

**Request for Proposals  
2P12-027**

The City of Bristol, Connecticut is accepting Proposals for the following:

**Engineering Services for Drainage Projects  
for the Coppermine Brook**

All submissions must be made in accordance with the specifications supplied by

The City of Bristol  
Purchasing Office  
111 North Main Street  
Bristol, CT 06010



Submissions will be received until **1:00 pm, October 26, 2011.**

Roger D. Rousseau  
Purchasing Agent  
Tel (860) 584-6195  
Fax (860) 584-6171  
<http://www.bristolct.gov/bids>



**City of Bristol, Connecticut  
Request for Proposals 2P12-027  
Engineering Services for Drainage Projects  
for the Coppermine Brook**

The City of Bristol, Connecticut is seeking proposals from firms to provide design services for the design of improvements to complete a storm drainage flooding corrective projects for the Coppermine Brook, including hydraulic analysis, plan design, permitting, contract specification and plans for corrective measures.

Proposal submission documents and related information are available from  
the City of Bristol Purchasing Department  
111 North Main Street, Second Floor  
Bristol, CT 06010

between the hours of 8:30 am and 5:00 pm Monday through Friday, or by downloading from the website noted below.

A non-mandatory pre-proposal meeting will be held on **Friday, October 14, 2011 at 9:00 am** in the City Council Chambers in Bristol City Hall, 111 North Main Street, Bristol, CT.

Proposal submissions will be accepted by the Purchasing Department until **Wednesday, October 26, 2011 at 1:00 pm**; submissions received after this date and time will not be considered. The City reserves the right to waive any informalities in any submission, to reject any and/or all submissions, and to accept the proposal(s) that in its judgment is in its best interest. Each submission shall contain one printed original and five copies via CD media, and shall be in a sealed envelope or package clearly identified as "RFP 2P12-027 Coppermine Brook Improvements" delivered to the address noted above.

Roger D. Rousseau  
Purchasing Agent  
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**RFP 2P12-027**  
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# REQUEST FOR PROPOSALS CITY OF BRISTOL, CONNECTICUT

RFP 2P12-027

## Engineering Services for Drainage Projects for the Coppermine Brook

### I. PROJECT SPECIFICATIONS

#### 1. INTRODUCTION

The City is seeking to complete storm drainage flooding corrective projects for the Coppermine Brook, including hydraulic analysis, plan design, permitting, and development of construction specifications and plans for corrective measures.

A non-mandatory bidder's conference will be held on Friday, October 14, 2011 at 9:00 am in the First Floor Meeting Room at City Hall, 111 North Main Street, Bristol, CT.

#### 2. SITE CONSIDERATIONS

The Coppermine Brook, a tributary to the Pequabuck River, extends approximately five miles from its entry into the Pequabuck River in the southeastern corner of Bristol into the southern corner of Burlington (to the north of Bristol). Bridges at Farmington Avenue, West Washington Street, and at Artisan Street have been replaced within the past ten years. Channel improvements feeding into the Coppermine Brook from Stafford Avenue area have similarly been addressed within the past ten years.

The Coppermine Brook has continued to experience flooding problems.

In 2008, Milone and MacBroom Inc. ("MMI") conducted a drainage evaluation study of the Coppermine Brook watershed (executive summary attached) and has recommended three areas of action:

1. Construction of flood plain storage to mitigate flooding
2. Channel and structural improvements near Richards Court and Stevens Street
3. Hydraulic improvements near Farmington Avenue.

Hydraulic improvements to the Frederick Street Bridge are currently being designed and are not part of this request for proposals.

The MMI written report is available for review in the Public Works Department during normal business hours of 8:30 am to 5:00 pm Monday through Friday. The City will make an electronic copy of the report available for interested firms. The selected firm(s) will be provided copies of the hydraulic analysis as well as a digital copy of the City topographical maps of the area.

### **3. SCOPE OF SERVICES**

The scope of services is generally defined as noted below. Firms submitting qualifications are required to include information on how the scope of services will be addressed for all three projects, including a timeline relative to the tasks defined.

#### **A. Watershed Storage**

The previous MMI study identified two areas for potential watershed storage near the confluence of Negro Hill Brook and Coppermine Brook (map of areas enclosed). The City of Bristol is soliciting consulting engineering services to plan design and permit a watershed storage facility to retain flows along the Coppermine Brook. In addition to the potential areas identified in the original Coppermine Brook study prepared by MMI, the City requests that the selected consultant evaluate additional potential sites and provide recommendations.

A summary of required work is provided below:

##### **1. Preliminary Report with recommendations (3 months)**

- Collect and review flooding reports from City Departments including Public Works
- Evaluate the existing proposed improvements and potentially suggest other flood control methods.
- Collect data as necessary to define the soils, utilities and state and federal wetlands limits.
- Create a base map of the area of work. The City of Bristol has aerial base mapping. Further site development and site work will be necessary in preliminary design and permitting. Prepare preliminary property boundaries based on the City Assessors Maps.
- Prepare preliminary plans and specifications for staff and City review.
- Conduct a detailed storage evaluation based on proposal alternatives.
- Identify properties necessary for the City to obtain easements or property rights to construct the impoundment areas.
- Each project should have alternates, cost estimates, property easements or purchases, and permitting required for each project.
- Prepare a flood plain elevation impact report and map(s) for each of the alternates.
- Submit reports and preliminary plans to the City Engineering Division for review.

