



**Christopher J. Gagliastro, MCPPO**  
**Purchasing Agent**

**RFP NO. 8281-W5**  
**ISSUANCE DATE: 9/16/24**

**BUYER: Christopher J. Gagliastro, MCPPO**

**AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER  
REQUEST FOR PROPOSALS  
NOTICE TO PROPOSERS**

**RFP TITLE: Engineering Services – Pine Hill Reservoir Dam  
Rehabilitation / DPWP**

***REFER TO PAGE 7 FOR PROPOSAL SUBMISSION INFORMATION***

**General Conditions:**

All proposals are subject to the terms, conditions and specifications herein set forth:

1. **Scope: Provide professional engineering services for the rehabilitation of Pine Hill Reservoir Dam per the attached requirements and specifications City of Worcester Department of Public Works & Parks.**
2. A certified check or bid bond made payable to the "City Treasurer, City of Worcester" in the amount of N/A must accompany this proposal. This must be submitted under separate sealed cover marked "Proposal Security." In the case of default, the surety shall be forfeited to the City as liquidated damages.
3. All terms and conditions are applicable to this proposal except the following section(s) which are hereby deleted from this RFP: 4, 27
4. A performance bond in the amount of not applicable will be required. If this proposal is accepted by the City and the Proposer shall fail to contract as set forth in these requirements and to give a bond in the aforementioned amount, within ten (10) days, (not including Sundays, Saturdays, or a legal Holiday) from the date of the mailing of a notice from the City to the Proposer, according to the address given herewith, that the contract is ready for signature, the City may by option determine that the proposer has abandoned the contract and thereupon the proposal and acceptance shall be null and void and the proposal security accompanying this proposal shall become the property of the City as liquidated damages. Performance bond shall be on the City's form only.

**Any prospective proposer requesting a change in or interpretation of existing specifications or terms and conditions must do so within 5 days (Saturdays, Sundays, and Legal Holidays excluded) before scheduled proposal opening date. All requests are to be in writing to the Purchasing Division. No changes will be considered nor will any interpretation issued unless request is in our hands within 5 days (Saturdays, Sundays, and Legal Holidays excluded) before scheduled proposal submission date.**

**Any inquiries related to technical or contractual matters must be submitted in writing to:**

**Christopher J. Gagliastro, MCPPO  
Purchasing Director  
City of Worcester, City Hall  
455 Main Street, Room 201  
Worcester, MA 01608  
[gagliastroc@worcesterma.gov](mailto:gagliastroc@worcesterma.gov)**

5. Nothing herein is intended to exclude any responsible Proposer or in any way restrain competition. All responsible Proposers are encouraged to submit proposals. The City encourages participation by Minority and Women Owned Business Enterprises (M/WBE).
6. The following meanings are attached to the defined words when used in this RFP.
  - a) The word "City" means The City of Worcester, Massachusetts.
  - b) The word "Proposer" or "Respondent" means the person, firm or corporation submitting proposal on these specifications or any part thereof.
  - c) The word "Contractor" means the person, firm or corporation with whom the contract is made by carrying out the provisions of these specifications and the contract.
  - d) The words "Firm Price" shall mean a guarantee against price increase during the life of the contract.
7. All proposals and other documents relating to this RFP are subject to the public records provisions of M.G.L. c.30B and shall remain confidential until the time specified in c.30B section 6 (d).
8. All material submitted by vendors becomes the property of the City. The City is under no obligations to return any of the material submitted by a vendor in response to this RFP.
9. Each vendor's proposal must remain in effect for at least 120 days from the deadline for its submission. The City will decide upon acceptance within 120 days of submission.
10. It is understood and agreed that it shall be a material breach of any contract resulting from this RFP for the Contractor to engage in any practice which shall violate any provision of Massachusetts General Laws, Chapter 151B, relative to discrimination in hiring, discharge, compensation, or terms, conditions or privileges of employment because of race, color,

religious creed, national origin, sex, age or ancestry.

11. The City reserves the right to accept or reject any or all proposals submitted and waive informalities and technicalities.
12. The City will review and analyze each proposal and reserve the right to interview selected proposers. The City shall select the proposer, which in the City's opinion, has made the proposal best suited to the needs and goals of the City and its operations and deemed to be in compliance with the terms of this RFP.
13. The Contractor will be required to indemnify and save harmless the City of Worcester for all damages to life and property that may occur due to his or her negligence or that of his or her employees, subcontractors, etc. during the contract derived from this RFP.
14. The Contract Agreement will be drafted by the City's Law Department in compliance with the terms of the RFP and may incorporate the terms of this RFP and of the proposal selected.
15. The Proposer must certify that no official or employee of the City of Worcester, Massachusetts, is pecuniarily interested in this proposal or in the contract which the proposer offers to execute or in expected profits to arise therefrom, unless there has been compliance with the provisions of G.L.C. 43 section 27, and that this proposal is made in good faith without fraud or collusion or connection with any other person submitting a proposal.
16. Any proposal withdrawn after time and date specified, the proposer shall forfeit deposit on proposal as liquidated damages.
17. A vendor conference will be held as follows:   n / a
18. The Contractor shall not assign, transfer, sublet, convey or otherwise dispose of any contract which results from this RFP, or its right, title or interest therein or its power to execute the same to any other person, firm, partnership, company or corporation without the previous consent in writing of the City. Should the Contractor attempt any of the above without the written consent of the City, the City reserves the right to declare the Contractor in default and terminate the contract for cause.
19. The Contractor shall obtain professional liability insurance covering the negligent acts, errors and omissions of the Contractor, and of any person or business entity for whose performance the Contractor is legally liable arising out of the performance of the contract derived from this RFP. The amount of this coverage shall equal to the greater of one million dollars (\$1,000,000) or ten percent (10%) of the Project's estimated cost of construction for the applicable period of limitations. If the coverage is on a "claims made" basis (rather than occurrence basis), the Contractor shall obtain from its insurer a six year extending reporting coverage ("tail") policy covering continuing such coverage.

