

AGREEMENT

36374

THIS AGREEMENT is made and entered, in duplicate, as of July 20, 2022 for reference purposes only, pursuant to a minute order adopted by the City Council of the City of Long Beach at its meeting on May 10, 2022, by and between HDT EXPEDITIONARY SYSTEM, INC., a Delaware corporation ("Contractor"), with a place of business at 30500 Aurora Road, Suite 100, Solon, OH 44139, and the CITY OF LONG BEACH, a municipal corporation ("City").

WHEREAS, the City requires specialized services requiring unique skills to be performed in connection with furnishing, delivering, and installing Fire Boat CBRN Detection and Telemetry Equipment ("Project"); and

WHEREAS, City has selected Consultant in accordance with City's administrative procedures using a Request for Proposals No. FD21-060 ("RFP"), attached hereto as Exhibit "A", and incorporated by this reference, and City has determined that Consultant and its employees are qualified, licensed, if so required, and experienced in performing these specialized services

WHEREAS, City desires to have Consultant perform these specialized services, and Consultant is willing and able to do so on the terms and conditions in this Agreement;

NOW, THEREFORE, in consideration of the mutual terms, covenants, and conditions in this Agreement, the parties agree as follows:

1. SCOPE OF WORK OR SERVICES.

A. Consultant shall furnish specialized services more particularly described in Exhibit "A", attached to this Agreement and incorporated by this reference, in accordance with the standards of the profession, and City shall pay for these services in the manner described below, in an amount not to exceed One Million Eight Hundred Thousand Dollars (\$1,800,000), at the rates or charges shown in Exhibit "B".

1 B. The City's obligation to pay the sum stated above for any one
2 fiscal year shall be contingent upon the City Council of the City appropriating the
3 necessary funds for such payment by the City in each fiscal year during the term of
4 this Agreement. For the purposes of this Section, a fiscal year commences on
5 October 1 of the year and continues through September 30 of the following year. In
6 the event that the City Council of the City fails to appropriate the necessary funds
7 for any fiscal year, then, and in that event, the Agreement will terminate at no
8 additional cost or obligation to the City.

9 C. Consultant may select the time and place of performance for
10 these services provided, however, that access to City documents, records, and the
11 like, if needed by Consultant, shall be available only during City's normal business
12 hours and provided that milestones for performance, if any, are met.

13 D. Consultant has requested to receive regular payments. City
14 shall pay Consultant within thirty (30) days following receipt from Consultant and
15 approval by City of invoices showing the services or task performed, the time
16 expended (if billing is hourly), and the name of the Project. Consultant shall certify
17 on the invoices that Consultant has performed the services in full conformance with
18 this Agreement and is entitled to receive payment. Each invoice shall be
19 accompanied by a progress report indicating the progress to date of services
20 performed and covered by the invoice, including a brief statement of any Project
21 problems and potential causes of delay in performance, and listing those services
22 that are projected for performance by Consultant during the next invoice cycle.
23 Where billing is done and payment is made on an hourly basis, the parties
24 acknowledge that this arrangement is either customary practice for Consultant's
25 profession, industry, or business, or is necessary to satisfy audit and legal
26 requirements which may arise due to the fact that City is a municipality.

27 E. Consultant represents that Consultant has obtained all
28 necessary information on conditions and circumstances that may affect its

1 performance and has conducted site visits, if necessary.

2 F. CAUTION: Consultant shall not begin work until this
3 Agreement has been signed by both parties and until Consultant's evidence of
4 insurance has been delivered to and approved by the City.

5 2. TERM. The term of this Agreement shall commence at midnight on
6 May 10, 2022, and shall terminate at 11:59 p.m. on May 10, 2024, unless sooner
7 terminated as provided in this Agreement, or unless the services or the Project is
8 completed sooner, with the option to renew for three additional one-year periods, at the
9 discretion of the City Manager.

10 3. COORDINATION AND ORGANIZATION.

11 A. Consultant shall coordinate its performance with City's
12 representative, if any, named in Exhibit "C", attached to this Agreement and
13 incorporated by this reference. Consultant shall advise and inform City's
14 representative of the work in progress on the Project in sufficient detail so as to
15 assist City's representative in making presentations and in holding meetings on the
16 Project. City shall furnish to Consultant information or materials, if any, described
17 in Exhibit "D" attached to this Agreement and incorporated by this reference, and
18 shall perform any other tasks described in the Exhibit.

19 B. The parties acknowledge that a substantial inducement to City
20 for entering this Agreement was and is the reputation and skill of Consultant's key
21 employee, named in Exhibit "E" attached to this Agreement and incorporated by this
22 reference. City shall have the right to approve any person proposed by Consultant
23 to replace that key employee.

24 4. INDEPENDENT CONTRACTOR. In performing its services,
25 Consultant is and shall act as an independent contractor and not an employee,
26 representative, or agent of City. Consultant shall have control of Consultant's work and
27 the manner in which it is performed. Consultant shall be free to contract for similar services
28 to be performed for others during this Agreement provided, however, that Consultant acts

1 in accordance with Section 9 and Section 11 of this Agreement. Consultant acknowledges
2 and agrees that a) City will not withhold taxes of any kind from Consultant's compensation,
3 b) City will not secure workers' compensation or pay unemployment insurance to, for or on
4 Consultant's behalf, and c) City will not provide and Consultant is not entitled to any of the
5 usual and customary rights, benefits or privileges of City employees. Consultant expressly
6 warrants that neither Consultant nor any of Consultant's employees or agents shall
7 represent themselves to be employees or agents of City.

8 5. INSURANCE.

