

**Request for Proposals  
Programming and Design Services  
New Telecommunications Tower  
September 2010**

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**Introduction:**

Columbia County is accepting proposals from qualified engineering/architect firms for Planning and Programming services for the following:

*Design of a new telecommunications tower, located at the County's Skilled Nursing Facility in Philmont, NY. This telecommunications tower will replace an existing Water Tower currently used to support telecommunications equipment for two cellular carriers.*

All work shall comply with the latest issue of the NYS Building Code as amended and generally accepted standards of the industry. Proposers must be licensed to practice professional engineering and/or architecture in the State of New York. Proposals must be received no later than 3:00 pm Thursday October 14, 2010 at the following address:

Dean Knox, Director of Engineering  
Columbia County Department of Public Works  
PO Box 324  
178 NYS Rt. 23B  
Hudson, NY 12534  
(518) 828-7011

A total of three proposals shall be submitted. Proposals may be mailed, but Columbia County gives no guarantee that said proposal will be received in the Office of the Director of Engineering by the designated time.

Envelopes must be marked: **“Proposal for Professional Services for Design of a Telecommunications Tower”**.

A mandatory prebid meeting will be held 10:00 am on Thursday September 30, 2010 at the site of the existing Water Tower located at the Pine Haven Nursing Home building on NYS Route 217, east of the Village of Philmont.

RFP Documents and Instructions can be viewed on the Columbia County Govt. website – [www.columbiacountyny.com](http://www.columbiacountyny.com) by following the link to the “Pine Haven Telecommunications Tower Project”.

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**Engineering Division**  
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**I. Background:**

Columbia owns a water storage tower located at the Pine Haven Skilled Nursing Facility. This water tower was decommissioned for use as a water storage tank many years ago. Sometime after it was decommissioned the tower was used as a support structure for telecommunication equipment. Currently the tower supports two telecommunication carriers with a third carrier under contract with the County whose equipment has not yet been installed. Further, Columbia County may use this new tower as an opportunity to locate additional equipment in support of the County's communication / emergency management system. The future communications tower may be taller in elevation than the existing water tower.

The tower needs some maintenance, including painting. As an alternative to maintaining the existing tower the County evaluated the option of erecting a new communications tower specifically designed for this intended use. The purpose of this RFP is to solicit professional design services for the planning, design and inspection of a new telecommunications tower to be located at the Pine Haven Skilled Nursing facility and, design and construction inspection services for the demolition of the existing water storage tower.

**II. Programming Services:**

This task shall consist of the development of an approved schematic design, including the mechanical, electrical and other systems required for the facility, as well as recommendations for the bidding package(s), order of construction and timing. During this task, all design criteria and solutions shall be established and developed within the program requirements and budget as established by the County.

The consultant will listen to the County's needs for the new tower. The consultant will be expected to offer feed-back relative to building code issues, mechanics, advantages/disadvantages to available options; strategies to keep the project within budget; permitting issues; and any other matter that would be normal to the planning of a communications tower project / water tower demolition project of this kind.

The consultant shall develop propagation studies at various tower heights for the County to evaluate and use as a basis for selecting the tower height which best fits their needs.

The Consultant shall also provide site design services relative to the overall site development for this project. This includes development of a grading plan if needed, storm water management plan if needed, lighting if needed, sediment and erosion control if needed, landscaping plan if needed, alternatives for the tower and support building locations if needed, and any other matter that may arise during the planning and design of a project of this nature.

The scope of services for the programming phase will be as follows:

1. Meet with the County as needed.
2. Provide a schematic design development letter report with a budget that describes the scope of work and basic program elements. It shall describe the overall design philosophy and operational characteristics of any new systems.
3. Concept drawings and descriptions for:
  - Location plan;
  - Site plan, shall include location of the existing and proposed buildings in relation to its immediate area, all existing and/or proposed utilities, grading, lighting, walks, roads, parking and basic topography;
  - General description of the Project including use, conformance to requirements, zoning, lot coverage, code compliance and security systems; and,
  - Outline specifications for site development, structural, mechanical, electrical, and site utilities as needed.

**III. Design Services:**

1. Meet with the County at the 30% and 90% progress development milestones. At these meetings present full-size drawings depicting the communication tower elevations; the relationship of the proposed communication tower to the existing water tower, both in plan and elevation; site plan(s); details, as they become available; cost estimates; and, recommendations to keep the project within budget. Also, the consultant shall coordinate the removal of communications equipment from the existing water tower and reinstatement of the equipment to the new communications tower. Incorporation of all corrections to the 90% submittal shall form the 100% construction bid documents.
2. Review all agreements between Columbia County and the communications carriers for the Pine Haven site in order to coordinate the work that is proposed with said carriers.
3. Perform field measurements where required to supplement information provided.
4. Provide an FAA 2C accuracy statement, which shall state that the site coordinates and vertical height are within are within FAA "2C" horizontal and vertical accuracy tolerances as set forth by the FAA.
5. The consultant shall prepare and comply with all FAA study and filing requirements.
6. The consultant shall prepare and comply with all FCC study and filing requirements.
7. Provide all supplemental services, such as property surveys, building survey, soil borings, landscape design, etc. that are needed and necessary to complete the design work.