The Contractor shall also obtain and maintain in force at all times during the term of the Contract, occurrence basis insurance coverages pertaining to commercial liability, property damage and motor vehicle in at least the following amounts:

- a. Commercial General Liability - \$1,000,000 per occurrence/\$2,000,000 aggregate
- b. Excess / Umbrella Liability - \$2,000,000
- c. Automobile Liability/Combined Single Limit - \$1,000,000  
(all owned, scheduled, hired, and non-owned autos)
- d. Workers Compensation insurance satisfying the Massachusetts statutory requirements.

The City of Worcester shall be named as an additional insured on said coverage and certificates, except professional liability coverage and workers compensation coverage. The Purchasing Director shall be identified as a Certificate Holder.

- 20. The Contractor shall carry Public Liability Insurance with an insurance company satisfactory to the City so as to save the City harmless from any and all claims for damages arising out of bodily injury to or death of any person or persons, and for all claims for damages arising out of injury to or destruction of property caused by accident resulting from the use of implements, equipment or labor used in the performance of the contract or from any neglect, default or omission, or want of proper care, or misconduct on the part of the Contractor or for anyone in his or her employ during the execution of the contract derived from this RFP.
- 21. Prior to starting on the contract derived from this RFP, the Contractor shall deposit with the Purchasing Division, certificate from the insurer to the effect that the insurance policies required in the above paragraph have been issued to the Contractor. The certificates must be on a form satisfactory to the City.
- 22. All prices quoted must include inside delivery, and set-up in place F.O.B. destination to pre-designated City of Worcester departments.
- 23. No special charges will be allowed for rigging, packing, crating, freight, express, or carriage unless specifically stated and included in the vendor's proposal.
- 24. The award to the successful proposer may be cancelled in the event of vendor nonperformance as may be determined by the City.
- 25. The successful proposer shall comply with all applicable federal, state and local laws, ordinances, and regulations. The awarded contract shall be governed under the laws of the Commonwealth of Massachusetts.
- 26. Purchases made by the City are exempt from Federal and Massachusetts state taxes and proposal prices must exclude any such taxes. Tax exemption certificates will be furnished upon request.
- 27. When the contract is executed, a performance bond, in the full amount of the contract, is required. See paragraph 4. The bond will be of a surety company qualified to do business under the laws of the Commonwealth of Massachusetts. The cost of this bond is the vendor's responsibility. Bonds shall remain in force and effect thru the performance of the contract.
- 28. Expenditures by the City and authorization to spend for particular purposes are made on fiscal year basis. The City's fiscal year is the twelve-month period ending June 30 of each year. The obligations of the City under any agreement to be reached are subject to the

appropriation or authorization of the necessary funds. The City agrees to make reasonable efforts to obtain funding and all necessary authorization.

29. No amendment to the contract shall be effective unless it is in writing and signed by authorized representatives of both parties and is accepted by the City of Worcester.
30. The vendor (and its insurers, if any) shall bear all risk of loss or damage to the equipment which occurs in transit to the user site. The risk of loss or damage to purchased equipment shall remain with the vendor until the purchase price has been paid and title has passed. The vendor shall also bear the risk of loss or damage to leased or rented equipment during the City of Worcester's possession and use thereof subject, however to such conditions and limitations as may be stated elsewhere in the contract.
31. The vendor shall not assign or in any way transfer any interest in the contract without the prior written consent of the City provided, however, that claims for money due or to become due to vendor from the City may be assigned to a bank, trust company, or other financial institution without such consent so long as notice of such assignment is furnished promptly to the City. Any such assignment shall be expressly made subject to all defenses, setoffs, or counterclaims which would have been available to the City against the vendor in the absence of such assignment.
32. None of the services to be provided by the vendor pursuant to the contract shall be subcontracted or delegated to any other organization, association, individual, corporation, partnership or other such entity without the prior written consent of the City. No subcontract or delegation shall relieve or discharge the vendor from any obligation or liability under the contract except as specifically set forth in the instrument of consent. Any subcontract to which the City has consented shall be attached to the original of the contract on file in the City of Worcester.
33. Neither party will be liable to the other or be deemed to be in breach of the contract for any failure or delay in rendering performance arising out of causes beyond its reasonable control and without its fault or negligence. Such causes may include but are not limited to, acts of God or the public enemy, fires, floods, epidemics, quarantine restrictions, strikes, freight, embargoes, and unusually severe weather. If the vendor's failure to perform is caused by the default of the subcontractor, and if such default arises out of causes beyond the reasonable control of both the vendor and the subcontractor, and without the fault or negligence of either of them, the vendor shall not be liable for any excess costs for failure to perform, unless the equipment or services to be furnished by the subcontractor were obtainable from other sources in sufficient time to permit the vendor to meet the required delivery schedule. Dates or times of performance will be extended to the extent of delays excused in this section, provided that the party whose performance is affected notifies the other promptly of the existence and nature of such delay.
34. The vendor shall provide to the City of Worcester a warranty and a commitment which clearly states that all equipment and services proposed and supplied by the Vendor, and/or its subcontractors, performs as expected and promised by the Vendor.
35. The vendor represents that no person other than bona fide employees working solely for the vendor, have been employed or retained to solicit or secure this agreement upon an

arrangement or understanding for a commission, percentage, brokerage fee, gift or any other consideration contingent upon the award or making of this contract. For breach or violation of the representation, the City shall have the right to annul the contract without liability, or in its discretion to deduct from the contract price or consideration, or otherwise recover the full amount of such commission, percentage, brokerage fee or other consideration.

