30) days prior to expiration. The Town reserves the right to require complete, certified copies of all required policies, at any time.
- g. It is desired by the Town that no insurance be canceled or modified without thirty (30) days written notice by registered U.S. Mail to: Town Manager, Town of Avon, 60 West Main Street, Avon, Connecticut 06001-3743. Endorsements to the contractor's policies may be used to comply with this requirement.
- h. The limits of insurance may either be met as stated above, or in combination with an umbrella or excess liability policy.

**TOWN OF AVON, CONNECTICUT**

**BID FORM**

**RADIO COMMUNICATIONS TOWER**

**IFB #17/18-8**

**BIDDER'S FULL LEGAL NAME:**

\_\_\_\_\_

**PRICE BID**

Pursuant to and in full compliance with the IFB, the undersigned bidder, having visited the site or property if applicable, and having thoroughly examined each and every document comprising the IFB, including any addenda, hereby offers and agrees as follows:

To provide the products and/or services specified in, and upon the terms and conditions of, the IFB for the total sum of \_\_\_\_\_  
\_\_\_\_\_/100 Dollars (write out in words) (\$\_\_\_\_\_).

**ACKNOWLEDGEMENT**

In submitting this Bid Form, the undersigned bidder acknowledges that the price(s) include all labor, materials, transportation, hauling, overhead, fees and insurances, bonds or letters of credit, profit, security, permits and licenses, and all other costs to cover the completed products and/or services called for in the IFB. Except as otherwise expressly stated in the IFB, no additional payment of any kind will be made for the products and/or services called for in the IFB.

**REQUIRED DISCLOSURES**

1. Exceptions to/Clarifications of/Modifications of the IFB

\_\_\_\_\_ This Bid does not take exception to or seek to clarify or modify any requirement of the IFB, including but not only any of the required Contract Terms beginning on page 12 of this IFB. **The bidder agrees to each and every requirement, term, provision and condition of this IFB.**

OR

\_\_\_\_\_ This Bid takes exception(s) to and/or seeks to clarify or modify certain of the IFB requirements, including the Required Contract Terms. **Attached is a sheet fully describing each such exception.**

2. State Debarment List

Is the bidder on the State of Connecticut's Debarment List?

\_\_\_\_\_ Yes

\_\_\_\_\_ No

3. Occupational Safety and Health Law Violations

Has the bidder or any firm, corporation, partnership or association in which it has an interest (1) been cited for three (3) or more willful or serious violations of any occupational safety and health act or of any standard, order or regulation promulgated pursuant to such act, during the three-year period preceding the Bid (provided such violations were cited in accordance with the provisions of any state occupational safety and health act or the Occupational Safety and Health Act of 1970, and not abated within the time fixed by the citation and such citation has not been set aside following appeal to the appropriate agency or court having jurisdiction) or (2) received one or more criminal convictions related to the injury or death of any employee in the three-year period preceding the Bid?

\_\_\_\_\_ Yes

\_\_\_\_\_ No

If "yes," attach a sheet fully describing each such matter.

4. Arbitration/Litigation

Has either the bidder or any of its principals (regardless of place of employment) been involved for the most recent ten (10) years in any pending or resolved arbitration or litigation?

\_\_\_\_\_ Yes

\_\_\_\_\_ No

If "yes," attach a sheet fully describing each such matter.

5. Criminal Proceedings

Has the bidder or any of its principals (regardless of place of employment) ever been the subject of any criminal proceedings?

\_\_\_\_\_ Yes

\_\_\_\_\_ No

If “yes,” attach a sheet fully describing each such matter.

6. Ethics and Offenses in Public Projects or Contracts

Has either the bidder or any of its principals (regardless of place of employment) ever been found to have violated any state or local ethics law, regulation, ordinance, code, policy or standard, or to have committed any other offense arising out of the submission of Bids or bids or the performance of work on public works projects or contracts?

\_\_\_\_\_ Yes

\_\_\_\_\_ No

If “yes,” attach a sheet fully describing each such relationship.

7. No Conflict of Interest

Is the bidder aware of any personal or business relationship between a Town officer or employee and an officer, director, member, manager or partner of the bidder that could be regarded as creating a conflict of interest?

\_\_\_\_\_ Yes

\_\_\_\_\_ No

If “yes,” attach a sheet fully describing each such matter.

**NOTE:** THIS DOCUMENT, IN ORDER TO BE CONSIDERED A VALID BID, MUST BE SIGNED BY A PRINCIPAL OFFICER OR OWNER OF THE BUSINESS ENTITY THAT IS SUBMITTING THE BID. SUCH SIGNATURE CONSTITUTES THE BIDDER’S REPRESENTATIONS THAT IT HAS READ, UNDERSTOOD AND FULLY ACCEPTED EACH AND EVERY PROVISION OF EACH DOCUMENT COMPROMISING THE IFB, UNLESS AN EXCEPTION IS DESCRIBED ABOVE.

BY \_\_\_\_\_  
(PRINT NAME)

TITLE: \_\_\_\_\_

\_\_\_\_\_  
(SIGNATURE)

DATE: \_\_\_\_\_

**END OF BID FORM**

**TOWN OF AVON, CONNECTICUT**

**BIDDER'S LEGAL STATUS DISCLOSURE**

Please fully complete the applicable section below, attaching a separate sheet if you need additional space.

For purposes of this disclosure, "permanent place of business" means an office continuously maintained, occupied and used by the bidder's regular employees regularly in attendance to carry on the bidder's business in the bidder's own name. An office maintained, occupied and used by a bidder only for the duration of a contract will not be considered a permanent place of business. An office maintained, occupied and used by a person affiliated with a bidder will not be considered a permanent place of business of the bidder.

