

Request for Bid

**Fixed-Price Defined Scope of Work
To Complete Site Characterization**

Solicitor

IS3 West Girard, LLC

**Girard Medical Center
801 West Girard Avenue
Philadelphia, PA 19122**

PADEP Facility ID #: 51-43653 PAUSTIF Claim #: 19940044(F)

Date of Issuance

February 14, 2020

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The Pennsylvania Underground Storage Tank Indemnification Fund (PAUSTIF), on behalf of the claimant who hereafter is referred to as the Client or Solicitor, is providing this Request for Bid (RFB) to prepare and submit a bid to complete the Scope of Work (SOW) for the referenced Site. The Solicitor is the current owner and operator of the Site. PAUSTIF has determined that the claim reported by the Solicitor is eligible for coverage from the PAUSTIF subject to the applicable statutes and regulations. Reimbursement of Solicitor approved reasonable and necessary costs, not to exceed the claim aggregate limit, for the corrective action work described in this RFB will be provided by PAUSTIF. The Solicitor is responsible to pay any applicable deductible and/or proration. The deductible has been met and no proration is applicable on this claim.

Each bid response will be considered individually and consistent with the evaluation process described in the PAUSTIF Competitive Bidding Fact Sheet which can be downloaded from the PAUSTIF website <https://ustif.pa.gov>.

Calendar of Events

Activity	Date and Time
Notification of Intent to Attend Site Visit	March 6, 2020 by 5 p.m.
Mandatory Pre-Bid Site Visit	March 9, 2020 at 11 a.m.
Deadline to Submit Questions	March 23, 2020 by 5 p.m.
Bid Due Date and Time	April 6, 2020 by 3 p.m.

Contact Information

Technical Contact
<p>Mr. Tim Pilcher, P.E. B&B Diversified Enterprises, Inc. PO Box 70 Barto, PA 19504 Phone – 570-369-5410 Fax – 610-845-0650 Email – tpilcher@bbde.com</p>

All questions regarding this RFB and the subject Site conditions must be directed via email to the Technical Contact identified above with the understanding that all questions and answers will be provided to all bidders. The email subject line must be “**Girard Medical Center – PAUSTIF Claim #: 19940044(F) – RFB QUESTION**”. Bidders must neither contact nor discuss this RFB with the Solicitor, PAUSTIF, the Pennsylvania Department of Environmental Protection (PADEP), or ICF unless approved by the Technical Contact. Bidders may discuss this RFB with subcontractors and vendors to the extent required for preparing the bid response.

Requirements

Mandatory Pre-Bid Site Meeting

The Solicitor, the Technical Contact, or their designee will hold a mandatory Site visit on the date and time listed in the Calendar of Events to conduct a Site tour for one (1) participant per bidding company. Subsequent to the Site visit, the Technical Contact will collect questions that are submitted in writing and respond via email. All questions and answers will be provided via email to all attendees. This meeting is mandatory for all bidders with no exceptions. This meeting will allow each bidding company to inspect the Site and evaluate Site conditions. **A notice of the bidder's intent to attend this meeting is requested to be provided to the Technical Contact via email by the date listed in the Calendar of Events with the subject "Girard Medical Center – PAUSTIF Claim #: 19940044(F) – SITE MEETING ATTENDANCE NOTIFICATION".** The name and contact information of the company participant should be included in the body of the email. Notification of intent to attend is appreciated; however, it is not required. Attendance at the Pre-Bid Site Meeting is mandatory. Changes to the Site meeting date and/or time due to inclement weather conditions or other unexpected circumstances will be posted at <https://ustif.pa.gov/bids>; and, the Technical Contact may notify via email all companies that provided Site Meeting Attendance Notification.

The Site is located at 801 West Girard Avenue in Philadelphia, Pennsylvania. All Site Meeting attendees should meet at the corner of North 8th and West Thompson Streets. There is limited street parking available at the Site (North 8th Street is private and used for patient parking). A free parking deck is located adjacent to the Site with an entrance off of Master Street.

Submission of Bids

To be considered for selection, **one (1) hard copy of the signed bid package and one (1) electronic copy (one (1) PDF file on a compact disk (CD) included with the hard copy) must be provided directly to the PAUSTIF's third party administrator, ICF, to the attention of the Contracts Administrator.** The Contracts Administrator will be responsible for opening the bids and providing copies to the Technical Contact and the Solicitor. Bid responses will only be accepted from those companies that attended the Mandatory Pre-Bid Site Meeting. **The ground address for overnight/next-day deliveries is ICF, 4000 Vine Street, Middletown, PA 17057, Attention: Contracts Administrator. The outside of the shipping package containing the bid must be clearly marked and labeled with "Bid – PAUSTIF Claim #: 1994044(F)".** Please note that the use of U.S. Mail, FedEx, UPS, or other delivery method does not guarantee delivery to this address by the due date and time listed in the Calendar of Events for submission. Companies mailing bids should allow adequate delivery time to ensure timely receipt of their bid.

The bid must be received by 3 p.m., on the due date shown in the Calendar of Events. Bids will be opened immediately after the 3 p.m. deadline on the due date. Any bids received after this

due date and time will be time-stamped and returned. If, due to inclement weather, natural disaster, or any other cause, the PAUSTIF's third party administrator, ICF's office is closed on the bid due date, the deadline for submission will automatically be extended to the next business day on which the office is open. The PAUSTIF's third party administrator, ICF, may notify all companies that attended the Mandatory Pre-Bid Site Meeting of an extended due date. The hour for submission of bids shall remain the same. Submitted bid responses are subject to the Pennsylvania Right-to-Know Law.

Bid Requirements

The Solicitor wishes to execute a mutually agreeable contract with the selected consultant ("Remediation Agreement"). The Remediation Agreement is included as Attachment 1 to this RFB. The bidder must identify and document in their bid any modifications that they wish to propose to the Remediation Agreement language in Attachment 1 other than obvious modifications to fit this RFB (e.g., names, dates, and descriptions of milestones). The number and scope of any modifications to the standard agreement language will be one (1) of the criteria used to evaluate the bid. **Any bid that does not clearly and unambiguously state whether the bidder accepts the Remediation Agreement language in Attachment 1 "as is", or that does not provide a cross-referenced list of requested changes to this agreement, will be considered non-responsive.** This statement should be made in a Section in the bid entitled "Remediation Agreement". Any proposed changes to the agreement should be specified in the bid; however, these changes will need to be reviewed and agreed upon by both the Solicitor and the PAUSTIF.

The selected consultant will be provided an electronic copy (template) of the draft Remediation Agreement in Microsoft Word format to allow agreement-specific information to be added. The selected consultant shall complete the agreement-specific portions of the draft Remediation Agreement and return the document to the Technical Contact within 10 business days from date of receipt.

The Remediation Agreement fixed costs shall be based on unit prices for labor, equipment, materials, subcontractors/vendors, and other direct costs. The total cost quoted in the bid by the selected consultant will be the maximum amount to be paid by the Solicitor unless a change in scope is authorized and determined to be reasonable and necessary. There may be deviations from and modifications to this SOW during the project. The Remediation Agreement states that any significant changes to the SOW will require approval by the Solicitor, PAUSTIF, and PADEP. NOTE: Any request for PAUSTIF reimbursement of the reasonable costs to repair or replace a well will be considered on a case-by-case basis.

The bidder shall provide its bid cost using the Bid Cost Spreadsheet (included as Attachment 2) with descriptions for each task provided in the body of the bid document. Please note, if costs are provided within the text of the submitted bid and there is a discrepancy between costs listed in the Bid Cost Spreadsheet and in the text, the costs listed within the Bid Cost Spreadsheet will be used in the evaluation of the bid and in the Remediation Agreement with the selected consultant.