9 A. As a condition precedent to the effectiveness of this Agreement,
10 Consultant shall procure and maintain, at Consultant's expense for the duration of this
11 Agreement, from insurance companies that are admitted to write insurance in California
12 and have ratings of or equivalent to A:V by A.M. Best Company or from authorized non-
13 admitted insurance companies subject to Section 1763 of the California Insurance Code
14 and that have ratings of or equivalent to A:VIII by A.M. Best Company the following
15 insurance:

16 i. Commercial general liability insurance equivalent in coverage scope
17 to ISO CG 00 01 10 93 naming the City of Long Beach and its Boards, officials, employees,
18 and agents as additional insureds on a form equivalent in coverage scope to ISO CG 20
19 10 11 85 from and against claims, demands, causes of action, expenses, costs, or liability
20 for injury to or death of persons, or damage to or loss of property arising out activities
21 performed by or on behalf of the Contractor in an amount not less than One Million Dollars
22 (US \$1,000,000) per occurrence and Two Million Dollars (US \$2,000,000) in general
23 aggregate. Such insurance shall not exclude XCU (explosion, underground, and collapse)
24 perils, sudden and accidental pollution and cleanup liability, or mobile equipment.

25 ii. Workers' compensation coverage as required by the Labor Code of
26 the State of California, endorsed, as applicable, to include United States Longshoremen
27 and Harbor Workers' Compensation Act coverage and Jones' Act coverage, and
28 Employer's liability insurance with minimum limits of One Million Dollars (US \$1,000,000)

per accident or occupational illness. The policy shall be endorsed with a waiver of the Contractor's and its insurer's right of subrogation against the City of Long Beach and its Boards, officials, employees, and agents.

iii. Commercial automobile liability insurance equivalent in coverage scope to ISO CA 00 01 06 92 in an amount not less than One Million Dollars (US \$1,000,000) combined single limit (CSL) covering Symbol 1 ("any auto").

iv. Excess liability insurance on a following form basis insurance in excess of the coverage provided by (a), including additional insured coverage for (a) only, in an amount not less than Four Million Dollars (\$4,000,000) per claim and in aggregate.

v. If Contract involves use of watercraft, Watercraft Liability Insurance as follows:

(a) The Contractor shall procure and maintain during the term of this Contract, at its own expense, watercraft liability coverage with either Marine Liability, Protection & Indemnity Coverage, or the Boats Endorsement 24 12 11 85, or comparable endorsement, on the General Liability Coverage:

(b) Limit of Insurance: \$1,000,000 Per Occurrence/Annual Aggregate Policy shall be endorsed with a Waiver of Subrogation Endorsement and an Additional Insured Endorsement naming the City of Long Beach and its Boards, officials, employees, and agents as additional insureds.

vi. If Contract involves rigging, Riggers Liability Insurance as follows:

(a) Riggers Liability Insurance, either by separate policy or endorsement on the General Liability Policy. With a Rigger's Liability Limit of at least \$2,000,000 Per Occurrence

B. Any self-insurance program or self-insured retention must be separately approved in writing by City's Risk Manager or designee and shall protect City, its officials, employees and agents in the same manner and to the same extent as they would have been protected had the policy or policies not contained retention or deductible provisions.

1 C. Each insurance, shall be primary and not contributing to any other
2 insurance or self-insurance maintained by City, and shall be endorsed to state that
3 coverage maintained by City shall be excess to and shall not contribute to insurance or
4 self-insurance maintained by Consultant. Consultant shall notify the City in writing within
5 five (5) days after any insurance has been voided by the insurer or cancelled by the insured.
6 "Claims-made" policies are not acceptable unless City Risk Manager determines that
7 "Occurrence" policies are not available in the market for the risk being insured. In a "Claims-
8 made" policy is accepted, it must provide for an extended reporting period of not less than
9 three (3) years.

10 D. Consultant shall require that all subconsultants or contractors which
11 Consultant uses in the performance of these services maintain insurance in compliance
12 with this Section unless otherwise agreed in writing by City's Risk Manager or designee.

13 E. Prior to the start of performance, Consultant shall deliver to City
14 certificates of insurance and the endorsements for approval as to sufficiency and form. In
15 addition, Consultant, shall, within thirty (30) days prior to expiration of the insurance, furnish
16 to City certificates of insurance and endorsements evidencing renewal of the insurance.

17 F. Any modification or waiver of these insurance requirements shall only
18 be made with the approval of City's Risk Manager or designee.

19 G. The procuring or existence of insurance shall not be construed or
20 deemed as a limitation on liability relating to Consultant's performance or as full
21 performance of or compliance with the indemnification provisions of this Agreement.

22 6. ASSIGNMENT AND SUBCONTRACTING. This Agreement
23 contemplates the personal services of Consultant and Consultant's employees, and the
24 parties acknowledge that a substantial inducement to City for entering this Agreement was
25 and is the professional reputation and competence of Consultant and Consultant's
26 employees. Consultant shall not assign its rights or delegate its duties under this
27 Agreement, or any interest in this Agreement, or any portion of it, without the prior approval
28 of City, and such approval will not be unreasonably withheld. Consultant may with the prior

1 approval of the City Manager of City, assign any moneys due or to become due the
2 Consultant under this Agreement. Any attempted assignment or delegation shall be void,
3 and any assignee or delegate shall acquire no right or interest by reason of an attempted
4 assignment or delegation. Furthermore, Consultant shall not subcontract any portion of its
5 performance without the prior approval of the City Manager or designee, or substitute an
6 approved subconsultant or contractor without approval prior to the substitution. Nothing
7 stated in this Section shall prevent Consultant from employing as many employees as
8 Consultant deems necessary for performance of this Agreement.