8. Coordinate the engineering design work with the Columbia County Department of Public Works.
9. All costs associated with verification of existing drawings and actual field conditions as needed together with all costs associated with supplementing such information.
10. Perform all engineering work required to complete the design of the new communications tower and demolition of the existing water tower.
11. Final contract documents shall include all engineering drawings, sections, elevations, details, schedules and other data required to obtain complete bids. If the drawings are not sufficient in number or content to demonstrate the feasibility of the civil, structural, electrical, and mechanical or site development installations, the County may order the additional documents be prepared at no additional cost to adequately define said feasibility. Any interference between trades caused by inadequate design or coordination of the contract drawings and specifications will be the responsibility of the Consultant, who will prepare, at no additional cost, any supplemental drawings necessary to establish the feasibility of resolving interferences found prior to, or during, the bidding period, or during construction.
12. Obtain a schedule of the State minimum prevailing wage rates for various classifications of labor employed on the Project.
13. Create all drawings on the latest version of AutoCAD and provide the County with a copy of the contract documents on CD.
14. Complete, sign and seal all drawings to be issued as contract documents. The Plans and Specifications shall bear the signature and seal of the architect and/or engineer.
15. Upon completion, the Consultant shall certify to the County that all Contract Documents have been thoroughly checked for accuracy and for the coordination of all their parts, details and conformity to all applicable laws, ordinances and codes.
16. Prepare technical specifications in CSI format describing all aspects of the construction process for the Project work. Project manual shall also include: Information for Bidders; Form of Bid; Form of Bid Bond; Contract; Labor and Materials Payment Bond; Performance Bond; and General and Supplemental Conditions
17. Cost estimates shall be prepared at the 30% and 90% stages of contract documents. Provide a final cost estimate with the 100% pre-bid contract document submission. Estimates shall follow the CSI format and be prepared by personnel capable **AND QUALIFIED** (emphasis added). If needed, Consultant shall hire an Independent Cost Consultant. Accurate cost estimating will be needed in order to effectively manage this project.

18. The consultant shall not obtain the services of subcontractors without the authorization and approval of the County. The County reserves the right to disapprove any subcontractor proposed by the consultant. Subcontractors shall carry professional liability insurance naming Columbia County as an additional insured in the amounts required by the County of the consultant.

**IV. Bidding Services:**

1. The Consultant shall prepare and supply the necessary sets of Contract Documents for bidding and eventual award of one General contract for the construction of a new telecommunications tower and award of one General contract for the demolition of the existing water storage tower. If the value of the project exceeds the limits set forth under General Municipal Law, the consultant shall prepare separate prime contracts in accordance with General Municipal Law.
2. The Consultant shall attend a prebid meeting.
3. The Consultant shall investigate questions posed by bidders relative to bid documents and issue replies to all bidders. Any materials changed to the Contract Documents shall be issued in the form of Addenda.
4. The Consultant shall be present at bid opening if requested by the County.
5. The Consultant shall review and analyze the bids, investigate experience, qualifications and references of the three lowest bidders for each Contract that is bid and, make recommendations to the County in writing as to the award of each Contract that is bid.

**V. Construction Administration Phase Services:**

1. Conduct two preconstruction meetings with all necessary parties prior to commencement of construction contract and demolition contract.
2. Review and approve or disapprove all shop drawings and samples submitted by the contractor(s) for their adherence to the intent and requirements of the Contract Documents. Maintain a shop-drawing log for permanent record. A maximum of seven (7) workdays shall be taken for review of any shop drawings and/or samples submitted by the contractor unless consented to otherwise by the County.
3. Review, check and approve or disapprove all substitutions and "or equal" products, equipment and/or materials submitted by the contractor(s) on the basis of adherence to the intent of the Contract Documents, serviceability, reliability and impact of delivery on job progress.

4. Provide interpretations of construction documents and design. Evaluate all conflicts from the interpretation of the Contract Documents, and make recommendations for their resolution. Prepare supplemental sketches or details as necessary to clarify or correct errors in the construction documents and clarify field conditions not covered in the Contract Drawings or Specifications.
5. Review all field orders and change orders for their effect on design criteria only and make recommendations to the County.
6. Perform economic evaluation, accounting and processing of all change orders.
7. Coordinate its work with the County, and other consultants and contractors at the site.
8. Check, approve or disapprove test procedures and review test results and make appropriate recommendations to the County.
9. For project closeout, the Contractor shall review, approve and deliver to the County three (3) copies of the following:
  - All necessary guarantees and bonds.
  - One reproducible set, three copies, and one electronic set of As-Built Drawings on CD-ROM in a form acceptable to the County.
  - Operating and maintenance manuals.
  - Certificate of Construction Completion.
  - Certificate of compliance.
  - Other items as required by the Contract Documents.
10. Upon satisfactory completion of work, the Consultant shall assemble the Project Documents to be delivered to the County. These documents will contain the following:
  - Construction inspection reports.
  - Progress photos.
  - Approved product data.
  - Close-out documents as listed above.
  - Testing program results.