##### **2. Project Review, Coordination & Meetings**

- Management & Coordination of the preliminary plans with City Staff. At least two meetings will need to be conducted with City Staff per project.
- One (1) meeting with Public Works Board.
- The City will select from the alternates for development into a formal construction project.

##### **3. Design and Permitting (4 to 5 months)**

- Conduct field surveys, borings, and other testing as necessary to prepare plans. As a minimum, in areas of disturbances, an A-2 map with mapped wetlands will be required.
- Design a location for a storage area with the potential of berms and weir control structure(s).
- Prepare a soil scientist report for each site. Delineate state and federal wetlands for the chosen project. Delineate the preconstruction and post construction flood plain for the project. Update the HEC-HMS model as necessary based on field work.
- Conduct soil investigations to verify suitability for berm and structure construction.

- Identify properties necessary for the City to obtain easements and property rights. Conduct field work as necessary to prepare A-2 mapping as necessary to obtain and file land rights.
- Prepare plans and reports as necessary for permitting at local, state and federal levels. At the local level, prepare a wetlands boundary change permit and a wetlands permit and a flood plain permit for the improvements.
- One (1) public informational meeting for the project.
- Submit for City review preliminary contract drawings in preparation for public bid.

#### **4. Permitting**

- Prepare permits to be submitted to the various regulatory agencies for approval including Bristol Inland Wetland Commission, DEEP and Army Corp of Engineers.
- Provide representation as necessary for permitting at local, state and federal levels.
- Once completed prepare a semi-final plans and contract documentation to City staff for review.

#### **5. Final Plans and Specifications (1 month)**

- Submit to the City final contract drawings for public bidding. The selected consultant is expected to respond to requests for information (RFI's) from potential bidders during the bidding process, if such assistance is requested by the City.

### **B. Richards Court & Stevens Street Improvements**

The previous MMI report has indicated the flooding improvements in this area will include dike improvements, storm drainage modifications, and channel improvements. The City of Bristol is soliciting consulting engineering services to plan, design and permit improvements recommended in the original Coppermine Brook study prepared by MMI.

#### **1. Preliminary Report with recommendations (3 months)**

- Evaluate the existing proposed improvements and potentially suggest other flood control methods.
- Collect data as necessary to define the soils, utilities and state and federal wetlands limits.
- Create a base map of the area of work. The City of Bristol has aerial base mapping. Further site development and site work will be necessary in preliminary design and permitting. Prepare preliminary property boundaries based on the City Assessors Maps.
- Prepare preliminary plans and specifications for staff and City review.
- Evaluate the existing berm and conduct soil investigations as necessary. Provide design improvements as required.
- Evaluate the storm drainage system on Richards Court for suitability and upgrade as necessary.
- Evaluate the runoff from and towards Candy Lane and Stevens Street and design a solution to reduce flooding within the area.
- Identify properties necessary for the City to obtain easements or property rights to construct the impoundment areas.
- Each project should have alternates, cost estimates, property easements or purchases, and permitting required for each project.
- Prepare a flood plain elevation impact report and map(s) for each of the alternates.
- Submit reports and preliminary plans to the City Engineering Division for review.

## **2. Project Review, Coordination & Meetings**

- Management & Coordination of the preliminary plans with City Staff. At least two meetings will need to be conducted with City Staff per project.
- One (1) meeting with Public Works Board
- The City will select from the alternates for development into a formal construction project.

## **3. Design and Permitting (4 to 5 months)**

- Conduct field surveys, borings, and other testing as necessary to prepare plans. As a minimum, in areas of disturbances, an A-2 map with mapped wetlands will be required.
- Conduct soil borings to evaluate the berm and determine if the existing berm and adjacent soils will support the proposed improvements.
- Prepare a soil scientist report for each site. Delineate state and federal wetlands for the chosen project. Delineate the preconstruction and post construction flood plain for the project. Update the HEC-HMS model as based on field work. Conduct the HEC-RAS model to as a minimum.
- Identify properties necessary for the City to obtain easements and property rights. Conduct field work as necessary to prepare A-2 mapping as necessary to obtain and file land rights.
- Prepare plans and reports as necessary for permitting at local, state and federal levels. At the local level, prepare a wetlands boundary change permit and a wetlands permit and a flood plain permit for the improvements.
- One (1) public informational meeting for the project.
- Prepare permits to be submitted to the various regulatory agencies for approval.
- Submit for City review preliminary contract drawings for in preparation for public bid.

## **4. Permitting**

- Provide representation as necessary for permitting at local, state and federal levels.
- Once completed prepare a semi-final plans and contract documentation to City staff for review.

## **5. Final Plans and Specifications (1 month)**

- Submit to the City final contract drawings for public bidding. The selected consultant is expected to respond to requests for information (RFI's) from potential bidders during the bidding process, if such assistance is requested by the City.

## **C. Farmington Avenue**

The previous MMI report has indicated improvements can be obtained by removing the private bridge and conducting channel improvements.

### **1. Preliminary Report with recommendations (3 months)**

- Collect and review flooding reports from City Departments including Public Works.
- Evaluate the existing proposed improvements and potentially suggest other flood control methods.
- Collect data as necessary to define the soils, utilities and state and federal wetlands limits.
- Create a base map of the area of work. The City of Bristol has aerial base mapping. Further site development and site work will be necessary in preliminary design and permitting. Prepare preliminary property boundaries based on the City Assessors Maps.
- Prepare preliminary plans and specifications for staff and City review.