9 7. CONFLICT OF INTEREST. Consultant, by executing this Agreement,
10 certifies that, at the time Consultant executes this Agreement and for its duration,
11 Consultant does not and will not perform services for any other client which would create
12 a conflict, whether monetary or otherwise, as between the interests of City and the interests
13 of that other client. Consultant further certifies that Consultant does not now have and shall
14 not acquire any interest, direct or indirect, in the area covered by this Agreement or any
15 other source of income, interest in real property or investment which would be affected in
16 any manner or degree by the performance of Consultant's services hereunder.

17 8. MATERIALS. Consultant shall furnish all labor and supervision,
18 supplies, materials, tools, machinery, equipment, appliances, transportation, and services
19 necessary to or used in the performance of Consultant's obligations under this Agreement,
20 except as stated in Exhibit "D".

21 9. OWNERSHIP OF DATA. All reports, documents, data, information, or
22 other materials ("Data") provided by City to Consultant, or any other person engaged
23 directly or indirectly by Consultant, under this Agreement will be and remain the property
24 of City without restriction. City hereby grants to Consultant a worldwide, non-exclusive,
25 sublicensable, royalty-free, paid-up, perpetual right to use, modify, reproduce, make
26 derivative works of, develop from and exploit in any manner whatsoever all Data provided
27 by City provided Consultant will not sell or disclose City's Data to third parties.

28 10. TERMINATION. Either party shall have the right to terminate this

Agreement for any reason or no reason at any time by giving fifteen (15) calendar days prior written notice to the other party. In the event of termination under this Section, City shall pay Consultant for services satisfactorily performed and costs incurred, including reasonable profit up to the effective date of termination for which Consultant has not been previously paid. The procedures for payment in Section 1.B. with regard to invoices shall apply. On the effective date of termination, Consultant shall deliver to City all Data developed in the performance of this Agreement, whether in draft or final form, or in process. And, Consultant acknowledges and agrees that City's obligation to make final payment is conditioned on Consultant's delivery of the Data to the City.

11. CONFIDENTIALITY. Consultant shall keep the Data confidential and shall not disclose the Data or use the Data directly or indirectly other than in the course of performing its services, during the term of this Agreement and for five (5) years following expiration or termination of this Agreement. In addition, Consultant shall keep confidential all information, whether written, oral, or visual, obtained by any means whatsoever in the course of performing its services for the same period of time. Consultant shall not disclose any or all of the Data to any third party, or use it for Consultant's own benefit or the benefit of others except for the purpose of this Agreement.

12. BREACH OF CONFIDENTIALITY. Consultant shall not be liable for a breach of confidentiality with respect to Data that: (a) Consultant demonstrates Consultant knew prior to the time City disclosed it; or (b) is or becomes publicly available without breach of this Agreement by Consultant; or (c) a third party who has a right to disclose does so to Consultant without restrictions on further disclosure; or (d) must be disclosed pursuant to subpoena or court order.

13. ADDITIONAL COSTS AND REDESIGN.

A. Any costs incurred by the City due to Consultant's failure to meet the standards required by the scope of work or Consultant's failure to perform fully the tasks described in the scope of work which, in either case, causes the City to request that Consultant perform again all or part of the Scope of Work shall be at

1 the sole cost of Consultant and City shall not pay any additional compensation to
2 Consultant for its re-performance.

3 B. If the Project involves construction and the scope of work
4 requires Consultant to prepare plans and specifications with an estimate of the cost
5 of construction, then Consultant may be required to modify the plans and
6 specifications, any construction documents relating to the plans and specifications,
7 and Consultant's estimate, at no cost to City, when the lowest bid for construction
8 received by City exceeds by more than ten percent (10%) Consultant's estimate.
9 This modification shall be submitted in a timely fashion to allow City to receive new
10 bids within four (4) months after the date on which the original plans and
11 specifications were submitted by Consultant.

12 14. AMENDMENT. This Agreement, including all Exhibits, shall not be
13 amended, nor any provision or breach waived, except in writing signed by the parties which
14 expressly refers to this Agreement.

15 15. LAW. This Agreement shall be governed by and construed pursuant
16 to the laws of the State of California (except those provisions of California law pertaining
17 to conflicts of laws). Consultant shall comply with all laws, ordinances, rules and
18 regulations of and obtain all permits, licenses, and certificates required by all federal, state
19 and local governmental authorities.

20 16. WORK DAY. Consultant shall comply with Sections 1810 through
21 1815 of the California Labor Code regarding hours of work. Consultant shall forfeit, as a
22 penalty to City, the sum of Twenty-Five Dollars (\$25) for each worker employed by
23 Consultant or any subcontractor for each calendar day such worker is required or
24 permitted to work more than eight (8) hours unless that worker receives compensation in
25 accordance with Section 1815.

26 17. DEPARTMENT OF INDUSTRIAL RELATIONS COMPLIANCE.
27 Consultant is advised that this work constitutes a public work of improvement subject to
28 California Labor Code Division 2, Part 7, Chapter 1, Articles 1-5, §§1720-1861. Pursuant

to Labor Code Section 1771.1. Consultant or subcontractors shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public contract Code, or engage in the performance of any contract for public work, as defined in the California Labor Code, unless currently registered and qualified to perform public work pursuant to Section 1725.5. Contract (or associated subcontracts) shall not be entered into without proof of the Consultant's (or subcontractor's) current registration to perform public work pursuant to Section 1725.5. All work conducted in support of this public work of improvement is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Consultant will abide by all applicable apprenticeship requirements in the California Labor Code Section 1777.5 and will be responsible for subcontractor apprenticeship compliance to the same.