36. Any contract made by the City in which the Purchasing Agent or any employee of his/her department, the heads of using agencies or any other officer or employee of the City having a part in the placing of such contract is financially interested, directly or indirectly, shall be void.
37. The vendor shall not discriminate against any qualified employee or applicant for employment because of race, color, national origin, ancestry, age, sex, religion or medical handicap. The vendor agrees to comply with all applicable Federal and State Statutes, rules and regulations prohibiting discrimination in employment including: Title VII of the Civil Rights Acts of 1964; The Age Discrimination in Employment Act of 1967; Section 504 of the Rehabilitation Act of 1973; Massachusetts General Laws Chapter 151B, Section 4 (1) and all relevant administrative orders and executive orders.

If a complaint or claim alleging violation by the vendor of such statutes, rules or regulations is presented to the Massachusetts Commission Against Discrimination (MCAD), the vendor agrees to cooperate with MCAD in the investigation and disposition of such complaint or claim.

In the event of vendor noncompliance with the provisions of this section, the City shall impose such sanctions as it deems appropriate, including but limited to:

- 1) Withholding of payments due vendor under the contract until vendor complies.
- 2) Termination or suspension of the contract.

## **SUBMISSION OF PROPOSALS**

38. Proposals must be submitted in two (2) packages according to the instructions below. The City intends to consider responses in the Technical Proposal evaluation requirements before considering costs. *Therefore, no reference to pricing may be made in the Technical Proposal.*

A sealed package containing **the original, 3 copies, plus 1 PDF copy on USB drive** of the proposal **must** be labeled as follows:

**Purchasing Agent, City of Worcester**

**Engineering Services – Pine Hill Reservoir Dam Rehab. / DPWP – Technical Proposal**

**455 Main Street, Room 201  
Worcester, MA 01608**

**Re: RFP No. 8281-W5**

A sealed package containing **the original copy** of the proposal **must** be labeled as follows:

**Purchasing Agent, City of Worcester**

**Engineering Services – Pine Hill Reservoir Dam Rehab. / DPWP – Price Proposal**

**455 Main Street, Room 201  
Worcester, MA 01608**

**Re: RFP No. 8281-W5**

***PRICE PROPOSAL PAGE IS LOCATED AT END OF SPECIFICATIONS***

<p><b>Proposals must be delivered no later than <u>Wednesday, October 16, 2024 at 10:00 AM LOCAL TIME.</u> <i>Late submissions will be rejected, regardless of circumstances.</i></b> The City is not responsible for submittals not properly marked.</p>
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

The evaluation and cost proposals will remain confidential until a formal and finalized contract has been executed.

## **RFP EVALUATION**

39. The City of Worcester Purchasing Agent will assign an evaluation team, hereafter referred to as the Selection Committee, to perform a full and complete evaluation of RFP submittals. The Purchasing Agent will ultimately forward a formal recommendation of award to the City Manager who has final award authority.
40. RFP evaluation responses will be evaluated by the Selection Committee based directly upon vendor's response to mandatory and comparative evaluation criteria. Vendors must meet or exceed the mandatory criteria requirements or be rejected as non-responsive.

Comparative criteria will be evaluated by use of four (4) rating categories as set forth by M.G.L. Chapter 30B:

- 1) HIGHLY ADVANTAGEOUS - Vendor's submittal meets all the stated requirements and offers significant performance above the stated requirements.
- 2) ADVANTAGEOUS - Vendor's submittal meets the stated requirements without risk or disadvantage.
- 3) NOT ADVANTAGEOUS - Vendor's submittal contains some risk or disadvantage but is not unacceptable.
- 4) UNACCEPTABLE - Vendor's submittal fails to meet the standards of the stated requirements.

After proposals have been assigned ratings on the basis of each evaluation criterion, a composite rating will be established by the Selection Committee. Submittals will then be ranked based upon finalized composite rating.

41. The Purchasing Agent will identify the most advantageous proposal based upon the rankings of the Selection Committee and an evaluation of the price proposals received. The Purchasing Agent will forward a recommendation for award to the City Manager based upon the most advantageous proposal received considering evaluation rankings and price proposals received.



GIVE FULL NAMES AND RESIDENCES OF ALL PERSONS INTERESTED IN THE FOREGOING PROPOSAL.

(NOTICE: Give first and last name in full; in case of corporations, give corporate name and names of President, Treasurer, and Manager; and in case of firms give names of the individual members)

Name	Address	Zip Code
------	---------	----------

_____	_____	_____
_____	_____	_____
_____	_____	_____

KINDLY FURNISH THE FOLLOWING INFORMATION REGARDING BIDDER:

(1)	If an Individual or Proprietorship
Name of Owner:	_____
Business Address:	_____
Zip Code	_____ Telephone No. _____
Email	_____
Home Address	_____
Zip Code	_____ Telephone No. _____

(2)	If a Partnership, Full names and addresses of all partners	
<u>Name</u>	<u>Address</u>	<u>Zip Code</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
Business Address	_____ Zip Code	_____
	Tel. No.	_____