- Conduct a detailed storage evaluation based on proposal alternatives.
- Identify properties necessary for the City to obtain easements or property rights to construct the impoundment areas.
- Evaluate removal of the private bridge and channel improvements from approximately the Staples building southerly to Farmington Avenue.
- Develop concept changes to the parking lots and other site improvements.
- Provide flood elevation impacts for each concept from the area from Farmington Avenue to Collins Road.
- Each project should have alternates, traffic impacts to the affected properties, cost estimates, property easements or purchases, and permitting required for each project.
- Prepare a flood plain elevation impact report and map(s) for each of the alternates.
- Submit reports and preliminary plans to the City Engineering Division for review.

## **2. Project Review, Coordination & Meetings**

- Management & coordination of the preliminary plans with City Staff. At least three meetings will need to be conducted with City Staff per project.
- A meeting with each of the property owners to be impacted.
- One (1) meeting with Public Works Board.
- The City will select from the alternates for development into a formal construction project.

## **3. Design and Permitting (4 to 5 months)**

- Conduct field surveys, borings, and other testing as necessary to prepare plans. As a minimum, in areas of disturbances, an A-2 map with mapped wetlands will be required.
- Design channel improvements and other adjacent site impacts.
- Prepare a soil scientist report for each site. Delineate state and federal wetlands for the chosen project. Delineate the preconstruction and post construction flood plain for the project. Update the HEC-HMS model as based on field work. Conduct the HEC-RAS model to as a minimum.
- Conduct soil investigations to verify soils in the area and any potential disposal requirements.
- Identify properties necessary for the City to obtain easements and property rights. Conduct field work as necessary to prepare A-2 mapping as necessary to obtain and file land rights.
- Prepare plans and reports as necessary for permitting at local, state and federal levels. At the local level, prepare a wetlands boundary change permit and a wetlands permit and a flood plain permit for the improvements.
- One (1) public informational meeting for the project.
- Prepare permits to be submitted to the various regulatory agencies for approval.
- Submit for City review preliminary contract drawings for in preparation for public bid.

## **4. Permitting**

- Provide representation as necessary for permitting at local, state and federal levels.
- Once completed prepare a semi-final plans and contract documentation to City staff for review.

## **5. Final Plans and Specifications (1 month)**

- Submit to the City final contract drawings for public bidding. The selected consultant is expected to respond to requests for information (RFI's) from potential bidders during the bidding process, if such assistance is requested by the City.

It is the intent of this Request for Proposals to provide complete, timely, professional engineering services for the design of the three projects. The interview team should be prepared to outline plans for all three of the projects.

The City reserves the right to award the projects individually or as a whole. The proposal should itemize each of the projects as independent from the other work areas, should the City choose to award the projects individually.

Incidental items necessary to complete this work shall be considered included in the respondent's proposal whether or not such items are specifically listed in above Items. The selected firm and the City shall, if necessary, execute a final, mutually agreed Scope of Services Agreement prior to Notice to Proceed. Fees for substantial additional work items not listed in the final Scope of Services shall be negotiated.

#### **4. RESOURCES AVAILABLE**

The City will make available to the awarded firm the following information as it relates to the project:

- previous reports and documentation from completed projects
- aerial topography mapping as available from the Public Works Department

The City will provide other additional information in its possession as may be needed by the consultant, if such information is currently and readily available.

#### **5. PROJECT SCHEDULE**

The following is the proposed schedule for the selection process and work program:

Pre-bid meeting	October 14, 2011
Submittals due –	October 26, 2011
Interviews conducted –	November 15, 2011
Recommendation of contract award	December 13, 2011
Presentation of findings	February 16, 2012

## II. SUBMISSION REQUIREMENTS

### 1. SUBMISSION DUE DATE

Proposals will be accepted at the City of Bristol Purchasing Office, 111 North Main Street, Bristol, Connecticut, 06010 until **1:00 pm, October 26, 2011**. Proposals received after that time will not be considered. Proposals may be withdrawn 90 days after opening if no award has been made.

The City plans to invite a short list of responding firms for an interview based upon its review of the written submissions. Your firm should have Tuesday, November 15, 2011 available if selected for an interview; your firm will be notified no later than Thursday, November 10, 2011 if your firm is selected.

Unless otherwise indicated, proposals that are submitted are assumed to be valid for ninety (90) days from the date that proposals are due.

### 2. DIRECTIONS FOR WRITTEN SUBMISSION

Interested firms are required to submit **one original and five (5) copies** of the proposal to Roger Rousseau, Purchasing Agent, no later than the date and time noted above. Submittals shall consist of the following:

- a. A transmittal letter signed by the appropriate officer of the firm offering the proposal and certifying that the proposal and any cost projection included will remain in effect for 90 days after the due date.
- b. A concise and complete description of the work to be performed, including:
  1. An explanation of your firm's understanding of the projects, its approach to the work, the key issues to resolve and the level of detail that can be accomplished for within the available time.
  2. A detailed work program and time schedule for each phase of each of the projects, including milestones for periodic review of the work with the advisory committee(s).
  3. A list of personnel who will be assigned to the projects, including resumes for professionals expected to provide at least 20% of the person hours on the project. Support staff contracted by your firm for this project should additionally be included for review and consideration.
  4. A description of similar projects which your firm has been involved in, including references.
  5. A summary of your firm as outlined in Section II.3 of this document.
- c. A fee schedule for the services, and/or method for fee schedule development for engineering (e.g. percent of proposed construction cost, or hourly rate structures with potential staffing requirements). Please note that evaluation and subsequent award of a resultant contract is primarily based on qualifications and not based on fee schedule; however, the cost for your firm's services is one of the criteria outlined in this document. If your firm is selected for an interview, and as a result of the interview certain clarifications and adjustments need to be made to the fee schedule submitted, your firm will be allowed to adjust the fee schedule submitted, if so directed by the City.