18. PREVAILING WAGE RATES. Consultant is directed to pay the general rate of per diem wages for each craft, classification, or type of worker needed to execute the contract (prevailing wage rates). Copies of the current prevailing rate of per diem wages are on file at its principle office (Labor Compliance Division, 411 W. Ocean Boulevard, 6th Floor, Long Beach, California, 90802), and shall be made available to any interested party upon request. Consultant is required to post a copy of the determination of the director of the prevailing rate of per diem wages at each job site. Pursuant to Section 1775, Consultant shall forfeit, as a penalty to the City, up to Two Hundred Dollars (\$200) for each laborer, worker or mechanic employed for each calendar day, or portion thereof, that such laborer, worker or mechanic is paid less than the prevailing wage rates for any work done by Consultant, or any subcontractor, under this Contract. The difference between the prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing wage rate shall be paid to each worker by the Consultant or subcontractor.

19. CERTIFIED PAYROLL RECORDS.

A. Pursuant to the provisions of Labor Code Section 1776, Consultant shall keep and shall cause each subcontractor performing any portion

1 of the work under this Contract to keep an accurate payroll record, showing the
2 name, address, social security number, work classification, straight time and
3 overtime hours worked each day and week, and the actual per diem wages paid to
4 each journeyman, apprentice, worker, or other employee employed by Consultant
5 or subcontractor in connection with the work. Such payroll records for Consultant
6 and all subcontractors shall be certified and shall be available for inspection at all
7 reasonable hours at the principal office of Consultant pursuant to the provisions of
8 Section 1776 of the Labor Code. Consultant's failure to furnish such records to
9 City or City's authorized Labor Compliance representative in the manner provided
10 herein for notices shall entitle City to withhold the penalty prescribed by law from
11 progress payments due to Consultant.

12 B. Consultant shall submit to the City certified payroll records for
13 Consultant and all subcontractors performing any portion of the work under this
14 Contract on a monthly basis. Certified payroll records for Consultant and all
15 subcontractors shall be maintained during the course of the work and shall be kept
16 by Consultant for up to three (3) years after completion of the work.

17 C. The foregoing is in addition to, and not in lieu of, any other
18 requirements or obligations established and imposed by any department of the
19 City with regard to submission and retention of certified payroll records for
20 Consultant and subcontractors.

21 20. ENTIRE AGREEMENT. This Agreement, including all Exhibits,
22 constitutes the entire understanding between the parties and supersedes all other
23 agreements, oral or written, with respect to the subject matter in this Agreement.

24 21. INDEMNITY.

25 A. Consultant shall indemnify, protect and hold harmless City, its
26 Boards, Commissions, and their officials, employees and agents ("Indemnified
27 Parties"), from and against any and all liability, claims, demands, damage, loss,
28 obligations, causes of action, proceedings, awards, fines, judgments, penalties,

1 costs and expenses, arising or alleged to have arisen, in whole or in part, out of or
2 in connection with (1) Consultant's breach or failure to comply with any of its
3 obligations contained in this Agreement, or (2) negligent or willful acts, errors,
4 omissions or misrepresentations committed by Consultant, its officers, employees,
5 agents, subcontractors, or anyone under Consultant's control, in the performance
6 of work or services under this Agreement (collectively "Claims" or individually
7 "Claim"). Consultant's liability shall be limited to direct and actual damages only.

8 B. In addition to Consultant's duty to indemnify, Consultant shall
9 have a separate and wholly independent duty to defend Indemnified Parties at
10 Consultant's expense by legal counsel approved by City, from and against all
11 Claims, and shall continue this defense until the Claims are resolved, whether by
12 settlement, judgment or otherwise. No finding or judgment of negligence, fault,
13 breach, or the like on the part of Consultant shall be required for the duty to defend
14 to arise. City shall notify Consultant of any Claim, shall tender the defense of the
15 Claim to Consultant, and shall assist Consultant, as may be reasonably requested,
16 in the defense.

17 C. If a court of competent jurisdiction determines that a Claim was
18 caused by the sole negligence or willful misconduct of Indemnified Parties,
19 Consultant's costs of defense and indemnity shall be (1) reimbursed in full if the
20 court determines sole negligence by the Indemnified Parties, or (2) reduced by the
21 percentage of willful misconduct attributed by the court to the Indemnified Parties.

22 D. To the extent this Agreement is a professional service
23 agreement for work or services performed by a design professional (architect,
24 landscape architect, professional engineer or professional land surveyor), the
25 provisions of this Section regarding Consultant's duty to defend and indemnify shall
26 be limited as provided in California Civil Code Section 2782.8, and shall apply only
27 to Claims that arise out of, pertain to, or relate to the negligence, recklessness, or
28 willful misconduct of the Consultant. The provisions of this Section shall survive the

1 expiration or termination of this Agreement.

2
3 22. AMBIGUITY. In the event of any conflict or ambiguity between this
4 Agreement and any Exhibit, the provisions of this Agreement shall govern.

5 23. NONDISCRIMINATION.

6 A. In connection with performance of this Agreement and subject
7 to applicable rules and regulations, Consultant shall not discriminate against any
8 employee or applicant for employment because of race, religion, national origin,
9 color, age, sex, sexual orientation, gender identity, AIDS, HIV status, handicap, or
10 disability. Consultant shall ensure that applicants are employed, and that employees
11 are treated during their employment, without regard to these bases. These actions
12 shall include, but not be limited to, the following: employment, upgrading, demotion
13 or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay
14 or other forms of compensation, and selection for training, including apprenticeship.