**IF A SOLELY OWNED BUSINESS:**

Bidder's Full Legal Name \_\_\_\_\_

Street Address \_\_\_\_\_

Mailing Address (if different from Street Address) \_\_\_\_\_

Owner's Full Legal Name \_\_\_\_\_

Number of years engaged in business under sole proprietor or trade name \_\_\_\_\_

Does the bidder have a "permanent place of business" in Connecticut, as defined above?

\_\_\_\_\_ Yes                      \_\_\_\_\_ No

If yes, please state the full street address (not a post office box) of that "permanent place of business."

\_\_\_\_\_

**IF A CORPORATION:**

Bidder's Full Legal Name \_\_\_\_\_

Street Address \_\_\_\_\_

Mailing Address (if different from Street Address) \_\_\_\_\_

Owner's Full Legal Name \_\_\_\_\_

Number of years engaged in business \_\_\_\_\_

Names of Current Officers

\_\_\_\_\_  
President                                      Secretary                                      Chief Financial Officer

Does the bidder have a “permanent place of business” in Connecticut, as defined above?

\_\_\_\_\_ Yes                      \_\_\_\_\_ No

If yes, please state the full street address (not a post office box) of that “permanent place of business.”

\_\_\_\_\_

**IF A LIMITED LIABILITY COMPANY:**

Bidder’s Full Legal Name \_\_\_\_\_

Street Address \_\_\_\_\_

Mailing Address (if different from Street Address) \_\_\_\_\_

Owner’s Full Legal Name \_\_\_\_\_

Number of years engaged in business \_\_\_\_\_

Names of Current Manager(s) and Member(s)

\_\_\_\_\_

Name & Title (if any)

\_\_\_\_\_

Residential Address (street only)

\_\_\_\_\_

Name & Title (if any)

\_\_\_\_\_

Residential Address (street only)

\_\_\_\_\_

Name & Title (if any)

\_\_\_\_\_

Residential Address (street only)

\_\_\_\_\_

Name & Title (if any)

\_\_\_\_\_

Residential Address (street only)

\_\_\_\_\_

Name & Title (if any)

\_\_\_\_\_

Residential Address (street only)

(Attach additional sheets as necessary)

Does the bidder have a “permanent place of business” in Connecticut, as defined above?

\_\_\_\_\_ Yes                      \_\_\_\_\_ No

If yes, please state the full street address (not a post office box) of that “permanent place of business.”

\_\_\_\_\_



**IF A PARTNERSHIP:**

Bidder's Full Legal Name \_\_\_\_\_

Street Address \_\_\_\_\_

Mailing Address (if different from Street Address) \_\_\_\_\_

Owner's Full Legal Name \_\_\_\_\_

Number of years engaged in business \_\_\_\_\_

Names of Current Partners

\_\_\_\_\_  
Name & Title (if any)

\_\_\_\_\_  
Residential Address (street only)

\_\_\_\_\_  
Name & Title (if any)

\_\_\_\_\_  
Residential Address (street only)

\_\_\_\_\_  
Name & Title (if any)

\_\_\_\_\_  
Residential Address (street only)

(Attach additional sheets as necessary)

Does the bidder have a "permanent place of business" in Connecticut, as defined above?

\_\_\_\_\_ Yes          \_\_\_\_\_ No

If yes, please state the full street address (not a post office box) of that "permanent place of business."

\_\_\_\_\_

\_\_\_\_\_  
Bidder's Full Legal Name

\_\_\_\_\_  
(print)

Name and Title of Bidder's Authorized Representative

\_\_\_\_\_  
(signature)

Bidder's Representative, Duly Authorized

\_\_\_\_\_  
Date

**END OF LEGAL STATUS DISCLOSURE FORM**

**TOWN OF AVON, CONNECTICUT**

**BIDDER'S NON-COLLUSION AFFIDAVIT FORM**

**BID FOR:**

The undersigned bidder, having fully informed himself/herself/itself regarding the accuracy of the statements made herein, certifies that:

- (1) the Bid is genuine; it is not a collusive or sham Bid;
- (2) the bidder developed the Bid independently and submitted it without collusion with, and without any agreement, understanding, communication or planned common course of action with, any other person or entity designed to limit independent competition;
- (3) the bidder, its employees and agents have not communicated the contents of the Bid to any person not an employee or agent of the bidder and will not communicate the Bid to any such person prior to the official opening of the Bid; and
- (4) no elected or appointed official or other officer or employee of the Town of Avon is directly or indirectly interested in the bidder's Bid, or in the supplies, materials, equipment, work or labor to which it relates, or in any of the profits thereof.

The undersigned bidder further certifies that this affidavit is executed for the purpose of inducing the Town of Avon to consider its Bid and make an award in accordance therewith.

\_\_\_\_\_  
Legal Name of Bidder

\_\_\_\_\_  
(signature)

Bidder's Representative, Duly Authorized

\_\_\_\_\_  
Name of Bidder's Authorized Representative

\_\_\_\_\_  
Title of Bidder's Authorized Representative

\_\_\_\_\_  
Date

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 201\_\_.

\_\_\_\_\_  
Notary Public

My Commission Expires:

**END OF NON-COLLUSION AFFIDAVIT FORM**

**TOWN OF AVON, CONNECTICUT**  
**RADIO COMMUNICATIONS TOWER**  
**BIDDER'S STATEMENT OF REFERENCES FORM**  
**IFB #17/18-8**

Provide at least three (3) references:

1. BUSINESS NAME \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY, STATE \_\_\_\_\_  
TELEPHONE: \_\_\_\_\_  
INDIVIDUAL CONTACT NAME AND POSITION \_\_\_\_\_  
\_\_\_\_\_
  
2. BUSINESS NAME \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY, STATE \_\_\_\_\_  
TELEPHONE: \_\_\_\_\_  
INDIVIDUAL CONTACT NAME AND POSITION \_\_\_\_\_  
\_\_\_\_\_
  
3. BUSINESS NAME \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY, STATE \_\_\_\_\_  
TELEPHONE: \_\_\_\_\_  
INDIVIDUAL CONTACT NAME AND POSITION \_\_\_\_\_  
\_\_\_\_\_

**END OF STATEMENT OF REFERENCES FORM**

## Attachment A – Compliance Matrix

Bidders shall complete and provide the following Compliance Matrix within Section 1 of their bid response package per Section 1.3 of these Technical Specifications.