Bidders are responsible to ensure spreadsheet calculations are accurate. The technical score for bids will be based solely on those tasks represented as milestones included in the Bid Cost Spreadsheet and the total bid cost. Any optional bidder-defined tasks, milestones, or cost adders that are not requested as part of this RFB will not be considered by the Bid Evaluation Committee in the technical review and technical score for the bid.

In addition, the bidder shall provide:

1. The bidder's proposed unit cost rates for each expected labor category, subcontractors, other direct costs, and equipment;
2. The bidder's proposed markup on other direct costs and subcontractors (if any);
3. The bidder's estimated total cost by task consistent with the proposed SOW identifying all level-of-effort and costing assumptions; and
4. A unit rate schedule that will be used for any out of scope work on this project.

Each bid will be assumed to be valid for a period of up to 120 days after receipt unless otherwise noted. The costs quoted in the Bid Cost Spreadsheet will be assumed to be valid for the duration of the Remediation Agreement.

Please note that the total fixed-price bid must include all costs, including those cost items that the bidder may regard as "variable". These variable cost items will not be handled outside of the total fixed-price quoted for the SOW unless the RFB requests costing alternatives for specific items or services. Any bid that disregards this requirement will be considered non-responsive to the bid requirements and, as a result, will be rejected and will not be evaluated.

The RFB is requesting a total fixed-price bid (unless the RFB requests costing alternatives for specific items or services). PAUSTIF will not agree to assumptions (in bids or the selected bidders executed Remediation Agreement) referencing a level of effort and/or hours. Costs provided in your bid should be developed using your professional opinion, experience, and the data provided. PAUSTIF will not reimburse costs for additional hours to complete activities included as part of the base bid/contract price.

Each bid response document must include at least the following:

1. Demonstration of the bidder's understanding of the Site information provided in this RFB, standard industry practices, and objectives of the project.
2. A clear description, specific details, and original language of how the proposed work scope will be completed for each milestone. The bid should specifically discuss all tasks that will be completed under the Remediation Agreement and what is included (e.g., explain groundwater purging/sampling methods, which guidance documents will be followed, what will be completed as part of the Site specific work scope/SCR/RAP implementation). Recommendations for changes/additions to the Scope of Work proposed in this RFB shall be discussed, quantified, and priced separately; however, failure to bid the SOW "as is" may result in a bid not being considered. Bids should include enough original language

conveying bidder's thought such that the understanding of site conditions, closure approach (if applicable), and approach to addressing the scope of work can be evaluated. Since bidders are not prequalified, the bid response must provide the Bid Evaluation Committee and Solicitor enough information to complete a thorough review of the bid and bidder.

3. A copy of an insurance certificate that shows the bidder's level of insurance consistent with the requirements of the Remediation Agreement. Note: The selected consultant shall submit evidence to the Solicitor before beginning work that they have procured and will maintain Workers Compensation, commercial general and contractual liability, commercial automobile liability, and professional liability insurance commensurate with the level stated in the Remediation Agreement and for the work to be performed.
4. The names and brief resumes/qualifications of the proposed project team including the proposed Professional Geologist and Professional Engineer (if applicable) who will be responsible for overseeing the work and applying a professional seal to the project deliverables (including any major subcontractor(s)).
5. Responses to the following specific questions:
 - a. Does your company employ a Pennsylvania-licensed Professional Geologist that is designated as the proposed project manager? How many years of experience does this person have?
 - b. How many Pennsylvania Chapter 245 or Chapter 250 projects is your company currently the consultant for in the PADEP Region where the Site is located? Please list up to 10 and indicate if they are Chapter 245 or 250 projects.
 - c. How many Pennsylvania Chapter 245 Corrective Action projects involving an approved SCR, RAP, and RACR has your company and/or the Pennsylvania-licensed Professional Geologist closed (i.e., obtained Relief from Liability from the PADEP) using any standard?
 - d. How many Pennsylvania Chapter 250 projects involving an approved Final Report has your company and/or the Pennsylvania-licensed Professional Geologist closed (i.e., obtained Relief from Liability from the PADEP) using any standard?
 - e. Please provide detailed project descriptions of up to three No. 6 fuel oil release sites that either your company and/or the Pennsylvania-licensed Professional Geologist have acted as the environmental consultant. Please include a brief summary of the project, a description of the release, remedial actions performed and current regulatory status of the project.
 - f. Has your firm ever been a party to a terminated PAUSTIF-funded Fixed-Price (FP) or Pay-for-Performance (PFP) contract without attaining all of the milestones? If so, please explain.

6. A description of subcontractor involvement by task. Identify and describe the involvement and provide actual cost quotations/bids/proposals from all significant specialized subcontracted service (e.g., drilling/well installations, laboratory, etc.). If a bidder chooses to prepare its bid without securing bids for specialty subcontract services, it does so at its own risk. Added costs resulting from bid errors, omissions, or faulty assumptions will not be considered for PAUSTIF reimbursement.
7. A detailed schedule of activities for completing the proposed SOW including reasonable assumptions regarding the timing and duration of Solicitor reviews (if any) needed to complete the SOW. Each bid must provide a schedule that begins with execution of the Remediation Agreement with the Solicitor and ends with completion of the final milestone proposed in this RFB. Schedules must also indicate the approximate start and end date of each of the tasks/milestones specified in the SOW, and indicate the timing of all proposed key milestone activities (e.g., within thirty (30) days of the contract being executed).
8. A description of how the Solicitor, ICF, and the PAUSTIF will be kept informed as to project progress and developments and how the Solicitor (or designee) will be informed of and participate in evaluating technical issues that may arise during this project.
9. A description of your approach to working with the PADEP. Describe how the PADEP would be involved proactively in the resolution of technical issues and how the PADEP case team will be kept informed of activities at the Site.
10. Key exceptions, assumptions, or special conditions applicable to the proposed SOW and/or used in formulating the proposed cost estimate. Please note that referencing extremely narrow or unreasonable assumptions, special conditions, and exceptions may result in the bid response being deemed “unresponsive”.
11. The name and contact information of the person who is to be contacted in the event the bid is selected by the Solicitor and/or a Right to Know request is received by PAUSTIF.

Bid Review, Scoring and Evaluation

1. Bid Review and Scoring

Bidders' submissions that are administratively qualified (attend the mandatory pre-bid site meeting, submission of the bid by the designated due date and time) will be evaluated.

Technical Scoring

Bids are evaluated for technical viability before cost is considered. Bids that have technical scores that fall within 75% of the highest technical score will advance to cost scoring. Bids with technical scores below 75% of the highest technical score are eliminated from further consideration.

Numerical values will be assigned for defined SOW bids for two categories:

- Understanding the problem and demonstrating knowledge of how to perform the work
- Qualifications and Experience

Numerical values will be assigned to three categories in those cases where there is a bid-to-result request:

- Understanding of the problem
- Technical and Regulatory Approach to Remediation
- Qualifications and Experience

Cost Scoring

Cost scores are determined by a cost formula. The bid(s) with the lowest total cost receives the maximum cost points available. The remaining bids are scored by applying the following cost formula: $(1 - ((B - A) / A)) \times C = D$

A = the lowest bid cost

B = the bidder's cost being scored

C = the maximum number of cost points available

D = bidder's cost score (points)

If a bid cost is equal to, or greater than, twice the amount of the lowest bid cost, the formula calculation will result in a zero or negative number and the bid will be assigned zero cost points.

2. Evaluation of Bids

A committee comprised of at least two members of the PAUSTIF staff, two members of ICF staff, and the TPR who assisted in developing the bid package will score all bids that are administratively qualified based on the above criteria. PAUSTIF recognizes that

several bids may be acceptable and receive similar numerical scores. At the conclusion of the scoring process, the claimant will receive those bids whose numerical scores place them in the category of meeting Reasonable and Necessary criteria and acceptable for PAUSTIF funding. The claimant may select any of the consulting firms that submitted a qualified bid package to implement the tasks described in the bid; however, PAUSTIF will only provide funding up to the highest fixed price of those bids determined to be Reasonable and Necessary for PAUSTIF funding.