Submittals shall be delivered to the City of Bristol Purchasing Department, 111 North Main Street, Bristol CT 06010, clearly marked as "2P12-027 Engineering Services for Drainage Projects for the Coppermine Brook".

### 3. VENDOR INFORMATION

#### A. Vendor Overview

Please provide the following:

- The name and location of your company, including the office location that will be serving the City.
- A brief general description of your business.
- The number of years your company has been in business.
- Is your company a subsidiary of another corporation? If so, what is the name of the parent company?
- The number of personnel employed by your company (please include the number of staff dedicated to provide requested services).
- The primary line of business of your firm.

#### B. Client Base

Provide specific reference information for three clients you have served, relevant to the work proposed, to include:

- Client name and location
- Starting date of service
- Contact name, title and telephone number

The references must be relevant to service in the last forty-eight (48) months, and shall include specific details on how the project represents a project of similar scope. Information on your firm's specific role must be included.

### 4. ADDENDA

If it becomes necessary to revise any part of this request or if additional data is necessary to enable interpretation of provisions of this document, revisions or addenda will be provided to all prospective firms who receive this document; such revisions or addenda will additionally be posted on the following website:

<http://www.bristolct.gov/>

This document includes an acknowledgement page; this page must be faxed back to the Purchasing Department, to ensure proper notification of changes to the published documents. The City of Bristol does not assume responsibility for any vendor that does not receive revisions or addenda, where the vendor has not acknowledged receipt of any portion thereof.

Questions regarding this document should be referred to Roger D. Rousseau at (860) 584-6195 or at <[rogerrousseau@bristolct.gov](mailto:rogerrousseau@bristolct.gov)>.

A summary of all questions and answers will be made available to each firm if they might influence the award of the contract.

## 5. EVALUATION CRITERIA

Selection of firm(s) will be the responsibility of a committee consisting of City designated representatives. The evaluation will be based upon the written submittals and selected presentations and interviews. The factors which will be evaluated include the following:

- a. The specialized experience of the individual(s) or firm(s) and its (their) assigned personnel on similar projects, with specific attention to watershed areas.
- b. The firm's understanding of and technical approach to the project.
- c. The firm's knowledge of requirements involving hydraulic analysis.
- d. The content of the firm and its consultants, support staff, etc. and their ability to work effectively together and with the City staff.
- e. The firm's schedule, including milestones in the process.
- f. The firm's ability to perform the work in a timely manner.
- g. Clarity, organization, and effective presentation of submittal.
- h. Review of references listed.
- i. Proposed fee schedule or fee schedule methodology. Please note that evaluation and subsequent award of a resultant contract is primarily based on qualifications and not based on fee schedule; however, the cost for your firm's services is a factor in the evaluation process. If your firm is selected for an interview, and as a result of the interview certain clarifications and adjustments need to be made to the fee schedule submitted, your firm will be allowed to adjust the fee schedule submitted, if so directed by the City

The City plans to invite a short list of responding firms for an interview based upon its review of the written submissions. **Your firm should have November 15, 2011 available** if selected for an interview.

Final recommendations regarding award of contract(s) for services will be made after the City and firm(s) have negotiated reasonable fee schedule(s) for services to be provided, and have concurrence on the methods to be used for payment for services rendered.

## III. CONTRACT CONSIDERATIONS

### 1. EQUAL OPPORTUNITY – AFFIRMATIVE ACTION

The successful firm shall comply in all aspects with the Equal Employment Opportunity Act. A firm with 15 or more employees shall be required to have an Affirmative Action Plan which declares that the contractor does not discriminate on the basis of race, color, religion, sex, national origin or age, and which specifies goals and target dates to assure the implementation of equal employment. A firm with fewer than 15 employees shall be required to have a written equal opportunity policy statement declaring that it does not discriminate on the basis of race, color, religion, sex, national origin or age. Findings of noncompliance with applicable State and Federal equal opportunity laws and regulations could be sufficient reason for revocation or cancellation of this contract.

### 2. INDEMNIFICATION

The awarded firm agrees to indemnify, defend, and save harmless, the City of Bristol, as well as its officers, agents and employees from any and all claims and losses to the extent caused by the negligent act, error or omission of the awarded firm resulting from the performance of this contract, except to the extent caused by the negligent acts of the City of Bristol or its officers, agents or employees.

The City, as a sovereign government, cannot indemnify businesses or individuals.