RFP Section	Description	N/A	Comply	Comply with Clarification	Exception	Remarks
<b>1.</b>	<b>Project Overview</b>	X				
1.1	Introduction	X				
1.2	Background	X				
1.3	Proposal Format	X				
1.3.A	Bidders shall complete all mandatory submittals included within this Invitation to Bid (IFB) package. Failure to provide any of the mandatory submittals may be cause for rejection.					
1.3.B	Bidders' proposals shall provide clear, concise information in sufficient detail in the sequential order defined below to enable the Town to confirm conformance to the Technical Specifications.					
1.3.C	Bidders shall adhere to the IFB response format and page limitations provided here for the Technical Specifications, organized by section.					
1.3.C.1	Cover page with Bidder's name and primary contact information (one page)					
1.3.C.2	Cover letter introducing bidder, corporate history, highlights of recent implementations, and other key information (one page)					
1.3.C.3	Table of Contents (one to two pages)					
1.3.C.4	Section 1: Compliance matrix (Attachment A)					
1.3.C.4.a	Bidders shall indicate compliance with the Technical Specifications by completing the Compliance Matrix provided in Attachment A.					
1.3.C.4.b	Bidders shall mark an "X" in the appropriate column for each line of the Compliance Matrix. Bidders are not required to address rows of the matrix marked with "N/A," as these rows					

Technical Specifications  
Radio Communications Tower

RFP Section	Description	N/A	Comply	Comply with Clarification	Exception	Remarks
	do not require a statement of compliance. Compliance statements are limited to the following choices in the Technical Specifications.					
1.3.C.5	Section 2: Mandatory submittals per the requirements and forms provided in the Town's IFB package					
1.3.C.6	Section 3: Bidder information (no more than four pages):					
1.3.C.6.a	Mission and history – Provide a mission statement and brief history of the Bidder					
1.3.C.6.b	Proposed staffing – Provide an organizational chart identifying the key personnel and organizational divisions that will be involved in manufacturing, shipping, installing the new tower along with decommissioning and disposal of the legacy tower					
1.3.C.6.c	Subcontractors – Bidders shall identify all subcontractors and their respective roles and responsibilities in addition to complying with the subcontracting requirements set forth in the Town's IFB package					
1.3.C.6.d	Litigation – Provide a description of any litigation and resolutions in the past ten years related to the bidder's performance. Provide a copy of a letter from the bidder's attorney and/or in-house legal counsel concerning the status of lawsuits and pending litigation for the most recent year.					
1.3.C.7	Section 4: Description of products and services to be provided by the bidder (no more than ten pages):					
1.3.C.7.a	New 60-foot self-supporting lattice or a monopole design radio communications tower per this Technical Specification					
1.3.C.7.b	Concrete tower foundation suited for the proposed tower and ice bridge posts (assuming normative soil conditions)					
1.3.C.7.c	New electrical grounding system per this Technical Specification, including the:					
1.3.C.7.c.1	Transmission line (coaxial cable) grounding kits					
1.3.C.7.c.2	Tower ground bus bar					
1.3.C.7.c.3	Tower ground ring					
1.3.C.7.c.4	External ground bus bar					

Technical Specifications  
Radio Communications Tower

RFP Section	Description	N/A	Comply	Comply with Clarification	Exception	Remarks
1.3.C.7.d	New ice bridge with support posts between the new tower and the transmission line entry panel location of the 60 West Main Street building per this Technical Specification					
1.3.C.7.e	New radio communications system antennas, mounts, and transmission lines per this Technical Specification					
1.3.C.7.f	Delivery, offload, and proper storage of all materials and equipment procured and used to implement the new tower and associated components					
1.3.C.7.g	OPTIONAL geotechnical investigation at the prospective tower and ice bridge support post location					
1.3.C.7.h	Tower foundation design certified and sealed by a Professional Engineer (PE) licensed in the State of Connecticut					
1.3.C.7.i	Tower assembly and erection drawings certified and sealed by a PE licensed in the State of Connecticut per this Technical Specification					
1.3.C.7.j	Concrete compressive strength tests					
1.3.C.7.k	Tower erection, installation, testing and verification/acceptance					
1.3.C.7.l	Coordination with the Town's radio communications maintenance provider facilitating cutover from the legacy antennas and transmission lines to the replacement equipment					
1.3.C.7.m	Legacy tower, antenna, and transmission line decommissioning, removal, and proper disposal plan per this Technical Specification					
1.3.C.7.n	No deductible warranty against all defects in materials and workmanship for a minimum period of five years from the date acceptance of the equipment per this Technical Specification					
1.3.C.8	Section 5: Additional information (no more than two pages):					
1.3.C.8.a	Additional information bidders believe will substantiate their compliance with the Technical Specifications					
<b>2.</b>	<b>Radio Communications Tower Technical Specifications</b>	X				