General Site Background and Description

Each bidder should carefully review the existing information and documentation provided in Attachment 3. The information and documentation have not been independently verified. Bidders may wish to seek out other appropriate sources of information and documentation specific to this Site. If there is any conflict between the general Site background and description provided herein and the source documents within Attachment 3, the bidder should defer to the source documents.

Site Address

Girard Medical Center
North 8th Street and West Girard Avenue
Philadelphia, Pennsylvania 19122
Philadelphia County

Site Location and Operation Information

The Site is located at the northwest corner of North 8th Street and West Girard Avenue, City of Philadelphia, Philadelphia County, Pennsylvania. The Site is approximately 4.65 acres and has several multi-story buildings, which include the Girard Medical Center and the Tower Building, an 11-story residential housing building with a 2.5-story sub-basement approximately 35 feet below ground surface (ftbg). The sub-basement in the Tower Building contains the building's mechanical systems (i.e., boilers, hot water heaters, emergency generators, HVAC, etc.). The sub-basement also contains an active groundwater depression system that consists of a sump and presumed to be numerous collection pipes/drains below the concrete floor. The Girard Medical Center provides healthcare and Tower Building provides housing for full-time residents. The Tower Building is also used to run a drug addiction treatment center. The Tower Building was constructed in 1929. Prior to construction the area was used as single and multi-family residences. A former 15,000-gallon No. 6 fuel oil underground storage tank (UST) that was used to supply heating oil to the Tower Building was installed in 1982 and removed in May 1994. A former 15,000-gallon No. 2 fuel oil UST was located in the northeast corner of the Site and provided fuel for an on-site emergency generator located in the sub-basement of the Tower Building. The No. 2 fuel oil UST was removed on September 20, 2018. A replacement 10,000-gallon aboveground storage tank (AST) was installed at the Site. At this time, the AST is no longer in use and the emergency generator is being fueled by natural gas.

Properties in the vicinity of the Site are a mix of residential and light commercial. The Site is bordered to the north by residential properties and a hospital parking area, to the south by commercial properties, to the west by North Philadelphia Health Center, and to the east by residential properties. The Site and surrounding properties utilize public water and sewer systems provided by the Philadelphia Water Department. The active onsite groundwater depression system discharges to the storm sewer system.

The overburden at the Site consists of fill material to an approximate depth range of 5 - 10 ftbg, and sandy clay, gravel and weather schist to the top of bedrock. Top of bedrock is present at approximately 24 ftbg. Groundwater is present at the Site at depths outside the Tower Building ranging from approximately 14 to 19 ftbg. Depths to groundwater beneath the sub-basement floor range from approximately 1 to 5 ftbg. The general groundwater flow direction at the Site is primarily easterly. However, the active onsite groundwater depression system creates a radial flow pattern around the sump.

Site Background Information

There are currently two open release incidents at the Site. The first release incident (PAUSTIF Claim #19940044(F)) was discovered in May 1994, when a 15,000-gallon No. 6 fuel oil UST and all associated piping were removed from the Site. According to the June 1994 UST Closure Report, evidence of corrosion to the UST and associated piping was observed during the removal activities. Contamination was observed on soils in the excavation area. Approximately 523 tons of petroleum impacted soil was excavated, stockpiled, and properly disposed of offsite. Laboratory analytical results from post excavation soil samples collected May 1994 indicated that elevated levels of TPH were present in soils. The first release incident is located on the northwest corner of the property. The second release incident (PAUSTIF Claim #20170177(F)) was discovered on November 16, 2017 when No. 2 fuel oil was observed within the groundwater depression sump. Based on all available evidence, the No. 2 fuel oil release most likely occurred beneath the sub-basement floor adjacent to the emergency generator. Both of these releases are being address under the Land Recycling and Environmental Remediation Standards Act of 1995 (Act 2).

From May 1994 through August 2019, the current and past consultants conducted multiple soil and groundwater investigations within the source area and offsite in an effort to complete site characterization. The intent was to characterize the source area on the Site and delineate soil/groundwater impacts on site and off site in response to the release that was confirmed in May 1994. Investigation activities performed by the consultant included the completion of a sensitive receptor survey, advancement of 26 soil borings, installation of 17 monitoring wells / piezometers, aquifer testing, fate and transport modeling, vapor intrusion evaluation, the installation and maintenance of an interim remediation system, and 59 vacuum extraction groundwater remediation events. Soil, groundwater, and vapor samples were collected throughout the characterization process for laboratory analyses. The results of these activities are summarized in the multiple reports that have been submitted to the PADEP or ICF and are attached to this RFB.

An Initial Site Characterization and Hydrologic Assessment for No. 6 Fuel Oil UST Report dated February 2, 1995, and a Remedial Action Plan and Recent Project Activities and Findings Report, dated September 4, 1997, were prepared by the consultant and submitted to the PADEP. These reports summarized initial site characterization activities completed from December 20, 1994 through September 4, 1997.

In November 1999, an interim groundwater remediation system was installed at the Site. From December 1999 through April 4, 2002, the groundwater remediation system was operated and maintained, and a total of approximately 5,896 gallons of impacted groundwater and approximately 556 gallons of separate phase hydrocarbons (SPH) were removed from the Site and sent offsite for proper disposal.

An Updated Site Characterization Report (SCR), dated May 6, 2002, was prepared by the consultant and submitted to the PADEP. The selected standards listed in the SCR were Residential Statewide Health Standard (SHS) for Used Aquifers for all constituents of concern in soils and groundwater. The report summarized recently completed soil and groundwater characterization activities and interim groundwater remediation. Laboratory analytical results indicated that there were exceedances of RSHS in soil and groundwater samples collected during site characterization activities.

A Non-Used Aquifer Report (NUAR) dated August 26, 2005, was prepared by the consultant and submitted to the PADEP. The report included a request and supporting data to designate the aquifer underlying the Site as a Non-Used Aquifer. The PADEP approved the request in a letter dated October 3, 2005.

From February 3, 2003 through October 15, 2014, fifty-nine single day high-vacuum groundwater extraction events were completed at the Site. Approximately 5,870 gallons of impacted groundwater and product were removed from the Site during the events and sent offsite for proper disposal.

A Notice of Intent to Remediate (NIR), dated December 9, 2011, was prepared by the consultant and submitted to the PADEP. An updated NIR, dated April 1, 2014, was prepared by the consultant and submitted to the PADEP. The purpose of the updated NIR was to clarify the use of RSHS for remediation of both soil and groundwater.

A Remedial Investigation Report (RIR), dated July 10, 2013, was prepared by the consultant and submitted to the PADEP. The PADEP disapproved the RIR citing deficiencies in the report in a correspondence dated October 16, 2013.

An Act 2 Final Report (Final Report), dated May 23, 2014, was prepared by the consultant and submitted to the PADEP. The final report discusses groundwater attainment using site specific standards and soil attainment using the non-residential SHSs, sensitive receptors, groundwater characterization demonstrating that active groundwater depression system controls groundwater flow surrounding the Tower Building and a post-remedial care plan.

An Act 2 Final Report, dated November 20, 2014, was prepared by the consultant and submitted to the PADEP. The final report discusses soil attainment using the non-used aquifer residential SHSs, soil vapor intrusion concerns, and groundwater characterization demonstrating that active groundwater depression system controls groundwater flow surrounding the Tower Building.