### **3. INSURANCE**

Prior to the execution of any contract, the City of Bristol requires that any awarded contractor providing materials, equipment or services to the City, must provide to the City a certificate of insurance (Acord or other approved format) naming the City of Bristol as additional insured, for the following:

- General liability (including completed operations coverage) in the amounts of \$1,000,000 (combined single limit) Bodily Injury/Property Damage coverage per occurrence, and \$2,000,000 general aggregate coverage.
- Automobile Liability in the amount of \$1,000,000 (combined single limit), Property Damage and Bodily Injury coverage.
- Professional Liability, in an amount not less than \$500,000.00 per occurrence and \$2,000,000.00 aggregate.
- Worker's Compensation as defined in the Connecticut General Statutes.

Any subcontractor to a contracted firm shall be likewise covered, and shall furnish certificates of coverage acceptable to the City before starting work.

The awarded firm shall maintain professional liability insurance until the expiration of the statute of limitations. In the event there is no statute of limitations specifically applicable to this project, the awarded firm shall maintain coverage for a reasonable period after the date of substantial completion of the project as agreed to by the City and the awarded firm.

### **4. INVOICING AND PAYMENT**

Invoices shall be paid promptly by the City unless any items thereon are questioned, in which case payment will be withheld pending verification of amount claimed and the validity of the claim. Standard payment terms are Net 30 Days from receipt of properly executed invoice(s). If your firm submits a proposal that includes payment schedules based on the completion of designated phases, those stages must be clearly outlined in your proposal. The City cannot make payments for "execution of contract" (payments due upon contract signing).

### **5. AWARD CONSIDERATIONS**

The City may reject any or all proposals or submittals for such reason as it may deem proper. In acceptance of proposals or submittals, the City will be guided by consideration of the interests of the City. The City also reserves the right to negotiate further with one or more of the firms as to any features of their proposals or submittals and to accept modifications of the work and price when such action will be in the best interests of the City.

Firms selected for interview will be provided with the content of the interview panel; the selected firms will be required to submit affidavits relating to their relationship(s) with members of the panel. The names of interview committee members will be released solely for the purpose of preparation of affidavits; the selected firms shall not directly contact the panel members prior to immediately following the interview process.

The individual signing this submittal hereby declares that no person or persons other than members of his/her own organization are interested in this Project or in the contract proposed to be taken; that it is made without any connection with any other person or persons making a proposal for the same work and is in all respects fair and without collusion or fraud; that no person acting for or employed by the City of Bristol is directly or indirectly interested therein, or in the supplies or works to which it relates or will receive any part of the profit or any commission there from in any manner which is unethical or contrary to the best interests of the City of Bristol.

Unless otherwise noted within a proposal, proposals received in response to this document, including proposed fee schedules, are assumed to be valid and binding for one hundred and twenty (120) days from receipt of the proposal. If award is not made within such time, the proposal can be deemed to be either no longer valid, or can be extended with mutual consent of the City and the firm submitting the proposal.

**REQUEST FOR PROPOSALS  
CITY OF BRISTOL, CONNECTICUT 06010**



**Engineering Services for Drainage Projects  
For the Coppermine Brook**

**2P12-027**

**Due Date: 1:00 pm, October 26, 2011**

City of Bristol  
Purchasing Office  
111 North Main Street  
Bristol, Connecticut 06010

In accordance with the City's requirements, the undersigned agrees to provide services as defined herein.

The undersigned is familiar with the conditions surrounding this Request for Proposals, is aware that the City reserves the right to reject any and all proposals, and is making submission without collusion with any other person, individual or corporate.

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Address

\_\_\_\_\_  
Title

\_\_\_\_\_  
Town                      State    Zip

\_\_\_\_\_  
Date

\_\_\_\_\_  
Federal ID #

\_\_\_\_\_  
Telephone Number

\_\_\_\_\_  
Email address

\_\_\_\_\_  
Fax Number

**RETURN THIS FORM IMMEDIATELY!**

## Acknowledgment: Receipt of RFP Documents

**Request For Proposals 2P12-027  
Engineering Services for Drainage Projects for the  
Coppermine Brook**

Please take a moment to acknowledge receipt of the attached documents. Your compliance with this request will help us to maintain proper follow-up procedures while ensuring that all recipients have the opportunity to submit proposals.

Date issued: October 5, 2011

Date documents received: \_\_\_\_/\_\_\_\_/\_\_\_\_

Do you plan to submit a response? Yes\_\_\_\_ No\_\_\_\_

---

Print or type the following information:

Company name: \_\_\_\_\_

Address: \_\_\_\_\_

City or Town: \_\_\_\_\_

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

Email: \_\_\_\_\_

Received by: \_\_\_\_\_

**Note: Faxed acknowledgments are requested! FAX (860)584-6171  
A cover sheet is NOT necessary.  
IMPORTANT: DO NOT FAX PROPOSALS.  
PROPOSALS MUST BE SUBMITTED IN SEALED PACKAGES**

**CITY OF BRISTOL  
PURCHASING DEPARTMENT  
111 NORTH MAIN STREET  
BRISTOL, CT 06010**

**Proposal Check List**

This form need not be returned with your submittal. It is suggested that you review and check off each action as you complete it.