15 B. It is the policy of City to encourage the participation of
16 Disadvantaged, Minority and Women-owned Business Enterprises in City's
17 procurement process, and Consultant agrees to use its best efforts to carry out this
18 policy in its use of subconsultants and contractors to the fullest extent consistent
19 with the efficient performance of this Agreement. Consultant may rely on written
20 representations by subconsultants and contractors regarding their status.
21 Consultant shall report to City in May and in December or, in the case of short-term
22 agreements, prior to invoicing for final payment, the names of all subconsultants
23 and contractors hired by Consultant for this Project and information on whether or
24 not they are a Disadvantaged, Minority or Women-Owned Business Enterprise, as
25 defined in Section 8 of the Small Business Act (15 U.S.C. Sec. 637).

26 24. FORCE MAJEURE. If any party fails to perform its obligations
27 because of strikes, lockouts, labor disputes, embargoes, acts of God, inability to obtain
28 labor or materials or reasonable substitutes for labor materials, governmental restrictions,

1 governmental regulations, governmental controls, judicial orders, enemy or hostile
2 governmental action, pandemic, civil commotion, fire or other casualty, or other causes
3 beyond the reasonable control of the party obligated to perform, then that party's
4 performance will be excused for a period equal to the period of such cause for failure to
5 perform.

6 25. EQUAL BENEFITS ORDINANCE. Unless otherwise exempted in
7 accordance with the provisions of the Ordinance, this Agreement is subject to the
8 applicable provisions of the Equal Benefits Ordinance (EBO), section 2.73 et seq. of the
9 Long Beach Municipal Code, as amended from time to time.

10 A. During the performance of this Agreement, the Consultant
11 certifies and represents that the Consultant will comply with the EBO. The
12 Consultant agrees to post the following statement in conspicuous places at its place
13 of business available to employees and applicants for employment:

14 "During the performance of a contract with the City of Long Beach, the
15 Consultant will provide equal benefits to employees with spouses and its
16 employees with domestic partners. Additional information about the City of
17 Long Beach's Equal Benefits Ordinance may be obtained from the City of
18 Long Beach Business Services Division at 562-570-6200."

19 B. The failure of the Consultant to comply with the EBO will be
20 deemed to be a material breach of the Agreement by the City.

21 C. If the Consultant fails to comply with the EBO, the City may
22 cancel, terminate or suspend the Agreement, in whole or in part, and monies due or
23 to become due under the Agreement may be retained by the City. The City may
24 also pursue any and all other remedies at law or in equity for any breach.

25 D. Failure to comply with the EBO may be used as evidence
26 against the Consultant in actions taken pursuant to the provisions of Long Beach
27 Municipal Code 2.93 et seq., Consultant Responsibility.

28 E. If the City determines that the Consultant has set up or used its

1 contracting entity for the purpose of evading the intent of the EBO, the City may
2 terminate the Agreement on behalf of the City. Violation of this provision may be
3 used as evidence against the Consultant in actions taken pursuant to the provisions
4 of Long Beach Municipal Code section 2.93 et seq., Consultant Responsibility.

5 26. NOTICES. Any notice or approval required by this Agreement shall
6 be in writing and personally delivered or deposited in the U.S. Postal Service, first class,
7 postage prepaid, addressed to Consultant at the address first stated above, and to the City
8 at 411 West Ocean Boulevard, Long Beach, California 90802, Attn: City Manager with a
9 copy to the City Engineer at the same address. Notice of change of address shall be given
10 in the same manner as stated for other notices. Notice shall be deemed given on the date
11 deposited in the mail or on the date personal delivery is made, whichever occurs first.

12 27. COPYRIGHTS AND PATENT RIGHTS.

13 A. Consultant shall place the following copyright protection on all
14 Data: © City of Long Beach, California ____, inserting the appropriate year.

15 B. City reserves the exclusive right to seek and obtain a patent or
16 copyright registration on any Data or other result arising from Consultant's
17 performance of this Agreement. By executing this Agreement, Consultant assigns
18 any ownership interest Consultant may have in the Data to the City.

19 C. Consultant agrees to and shall protect, defend, indemnify and
20 hold City, its officials and employees harmless from any and all third party claims,
21 demands, damages, loss, liability, causes of action, costs or expenses (including
22 reasonable attorneys' fees) whether or not reduced to judgment, arising from any
23 breach or alleged breach of this warranty.

24 D. It is not anticipated that City will receive any Consultant's
25 copyrights or patent rights (collectively "Intellectual Property.") All Intellectual
26 Property related to any equipment utilized, including firmware, source code and
27 algorithms, and all Intellectual Property, including know how and trade secrets
28 ("Consultant's Intellectual Property") will be fully and completely owned by

1 Consultant. City agrees and acknowledges that it has no rights, licenses or claims
2 to any of Consultant's Intellectual Property or Confidential Information.

3 28. COVENANT AGAINST CONTINGENT FEES. Consultant warrants
4 that Consultant has not employed or retained any entity or person to solicit or obtain this
5 Agreement and that Consultant has not paid or agreed to pay any entity or person any fee,
6 commission, or other monies based on or from the award of this Agreement. If Consultant
7 breaches this warranty, City shall have the right to terminate this Agreement immediately
8 notwithstanding the provisions of Section 10 or, in its discretion, to deduct from payments
9 due under this Agreement or otherwise recover the full amount of the fee, commission, or
10 other monies.

11 29. WAIVER. The acceptance of any services or the payment of any
12 money by City shall not operate as a waiver of any provision of this Agreement or of any
13 right to damages or indemnity stated in this Agreement. The waiver of any breach of this
14 Agreement shall not constitute a waiver of any other or subsequent breach of this
15 Agreement.