In September 2018, the 15,000-gallon No. 2 fuel oil UST was removed from the Site. According to the October 2018 UST Closure Report, no evidence of a release was observed during the

removal activities. Laboratory analytical results from post excavation soil samples were all non-detectable for the compounds of concern (COCs) analyzed.

A NIR, dated September 12, 2018, was prepared by the consultant and submitted to the PADEP. The NIR was submitted in response to a release of No. 2 fuel oil from a 15,000-gallon UST at the Site. Future activities associated with addressing the No. 2 fuel oil release will be handled by the selected consultant outside of the remediation agreement.

Scope of Work

This RFB seeks competitive bids from qualified contractors to perform the activities in the SOW specified herein. The SOW presented in this RFB was provided to the PADEP for review and comment. The PADEP did not respond to our request to review and comment on the SOW.

These work scope elements are intended to include all tasks leading to the collection of enough data to prepare a comprehensive Site Summary Report. The SOW contained in this RFB has been developed and structured as a defined work scope-type solicitation. Therefore, in reviewing the quality of bids submitted under this type of solicitation, there is a greater emphasis placed on cost over technical approach (as compared to bids offered in response to “Bid to Result” RFBs). Nevertheless, technical detail, accuracy, and completeness remain important and are evaluated against the SOW requirements.

This Site is considered a non-regulated UST site with the PADEP and as such the remediation of the Site is governed under The Land Recycling and Environmental Remediation Standards Act of 1995 (Act 2), as amended and the Pennsylvania Code, Chapter 250 - Administration of Land Recycling Program. It should also be noted that the Solicitor has decided to pursue closure under residential statewide health standards (non-use aquifer) and therefore no reports are required until characterization and remediation (if necessary) are completed and the applicable standards have been met.

Objective

This RFB is seeking qualified firms to prepare and submit a fixed price proposal to complete a defined SOW. Specifically, this RFB seeks competitive bids to complete additional characterization activities, prepare an appropriate comprehensive Site Summary Report, evaluate potential remedial strategies, and facilitate progress towards site closure in a timely, efficient, and cost effective manner. A petroleum release has been confirmed at the Site in both soil and groundwater.

Constituents of Concern

The list of constituents of Concern (COCs) for this Site include the following:

- Benzene
- Toluene
- Ethylbenzene
- MTBE (Methyl tert-butyl ether)
- Naphthalene
- Cumene (Isopropylbenzene)
- 1,2,4-Trimethylbenzene
- 1,3,5-Trimethylbenzene
- Chrysene
- Phenanthrene
- Pyrene

General SOW Requirements

The bidder's approach to completing the SOW shall be in accordance with generally accepted industry standards/practices and all applicable federal, state, and local rules, regulations, guidance, and directives. The latter include, but are not limited to, meeting the applicable requirements of the following:

- The Storage Tank and Spill Prevention Act (Act 32 of 1989, as amended);
- Pennsylvania Code, Title 25, Chapter 245 - Administration of the Storage Tank Spill and Prevention Program;
- The Land Recycling and Environmental Remediation Standards Act of 1995 (Act 2, as amended);
- Pennsylvania Code, Chapter 250 - Administration of Land Recycling Program; and
- Pennsylvania's Underground Utility Line Protection Law, Act 287 of 1974, as amended by Act 121 of 2008.

During completion of the milestone objectives specified below and throughout implementation of the project, the selected consultant shall:¹

¹ As such, all bids shall include the costs of these activities and associated functions within the quote for applicable tasks/milestones.

- Conduct necessary, reasonable, and appropriate project planning and management activities until the project (i.e., Remediation Agreement) is completed. Such activities may include Solicitor communications/updates, meetings, record keeping, subcontracting, personnel and subcontractor management, quality assurance/quality control, scheduling, and other activities (e.g., utility location). Project planning and management activities will also include preparing and implementing plans for health and safety, waste management, field sampling/analysis, and/or other plans that are necessary and appropriate to complete the SOW, and shall also include activities related to establishing any necessary access agreements. Project planning and management shall include identifying and taking appropriate safety precautions to not disturb Site utilities including, but not limited to, contacting Pennsylvania One Call as required prior to any ground-invasive work. As appropriate, project management costs shall be included in each bidder's pricing to complete the milestones specified below.
- Be responsible for coordinating, managing, and completing the proper management, characterization, handling, treatment, and/or disposal of all impacted soils, water, and derivative wastes generated during the implementation of this SOW. The investigation-derived wastes (IDW), including purge water, shall be disposed in accordance with standard industry practices and applicable laws, regulations, guidance, and PADEP directives. Waste characterization and disposal documentation (e.g., manifests) shall be maintained and provided to the Solicitor and the PAUSTIF upon request. All investigation derived wastes shall be handled and disposed per PADEP's Regional Office guidance. It is the selected consultant's responsibility to conform with current PADEP Regional Office guidance requirements in the region where the Site is located.
- Be responsible for providing the Solicitor and facility operator with advance notice prior to each visit to the property (discussed below). The purpose of this notification is to coordinate with the Solicitor and facility operator to ensure that appropriate areas of the property are accessible. Return visits to the Site will not constitute a change in the selected consultant's SOW or result in additional compensation under the Remediation Agreement.

Site-Specific Guidelines

As part of this RFB, the selected consultant will need to consider the following site - specific guidelines:

- **Milestone Schedule:** As part of this RFB, bidders must provide a schedule as to when each of the milestones will be completed.
- **Work Areas and Field Work Scheduling:** Multiple field activities will be conducted in areas of the Site that are currently used to receive patients for the drug addiction treatment

center. These two Work Areas are shown on the attached Figure 1. Work Area 1 includes monitoring wells MW-2, MW-4, and MW-6 and recovery well RW-1. Work Area 1 is fenced in and is also covered with temporary artificial turf. Work Area 2 is located in the immediate vicinity of monitoring well MW-10. Work Area 2 is fenced in and is covered with permanently installed artificial turf. Most other outside areas of the Site are located behind locked security fences. The inside area of the Site where field work will be conducted is located in the building's sub-basement. The sub-basement currently houses the abandoned No. 6 fuel oil boilers and emergency generator as well as other building utilities and is protected with locked doors and elevators. The selected consultant must provide a minimum of 5-day notice to the Solicitor prior to conducting all onsite activities. All on-site work must be completed during the normal working days Monday through Friday and between the hours of 8 am and 5 pm. The selected consultant will be required to coordinate closely with the Solicitor to ensure all work is conducted safely and that the work areas are ready for the selected consultant to complete the field activities. Every attempt should be made by the selected consultant to limit the number of times and duration for when Work Areas 1 and 2 need to be accessed.

The below specific safety measure will need to be taken when conducting work within the outside work areas:

1. The day prior to the planned outside intrusive activities (i.e., well installations, well development, etc.), the Solicitor will roll back the artificial turf in Work Area 1. The day of field work, the selected consultant will have to erect a temporary safety fence (8 foot tall chain link construction safety fence) in the locations shown on the attached Figure 1. The selected consultant will hang plastic sheeting on the safety fence to prevent debris from leaving the work area. The selected consultant will also be required to use plastic sheeting on the ground to minimize dirt accumulation, staining of the asphalt and to prevent liquids from leaving the work area.
 2. The day prior to the planned outside non-intrusive activities (i.e., groundwater monitoring and sampling, surveying, utility markouts, etc.), the Solicitor will roll back the artificial turf in Work Area 1. The day of field work, the selected consultant will have to erect a temporary safety fence (8 foot tall chain link construction safety fence) in the locations shown on the attached Figure 1. When conducting non-intrusive activities, the selected consultant is not required to hang plastic sheeting on the safety fence in Work Area 1. However, they are required to protect the asphalt surface from debris or staining with free product when conducting routine groundwater monitoring and sampling events. The Solicitor will provide an employee or security for when the selected consultant has to monitor and sample monitoring well MW-10 (located within Work Area 2). The selected consultant will have to protect the artificial turf in the area of MW-10 with plastic sheeting.
- **Responsibility:** The selected consultant will be the consultant of record for the Site. They will be required to take ownership and responsibility for the project and will be responsible for representing the interests of the Solicitor and PAUSTIF with respect to the project. This includes utilizing their professional judgment to ensure reasonable and appropriate

actions are recommended and undertaken to protect sensitive receptors and move the Site towards closure.