(3) If a Corporation

Full Legal Name: \_\_\_\_\_

State of Incorporation: \_\_\_\_\_ Qualified in Massachusetts? Yes \_\_\_\_\_ No \_\_\_\_\_

Principal Place of Business \_\_\_\_\_  
Street P.O. Box

City/Town State Zip

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

Telephone No. \_\_\_\_\_

Place of Business in Massachusetts \_\_\_\_\_  
Street P.O. Box

City/Town State Zip

Telephone No. \_\_\_\_\_

GIVE THE FOLLOWING INFORMATION REGARDING SURETY COMPANY

Full Legal Name of Surety Company \_\_\_\_\_

State of Incorporation \_\_\_\_\_ Admitted in Massachusetts? Yes \_\_\_\_\_ No \_\_\_\_\_

Principal Place of Business \_\_\_\_\_  
Street P.O. Box

City/Town State Zip

Place of Business in Massachusetts \_\_\_\_\_  
Street P.O. Box

City/Town State Zip

Telephone No. \_\_\_\_\_

NOTE:

The Office of the Attorney General, Washington, D.C. requires the following information on all bid proposals amounting to \$1,000.00 or more.

E.I. Number of bidder \_\_\_\_\_

This number is regularly used by companies when filing their "EMPLOYER'S FEDERAL TAX RETURN, U.S." Treasury Department Form 941.

AUTHORIZED SIGNATURE OF BIDDER \_\_\_\_\_

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

UNDER MASSACHUSETTS GENERAL LAWS, CHAPTER 30B: SECTION 10, THE FOLLOWING CERTIFICATION MUST BE PROVIDED:

Section 10. A person submitting a bid or a proposal for the procurement or disposal of supplies, or services to any governmental body shall certify in writing, on the bid or proposal, as follows:

"The undersigned certifies under penalties of perjury that this bid or proposal has been made and submitted in good faith and without collusion or fraud with any other person. 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."

(Please Print)

\_\_\_\_\_  
Name of Person Signing Bid

\_\_\_\_\_  
Signature of Person Signing Bid

\_\_\_\_\_  
Company

No award will be made without vendor certification of the above.

- **Proposers must sign and submit the above form with their proposal submission.**

## **CERTIFICATE OF AUTHORITY**

At a duly authorized meeting of the Board of Directors of the \_\_\_\_\_  
held on \_\_\_\_\_ Directors were present or waived notice,  
(name of corporation) (date)  
it was voted that \_\_\_\_\_ of this company be and hereby is  
(officer and title)  
authorized to execute contracts and bonds in the name and behalf of said company, and affix its Corporate Seal  
thereto, and such execution of any contract or bond of obligation in this company's name shall be valid and  
binding upon this company.

A TRUE COPY, ATTEST:

\_\_\_\_\_  
[Signed]

\_\_\_\_\_  
[Company Name and Address]

I hereby certify that I am the \_\_\_\_\_ of the \_\_\_\_\_  
(Title) (Name of Corporation)  
that \_\_\_\_\_ is the duly elected \_\_\_\_\_  
(Name of Officer) (Title)  
of said company, and the above vote has not been amended or rescinded and remains in full force and effect  
as of the date of this contract.

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

Name/Title: \_\_\_\_\_

Date: \_\_\_\_\_  
(Corporate Seal)

COMMONWEALTH OF MASSACHUSETTS

WORCESTER, SS.

On this \_\_\_\_ day of \_\_\_\_\_, 2024, before me the undersigned notary public, personally  
appeared \_\_\_\_\_, who proved to me through satisfactory evidence of  
identification, which was/were \_\_\_\_\_, to be the person whose name is signed  
on the preceding or attached document, and acknowledged to me he/she signed it voluntarily for its stated  
purpose.

\_\_\_\_\_  
Notary Public  
My commission expires:

# **Pine Hill Reservoir Dam Rehabilitation – Engineering Services**

## **Request for Proposals**

September 2024

### Contents

I.	Project Overview.....	2
II.	Scope of Services.....	4
	Task 1: Review of Available Reports & Information and Data Collection.....	4
	Task 2: Pre-design .....	4
	Task 3: Alternatives Analysis.....	5
	Task 4: Design.....	5
	Task 5: Permitting .....	6
	Task 6: Bidding Services .....	6
	Task 7: Construction Administration.....	7
	Task 8: Resident Inspection.....	7
	Task 9: Project Closeout.....	8
III.	Proposal Requirements.....	9
	Technical Proposal .....	9
	Price Proposal .....	10
IV.	Evaluation Criteria.....	11
	Minimum Criteria.....	11
	Comparative Criteria.....	11
	Basis of Award:.....	14
V.	Attachment A: Price Proposal.....	15
VI.	Appendix A: Available Reports & Information.....	16

# I. Project Overview

The City of Worcester through its Department of Public Works and Parks (DPW&P) is seeking the services of qualified Consultants to provide design, permitting, and bidding services for permanent repairs and improvements to the Pine Hill Reservoir Dam. If advantageous to the City, the City may engage with the selected Consultant to amend the contract to add construction phase administration work and resident inspection.

Pine Hill Reservoir Dam is located on the Asnebumskit Brook in the Town of Holden, Massachusetts. The dam is located on the eastern end of Pine Hill Reservoir and may be accessed by gated road from Kendall Road in Holden, Massachusetts.

Pine Hill Reservoir is owned and operated by the DPW&P for use as a water supply source. The dam is the largest of the City's 10-reservoirs, with a maximum impoundment of 13,023-acre-feet. The drainage area for the dam is approximately 6.7-square miles. The perimeter of the Pine Hill Reservoir is forested, with some residential development and farmland present in the drainage area. Pine Hill Reservoir discharges into Asnebumskit Brook to the Kendall Diversion Dam where it is allowed to flow to Eagle Lake or Kendall Reservoir.