16 30. CONTINUATION. Termination or expiration of this Agreement shall
17 not affect rights or liabilities of the parties which accrued pursuant to the Sections titled
18 "Ownership of Data", "Confidentiality", "Breach of Confidentiality", "Law", "Certified Payroll
19 Records", "Indemnity", and "Audit" prior to termination or expiration of this Agreement.

20 31. TAX REPORTING. As required by federal and state law, City is
21 obligated to and will report the payment of compensation to Consultant on Form 1099-
22 Misc. Consultant shall be solely responsible for payment of all federal and state taxes
23 resulting from payments under this Agreement. Consultant shall submit Consultant's
24 Employer Identification Number (EIN), or Consultant's Social Security Number if
25 Consultant does not have an EIN, in writing to City's Accounts Payable, Department of
26 Financial Management. Consultant acknowledges and agrees that City has no obligation
27 to pay Consultant until Consultant provides one of these numbers.

28 32. ADVERTISING. Consultant shall not use the name of City, its officials

OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
411 West Ocean Boulevard, 9th Floor
Long Beach, CA 90802-4664

or employees in any advertising or solicitation for business or as a reference, without the prior approval of the City Manager or designee.

33. AUDIT. City shall have the right at all reasonable times during the term of this Agreement and for a period of five (5) years after termination or expiration of this Agreement to examine, audit, inspect, review, all non-proprietary books, records, accounts, and other documents of Consultant relating to this Agreement.

34. THIRD PARTY BENEFICIARY. This Agreement is not intended or designed to or entered for the purpose of creating any benefit or right for any person or entity of any kind that is not a party to this Agreement.

IN WITNESS WHEREOF, the parties have caused this document to be duly executed with all formalities required by law as of the date first stated above.



MICHELLE GAWLIK
Notary Public
State of Ohio
My Comm. Expires
April 24, 2026

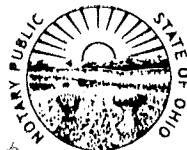
August 30, 2022

HDT EXPEDITIONARY SYSTEM, INC., a Delaware corporation

By Greg Miller
Name Greg Miller
Title SVP Marketing & Strategy

August 30, 2022

By Thomas Thebes
Name Thomas Thebes
Title CFO



MICHELLE GAWLIK
Notary Public
State of Ohio
My Comm. Expires
April 24, 2026

Michelle Gawlik

September 20, 2022

"Consultant"

CITY OF LONG BEACH, a municipal corporation

By Shonda J. Jackson
City Manager

EXECUTED PURSUANT
TO SECTION 300 OF
THE CITY CHARTER.

This Agreement is approved as to form on September 14, 2022

CHARLES PARKIN, City Attorney

By Alt L
Deputy

OFFICE OF THE CITY ATTORNEY
CHARLES PARKIN, City Attorney
411 West Ocean Boulevard, 9th Floor
Long Beach, CA 90802-4664

or employees in any advertising or solicitation for business or as a reference, without the prior approval of the City Manager or designee.

33. AUDIT. City shall have the right at all reasonable times during the term of this Agreement and for a period of five (5) years after termination or expiration of this Agreement to examine, audit, inspect, review, all non-proprietary books, records, accounts, and other documents of Consultant relating to this Agreement.

34. THIRD PARTY BENEFICIARY. This Agreement is not intended or designed to or entered for the purpose of creating any benefit or right for any person or entity of any kind that is not a party to this Agreement.

IN WITNESS WHEREOF, the parties have caused this document to be duly executed with all formalities required by law as of the date first stated above.

HDT EXPEDITIONARY SYSTEM, INC., a
Delaware corporation

August 30, 2022

By [Signature]
Name Greg Miller
Title SVP Marketing & Strategy

August 30, 2022

By [Signature]
Name Thomas Thebes
Title CFO

"Consultant"

CITY OF LONG BEACH, a municipal
corporation

_____, 20__

By _____
City Manager

"City"

This Agreement is approved as to form on September 14, 2022

CHARLES PARKIN, City Attorney

By [Signature]
Deputy

EXHIBIT “A”

Request for Proposal



City of Long Beach
Purchasing Division
411 West Ocean Boulevard, 6th Floor
Long Beach, CA 90802

City of Long Beach
Request for Proposals Number FD21-060
For
Fire Boat CBRN Detection and Telemetry Equipment

| | |
|---------------------------------|------------|
| Release Date: | 06/17/2021 |
| Mandatory Pre-Proposal Meeting: | 07/06/2021 |
| Questions Due to the City: | 07/09/2021 |
| Posting of the Q & A: | 07/16/2021 |
| Due Date: | 07/26/2021 |

City Contact: *James Vazquez* *Buyer* *562-570-5384*

See Section 4 for instructions on submitting proposals.

Company Name _____ Contact Person _____

Address _____ City _____ State _____ Zip _____

Telephone (____) _____ Fax (____) _____ Federal Tax ID No. _____

E-mail: _____

Prices contained in this proposal are subject to acceptance within _____ calendar days.