- **Scope of Work:** Please bid the SOW as provided in the RFB. Bidders are welcome to propose or suggest a change in the SOW; however, the bidders should bid the SOW as presented in the RFB and provide any suggested modification to the SOW and provide the cost difference (+ or -) separately in the proposal. This should include any compelling rationale for the suggested change(s).
- **Selected Standards:** The Solicitor has selected to remediate the Site to the PADEP Residential SHSs for Non-Used Aquifers for all COCs in soil and groundwater.
- **Complete Characterization:** Please note that the selected consultant should not proceed with preparing the Site Summary Report if the Site is not fully characterized or additional data collection is necessary to develop a remedial plan. Following the completion of the characterization milestones, the selected consultant will evaluate whether the Site is fully delineated and if additional data is needed to develop an appropriate remedial strategy. The selected consultant will provide the Solicitor and USTIF with an update indicating that the Site is either fully delineated and additional data is not needed or recommend additional delineation or data collection with discussions as to why the additional activities are needed. The Site Summary Report should not include language that recommends additional delineation is needed.
- **Safety Measures:** In addition to the above discussed safety measures, each bidder should determine any additional level of safety measures needed to appropriately complete the milestones. Specifically, if a bidder feels it is appropriate and necessary to complete additional safety measures other than or beyond what is required in the SOW, the cost should be included in their proposal and costs. More importantly, if a bidder includes the cost to complete safety activities, they should specify it in their proposal and discuss why it is appropriate and necessary and indicate which methods will be utilized and to what extent. As discussed in the RFB, cost is not the only factor when evaluating proposals and other factors are taken into consideration during the review process, including appropriate safety measures.
- **Waste Disposal:** The IDW waste (including soil/rock cuttings, development water, and liquids generated during installation and aquifer testing) should be disposed of per the instructions included in the “General SOW Requirements” section of the RFB. The selected consultant will be responsible for arranging any off-site waste disposal (if required) and including costs in their bid response to cover the disposal of all potential waste related to the milestones included in the SOW. Containerized soil and groundwater may be temporarily stored on Site, but should be removed from the Site in a timely manner. In an effort to eliminate or minimize the need for change orders on a fixed price contract, please include costs to dispose of all anticipated volumes of waste in your bid response. PAUSTIF will not entertain any assumptions on the contract with regards to a volume of

waste (i.e. Project costs assume that no more than 1,000 gallons of groundwater will require disposal after the completion of the pump test). Bidders will be responsible for including costs in their bid response to cover the disposal of all potential waste related to the milestones included in the SOW. Please estimate the volume of waste using your professional opinion, experience, and the data provided. Invoices submitted to cover additional costs on waste generated as part of activities included under the fixed price contract for this Site will not be paid. If your bid proposes to dispose of waste under a permit, then your bid needs to address the potential situation of a permit not being approved. Bids need to specifically indicate that your bid costs include the costs to dispose of the waste even if a permit is not approved. As indicated in the bid, there should be no assumptions on waste and assuming that a permit will be approved is still making an assumption on waste.

- **Standard Operating Procedures:** Please include in the bid as an attachment, your firm's standard operating procedures for all major field tasks proposed in the SOW.
- **Prior Approval – Site-Specific Milestones:** For consideration of PAUSTIF reimbursement, PAUSTIF approval must be obtained prior to completing the following Site-Specific Milestones. The request for approval to proceed with these milestones is being done in an effort to determine whether the milestone in question is warranted based on the data collected during the investigation.
 - **Milestone J2 – Indoor Air Sampling**
 - **Milestone L – Feasible Remedial Alternative Analysis**
- **Prior Approval – Optional Cost Adder Milestones:** For consideration of PAUSTIF reimbursement, Solicitor and PAUSTIF approval must be obtained prior to completing any Optional Cost Adder Milestones. Milestone A through Milestone L represents the base SOW for this RFB solicitation. In addition to the above base SOW, the Optional Cost Adder Milestones (Milestone M through Milestone V) need to be addressed in your bid response. These cost adders will not be part of your initially approved base contract price. However, if it becomes necessary to complete any of these activities, they will be completed under the Remediation Agreement signed as part of this project.
- **Milestones with Multiple Events:** Several Site-Specific Milestones and Optional Cost Adder Milestones include multiple events. For those milestones, PAUSTIF will only reimburse the selected bidder for the actual number of necessary events conducted (i.e. if a bidder includes the costs to complete two events, but only one event is necessary and is conducted, then the bidder will only be paid for the one event completed).
- **Request for Conceptual Site Model and Potential Remedial Approach(es):** With multiple failed remedial actions and over 25 years of site investigations and groundwater monitoring and sampling, the Site still exhibits unacceptable levels of COCs in groundwater and persistent SPH. Each bid response must include a discussion on the

bidder's understanding of the current site status as well as their initial conceptual site model and potential approach(es) to remediating the Site to the selected standards (focus primarily on recovery of SPH to the extent practical). This discussion should be based on the available data and information collected to date and additional data and information collected as part of this SOW may result in a change to a bidder's conceptual site model and potential remedial approach(es).

Site-Specific Milestones

Milestone A – Updated Sensitive Receptor Survey: An Updated Sensitive Receptor Survey (SRS) should be conducted for this Site. Sensitive receptors evaluated for this Site should include area water usage, surface water bodies, and subsurface underground utilities and basements. Submitted bids should specify what activities will be included in the updated SRS activities (i.e. review of tax maps and property assessment records; area canvass; PNDI search, etc.). A verification of the non-use aquifer determination should be completed as part of this milestone. Results of the SRS are to be taken into consideration during the execution of the project and shall be documented and reported in the Site Summary Report.

Milestone B – Historical Building Plans Review: Provide a cost to review available historical engineering building plans for the Site. A review of the available plans is being conducted to determine if any plan exists showing the construction methods, modifications or repairs for the building's groundwater depression system and in an effort to gain a better understanding of the sub-basement dewatering system and what effect its construction method and operation may have on contaminate (SPH) migration at the Site. This milestone also includes the time and effort needed to conduct onsite interviews with selected staff (assume maximum of 2 staff interviews not more than 2 hours each). The cost should cover the necessary time and materials needed to review the plans at the Site. A desk will be provided in an area of the basement to conduct the review.

Milestone C – Private Utility Markout: Prior to any intrusive investigation work at the Site (i.e. monitoring well drilling, piezometer installation), a private markout is to be conducted at the Site to confirm the locations of any obstruction or underground utilities present in the vicinity of the proposed intrusive activities. The locations of the identified features should be marked with appropriate paint on the asphalt areas (only including the asphalt areas exposed by rolling back the artificial turf and outside of the fenced in area, under no circumstances should any markings be applied to the permanently installed artificial turf) and flags in grassy areas. A report shall be provided with an explanation of the identified features. The identified features should be included in the site survey.

Milestone D – Geophysical Survey - Prior to any intrusive investigation work at the Site, a geophysical survey is to be completed in the areas of intrusive work and the sub-basement at the Site. The purpose of the geophysical survey is to locate any preferential

pathways that may exist at the Site, assist with the identification and depths of any subsurface utilities and provide additional information on the location of any subsurface drainage piping associated with the groundwater depression system. A report shall be provided with an explanation of the identified features. If the selected consultant chooses to do so, the report required for this milestone can be combined with the report required for Private Utility Markout Milestone. The identified features should be included in the site survey.