**VI. Construction Inspection Phase Services:**

1. Observe the work in progress at a level that will be adequate to determine compliance with the requirements of the drawings and specifications or approved shop drawings.
2. Inspect all work for quality and conformance to the Contract Documents and advise the County and contractor(s) of necessary corrective work. The Consultant will prepare inspection reports for each day that Consultant is at the site. Inspection reports shall also

include notation of contractor manpower, materials delivered, extent of work performed, new field conditions and any design modifications.

3. Maintain a clean set of drawings that illustrate the as-built conditions as the construction progresses.
4. Maintain a photo diary of the construction as it progresses.
5. Make a final inspection of the work with the County as a base to determine if the contract requirements have been fulfilled. List any variances between requirements and work installed.
6. Upon completion of the project, Consultant shall certify to the County, in writing, that the Work is complete and acceptable.
7. Determine the cause of, and responsibility for, any delays. Recommend appropriate remedial action to the County.
8. Notify the County relative to potential delays in construction and make recommendations to resolve issues contributing to delays.
9. Evaluate requests for extensions of time and make recommendations to the County.
10. Analyze and evaluate all claims for contract cost adjustment. Make recommendation to the County for resolution, approval or disapproval.

## **VII. Services Provided by County**

1. The County will provide boundary and topographic survey mapping which illustrates the location of the existing water tower in relation to its immediate area in electronic format.
2. Working with the local municipality to secure any approvals needed to construct the project. Should the consultant be asked to assist with municipal approvals, those services will be considered additional and a scope and fee for those services negotiated at that time.

## **Bidders Qualifications**

The successful bidder must demonstrate experience and expertise in the design and FCC / FAA regulatory approvals for telecommunication towers. Consideration will not be given to consultants who cannot demonstrate this experience.

**VIII. Form of Bid**

**Telecommunications Tower:**

- Programming Services ..... Lump Sum
- Design Services ..... Lump Sum
- Bidding Services ..... Lump Sum
- Construction Administration Services ..... Lump Sum
- Construction Inspection (estimated cost @ 100 hours to be billed hourly) ..... Lump Sum

**Water Storage Tank Demolition:**

- Design Services ..... Lump Sum
- Bidding Services ..... Lump Sum
- Construction Administration Services ..... Lump Sum
- Construction Inspection (estimated cost @ 40 hours to be billed hourly) ..... Lump Sum

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### **COLUMBIA COUNTY CONTRACTOR INSURANCE REQUIREMENTS**

The AGENCY / Contractor agrees to hold harmless and indemnify the County of Columbia and the Public Works Department of Columbia County, and the officers, agents, and employees of said County and the said Public Works Department, from and against all loss, damage, claims, demands, causes of action, and judgements arising out of bodily injury of whatever kind or nature, and property damage of whatever kind or nature, caused by the AGENCY and arising out of the AGENCY's performance of this Agreement. Additionally, the AGENCY agrees to procure and maintain, at its own expense, insurance of the kinds and in the amounts hereinafter provided, with insurance authorized to do business in the State of New York, covering all operations under this Agreement, whether performed by the AGENCY or by its subcontractor. Before commencing work on behalf of the County of Columbia, the AGENCY shall furnish Certificates of Insurance that have complied with these requirements, which certificates shall provide:

- a. Coverage shall not be canceled or reduced until (30) days written notice has been given to the county.
- b. Underwriters will have no rights of recovery or subrogation against the County of Columbia, it being the intention of the parties that the insurance policies so effected shall protect both parties.
- c. The insurance company(ies) issuing the policy(ies) shall have no recourse against the County of Columbia for payment of any premiums or for assessments under any form of the policy.
- d. Any and all deductible and self-insurance retentions in the above-described insurance policies shall be assumed by and at the risk of the AGENCY in the amount as indicated in such policies.

The coverage parts and amount of insurance required are as follows:

1. Commercial General Liability insurance with minimum limits of \$1,000,000 per occurrence, subject to a \$2,000,000 annual aggregate. Coverage shall include bodily injury, property damage, and blanket contractual liability. The County of Columbia and the Public Works Department shall be named as an additional named insured.
2. Automobile Liability with minimum limits of \$1,000,000 each accident. Coverage shall provide for any vicarious liability of the County of Columbia and be applicable to all owned, non-owned, hired, borrowed or temporarily used vehicles of the AGENCY.
3. Statutory Workers' Compensation and New York State Disability in accordance with the Compensation laws of the State of New York.
4. Professional liability insurance with a minimum of \$1,000,000 per occurrence and a \$3,000,000 annual aggregate. The County of Columbia and the Public Works Department shall be named additional insureds. (NOTE: in some cases this requirement of professional liability is not required. This decision is made on a case by case basis)

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