Technical Specifications  
Radio Communications Tower

RFP Section	Description	N/A	Comply	Comply with Clarification	Exception	Remarks
2.1	General Requirements	X				
2.1.A	Bidders shall propose a radio communications tower designed and configured in accordance with the Telecommunications Industry Association (TIA) 222-G Structural Standard for Antenna Supporting Structures and Antennas to support the existing equipment loads with the specified growth margins.					
2.1.B	The Town does not have an inventory of existing antennas, transmission lines, and other equipment located on the legacy radio communications tower that requires replacement and installation on the new tower. Bidders are responsible for identifying all parameters required to replace the legacy equipment on the new tower, including the quantities, types, lengths, and other information pertaining to the antennas and antenna mounts, transmission lines, and connectors.					
2.1.C	For reference purposes only, Attachment B provides bidders with photographs and estimated listing of antennas installed on the legacy tower that require replacement. NOTE – This exhibit does not relieve bidders from identifying all parameters necessary to replace the equipment.					
2.1.D	Bidders shall propose a radio communications tower that complies with all applicable federal, state, and local laws, ordinances, codes, regulations, along with the standards and industry guidelines Section 2.2 defines.					
2.2	Standards and Guidelines	X				
2.2.A	Bidders shall comply with all applicable portions of the following standards, rules, regulations, and industry guidelines (presented here in alphabetical order; not reflective of priority):					
2.2.A.1	American National Standards Institute (ANSI)					
2.2.A.2	American Society of Testing Materials (ASTM)					
2.2.A.3	Federal Aviation Administration (FAA)					
2.2.A.4	Federal Communications Commission (FCC)					

Technical Specifications  
Radio Communications Tower

RFP Section	Description	N/A	Comply	Comply with Clarification	Exception	Remarks
2.2.A.5	Institute of Electrical and Electronics Engineers (IEEE)					
2.2.A.6	International Building Code (IBC)					
2.2.A.7	National Electrical Code (NEC®) (NFPA®-70)					
2.2.A.8	National Electrical Manufacturer's Association (NEMA®)					
2.2.A.9	National Fire Protection Association (NFPA®) 1221					
2.2.A.10	Occupational Safety and Health Administration (OSHA®)					
2.2.A.11	Telcordia® GR-63-CORE (Network Equipment-Building System) NEBSTM Requirements: Physical Protection					
2.2.A.12	Telecommunications Distribution Methods Manual (TDMM)					
2.2.A.13	Telecommunications Industry Associations (TIA®)					
2.2.A.14	Underwriters Laboratories, Inc. (UL)					
2.2.B	Bidders shall comply with industry best practices for system installation, grounding, bonding, and transient voltage surge suppression (TVSS), as outlined in the following standards:					
2.2.B.1	Motorola R56 - <i>Standards and Guidelines for Communication Sites (latest revision)</i>					
2.2.B.2	Harris® <i>Communications Site Grounding and Lightning Protection Guidelines (AE/LZT - 123 4618/1 - latest revision)</i>					
2.2.B.3	MIL-STD-188-124B – <i>Grounding, Bonding, and Shielding for Common Long Haul/Tactical Communications Systems Including Ground Based Communications-Electronics Facilities and Equipment</i>					
2.2.B.4	Other industry standards – Bidders shall provide to the Town for review and approval					
2.3	Governing Codes and Conflicts	X				
2.3.A	If the requirements in these Technical Specifications differ with those of the governing codes and regulations, then the more stringent of the two shall become applicable.					
2.3.B	If the requirements in these Technical Specifications conflict with those of the governing codes and regulations, the Successful Bidder is responsible for identifying the conflict(s) and resolving to the satisfaction of the Town.					



Technical Specifications  
Radio Communications Tower

RFP Section	Description	N/A	Comply	Comply with Clarification	Exception	Remarks
2.3.C	If the Successful Bidder cannot meet any of the standards and/or guidelines listed in this Technical Specification, the Successful Bidder shall list all deviations for approval by the Town in their proposal.					
2.4	Radio Communications Tower Design	X				
2.4.1	Design Criteria	X				
2.4.1.A	The radio communications tower design shall be based on the minimum wind and ice requirements as specified for Class III structures in the latest revision of TIA 222-G – Structural Standard for Antenna Supporting Structures and Antennas to support the existing equipment loads with the specified growth margins.					
2.4.1.B	The tower and foundation shall be designed for all equipment, appurtenances, ancillary equipment, antenna loading and include 25% future capacity.					
2.4.1.C	The tower shall be manufactured as a self-supporting lattice or a monopole design.					
2.4.1.D	The tower height shall be 60-feet not including the lightning protection rod.					
2.4.1.E	For self-supporting towers, the Town prefers (but does not require) solid rod construction.					
2.4.1.E.1	Bidders shall clearly state whether the proposed radio communications tower is solid, hollow rod (i.e., tubular), or angular construction.					
2.4.1.F	All structural steel and hardware shall be galvanized after fabrication in accordance with the appropriate standards.					
2.4.1.F.1	All tower materials shall be hot dip galvanized after fabrication; with a minimum zinc coating of 2 oz. per sq. ft.					
2.4.1.F.2	Bolts shall be hot dip galvanized according to ASTM A-325, or the latest version of this standard.					
2.4.1.G	The make, model, serial number, and height of the tower shall be clearly labeled at the base of the tower.					
2.4.1.G.1	Labeling shall be weatherproof and durable such as a stamped metal plate or equivalent.					

Technical Specifications  
Radio Communications Tower

RFP Section	Description	N/A	Comply	Comply with Clarification	Exception	Remarks
2.4.1.H	Bidders shall include the proposed tower and ice bridge post foundation designs within Section 4 of their bid submissions (Description of products and services to be provided by the bidder) in accordance with Technical Specifications Section 1.3.					
2.4.1.H.1	For the purposes of this project, bidders shall assume normative soil conditions for the foundation designs.					
2.4.2	Transmission Line and Waveguide Support	X				
2.4.2.A	There shall be a ladder type support system included with the tower to mount, route, and support the transmission lines and waveguides.					
2.4.2.B	In the case of a monopole, transmission lines and waveguide will be routed internally.					
2.4.2.C	The support system shall accommodate transmission line and waveguide mounting hardware at the proper intervals.					
2.4.2.D	The support system shall be equipped with precision punched or drilled holes to allow installation of snap-in type or bolt-in hangers.					
2.4.2.E	The support system shall be sized for 25% growth beyond initial system implementation.					
2.4.2.F	The support materials will be of similar construction as other tower materials, appearing integral to the tower structure.					
2.4.2.G	The support system shall be designed to meet rigidity specifications like the tower.					
2.4.3	Ice Bridge	X				
2.4.3.A	The tower shall be equipped with an ice bridge between the new tower and the transmission line entry panel location of the 60 West Main Street building.					
2.4.3.B	The ice bridge shall contain support posts spaced at intervals compliant to the wind loading specifications, but not more than 10 feet apart.					
2.4.3.C	There shall be posts placed on both lateral sides of the bridge to fully support the load.					