- \_\_\_ 1. The proposal has been signed by a duly authorized representative of the company.
- \_\_\_ 2. Any fee schedule you have offered has been reviewed and verified.
- \_\_\_ 3. Standard payment terms are net 30 days. Net terms for periods less than 30 days may result in proposal rejection. (You may offer cash discounts for prompt payment).
- \_\_\_ 4. Any technical or descriptive literature, drawings or proposal samples that are required have been included with the proposal.
- \_\_\_ 5. Any addenda to this document have been acknowledged and included.
- \_\_\_ 6. The envelope has been addressed to: City of Bristol Purchasing Department  
2P12-027 Engineering Services for Drainage  
Projects for the Coppermine Brook  
111 North Main Street  
Bristol, CT 06010
- \_\_\_ 7. The envelope has been clearly marked with the proposal number and opening date.
- \_\_\_ 8. If additional copies are required as part of your response, make sure the original is clearly marked.
- \_\_\_ 9. The proposal is mailed or hand-delivered in time to be received no later than the designated opening date and time. Late responses are **NOT** accepted under any circumstances. Faxed responses are not accepted. Please allow enough time if mailing your proposal.



## CITY OF BRISTOL, CONNECTICUT NON-COLLUSION CERTIFICATION

The undersigned certifies under penalty of false statement that this proposal or contract has been made, submitted and executed in good faith and without collusion or fraud with any other person, and without any agreement designed to limit independent bidding or competition. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club or other organization, entity or group of individuals.

I further certify that I have not provided or directed to be provided gifts, meals, or gratuities, as defined in Sec. 2-129(b) of the Bristol Code of Ordinances to any official or employee of the City of Bristol responsible for awarding or administering this bid or contract.

### Please complete and sign

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

Business Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Name of Authorized Agent \_\_\_\_\_ Title: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Employment Information Form



**City of Bristol**  
Workplace Analysis Affirmative Action Report  
Employment Information Form

Purchasing Department  
111 North Main Street  
Bristol, CT 06010

Company Name Street Address City State Zip	Contact Person	Phone Number	Date
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Report all permanent full-time or part-time employees, including apprentice and on-the-job trainees. Enter the number on all lines and in all columns.

JOB CATEGORY	A. OVERALL TOTALS (sum of all columns, B-F Male & Female)	B. WHITE (not of Hispanic origin)		C. BLACK (not of Hispanic origin)		D. HISPANIC		E. ASIAN/PACIFIC ISLANDER		F. AMERICAN INDIAN OR ALASKAN NATIVE	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Officers/Managers											
Professionals											
Technicians											
Sales Workers											
Office/Clerical											
Craft Workers (skilled)											
Operatives (semi-skilled)											
Laborers (unskilled)											
Service workers											
<b>TOTALS ABOVE</b>											

Do you use minority businesses as subcontractors or suppliers? <input type="checkbox"/> Yes <input type="checkbox"/> No	Explain:
If CT based, do you post all employment openings with the State Of CT Employment Service? <input type="checkbox"/> Yes <input type="checkbox"/> No	Explain:
Do you use an Affirmative Action Plan? <input type="checkbox"/> Yes <input type="checkbox"/> No	Explain:
Describe your recruitment, hiring, training and promotion anti-discrimination practices.	

## 6.0 CONCLUSIONS AND RECOMMENDATIONS

The study completed by MMI has included a comprehensive evaluation of watershed and stream corridor conditions along Coppermine Brook. The result of the analyses is recommendations that may reduce the severity of flooding in some locations; however, even if these improvements are made the fact remains that a number of issues contribute to the flooding problems that residents have been experiencing. These have been described in detail through this report but are summarized here:

1. Rainfall patterns in the northeast are changing, resulting in increasing streamflows. There has been widespread flooding in central Connecticut in recent years, including 1999, 2005, and 2006. These events were not unique to Coppermine Brook. Federal records also confirm a long-term increase in stream flow throughout Connecticut.
2. Historic development has resulted in floodplain encroachment that cannot be easily mitigated. Much of this development predates FEMA's Flood Insurance Program and certainly predates the increasing rainfall patterns and stream flows discussed above.
3. The FEMA study is outdated and, based on our analysis, some properties should be identified within the floodplain that are currently not. These properties will not be eligible for federal flood insurance unless FEMA approves a floodplain modification.
4. Future land use buildout could theoretically increase peak flows by 10 to 20 percent if unmitigated.
5. New Britain's Whigville Reservoir does not have any facilities that could be operated so as to suddenly cause a significant increase in stream flow rates. The

source of the flood flow that was reported by residents could not be identified with certainty, but it is possible that the failure of weir boards in one or more of the three dams located upstream of Jerome Avenue contributed to this.

6. Some bridges along the channel corridor are undersized resulting in overtopping during some storm events. In some instances, this is due to floodplain encroachment as much as it is undersized structures. For example, even if the Farmington Avenue bridge were removed, the roadway would still be flooded. The only solution evaluated that could correct this problem is increasing the size of this structure slightly in conjunction with widening the channel upstream. Such widening would impact the existing land uses in the floodplain such as Staples.

It is absolutely critical that residents and town officials alike recognize that it will not be possible to stop all flooding of structures along Coppermine Brook. The recommendations herein will, however, decrease the severity and frequency of flooding.