The Pine Hill Reservoir Dam was constructed between 1916 and 1924. The dam is constructed of concrete masonry with earthen embankments at either end. The concrete portion is 370-feet long, while the embankments measure 300-feet long on the left and 170-feet on the right. The structural height of the dam is 70-feet, and a hydraulic height of 60-feet.

Each embankment ties into natural ground at each abutment. There is a concrete masonry wall in each embankment. The crest of each embankment is 25-feet wide. The slope of each embankment varies but is approximately 2-horizontal to 1-vertical. The upstream face is protected by hand placed riprap of varying size. An 8-foot bench exists on the left embankment about halfway down the slope. Bedrock outcroppings are present near the right embankment.

The masonry portion of the dam has a flat crest of varying width. The crest is 25-feet at the embankments, narrowing to 20-feet across the main portion of the dam, and narrowing again to 15-feet wide at the arch bridge over the spillway. An iron pipe railing runs along both sides of the crest. A masonry building to the right of the spillway provides access to the gate chamber.

The gate chamber houses the controls for five sluice gates. Four gate operators are arranged around the outside of the room control gates at varying depth. Three of these operators control gates at different depths while a fourth acts as a low-level outlet, with about 15-feet vertical distance between each gate. These gates allow water into a well under the gate chamber. The fifth gate at the center of the room controls flow from the well through a 30-inch diameter cast iron pipe to the gatehouse and stilling basin below. Water can also be pumped into Pine Hill Reservoir from Kendall Reservoir through a 24-inch diameter pipe that connects to the 30-inch diameter outlet pipe.

The spillway is a concrete ogee weir divided into three bays by two concrete pillars. Each bay is 25-feet wide and 8.5-feet tall at the center of a semi-circular arch. The upstream face of the spillway of the dam is vertical. The downstream face of the spillway is bound by 2-foot high and 4-foot-thick training walls on either side. The training walls extend down the face of the dam and tie into the side walls of the

stilling basin at the base of the dam. The stilling basin is an 83-foot-wide semi-circle extending 76 feet from the centerline of the dam. Concrete baffle blocks at base of the spillway act as energy dissipaters. The stilling basin discharges over two concrete steps into the stream channel. At the center of the stilling basin is a 30-inch diameter cast iron pipe that discharges water from the gate chamber.

There is an inspection/drainage gallery under the concrete portion of the dam. The gallery can be accessed through a manhole and ladder on the crest of the dam near the right embankment or through a manhole to the left of the stilling basin. The gallery is 335-feet long and 6.5-feet wide, with vertical walls and an arch ceiling. The gallery is flat for half its length, sloping up over the remaining half. Fifteen vertical drainage wells intercept seepage through the dam and channel it to the gallery. The wells are a mix of 6-inch x 12-inch rectangles or 12-inch diameter circles. The flows are collected in a trough and conducted to an 8-inch cast iron pipe. The cast iron pipe is intended to discharge into Asnebumskit Brook but is currently blocked.

Deficiencies have been observed as far back as 1934, when concrete spalling on the dam and spillway were first noted. In the mid-1950s, a gunite coating was applied to the spillway face. In 1962 additional concrete repairs were performed. In 1981 and 1982, the upstream and downstream faces were sandblasted and covered in shotcrete. A reinforcing mesh was installed on the left downstream face. The spillway slab was also sandblasted and covered with steel fiber mesh and shotcrete. Water proofing was applied upstream face of the dam. Cracks in the upstream face and crest were repaired with epoxy. Weep holes were installed in several places on the downstream face.

In 2016, the City of Worcester began an investigation into the deterioration of Pine Hill Reservoir Dam. Exploratory borings and cores were taken in several locations on the dam crest and downstream embankments. Visual and tactile inspections of the concrete portion of the dam were conducted. Between this investigation and the Phase 1 Dam reports, several deficiencies have been identified:

- Concrete deterioration and spalling on the upstream face, downstream face, and spillway.
- Non-functional drainage system within the seepage gallery.
- Seepage concerns near the downstream outlet gatehouse.
- Erosion and settling riprap on the upstream slope.
- Animal burrows, tire rutting, and erosion on the downstream earthen embankments.

## II. Scope of Services

Tasks 1 through 5 are contemplated in this RFP. The ultimate outcome is a fully vetted, permitted, and bid-out project with a recommendation for award.

Tasks 6 through 9 are shown *for reference only*. The City and the Consultant shall determine the final scope of services and fee after the design and permitting is complete and agreed to by amendment. No fees for these tasks should be included in the Consultant's proposal.

It is anticipated that there will be significant input from the DPW&P during the execution of each scope item. For Tasks 1 through 5, the Consultant shall assume a basis of monthly meetings and six additional meetings as required. Consultants shall assume three public presentations to City officials excluding presentation requirements of various permitting agencies.

### **Task 1: Review of Available Reports & Information and Data Collection**

The Consultant shall review the existing data and reports from previous investigations of Pine Hill Reservoir Dam. Documents of this type are included in Appendix A.

The Consultant shall create a plan for the collection of field data not already compiled and deliver it to the DPW&P for review.