Technical Specifications  
Radio Communications Tower

RFP Section	Description	N/A	Comply	Comply with Clarification	Exception	Remarks
2.4.3.D	The ice bridge shall be designed to support all initial transmission lines and waveguide plus 25% growth capacity.					
2.4.3.E	The ice bridge and posts shall comply with the tower wind and ice requirements as specified in the latest revision of TIA 222-G.					
2.4.3.F	The following criteria shall govern the design of the ice bridge:	X				
2.4.3.F.1	Structurally sturdy to support live and dead loads					
2.4.3.F.2	Freestanding (i.e., not attached to the building or tower)					
2.4.3.F.3	Minimum width of 2-feet					
2.4.3.F.4	Length/height as required by the site specifics					
2.4.3.F.5	Bridge/ice shield material shall be fabricated from galvanized bar grating or approved equivalent					
2.4.3.F.6	All components of the ice bridge shall be hot-dipped galvanized after fabrication					
2.4.3.F.7	Posts shall have galvanized caps					
2.4.3.F.8	Posts shall be set in concrete foundations					
2.4.3.F.9	Each post shall be separately grounded to the site ground system with 1/0 AWG stranded bare copper conductor					
2.4.3.F.10	Ice bridge shall be adjustable in height to allow interface with the building entry panel and ports					
2.4.3.F.11	Ice bridge shall be effectively grounded to the external ground bus bar					
2.4.4	Climbing Equipment	X				
2.4.4.A	The tower shall be equipped with an Occupational Safety and Health Administration (OSHA)-approved climbing ladder and safety climbing cable with belt. The ladder may be integrated into the structural components of the tower.					
2.4.4.B	Tower maintenance climbers shall be able to climb the entire height of the structure without disconnecting from the cable.					
2.4.4.C	The equipment shall comply with latest revision of TIA 222-G.					
2.4.4.D	The Successful Bidder shall provide two approved climbing harnesses.					

Technical Specifications  
Radio Communications Tower

RFP Section	Description	N/A	Comply	Comply with Clarification	Exception	Remarks
2.4.5	Tower Installation	X				
2.4.5.A	The Successful Bidder shall furnish all materials, labor, equipment, and mounting hardware to provide a complete functional tower installation in compliance with applicable federal, state, and local laws, ordinances, codes, regulations, along with the standards and industry guidelines Section 2.2 defines.					
2.4.5.B	The Successful Bidder shall perform all operations required for the installation, including concrete work and excavation, which shall comply with manufacturer's recommendations for temperature, slump and air content.					
2.4.5.C	Two sets of fresh field concrete specimens shall be taken for each concrete pour:					
2.4.5.C.1	One set of field-cured concrete specimens shall be tested for weight					
2.4.5.C.2	One set for compressive strength with the tests to be taken at 7 days and at 28 days					
2.4.5.C.3	The results of these tests shall be presented to the Town via email attachment					
2.4.5.C.4	The compressive strength test shall be the average of the two specimens from the same composite sample					
2.4.6	Tower Erection	X				
2.4.6.A	The Selected Vendor shall be responsible for all costs associated with tower delivery, offload, storage, and crane use during offloading and tower erection.					
2.4.6.B	The foundation shall be allowed to cure for at least seven (7) days before erecting the tower.					
2.4.6.C	Manufacturer recommended bolts shall be used for all connections in accordance with the installation documentation.					
2.4.6.D	Bolts should be of such lengths as to protrude beyond the nuts a minimum of 1/4 inch and a maximum of 1/2 inch.					
2.4.6.E	All bolts shall be equipped with self-locking nuts.					

Technical Specifications  
Radio Communications Tower

RFP Section	Description	N/A	Comply	Comply with Clarification	Exception	Remarks
2.4.6.F	Field reaming of coated metal components will be acceptable only upon determining there is no structural damage to the tower.					
2.4.6.G	Field remanufactured holes must be hot stick galvanized as specified and be completely filled using a larger diameter bolt.					
2.4.6.H	All bolts placed through slotted holes shall be equipped with flat washers.					
2.4.6.I	Mud, dirt, and other foreign matter shall be removed from the tower sections before erection.					
2.4.6.I.1	Special attention shall be given to cleaning the contact surfaces at joints before they are bolted together.					
2.4.6.J	When portions of the tower are ground assembled, such assembly shall be on rigid surfaces or blocking which will provide support to prevent distortion of tower steel and damage to surface finish.					
2.4.6.J.1	All bolts shall be installed in all connections of ground assembled portions of the tower.					
2.4.6.J.2	Temporary bracing of tower members shall be used to avoid overstressing or distortion.					
2.4.6.K	The tower structure shall be erected plumb.					
2.4.6.L	The method of assembling and erecting shall be such that no member will be subjected to a load more than that for which it was designed.					
2.4.6.M	Extreme care shall be taken to establish and maintain the true geometric shape of the portion of the tower assembled.					
2.4.6.M.1	All connections must lie flat where bolted together					
2.4.6.M.2	No gaps between butt flanges or connections are acceptable after the bolts are tensioned					
2.4.6.N	Slings or other equipment used for picking up members or portions of the tower shall be of such material or protected in such a way as to not damage the tower section, the finish, or distort or overstress the tower when lifts are made.					