Milestone E – Installation of Monitoring Wells – A total of four overburden monitoring wells (MW-11, MW-12, MW-13 and MW-14) and one bedrock monitoring well (MW-15) are proposed for installation to delineate groundwater impacts and detect the presence of SPH at the Site. The proposed locations of the monitoring wells are provided on the attached Figure 2. As part of the installation of the wells, the selected consultant should consider the following:

- All monitoring wells will be installed in the locations proposed in the RFB, unless the presence of utilities, obstructions, or safety concerns requires a change in the location. If due to valid concerns the general locations of the proposed wells need to be altered more than four feet from the approximate locations provided on the attached figure, then the selected consultant will be required to contact the ICF and/or the Technical Contact, to discuss the need for the changes, and provide the ICF and/or the Technical Contact with a revised monitoring well location map.
- Prior to the advancement of the monitoring wells, the selected consultant will be required to complete a private markout / geophysical survey at the Site to identify the location of obstructions and underground utilities. If a consultant feels it is appropriate and necessary to complete hole-clearing activities before advancing the borings, the cost should be included in their proposal and costs. If a consultant includes the cost to complete hole-clearing, they should state it in their proposal and discuss why it is appropriate and necessary. Given the amount and type of subsurface utilities already identified at the Site, we anticipate that all bidders will propose hole-clearing prior to any intrusive activities. As discussed in the RFB, cost is not the only factor when evaluating proposals and other factors are taken into consideration during the review process, including appropriate safety measures.
- The wells should be drilled and constructed in accordance with generally accepted practices as outlined in the PADEP Groundwater Monitoring Guidance Manual, (Appendix A of the PADEP Land Recycling Program Technical Guidance Manual, Document No. 261-0300-101, dated January 19, 2019).
- For the overburden monitoring wells, the borehole will be drilled to an anticipated maximum depth of approximately 24 feet below grade, and a monitoring well will be constructed using approximately 10 feet of 4-inch diameter schedule 40 PVC

flush threaded casing and with schedule 40 PVC flush threaded 0.020 slot size screening to be installed in the remaining length of the well column. The total depth and screening interval provided are approximate and based on available information. The overburden wells should not be advanced into competent bedrock. Overhead power lines will require the use of a low clearance auger drilling rig to install one or more of the overburden monitoring wells.

- For the bedrock monitoring well, the borehole will be drilled to an anticipated maximum depth of approximately 45 feet below grade, and a monitoring well will be constructed using approximately 30 feet of 4-inch diameter schedule 40 PVC flush threaded casing and with schedule 40 PVC flush threaded 0.020 slot size screening to be installed in the remaining length of the well column. The total depth and screening interval provided are approximate and based on available information. Care needs to be taken to ensure that the overburden aquifer is cased off in the bedrock well.
- Drilling is to be conducted under the supervision of a Pennsylvania-licensed Professional Geologist and the final construction specifications will be determined by the Professional Geologist and dictated by actual site conditions (i.e. actual depth to groundwater, depth to bedrock, etc.). Careful consideration needs to be taken when installing the proposed monitoring wells. Specifically, the wells should not be over drilled, under screened, or screened across the multiple water bearing zones. Shallow refusal due to under scoping of equipment is not acceptable and will not be reimbursed. The selected consultant is responsible for appropriately installing the well.
- A flush-mounted manhole shall be cemented into place to complete the well at grade level. A locking, pressure fit, watertight cap will be used to prevent the infiltration of surface runoff and rainwater and to restrict access by unauthorized individuals.
- The newly installed monitoring wells should be developed to promote adequate hydraulic connection between the aquifer and the well. Depending on the depth and amount of sediment in the well, development should be completed via mechanical surging using either a bailer or an electric submersible pump, or by airlift techniques.
- The field results, boring logs and monitoring well construction diagrams from the event will be summarized and included in a Site Summary Report.
- Drilling should be conducted under the supervision of a Pennsylvania-licensed Professional Geologist, although a field supervisor may be used in the field on a day-to-day basis. The field supervisor should visually inspect subsurface materials encountered during drilling, screen cuttings with an appropriate field-screening instrument, and complete field well construction logs. When encountered, soils

should be described using the Unified Soil Classification System. Bedrock should be described using USGS descriptive protocol, with the identification of the depth of and size of potential fractures and/or other subsurface anomalies.

- **All IDW waste** should be disposed of per the instructions included in the “General SOW Requirements” and “Site Specific Milestones” section of the RFB.

Milestone F – Installation of Shallow Piezometers in Sub-Basement – A total of three shallow piezometers (P-8, P-9 and P-10) are proposed for installation to delineate groundwater impacts and detect the presence of SPH at the Site. The proposed locations of the piezometers are provided on the attached Figure 2. As part of the installation of the piezometers, the selected consultant should consider the following:

- All piezometers will be installed in the locations proposed in the RFB, unless the presence of utilities, obstructions, or safety concerns requires a change in the location. If due to valid concerns the general locations of the proposed piezometers need to be altered more than four feet from the approximate locations provided on the attached figure, then the selected consultant will be required to contact the ICF and/or the Technical Contact, discuss the need for the changes, and provide the ICF and/or the Technical Contact with a revised piezometer location map.
- Prior to the advancement of the piezometers, the selected consultant will be required to complete a private markout / geophysical survey at the Site to identify the location of obstructions and underground utilities. Given the locations of the proposed piezometers (in the sub-basement) and the shallow depth to groundwater beneath the sub-basement floor, it is anticipated that the selected consultant will install the piezometers using hand-clearing techniques.
- The piezometers should be constructed in accordance with generally accepted practices as outlined in the PADEP Groundwater Monitoring Guidance Manual, (Appendix A of the PADEP Land Recycling Program Technical Guidance Manual, Document No. 261-0300-101, dated January 19, 2019).
- For the piezometers, the borehole will be cleared to an anticipated maximum depth of approximately 4 to 8 ftbg, and a piezometer will be constructed using approximately 1 foot of 4-inch schedule 40 PVC flush threaded casing and with schedule 40 PVC flush threaded 0.020 slot size screening to be installed in the remaining length of the column. The total depth and screening interval provided are approximate and based on available information. Bedrock beneath the building is shallow and documented around 3 to 4 feet below the sub-basement concrete floor.
- The piezometer installations are to be conducted under the supervision of a Pennsylvania-licensed Professional Geologist and the final construction specifications will be determined by the Professional Geologist and dictated by

actual site conditions (i.e. depth to water, depth to bedrock, etc.). The selected consultant is responsible for appropriately installing the piezometers.

- A flush-mounted manhole shall be cemented into place to complete the well at grade level. A locking, pressure fit, watertight cap will be used to prevent the infiltration of surface runoff and to restrict access by unauthorized individuals.
- The newly installed piezometers should be developed to promote adequate hydraulic connection between the aquifer and the piezometers. Depending on the depth and amount of sediment in the piezometer, development should be completed via mechanical surging using either a bailer or an electric submersible pump.
- The field results, boring logs and piezometer construction diagrams from the event will be summarized and included in a Site Summary Report.
- Boring should be conducted under the supervision of a Pennsylvania-licensed Professional Geologist, although a field supervisor may be used in the field on a day-to-day basis. The field supervisor should visually inspect subsurface materials encountered during drilling, screen cuttings with an appropriate field-screening instrument, and complete field well construction logs. When encountered, soils should be described using the Unified Soil Classification System.
- **All IDW waste** should be disposed of per the instructions included in the “General SOW Requirements” and “Site Specific Milestones” section of the RFB.