I have read, understand, and agree to all terms and conditions herein. Date _____

Signed _____

Print Name & Title _____

Rev 2016 0919



City of Long Beach
Purchasing Division
411 West Ocean Boulevard, 6th Floor
Long Beach, CA 90802

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ATTACHMENTS

- A CERTIFICATION OF COMPLIANCE WITH TERMS AND CONDITIONS OF RFP
- B PRO-FORMA AGREEMENT
- C STATEMENT OF NON-COLLUSION
- D DEBARMENT, SUSPENSION, INELIGIBILITY CERTIFICATION
- E W-9 REQUEST FOR TAXPAYER IDENTIFICATION NUMBER AND CERTIFICATION AND
VENDOR APPLICATION FORM
- F SECRETARY OF STATE REGISTRATION PRINTOUT
- G INSURANCE REQUIREMENTS
- H EQUAL BENEFITS ORDINANCE (EBO)
- I REFERENCE INFORMATION FORM



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Purchasing Division
411 West Ocean Boulevard, 6th Floor
Long Beach, CA 90802

1. OVERVIEW OF PROJECT

The City of Long Beach (CITY), Long Beach Fire Department (LBFD) is seeking proposals (Proposals) from qualified firms to furnish, deliver, and install fully functioning Chemical, Biological, Radiological, Nuclear (CBRN) detection, and telemetry system for two water vessels; Fire Boat(FB)15 Vigilance and Fire Boat(FB)20 Protector. The proposal shall include the design, equipment, installation, integration, testing, operations, professional services.

THIS SECTION IS INENTIONALLY LEFT BLANK



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2. **ACRONYMS/DEFINITIONS**

For purposes of this RFP, the following acronyms/definitions will be used:

| | |
|------------------------------|---|
| Awarded Contractor | The organization/individual that is awarded a contract with the City of Long Beach, California for the services identified in this RFP. |
| City | The City of Long Beach and any department or agency identified herein. |
| Contractor | Organization/individual submitting a proposal in response to this RFP. |
| Department / Division | City of Long Beach, Fire Department, Fire Prevention Bureau, Support Services Bureau, Operations Bureau, Administration Bureau. |
| LBFD | Long Beach Fire Department |
| FB | Fire Boat |
| Firm | See "Respondent" |
| HAZMAT | Hazardous Materials |
| CBRN | Chemical, Biological, Radiological, and Nuclear |
| WPA2 | Wi-Fi Protected Access |
| COTS | Commercial off-the-shelf |
| CAP | Common Alerting Protocol |
| SME | Subject Matter Expert |
| Respondent | Organization/individual submitting a response to this RFP. |
| RFP | Request for Proposals. |
| Evaluation Committee | An independent committee comprised solely of representatives of the City established to review proposals submitted in response to the RFP, evaluate the proposals, and select a Contractor. |
| May | Indicates something that is not mandatory but permissible. |



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| | |
|----------------------|--|
| Shall / Must | Indicates a mandatory requirement. Failure to meet a mandatory requirement may result in the rejection of a proposal as non-responsive. |
| Should | Indicates something that is recommended but not mandatory. If the Contractor fails to provide recommended information, the City may, at its sole option, ask the Contractor to provide the information or evaluate the proposal without the information. |
| Subcontractor | Third party not directly employed by the Contractor who will provide services identified in this RFP. |
| Telemetry | The process of recording and transmitting the readings of an instrument. |
| Citadel | Area maintained at a positive pressure with continually filtered air creating a contaminant-free environment. |
| CWA | Chemical Warfare Agent |
| TIC | Toxic Industrial Chemical |
| Tier 1 | Agents that presents the greatest risk of deliberate misuse with most significant potential for mass casualties or devastating effects to the economy, critical infrastructure, or public confidence. |
| Col Pro | Collective Protection |
| HM FRO | Hazardous Materials First Responder Operational |



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3. SCOPE OF PROJECT

3.1 Proposed equipment shall include, but is not limited to the following:

- The proposed equipment shall include hazardous materials, chemical, biological, radiological, nuclear, (CBRN) detection and telemetry system for FB15 Vigilance and FB20 Protector operated by the LBFD.
- The system shall include a wide range of CWA/TIC detection and identification, Tier-1 biological agent detection, radioisotope identification, radiation detection, neutron detection, and multi-gas detection.
- The equipment shall be mounted to the exterior of the fire boats and be designed to operate in very harsh conditions, allowing LBFD personnel to respond to operations from within the uncontaminated environment of our Citadel.
- The equipment shall provide real-time intelligence by detection, data collection and air sampling from a potential CBRN environment. The system shall securely send data to the HM FRO, LBFD personnel.

3.2 Third Party Assessment

- This RFP includes the mandate for Third Party Assessments to be based on the intent and physical specifications noted. This is an objective process by an agency that is qualified to report on technical performance and systems interfaces with the Fire Boats and other HazMat detection equipment owned by LBFD.
- The awarded vendor shall be responsible for hiring a Third-Party assessment company and to be included in the cost of the proposal. The City of Long Beach and Long Beach Fire Department shall not have any direct and/or separate financial obligations to the third-party agent.
- The vendor your company will be using for this verification and assessment, the third-party agent you are required to submit the Company Name and background along with 5 references with government agencies. Failure to do so may disqualify your proposal. See section 9.2 of the RFP for additional information.



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4. **SUBMITTAL INSTRUCTIONS**

4.1 For questions regarding this RFP, submit all inquiries via email to rfppurchasing@longbeach.gov by 11AM (Pacific Time) on July 9, 2021. Responses to the questions will be posted on the City's website longbeach.gov/purchasing under the "Bids/RFPs" tab no later than the date and time shown below. All proposers are recommended to visit the abovementioned City website on a regular basis as the responses may be posted earlier than the date above.

4.1.1 The City will not be responsible for or bound by (1) any oral communication or (2) any other information or contact that occurs outside the official communication process specified herein, unless confirmed in writing by the City Contact.