Technical Specifications  
Radio Communications Tower

RFP Section	Description	N/A	Comply	Comply with Clarification	Exception	Remarks
2.4.6.O	Portions of the tower shall be raised in such a manner that no dragging on the ground or against other hard surfaces occurs.					
2.4.6.P	Damaged tower sections can be used if properly repaired.					
2.4.6.P.1	If a damaged portion cannot be repaired to the satisfaction of the Town, it shall be replaced.					
2.4.6.P.2	For any galvanized surfaces, damaged for any reason, zinc-based solder repair shall be used.					
2.4.6.P.2.a	Solders in a rod form or a powder may be used					
2.4.6.P.2.b	Surfaces must be cleaned using a wire brush or a light grinding action					
2.4.6.P.2.c	Surface preparation shall extend into the surrounding undamaged galvanized coating					
2.4.6.P.2.d	The thickness of zinc solder repair shall be equivalent to the originally specified hot dip galvanizing process					
2.4.6.P.2.e	Repairs shall be performed in accordance with the solder manufacturer's instructions					
2.4.6.Q	Only wrenches of proper size, which will not deform the nuts, nor injure the surface finish, are to be used.					
2.4.6.R	Standard ironworkers' 12-inch spud or 12-inch socket wrenches shall be used.					
2.4.6.S	Pipe extenders shall not be permitted.					
2.4.7	Electrical Grounding System	X				
2.4.7.A	The tower and all appurtenances shall be installed in accordance with the Motorola R56, Harris® Communications 4Z/LZT 123 4618/1 R3A or MIL-STD-188-124B.					
2.4.7.B	All equipment mounted on the tower shall be properly bonded/grounded to the tower ground bus bar.					
2.4.7.C	All antenna systems shall be effectively grounded and provide surge protection to all equipment.					
2.4.7.D	All antenna transmission lines shall be properly bonded/grounded to the tower.					
2.4.7.D.1	At a minimum, transmission lines shall be bonded/grounded at the antenna base, at the base of the tower (tower ground					

Technical Specifications  
Radio Communications Tower

RFP Section	Description	N/A	Comply	Comply with Clarification	Exception	Remarks
	bus bar), and at the exterior ground bus bar located at the entry to the building.					
2.4.7.D.2	Additionally, transmission lines shall be bonded/grounded to the tower or cable ladders at intervals recommended by the manufacturer.					
2.4.7.D.3	Antenna transmission line ground conductors shall be bonded to the tower in compliance with standards.					
2.4.7.E	Tower Ground Bus Bar:	X				
2.4.7.E.1	The radio communications tower shall be equipped with a tower ground bus bar.					
2.4.7.E.2	The tower ground bus bar shall be an integral part of the tower construction.					
2.4.7.E.3	The tower ground bus bar shall be large enough to support all proposed transmission lines plus a 25% margin for future growth and/or to accommodate configuration changes.					
2.4.7.F	The Successful Bidder shall provide and install the external ground bus bar at the appropriate location below the entry panel location of the 60 West Main Street equipment building.					
2.4.7.G	The site installation should have less than five (5) ohms resistance between any connected point on the ground bus and earth ground.					
2.4.7.H	The Successful Bidder shall test ground resistivity using the four-point method.					
2.4.7.I	The Successful Bidder shall supply an electrical grounding test report to the Town via email attachment that fully describes the testing methods used.					
2.5	Antennas and Transmission Lines	X				
2.5.A	The Successful Bidder shall be responsible for providing and installing new antennas and transmission lines (coaxial cables) on the new tower at the same height of the existing tower.					
2.5.B	As previously cited, the Town does not have an inventory of existing antennas, transmission lines (coaxial cables), and other equipment located on the legacy radio communications					

Technical Specifications  
Radio Communications Tower

RFP Section	Description	N/A	Comply	Comply with Clarification	Exception	Remarks
	tower that requires replacement and installation on the new tower. The Town includes Attachment B within this IFB that provides bidders with photographs and an estimated listing of antennas installed on the legacy tower that requires replacement. NOTE – This exhibit does not relieve bidders from identifying all parameters necessary to replace the equipment.					
2.5.C	Bidders are responsible for identifying all parameters required to replace the legacy equipment on the new tower, including the quantities, types, lengths, and other information pertaining to the antennas and antenna mounts, transmission lines (coaxial cables), and connectors.					
2.5.D	The Successful Bidder shall be responsible for providing necessary hardware for mounting antennas and transmission lines (coaxial cables) to the tower, ice bridge, and routing them through the entry panel ports.					
2.5.E	The Successful Bidder shall replace transmission line (coaxial cables) and lightning protection from the Town's existing radio communications equipment to the antenna. This includes coaxial cable lightning protection devices (e.g., PolyPhasers®) or equivalent.					
2.5.F	The demarcation point between the Successful Bidder's outside plant (OSP) responsibilities and the responsibility of others is the transmission line (coaxial cable) lightning protection devices located on each cable after passing through the entry port panel within the Police Department's Headquarters building.					
2.5.G	The Successful Bidder shall sweep antennas and transmission lines and provide the results of the tests to the Town via email attachment. The Successful Bidder shall provide return loss and distance to fault information at minimum for each antenna.					
2.5.H	The Successful Bidder shall coordinate with the Town's radio communications maintenance provider to facilitate cutover					