Additional field data that is reasonably expected to be collected includes:

- Wetland delineation and survey in accordance with local, state, and federal regulations. Wetland delineation and survey shall also include the access driveway from end to end in anticipation of it needing to be reconstructed as part of the dam project.
- Topographic survey of the dam and the immediate area. Topographic survey shall also include the access driveway for the purposes described above.
- Dam and spillway inspections.
- Concrete assessment including vertical coring to assess internal conditions. Horizontal coring to assess the condition of both the upstream and downstream integrity. It is anticipated that laboratory testing will be required to adequately assess concrete type and compressive strength.
- Earthen embankment inspection including soil borings.
- Underwater inspection of the dam.
- Pipe inspections of both outlet pipes and seepage pipes/galleries.
- Bathymetric survey of the of the upstream and downstream areas. The width and depth of the survey shall be enough to establish underwater slope geometries.

### **Task 2: Pre-design**

Following the completion of Task 1, the Consultant will provide the DPW&P with an assessment summary of the Consultant's findings. This summary shall include:

- Summary of collected reports and data collection.
- Existing conditions summary report with plans & sections showing deficiencies.
- A ranking of deficiencies relative to severity and criticality.



- Concept approaches to addressing the identified deficiencies.
- Hydrologic and Hydraulic Analysis using the most up to date land use, topographic, and rainfall data.

### **Task 3: Alternatives Analysis**

The Consultant shall create an alternatives analysis addressing the deficiencies identified in the pre-design summary. The alternatives analysis, preferred approach, conceptual design, and opinion(s) of probable cost shall be provided to the DPW&P for review. It is expected that the Consultant shall engage with the DPW&P with at least three meetings to determine the selected alternative.

The alternatives analysis should consider the following key design elements items:

- Upstream face repairs.
- Downstream face repairs.
- Spillway repairs.
- Seepage gallery improvements.
- Slope and gravity stability improvements.
- Mechanical equipment repair or replacement.
- Dam operability improvements (level controls, gate operation, access, safety, security, telemetry, etc).
- Vegetation control / clearing / maintenance.
- Aesthetic consideration.
- Permit considerations for the selected design and its environmental impacts and cost.
- Post-construction access road restoration.
- Other.

Opinion of Probable Cost(s):

Project costs shall be identified by project component described above or by other components discovered during the design. The Consultant shall use bid values of recently completed projects, manufacturer's quotes, cost estimating guides, and the Consultant's experience to determine cost estimates.

### **Task 4: Design**

The Consultant shall utilize the available information to generate plans and technical specifications for dam repair and improvement that addresses the identified deficiencies and ultimately results in a level of repair that extends the safe use of the dam for an additional 50 to 75-years.

Design Sequence:

After the pre-design report is delivered and the repair/improvement strategy is determined, the design shall be advanced to 25% for review by the DPW&P. It is anticipated that three meetings will be required as part of the 25% review.

After the 25% review is complete, the Consultant shall advance the design to 75% for review by the DPW&P. It is anticipated that three meetings will be required as part of the 75% review.

The final review shall occur at the 90% level. Plans and technical specifications shall be submitted to the DPW&P for advertisement. It is anticipated that one meeting will be required as part of the 90% review.

#### **Task 5: Permitting**

The City anticipates that permitting and approvals will be required at the local, state, and federal levels, but will vary depending on the design approach. The Consultant is responsible for securing the appropriate approvals and permits or verify in writing that the permit is not required.

For the purposes of this RFP the following assumptions include:

- Improvements and repairs will exceed one or more Environmental Notification Form thresholds. Therefore, a MEPA ENF will be required.
- Improvements and repairs to Pine Hill Reservoir Dam will not result in the reduction of the impoundment capacity. As such, a MEPA Environmental Impact Report will not be required.
- The amount of bank alterations will require a detailed Wildlife Habitat Assessment (Form B).
- A Notice of Intent through the local Conservation Commission and DEP will be required.
- Dredging of greater 100 cubic yards of material will be required and will require permitting through the U. S. Army Corps of Engineers for a 401 Water Quality Certification for dredging activities. This Project will also require a Waterways Permit under MGL C. 91.
- This Project will require a Section 404 Authorization and can be designed to qualify as a Self-Verification activity under the U. S. Army Corps of Engineers General Permits for Massachusetts.
- This Project will require a Ch. 253 Permit Application from the Massachusetts Office of Dam Safety.

Any fee associated with any application, advertising, public notification, peer review fees, or similar shall be billed as reimbursable expenses to the City of Worcester. It is anticipated that 5 meetings/hearings will be required as part of the permitting effort.

#### **Task 6: Bidding Services**

Upon approval of final design, the Consultant shall provide Bidding services to the City. This includes:

- Furnish up to five (5) sets of all construction drawings and specifications for construction. A final cost estimate shall also be included.
- Furnish 1 digital copy in PDF format of all construction drawings and specifications for construction. A final cost estimate shall also be included.
- Prepare a bid notice for publishing by the City of Worcester.
- Prepare for and attend a Pre-bid meeting.
- Answer prospective bidders' questions, issue addenda as necessary.
- Assist the City in checking bids, tabulating and analyzing bids, and furnishing a recommendation for award for the construction contract.
- Assist the City in preparing and finalizing formal contract documents for contract execution.

## **Task 7: Construction Administration**

Construction administration services will be required for this project. The full scope and fee will be determined at the conclusion of the design and permitting of the project and agreed to by amendment.