Based on the work completed, we recommend the following:

1. **Pursue the construction of watershed storage areas.** The hydrologic analysis presented in Section 3 indicated that upstream storage could be very effective at reducing downstream flow rates. We recommend that the area identified as Coppermine 1 be pursued first. This is because the area appears to generally be upland, and the state and federal regulators frown on the use of existing wetlands for flood storage. In other words, we think this will be the easiest area to obtain permits for construction. The following tasks will need to be completed to pursue this recommendation:

- a. Delineate the limit of state and federally regulated inland wetlands in the potential storage area.
- b. Obtain detailed topographic mapping (40-scale, two-foot contours are recommended) of the area.
- c. Identify property owners in the area and secure easements as necessary. This will require A-2 survey of selected properties. The exact number will be determined during the design process.
- d. Design an outlet structure or weir as necessary to manage discharge from the impoundment.
- e. Develop a grading plan for the excavation of the area for storage. The grading plan will need to include provisions for postconstruction planting and stabilization of the area.
- f. Prepare and submit local, state, and federal permit applications as necessary. The exact scope of permitting is difficult to determine without detailed base mapping and wetland delineation. The hope would be to keep impacts below 5,000 square feet to avoid state and federal wetlands permitting.
- g. Develop final design plans and construction documents.

2. **Manage flooding at Richards Court through dike improvements, sealing the existing storm drain through the dike, and channel improvements downstream of the Stevens Street bridge.** The problems at Richards Court are caused by a number of issues. Regardless of the improvements that are made as a result of this study, the fact remains that this neighborhood sits atop what was once mapped as floodplain soils. The issues here are compounded by the fact that much of the improvements suggested are on private property. The exception is the downstream channel improvements, which would occur on property we

believe to be owned by the City of New Britain. It is not clear what obligation the city has to repair the former dike, which is located on private property.

Regardless, if the city were to pursue this work, the following scope of services is suggested:

- a. Delineate the limit of state and federally regulated inland wetlands from Jerome Avenue to approximately 300 feet downstream of Stevens Street.
- b. Obtain detailed topographic mapping (40-scale, two-foot contours are recommended) of the area.
- c. Identify property owners in the area and secure easements as necessary. This will require A-2 survey of selected properties. The exact number will be determined during the design process.
- d. Develop and execute a boring program along the existing dike. One issue of concern here is the lack of understanding of how the current dike was constructed. If the city were to pursue improvements to the dike, it would be important to understand the existing construction and to correct deficiencies if necessary. The overarching concern is that if the city were to execute improvements it may become liable if the structure were to fail in the future.
- e. Evaluate the existing drainage system in Richards Court and identify potential alternatives for relocating, sealing, or abandoning the existing drainage pipe behind #72. This may require survey of nearby drainage structures and may include the evaluation of a small stormwater pump station. The pump station would be the alternative of last resort as they can be expensive to install and operate and often are forgotten during times when flooding does not occur, only to be found in a state of disrepair when they are needed.
- f. Develop a grading and restoration plan for channel improvements downstream of Stevens Street. This will need to include measures, preferably nonstructural (i.e., vegetation is preferred), to stabilize the new bank. Such measures should be based on the predicted velocities developed from hydraulic modeling.

- g. Evaluate configurations for and design improvements to the existing dike on the left bank of the channel between Jerome Avenue and Stevens Street. This may include replacing the dike in kind, raising it, and/or extending it upstream toward Jerome Avenue some distance.
- h. Evaluate the potential impact of these improvements on downstream flow rates and flooding.
- i. Prepare and submit local, state, and federal permit applications as necessary. The exact scope of permitting is difficult to determine without detailed base mapping and wetland delineation, but it is not clear that state and federal permitting can be avoided for these improvements.

3. **Make improvements near Farmington Avenue.** Flooding at and upstream of Farmington Avenue is occurring because of floodplain construction and development and high tailwater along the low gradient channel. Bridge improvements alone cannot solve flood hazards, but the combination of removing the private driveway bridge supplemented by channel improvements may provide some benefit. As with the improvements at Richards Court, both of these recommendations involve work on private property. Modification of the Farmington Avenue bridge is not suggested at this time as this is clearly not the responsibility of the city. That being said, once the upstream channel improvements suggested herein are completed, the city may choose to discuss Farmington Avenue with the DOT. The following scope of work is suggested:

- a. Delineate the limit of state and federally regulated inland wetlands from Farmington Avenue to approximately 100 feet upstream of the private driveway bridge.