Technical Specifications  
Radio Communications Tower

RFP Section	Description	N/A	Comply	Comply with Clarification	Exception	Remarks
	from the legacy antennas and transmission lines to the replacement equipment.					
2.6	Decommissioning of Legacy Radio Communications Tower	X				
2.6.A	The Successful Bidder shall provide all the required labor, equipment, materials, and services dismantle, decommission, remove, and properly dispose of the legacy radio communications tower, including all antennas, transmission lines, mounts, and other components in a safe and efficient manner.					
2.6.B	The Successful Bidder shall decommission the legacy radio communications tower and associated equipment only after all new antennas systems are cutover and accepted.					
2.6.C	Upon removing old coaxial cables from the building and entry ports, the Successful Bidder shall seal all exposed holes, gaps, and other openings. Empty entry panel ports shall be sealed with boot covers.					
2.6.D	Upon decommissioning the legacy radio communications tower, the concrete foundation may remain in the ground.					
<b>3.</b>	<b>Project Management</b>	<b>X</b>				
3.1	Project Staffing	X				
3.1.A	In accordance with Section 1.3 – Proposal Format, bidders shall provide an organizational chart identifying the key personnel and organizational divisions that will be involved in manufacturing, shipping, installing the new tower along with decommissioning and disposal of the legacy tower.					
3.1.B	The Successful Bidder shall identify via email the primary and secondary points of contact (POCs) who shall be responsible for coordinating all project activities with the Town’s project manager and consultant.					
3.1.C	The Successful Bidder shall address all written and verbal correspondence from the Town and/or the Town’s consultant during normal business hours on the same day or following business day. Response time shall not exceed 24-hours from					

Technical Specifications  
Radio Communications Tower

RFP Section	Description	N/A	Comply	Comply with Clarification	Exception	Remarks
	receipt of correspondence except on weekends and official holidays.					
3.2	Project Meetings	X				
3.2.A	The Successful Bidder shall attend project and construction meetings as deemed necessary by the Town throughout the period of the contract.					
3.2.B	Additional meetings that the Successful Bidder shall also attend may be scheduled at the discretion of the Town.					
3.2.C	If any changes in the overall timeline occur, the Successful Bidder shall update the project schedule for discussion during these project meetings.					
3.3	Project Schedule	X				
3.3.A	The Successful Bidder shall develop and maintain a project schedule including tasks, milestones, start and end dates, task predecessors, and task owners.					
3.3.B	The schedule shall represent tasks associated with completing work on all items identified.					
3.3.C	The Successful Bidder shall update the project schedule with actual dates as tasks are completed.					
3.3.D	The Successful Bidder shall present all schedule updates to the Town during the project meetings.					
3.4	Project Punch List	X				
3.4.A	The Successful Bidder shall establish and maintain a punch list, as mutually agreed to with the Town.					
3.4.B	The punch list shall address all open issues including those related to the design, preparation, shipment/delivery, inventory, erection and installation, testing and documentation of the new radio communications tower along with decommissioning and disposal of the legacy tower.					
3.4.C	The Successful Bidder shall maintain the punch list in real time.					
3.4.D	The Successful Bidder shall distribute the punch list it to the Town weekly via e-mail.					
3.4.E	The punch list shall include the following at a minimum:					

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RFP Section	Description	N/A	Comply	Comply with Clarification	Exception	Remarks
3.4.E.1	Sequential punch list item number					
3.4.E.2	Date identified					
3.4.E.3	Item description					
3.4.E.4	The party responsible for resolution					
3.4.E.5	Expected resolution date					
3.4.E.6	Resolution date					
3.4.E.7	Details about how each punch list item was resolved and tested					
3.4.E.8	Notes about the item					
3.4.F	The Successful Bidder shall be responsible for reviewing each punch list item and advising Town of revisions.					
3.5	Project Submittals	X				
3.5.A	The Selected Bidder shall provide all project submittals and deliverables in accordance with the following considerations and requirements:	X				
3.5.A.1	All project submittals shall be subject to review and approval by the Town and their Consultant.					
3.5.A.2	The Successful Bidder may provide all draft submittals for review electronically.					
3.5.A.3	The Town requires one properly bound hard copy and one electronic copy via email attachment and/or USB flash/thumb drive for all final submittals comprising the tower assembly and erection drawings along with the tower foundation design.					
3.5.B	All submittals shall include a cover letter or letter of transmittal, signed, dated, and fully describing the contents of the submittal.					
3.5.C	As Section 1.3 requires, the tower assembly and erection drawings and the foundation design shall be certified and sealed by a PE licensed in the State of Connecticut.					
<b>4.</b>	<b>Radio Communications Tower Warranty</b>	<b>X</b>				
4.A	Bidders shall propose a no deductible warranty against all defects in materials, equipment, and workmanship for five					

Technical Specifications  
Radio Communications Tower

RFP Section	Description	N/A	Comply	Comply with Clarification	Exception	Remarks
	years <u>from the date of acceptance of the equipment</u> per this Technical Specification.					
4.B	All equipment provided shall be new and covered by the 5-year warranty, commencing with the Town’s final acceptance of the tower. Should the warranty period start upon delivery or receipt of the tower, materials, and other equipment, the Successful Bidder shall extend the warranty an additional six months from the delivery date.					
4.C	The warranty shall cover all return, exchange, restocking, replacement, and other costs associated with equipment and materials found to be defective or damaged during the warranty period.					
<b>5.</b>	<b>Project Acceptance and Contract Completion</b>	<b>X</b>				
5.A	The Town shall deem the project ready for final acceptance following successful completion and approval of the following:	X				
5.A.1	Final tower assembly, erection drawings, and foundation design certified and sealed by a PE licensed in the State of Connecticut					
5.A.2	OPTIONAL geotechnical investigation report					
5.A.3	Concrete compressive strength test results					
5.A.4	Provision, installation, and verification of the new 60-foot radio communications tower, antennas, mounts, transmission lines, and connection to the electrical grounding systems					
5.A.5	Provision, installation, and verification of the ice bridge					
5.A.6	Provision, installation, and verification of the necessary electrical grounding systems, including the:					
5.A.6.a	Transmission line (coaxial cable) grounding kits					
5.A.6.b	Tower ground bus bar					
5.A.6.c	Tower ground ring					
5.A.6.d	External ground bus bar					
5.A.7	Coordination with the Town’s radio communications maintenance provider facilitating cutover from the legacy antennas and transmission lines to the replacement equipment					