Anticipated items include:

- **Pre-Construction Meeting:** The Consultant shall prepare and attend one pre-construction meeting including preparing an agenda, taking meeting minutes, and inciting attendees. This meeting will be attended by the Consultant's Project Manager, Construction Administrator, and Resident Project Representative.
- **Monthly Progress Meeting:** The Consultant shall attend monthly construction meetings and shall be responsible for preparing an agenda, meeting minutes, and inviting attendees for each meeting.
- **Shop Drawings:** The Consultant shall be responsible for reviewing shop drawings for the Project, including review and comment of the first submittal and one resubmittal. Shop Drawings will be submitted electronically via FTP and returned via FTP site. The Consultant shall host the FTP site for the Project. At the end of the Project, the Consultant shall provide one CD-ROM or memory stick of all returned shop drawings to the City.
- **Requests for Information (RFIs):** The Engineer shall review RFIs and provide appropriate responses. Review includes written response to questions, and clarification sketches if needed.
- **Change Orders:** The Consultant shall review and negotiate change orders if needed with the Contractor.
- **Project Management:** The Consultant shall provide Project Management services for the duration of the Project.
- **Payment Applications:** The Consultant shall review Contractor's pencil requisitions, obtain signatures on the payment application by the Contractor, the City and Consultant and shall then send the package to the City for payment.
- **Record Plans:** The Consultant shall provide one PDF of the record plans and one (1) full size set of prints.
- **Operations & Maintenance (O&M) Manual:** The Consultant shall provide an O&M Manual covering the manufacturer recommended maintenance activities required for proper upkeep repairs or improvements made to the dam.
- **Public Participation and Web Site Updates:** The Consultant's Project Manager, Construction Administrator and Resident Project Representative shall prepare for and attend one (1) public meeting in Holden, MA for the benefit of stakeholders. The Consultant shall also prepare monthly Project construction updates for City staff to upload onto the City of Worcester DPW&P webpage. Project construction updates will typically include project photos and a summary of construction activities that may impact the public.

## **Task 8: Resident Inspection**

Resident services will be required for this project. The full scope and fee will be determined at the conclusion of the design and permitting of the project and agreed to by amendment. Anticipated items include:

- The Consultant shall provide a Resident Project Representative during the construction phase of the Project.
- Construction Observation services: The Consultant shall conduct on-site observation of construction in the field as performed by a Resident Project Representative (RPR). The purpose of this service is to confirm that construction takes place in general accordance with construction drawings and specifications.
- The Consultant's full-time Resident Project Representative shall oversee the repair and improvement of the Pine Hill Reservoir Dam for the full construction period, based on a 5-day, 8-hr per day work week.
- RPR responsibilities include monitoring of construction progress, review of contractor's work to monitor for conformance with design documents, preparation of daily field reports and clarification of contractor's questions raised in the field. The RPR shall also check on the contractors redlines while in the field, to ensure they are being completed and accurate.
- The Consultant shall provide a complete set of Record Drawings in paper and digital format for City archiving.

#### **Task 9: Project Closeout**

The Consultant will provide Project Closeout services for this project. The full scope and fee will be determined at the conclusion of the design and permitting of the project and agreed to by amendment.

### III. Proposal Requirements

This is a two-part submission process. The Technical Proposal shall not contain any pricing information. Any information of price or budget shall ONLY be contained in the Price Proposal.

To be considered a complete proposal, each submission must contain a Technical Proposal and a Price Proposal. Each proposal must be submitted in two, separate, sealed envelopes, clearly identifying the proposing firm on each, and clearly labeled as follows:

Part 1: Technical Proposal – Pine Hill Reservoir Dam Rehabilitation

Part 2: Price Proposal - Pine Hill Reservoir Dam Rehabilitation

#### **Technical Proposal**

The Consultant must submit a sealed envelope containing five (5) printed copies and one (1) digital copy of PDF format on a CD or USB drive of the Technical Proposal. Do not include the Price Proposal with the Technical Proposal.

The Technical Proposal shall include the following elements:

**1. Cover Letter**

*Not to exceed two (2) pages.*

A cover letter introducing the proposal, signed by a representative of the Consultant with authority to enter into contractual agreements.

**2. Project Approach**

*a. Statement of Understanding*

Not to Exceed two (2) pages.

A brief narrative summarizing the Consultants understanding of the project, including key considerations that are essential to project success.

**b. Methodology and Scope**

*Not to Exceed eight (8) pages.*

Detail the Consultant's specific methodology to implement the scope of services outlines in Section II of this RFP. The Consultant should identify any scope additions or revisions proposed to reflect the Consultant's specific approach to the project, staying within the overall framework outlined in Section II of this RFP.

Identify deliverables to be provided, including all deliverables specified in Section II of this RFP.

**c. Proposed Schedule**

Include a proposed schedule that identifies milestones and deliverable dates. For the purposes of this proposal, the schedule should assume a planned start date of December 1,

2024. It is anticipated that the design, permitting, and bidding phase of this project will take 18-months.

d. Team Availability

Describe the ability of the team to meet the proposed schedule and include a list of team leaders and key staff that details their project roles, anticipated level of participation, and availability.

**3. Qualifications**

a. Project Team

*Not to exceed five (5) pages.*

Provide a brief overview of the project team's proposed organization and areas of responsibility. Identify the person who will be the project manager and other key task leaders and team members. The names, addresses and roles of any sub-consultants should be identified.

b. Team Resumes

*No more than twelve (12) resumes.*

Provide resumes for the project manager, task leaders, and other key team members, including sub-consultants (if any). Only resumes of those staff who will be assigned to work on the project should be included in the proposal.

c. Project Experience

*Not to exceed five (5) pages.*

Provide three (3) project examples for the Consultant where similar services have been completed. Up to two (2) additional project examples may be included for either the Consultant or proposed sub-consultants.

d. References

Provide three (3) professional references, with contact names, their roles/relationship to the Consultant, email address, and telephone numbers.