Milestone G – Tracer Dye Study – Following the completion of Milestones A through F, the selected consultant will perform a tracer dye study at the Site. The purpose of the tracer dye study is to evaluate groundwater connectivity and travel times from multiple wells containing SPH to the groundwater depression system in the sub-basement. An evaluation should also be completed at various locations in the basement to assist with the identification of subsurface piping or collection trenches. Bidders should describe in detail the proposed tracing methods they planned to use at the Site (i.e., types of dyes, monitoring methods, length of study, etc.).

Milestone H – Site Survey - Following the completion of Milestones A through G, a professional survey of the Site by a Pennsylvania-licensed surveyor including all current Site features (including the sub-basement), shall be completed. All onsite monitoring wells, piezometers, sumps, identified subsurface piping associated with the groundwater depression system, identified subsurface utilities, stormwater inlets, and other important Site features are to be surveyed with the purpose of placing their horizontal coordinates on a scaled site map. The benchmark elevation shall be obtained by referencing the approximate ground surface elevation of the property or from an available benchmark from a USGS topographic map or benchmark elevation marker located at the Site. In conjunction with collecting depth to groundwater readings during sampling events and in

an effort to establish groundwater flow at the Site, tops of casing for the existing monitoring wells, recovery well, piezometers and sumps are to be surveyed to facilitate the construction of a Site wide groundwater flow map.

Milestone I – Groundwater Monitoring and Sampling: Following the installation and development of the additional monitoring wells and piezometers, the selected consultant will gauge and sample the entire expanded monitoring well, recovery well and piezometer network, including the groundwater depression system sump. For this RFB, please assume the total number of groundwater monitoring and sampling events that will be needed is two events. The selected consultant should be prepared to conduct the first groundwater sampling event at the Site approximately two weeks after the installation of the proposed monitoring wells and piezometers and conduct the second event approximately four weeks after the first event. Each event should include the following:

- The groundwater monitoring and sampling should be conducted in accordance with generally accepted practices as outlined in the PADEP Groundwater Monitoring Guidance Manual, (Appendix A of the PADEP Land Recycling Program Technical Guidance Manual, Document No. 261-0300-101, dated January 19, 2019).
- Collect water level readings from each of the monitoring wells using an interface probe capable of distinguishing water and/or the presence or absence of SPH to the nearest 0.01 feet. All product thicknesses must be verified using an alternative method (please describe verification method in detail in the RFB response).
- Prior to the collection of groundwater samples, the water column in each of the monitoring wells should be purged by either the removal of approximately three (3) volumes of the water column, EPA low flow sampling method or other PADEP acceptable method.
- Following purging activities, groundwater samples should be collected as quickly as practical from each of the wells/piezometers into laboratory supplied bottle ware. Groundwater samples should be collected from all locations, regardless of the presence of SPH.
- Sampling equipment should be decontaminated (if necessary) prior to sample collection in accordance with generally accepted industry practices.
- In addition, one equipment blank sample (if necessary) will be collected and submitted per day of sampling
- Groundwater samples collected during each of the events will be sent to an accredited laboratory to be analyzed for the above noted COCs.

- Samples should be properly handled under chain of custody documentation protocol and kept cold from sample collection until the samples are relinquished to the accredited laboratory.
- The laboratory to be utilized should be identified in the bid package.
- Following receipt of the laboratory analytical report for the second round of groundwater monitoring and sampling data, a determination will be made whether additional characterization efforts will be needed or if the completed efforts have fully characterized and delineated the groundwater impacts at the Site. The selected consultant will keep ICF updated on the progress of the investigation.
- The analytical data, field results, and sampling map from the event will be summarized and included in a Site Summary Report.
- **All IDW waste** should be disposed of per the instructions included in the “General SOW Requirements” and “Site Specific Milestones” section of the RFB.

Milestone J – Vapor Intrusion Investigation, and Indoor Air Sampling – The vapor intrusion investigation is to be completed in accordance with the Land Recycling Technical Guidance Manual – Section IV.A.4 Vapor Intrusion Into Buildings from Groundwater and Soil under the Act 2 Statewide Health Standards, Document 261-0300-101, dated January 18, 2017.

The milestone will be completed in two steps. Prior authorization from the Solicitor and ICF will be necessary before completing Milestone J2.

- Milestone J1 will be completing the initial vapor intrusion screening evaluation for the Site. If the results of the initial vapor intrusion screening evaluation indicate a potential unacceptable risk to the occupants of the onsite building or any offsite buildings, Milestone J2 will be completed. A summary of the initial investigation results should be provided to the Solicitor and ICF for their review. The investigation results will be summarized and presented in the Site Summary Report.
- Milestone J2 will be the collection and analyses of 4 indoor air samples. Historically, indoor air sampling has indicated exceedances of the PADEP Indoor Air Criteria Nonresidential MSCs. Based on the nature of the activities conducted at this Site (former use of No. 2 and 6 fuel oils in the sub-basement and SPH present in the sump), there is a potential risk of indoor air quality being impacted from these former activities.

For this Milestone, the costs should include the necessary time and material needs to coordinate and collect the proposed samples. Samples are to be collected from appropriate locations within the Tower Building, during two separate sampling events appropriately spaced.

Bidder responses should note the following:

- All vapor intrusion investigation activities should be completed in a manner consistent with the Land Recycling Technical Guidance Manual – Section IV.A.4 Vapor Intrusion Into Buildings from Groundwater and Soil under the Act 2 Statewide Health Standards, Document 261-0300-101, dated January 19, 2019.
- Samples should be collected in laboratory provided Summa canisters equipped with laboratory calibrated flow regulators and analyzed for the above noted COCs, via appropriate analytical methods. Bid responses should clearly identify the proposed laboratory analytical method.
- The laboratory to be utilized should be identified in the bid package.
- Results from indoor air sampling activities (if conducted) will be summarized and presented in Site Summary Report.

Milestone K - Preparation of a Site Summary Report - Following the completion of the activities proposed in Milestone A through Milestone J, the selected consultant will prepare a Site Summary Report for the Site. The information gathered during the aforementioned milestones should be incorporated into a comprehensive Site Summary Report that will be submitted to the ICF and the Solicitor only. With the understanding that the Site is not governed under the PADEP storage tank regulations and as such no SCR is required to be submitted to the PADEP, the requested Site Summary Report should still comply with the general requirements of a SCR as established under the Chapter 245 regulations. Specifically, the report should summarize the results of the recent investigations, the findings of the previous investigations, a comprehensive Site history, sensitive receptor information, risk assessment, geologic data, results from the tracer dye study, discussion on the completed remediation efforts, an evaluation of COC and SPH trends and a series of summary tables, appendices, and figures illustrating the information provided in the report. The Site Summary Report must include an appropriate number of geologic cross-sections and time-series hydrographs.

The Report will be completed following the guidelines specified in the Pennsylvania Code, Title 25, Chapter 245 and the Land Recycling Program (Act 2) Technical Guidance Manual with regards to a SCR. The selected consultant will also present significant conclusions and make recommendations for future work at the Site in the Site Summary Report. The report will be appropriately signed and sealed by a licensed Professional Geologist.

A draft Site Summary Report and all AutoCAD maps / plans included in the report (e.g., site plan / base map, groundwater elevation maps, dissolved plume maps, SPH plume maps, soil contaminant distribution maps, etc.) and appendices (e.g., boring logs, well construction logs, waste disposal documentation, and sensitive receptor information) shall be submitted electronically (in Adobe PDF format) to the Solicitor and PAUSTIF for review / comment at least 2 weeks prior to finalizing the report. Once the selected consultant has

addressed comments on the draft, the selected consultant shall finalize and issue the report to ICF and the Solicitor. The final report is to be submitted no later than the date specified in the schedule presented by the selected consultant.