Technical Specifications  
Radio Communications Tower

RFP Section	Description	N/A	Comply	Comply with Clarification	Exception	Remarks
5.A.8	Legacy tower, antenna, and transmission line decommissioning, removal, and proper disposal					
5.A.9	Provision of a document containing the no deductible warranty against all defects in materials and workmanship for a minimum period of five years from the date of the Town's acceptance					
5.B	The Successful Bidder shall provide all final written deliverables in accordance to the requirements Section 3.5 – <i>Project Submittals</i> , of this Technical Specification sets forth.					
5.C	The Town shall not grant any conditional acceptances to the Successful Bidder.					

## Attachment B – Legacy Tower and Equipment

Figures B.1 and B.2 provide photographs of the Town's existing 60-foot radio communications tower and the associated equipment followed by a list estimating the antenna quantities and types.

***NOTE – As previously cited, the Town provides Attachment B for reference purposes only. This exhibit does not relieve bidders from identifying all parameters necessary to replace the equipment. The photographs and listing may not reflect all equipment presently installed that shall be replaced.***



**Figure B.1 – Existing Tower Base**



**Figure B.2 – Existing Tower Middle/Top**

**Estimated Antenna Inventory (base to top)**

- One (1) collinear omnidirectional antenna UHF 450-470 MHz
- Three (3) directional yagis
- One (1) folded dipole Low Band
- Two (2) collinear omnidirectional antenna UHF 450-470 MHz
- One (1) control station antenna (tower top)

## RADIO COMMUNICATIONS TOWER CONTRACT

This \_\_\_\_\_ Contract (the "Contract") is entered into the \_\_\_\_ day of \_\_\_\_\_, 20\_\_ ("Effective Date") by and between the Town of Avon, a political subdivision of the State of Connecticut, (the "Town") and \_\_\_\_\_, a \_\_\_\_\_, whose principal office is located at \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_ (the "Contractor").

WHEREAS, the Town has issued an Invitation for Bids (the "IFB") for \_\_\_\_\_ (the "Work"); and

WHEREAS, Contractor submitted a Bid to the Town, dated \_\_\_\_\_, 20\_\_ (the "Bid"); and

WHEREAS, the Town has selected Contractor and the Town and the Contractor desire to enter into a formal agreement for the performance of the Work;

THEREFORE, in consideration of the recitals set forth above and the mutual promises by the parties below, the parties agree as follows:

1. General. The Contractor agrees to perform the Work in accordance with the Contract Documents, as defined in Section 2 below.
2. Contract Documents. The Contract Documents include the following:
  - (i) The Contract;
  - (ii) The IFB, including the Standard Instructions to Bidders, Required Contract Terms, and Specifications;
  - (iii) *[any addenda or modifications to the IFB issued prior to opening of IFB or agreed to by the parties after opening but prior to Contract execution]*; and
  - (iv) The Bid submitted by the Contractor.

In the event of a conflict or inconsistency between or among the Contract, the IFB and/or the Bid, this Contract shall have the highest priority, the IFB the second priority, and the Bid the third priority.

3. Incorporation of Required Contract Terms. Without limiting the foregoing, **this Contract incorporates by reference all of the Required Contract Terms set forth in the IFB**, which shall be deemed as fully as part of this Contract as if they were set forth in their entirety in this Contract.
4. Term of Contract; Commencement of Work. Unless earlier terminated as provided in Section 6 below, the term of the Contract shall commence on the Effective Date of the Contract and be in effect until \_\_\_\_\_. However, the Contractor shall not start the Work prior to having received a notification to proceed from the Town.
5. Contract Payments. The Town will pay the Contractor for work completed in accordance with Section 4 of the Required Contract Terms of the IFB and the Bid Form contained in the IFB.



6. Failure to Perform by Contractor. If the Contractor fails to perform this Contract in accordance with its terms, the Town shall have the right, in addition to all other remedies it may have, to declare the Contract in default and enter into an agreement with another person to perform the Work. In that event, the Contractor shall pay the Town, as liquidated damages, the amount of any excess of the new price over the price in the Contract Documents, both pro-rated to the period of time covered by the unexpired term of the Contract at the time of default, plus any legal or other costs incurred by the Town in terminating the Contract and securing a new contractor.

7. Change Orders, Price Modifications, and Other Amendments. The Town shall have the right to require the Contractor to make alterations of, additions to and deductions from the Work. All such changes to the Scope of Work shall be made by a written change order written by the Town. The Contractor shall compute the effect of the change order upon the Contract price, subject to review and acceptance by the Town.

8. Entire Contract. The Contract Documents represent the entire and integrated agreement between the Town and the Contractor and supersede all prior negotiations, representations or agreements, whether written or oral.

9. Amendments. The Contract may not be altered or amended except by a written agreement executed by both parties.

10. Execution. The Contract may be executed in one or more counterparts, each of which shall be considered an original instrument, but all of which shall be considered one and the same agreement. The Contract shall become binding when one or more counterparts have been signed by each of the parties hereto and delivered (including delivery by facsimile or other electronic means) to each of the parties.

IN WITNESS WHEREOF, the Parties have executed this Contract as of the day and year first written above.

**THE TOWN OF AVON**

\_\_\_\_\_  
[Witness]

By \_\_\_\_\_  
Brandon Robertson  
Town Manager

**[COMPANY NAME]**

\_\_\_\_\_  
[Witness]

By \_\_\_\_\_  
Its \_\_\_\_\_