**Price Proposal**

The Consultant shall submit a lump sum fee inclusive of all costs, including direct costs, indirect costs, and fee associated with each task as noted. The proposal must account for all aspects of the scope of services, incorporating the project approach described by the Consultant.

## IV. Evaluation Criteria

### **Minimum Criteria**

Respondents must provide information indicating compliance with the minimum requirements listed below:

1. The Consultant/Project Manager/Team must have a minimum of five years of experience in the design and/or construction of dam repairs and rehabilitation.
2. The Consultant/Project Manager/Team must demonstrate experience in design and construction of dam repairs and rehabilitation in Massachusetts.
3. The Consultant/Project Manager/Team must demonstrate experience on projects of similar size and scope as this project.
4. The Consultant has supplied all required forms and information.

### **Comparative Criteria**

All responsive proposals shall be evaluated in the following areas based on comparative evaluation criteria for highly Advantageous (HA), Advantageous (A) or Not Advantageous (NA). Feedback gained from references may impact the rating in any applicable category:

#### **1. Company Background/Experience**

##### **Highly Advantageous**

The Consultant possesses superior qualifications and experience in the design and construction of more than five (5) similar projects in Massachusetts or seven (7) nationwide. Multiple projects completed for large water supply dams.

##### **Advantageous**

The Consultant possesses adequate qualifications and experience in the design and construction of four (4) or more similar projects in Massachusetts or nationwide. At least one project completed for large water supply dam.

##### **Not Advantageous**

The Consultant possesses limited qualifications and experience in the design and construction of three (3) similar projects in Massachusetts or nationwide. No projects for large water supply dams.

#### **2. Qualifications of Project Team**

##### **Highly Advantageous**

The Consultant/Project Manager/Team has greater than 15 years of experience in dam design and construction work.

**Advantageous**

The Consultant/Project Manager/Team has greater than 10 – 15 years of experience in dam design and construction work.

**Not Advantageous**

The Consultant/Project Manager/Team has 5 - 10 years of experience in dam design and construction work.

**3. Responsiveness of Proposal**

**Highly Advantageous**

The proposal demonstrates a clear understanding of the project and provides a clear and comprehensive plan to address all objectives and elements, as defined in the Scope of Services. The proposal details the Consultant's specific methodology to all elements of each task, any additions or revisions to the Scope of Services required by the Consultant's methodology, and a schedule providing a timeline for the completion of each task.

**Advantageous**

The proposal demonstrates adequate understanding of the project and/or plan to address the objectives and elements, as defined in the Scope of Services. The proposal provides a general approach to address all elements of each task, any additions or revisions to the Scope of Services required by the Consultant's approach, and a general schedule for project.

**Not Advantageous**

The proposal does not demonstrate an adequate understanding of the project and/or provide plan to address many objectives and elements, as defined in the Scope of Services. The proposal outlines a general approach to address all major elements, or does not provide an adequately detailed schedule for the project.

**4. Professional References**

**Highly Advantageous**

The respondent has provided three (3) or more client references for relevant projects, all of whom report highly satisfactory experience working with the Consultant with no major concerns expressed. All references indicate a high degree of satisfaction with work products, and that project met budget and schedule expectations.

**Advantageous**

The respondent has provided three (3) or more relevant client references, all of whom report satisfactory or better experiences working with the Consultant and adequate work products. No major budget overruns or schedule delays attributed to the Consultant were reported.



**Not Advantageous**

The respondent has provided three (3) or more relevant client references, but one or more references reported less than satisfactory experiences working with the Consultant.

**5. Interview (if conducted)****Highly Advantageous**

The respondent's presentation was conducted by key individuals who will perform the services and included through, highly detailed information regarding how the Consultant will complete the scope of services. The presentation included multiple relatable examples of successful, similar products conducted by the Consultant involving the proposed team members.

**Advantageous**

The respondent's presentation was conducted by some of the individuals who will perform the services and included adequately detailed information regarding how the firm will complete the scope of services. The presentation included at least one relatable example of a successful, similar project conducted by the Consultant.

**Not Advantageous**

Any of the following will result in an interview score of Not Advantageous:

- The respondent's presentation as not conducted by the individuals who will perform the services; or
- The respondent's understanding or ability to comply with the stated scope of services was not adequately demonstrated; or
- The respondent included no relatable examples of successful, similar projects conducted by the Consultant.

## V. Attachment A: Price Proposal

(To be completed by the Respondent)

Respondents must submit a lump sum fee inclusive of all costs, including direct costs, indirect costs, and fee for all tasks/deliverables in the attached scope of services and required under the contract. The price proposal shall include a cost breakdown for all aspects for the scope of services, incorporating the project approach described by the Consultant. The DPW&P will pay for approved monthly invoices rendered and deliverables provided.

	Amount (\$)
Task 1: Review & Data Collection	
Task 2: Pre-design	
Task 3: Alternatives Analysis	
Task 4: Design	
Task 5: Permitting	
Total Cost for all Services:	

\*low proposal price to based on the total amount

## **VI. Appendix A: Available Reports & Information**

The following reports are included as attachments to this RFP for Respondent's review:

CDM Smith – Rehabilitation Alternatives and Preliminary Costs\_01-11-2017.pdf

CDM Smith – Technical Memorandum\_01-20-2017.pdf

CDM Smith – Underwater Inspection and Acoustics Imaging\_11-2014.pdf

MA00623 Pine Hill Reservoir Dam – Phase 1 – 2022\_06-15.pdf