Complete Characterization: Please note that the selected consultant should not proceed with preparing the Site Summary Report if the Site is not fully characterized or additional data collection is necessary to develop a remedial plan. Following the completion of the characterization milestones, the selected consultant will evaluate whether the Site is fully delineated and if additional data is needed to develop an appropriate remedial strategy. The selected consultant will provide the Solicitor and USTIF with an update indicating that the Site is either fully delineated and additional data is not needed or recommend additional delineation or data collection with discussions as to why the additional activities are needed. The Site Summary Report should not include language that recommends additional delineation is needed.

Milestone L - Feasible Remedial Alternatives Analysis – A Feasible Remedial Alternatives Analysis should be completed for the Site to compare cleanup alternatives and evaluate which remedial action is most appropriate for the Site. The evaluation should specifically focus on eight (8) key considerations including cost-effectiveness, proven performance, public and environment protectiveness, regulatory compliance, reliability, practical implementation, health & safety and effects on public health and the environment. The findings of the Remedial Alternatives Analysis will be summarized and presented as part of the Feasible Remedial Alternatives Analysis Report. Information/data generated during the remedial activities conducted at the Site should be taken into consideration.

Following the completion of the proposed Feasible Remedial Alternatives Analysis, a report should be prepared for the Site. The report should detail the procedures and findings from all activities completed at the Site and describe the calculations and resultant estimate of the amount of hydrocarbon mass present in the Site's subsurface. Figures and appendices supporting the findings of the report should be attached to further illustrate the current condition of the Site. The report should appropriately evaluate the Site and assess the risks as well as provide a proper closure strategy and remedial alternative for the Site. Once complete, the report should be submitted to the Solicitor and ICF for their review.

Prior authorization from the Solicitor and ICF will be necessary before completing Milestone L.

Optional Cost Adder Milestones

Milestone M – Supplemental Site Characterization Activities: This Milestone provides bidders the opportunity to identify additional site characterization work that will be completed in advance of finalizing the Site Summary Report. PAUSTIF will be reimbursing up to \$10,000 for supplemental site characterization costs under this Milestone. Bidders are to describe any proposed supplemental site characterization, the rationale for the

work, and how the derived data will be used as part of their bid submission. The milestone may also be used for supplemental site characterization tasks identified during completion of the Scope of Work. Solicitor and PAUSTIF (for funding consideration) is required prior to completing tasks under Milestone M. For purposes of bidding, and to ensure consistent cost scoring of bids, each bidder will enter exactly \$10,000 as the bid price for this Milestone in the Bid Cost Spreadsheet. PAUSTIF will only reimburse up to \$10,000 of reasonable and necessary costs for those tasks actually performed. The selected bidder must provide time and material documentation in addition to supporting documentation required (in Exhibit B of the executed Remediation Agreement) to support the requested reimbursement and completion of this Milestone.

Bidders may also use this opportunity to: 1) confirm any elements of the site characterization completed by a previous consultant; 2) address any perceived data gaps in the existing site characterization work; and 3) assist in the evaluation and determination of appropriate remedial technologies which are characterization-type activities (e.g., product viscosity testing).

Supplemental Site Characterization activities completed under this Milestone shall be documented and reported in the Site Summary Report. This Milestone may be used by the selected consultant to perform additional characterization tasks (excluding other available optional cost adder milestones) prior to completion of the Site Summary Report or Feasible Remedial Alternative Analysis.

Milestone N – Obtain Off-Site Access – Provide a cost to secure off-site access on one adjacent commercial property or City of Philadelphia property in an effort to complete a monitoring well installation and routine monitoring. The cost should cover the necessary time and materials needed to contact the property owner, draft an access agreement for the property or complete the City of Philadelphia right of entry permit, and obtain approval with one draft revision to the access agreement or permit. Providing this cost does not commit the consultant to obtain the access agreement. If necessary, the cost should also cover the required time and material needed to provide the PADEP with the information they will require to facilitate access to the property.

Milestone O – Installation of Additional Overburden Monitoring Well – Provide a cost to install one additional overburden monitoring well. The scope of work for this cost adder should follow the Installation of Monitoring Wells milestone. Please provide costs for the following:

- **Milestone O1** – Installation of one additional overburden monitoring well during a separate mobilization event. The provided cost would be to cover all labor, equipment, subcontractors, waste, etc.
- **Milestone O2** - Installation of one additional overburden monitoring well as an add-on to a drilling investigation where mobilization cost has already been included. The provided cost would be to cover all labor, equipment, subcontractors, waste,

etc.

Milestone P – Installation of Additional Bedrock Monitoring Well – Provide a cost to install one additional bedrock monitoring well. The scope of work for this cost adder should follow the Installation of Monitoring Wells milestone. Please provide costs for the following:

- **Milestone P1** – Installation of one additional bedrock monitoring well during a separate mobilization event. The provided cost would be to cover all labor, equipment, subcontractors, waste, etc.
- **Milestone P2** - Installation of one additional bedrock monitoring well as an add-on to a drilling investigation where mobilization cost has already been included. The provided cost would be to cover all labor, equipment, subcontractors, waste, etc.

Milestone Q – Update Site Survey – Provide a cost to update the Site’s survey to include any additional monitoring well location(s). The scope of work for this cost adder should follow the Site Survey milestone.

Milestone R – Conduct Additional Quarterly Groundwater Monitoring and Sampling Event - Provide a cost to complete one additional groundwater monitoring and sampling event. The scope of work for this cost adder should follow the Groundwater Monitoring and Sampling milestone.

Milestone S – Additional Piezometer or Groundwater Monitoring Well Sampling - Provide a cost to collect and analyze one groundwater sample from an additional piezometer or monitoring well during a routine groundwater monitoring and sampling event. The scope of work for this cost adder should follow the Groundwater Monitoring and Sampling milestone.

Milestone T – Preparation of a Groundwater Monitoring and Sampling Report – Provide a Unit Cost to Prepare a Groundwater Monitoring and Sampling Report for submittal to the Solicitor and ICF. The report should detail the observations documented during the event, summarize the analytical results and SPH thicknesses, groundwater COC concentrations trend analyses, SPH thickness trend analyses, map the groundwater flow direction for the Site, provide iso-concentration maps for compounds exceeding the RSHSs, provide hydro-graphs, discuss the interim remediation efforts (if any), and provide additional scheduling details for upcoming events.

Milestone U – Removal of One Indoor Air Sample Location - Provide a reduction amount to remove one indoor air sampling location from the Indoor Air Sampling milestone.

Milestone V – Removal of Piezometers from Sampling Event - Provide a reduction amount to remove piezometers P-3 through P-7 from a routine groundwater monitoring and sampling event.

Additional Information

In order to facilitate PAUSTIF's review and reimbursement of invoices submitted under this claim, the Solicitor requires that project costs be invoiced by the milestone identified in the executed Remediation Agreement. Actual milestone payments will occur only after successful and documented completion of the work defined for each milestone. The selected consultant will perform only those tasks/milestones that are necessary to reach the Objective identified in this RFB. The selected consultant will not perform, invoice, or be reimbursed for any unnecessary work completed under a milestone.

Any "new conditions", as defined in Attachment 1, arising during the execution of the SOW for any of the milestones may result in termination of or amendments to the Remediation Agreement. Modifications to the executed Remediation Agreement will require the written approval of the Solicitor and the PAUSTIF (for funding consideration). PADEP approval may also be required.

List of Attachments

1. Remediation Agreement
2. Bid Cost Spreadsheet
3. Site Information/Historic Documents
 - a. May 2013 Final Report
 - b. July 2013 Remedial Investigation Report
 - c. November 2014 Final Report
 - d. October 16, 2013 PADEP Letter
 - e. December 10, 2019 Groundwater Monitoring Letter
4. Figures
 - a. Figure 1 – Work Areas
 - b. Figure 2 – Proposed Monitoring Well and Piezometer Locations