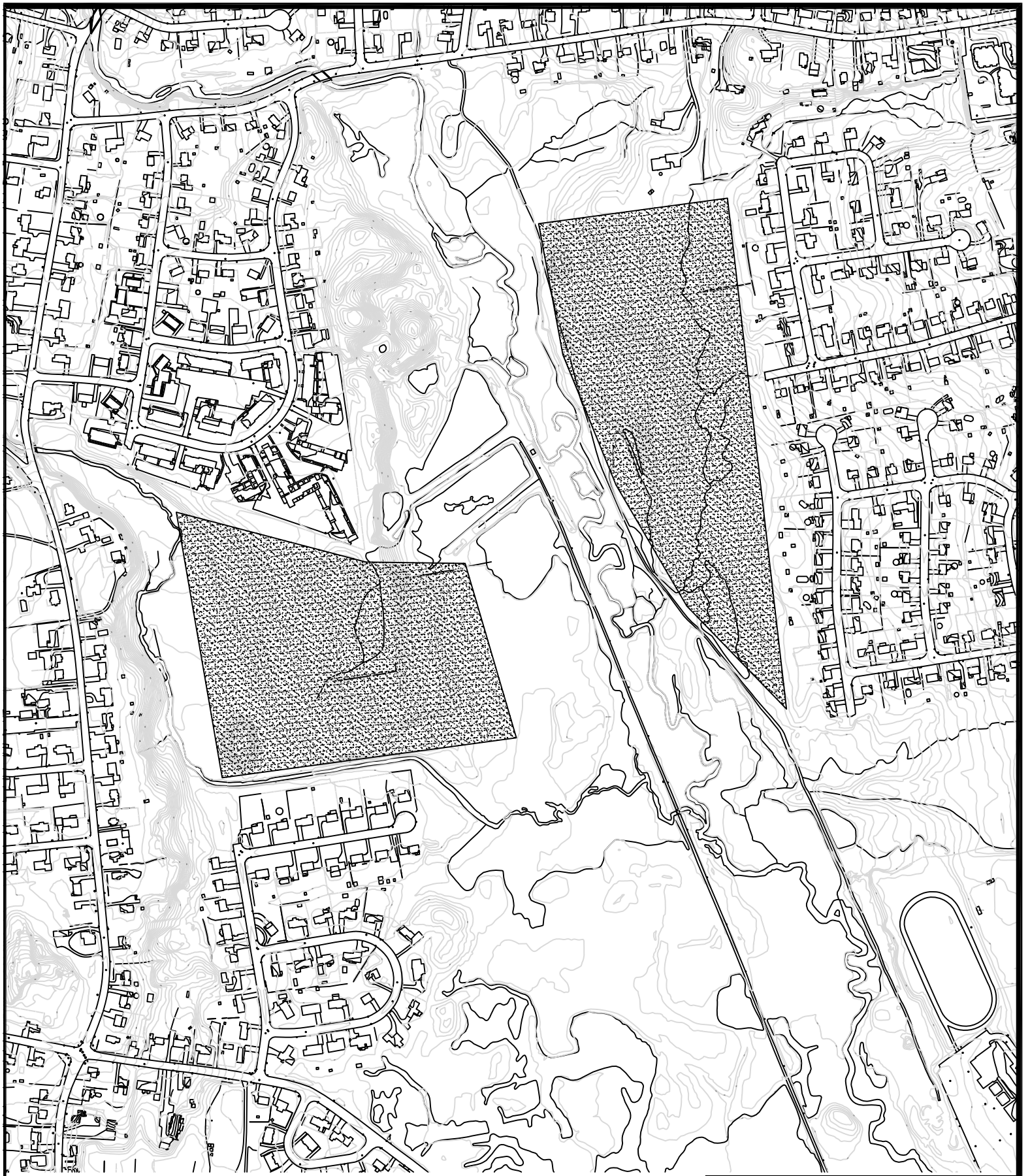
- b. Obtain detailed topographic mapping (40-scale, two-foot contours are recommended) of the area.
- c. Identify property owners in the area and secure easements as necessary. This will require A-2 survey of selected properties. The exact number will be determined during the design process.
- d. Develop a grading and restoration plan for channel improvements downstream from approximately 100 feet upstream of the bridge to Farmington Avenue. This will need to include measures, preferably nonstructural (i.e., vegetation is preferred), to stabilize the new bank. Such measures should be based on the predicted velocities developed from hydraulic modeling. Plans should also include provisions for water handling and sediment and erosion control.
- e. Evaluate the potential impact of these improvements on downstream flow rates and flooding.
- f. Prepare and submit local, state, and federal permit applications as necessary. The exact scope of permitting is difficult to determine without detailed base mapping and wetland delineation, but it is not clear that state and federal permitting can be avoided for these improvements.
- g. Develop final design plans and construction documents.

4. **Make improvements at Frederick Street.** The Frederick Street area is subject to flooding and erosion due to riverine sources, bridge construction, and Pequabuck River backwater. Bridge and channel improvements could reduce the frequency of flooding, but long-term hazards remain. At this point, given the age of this structure the most prudent alternative would be replacement of this bridge. It needs to be clear that this will not fully alleviate flooding at Frederick Street as

the nearby residences are within the floodplain. The following task items are suggested for this work:

- a. Delineate the limit of state and federally regulated inland wetlands from the Pequabuck River to approximately 200 feet upstream of Frederick Street.
- b. Obtain detailed topographic mapping (40-scale, two-foot contours are recommended) of the area.
- c. Identify property owners in the area and secure easements as necessary. This will require A-2 survey of selected properties. The exact number will be determined during the design process.
- d. Develop and execute a boring plan to evaluate materials for bridge footings.
- e. Develop plans for the replacement of the structure as well as channel modifications upstream and downstream. This will include structural, grading, restoration, water handling, and sediment and erosion control plans.
- f. Evaluate the potential impact of these improvements on downstream flow rates and flooding.
- g. Prepare and submit local, state, and federal permit applications as necessary. It is our current opinion that this project will be regulated by the CTDEP through the Diversion Act in addition to the 401 Water Quality Certificate program.
- h. Develop final design plans and construction documents.

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**APPROXIMATE COPPERMINE-1 WATER STORAGE AREA**



<b>DEPARTMENT OF PUBLIC WORKS</b> DIVISION OF ENGINEERING CITY OF BRISTOL CONNECTICUT		
<b>COPPERMINE BROOK          ANALYSIS          PROPOSED STORAGE          LOCATIONS MAP</b>		
DESIGNED	CONTRACT NO.	DATE 10/4/11
DRAWN	FIELD BOOK	SCALE 1"=500'+/-
CHECKED RAR		SHEET 1 OF 1