4.2 **RFP Timeline (times indicated are Pacific Time)**

| <i>TASK</i> | <i>DATE/TIME</i> |
|--|-------------------------------|
| Mandatory pre-proposal meeting/site walk | July 06, 2021 at 9:00AM |
| Deadline for submitting questions by Time | July 9, 2021 by 11:00AM |
| Answers to all questions submitted available | July 16, 2021 by 4:00pm |
| Deadline for submission of proposals | July 26, 2021 by 11:00AM (PT) |
| Evaluation period | 07/26/21 – 08-10/21 |
| Selection of Contractor | On or mid-August |

NOTE: These dates represent a tentative schedule of events. The City reserves the right to modify these dates at any time, with appropriate notice to prospective Contractors.

4.2.1 **Mandatory Pre-Proposal Meeting**

A mandatory pre-proposal meeting is scheduled for **July 6 at 9:00AM (PT)** at **Fire Station 20, 401 Pier D St, Long Beach CA, 90802**. The purpose of this conference is to provide answers to questions regarding the RFP document. It is recommended that Contractors bring a copy of the RFP document to this meeting, as limited copies will be available.

Public Parking is available at 401 Pier D, Fire Station 20.



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RSVPs are not required, but helpful in determining the required City staff needed to assist at the conference. Please use the "RSVP" button on the PlanetBids site to RSVP prior to the pre-proposal conference.

4.3 Method of Submission

Electronic proposals shall be submitted via the City's secure online bidding system. All required sections of the proposal must be submitted via the website. Proposer is solely responsible for "on time" submission of their electronic narrative proposal and cost proposal. The Bid Management System will not accept late proposals and no exceptions shall be made. Proposers will receive an e-bid confirmation number with a time stamp from the Bid Management System indicating that their proposal was submitted successfully. The City will only receive those proposals that were transmitted successfully.

RFP cover page shall be signed in ink, scanned and included with narrative proposal in the electronic proposal submission.

Submit proposal online at:

<http://www.planetbids.com/portal/portal.cfm?CompanyID=15810>

- 4.4 Proposals must be received by 11:00AM (PT) on **Monday July 26, 2021**. Proposals that do not arrive by the specified date and time WILL NOT BE ACCEPTED. Contractors may submit their proposal any time prior to the above stated deadline. The City will not be held responsible for proposals mishandled as a result of technical error. Facsimile or telephone proposals will NOT be considered unless otherwise authorized; however, proposals may be modified by fax or written notice provided such notice is received prior to the opening of the proposals.
- 4.5 Proposals are to be prepared in such a way as to provide a straightforward, concise delineation of capabilities to satisfy the requirements of this RFP, per the evaluation criteria listed in Section 5.1. The proposal should be presented in a format that corresponds to and references Section 3, Scope of Project; Section 7, Project Specifications; Section 8, Warranty/Maintenance and Service; Section 9, Company Background and References; and Section 10, Cost, and should be presented in the same order. Responses to each section and subsection should be labeled so as to indicate which item is being addressed.
- 4.6 Colored displays, promotional materials, etc., are not necessary or desired. Emphasis should be concentrated on conformance to the RFP instructions, responsiveness to the RFP requirements, and on completeness and clarity of content.
- 4.7 The proposal must be signed by the individual(s) legally authorized to bind the Contractor. Contractors shall complete the cover page of the RFP document, sign in ink, and submit electronically with their narrative/technical proposal.



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- 4.8 If complete responses cannot be provided without referencing supporting documentation, such documentation must be provided with the proposal and specific references made to the tab, page, section and/or paragraph where the supplemental information can be found.
- 4.9 Descriptions on how any and all equipment and/or services will be used to meet the requirements of this RFP shall be given, in detail, along with any additional information documents that are appropriately marked.
- 4.10 Proposals shall be submitted in two (2) distinct parts - the **narrative/technical proposal** and the **cost proposal**. THE NARRATIVE/TECHNICAL PROPOSAL MUST NOT INCLUDE COST AND PRICING INFORMATION. The narrative/technical proposal will be reviewed first and then the cost proposal. Therefore, each part should be **uploaded separately, but submitted together**.



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5. PROPOSAL EVALUATION AND AWARD PROCESS

- 5.1 Proposals shall be consistently evaluated based upon the following criteria:
 - 5.1.1 Demonstrated competence;
 - 5.1.2 Experience in performance of comparable engagements;
 - 5.1.3 Expertise and availability of key personnel;
 - 5.1.4 Financial stability;
 - 5.1.5 Conformance with the terms of this RFP; and
 - 5.1.6 Reasonableness of cost.
- 5.2 Proposals shall be kept confidential until a contract is awarded.
- 5.3 The City may also contact the references provided in response to Section 9.3; contact any Contractor to clarify any response; contact any current users of a Contractor's services; solicit information from any available source concerning any aspect of a proposal; and seek and review any other information deemed pertinent to the evaluation process. The City shall not be obligated to accept the lowest priced proposal but, shall make an award in the best interests of the City of Long Beach.
- 5.4 The City reserves the right to request clarification of any proposal term from prospective Contractors.
- 5.5 Selected Contractor(s) will be notified in writing. Any award is contingent upon the successful negotiation of final contract terms. Negotiations shall be confidential and not subject to disclosure to competing Contractors unless and until an agreement is reached. If contract negotiations cannot be concluded successfully, the City reserves the right to negotiate a contract with another Contractor or withdraw the RFP.
- 5.6 Any contract resulting from this RFP shall not be effective unless and until approved by the City Council / City Manager, as applicable.

6. PROTEST PROCEDURES

6.1 Who May Protest

Only a proposer who has actually submitted a proposal is eligible to protest a contract awarded through a Request for Proposals (RFP). A proposer may not rely on the protest submitted by another proposer but must pursue its own protest.

6.2 Time for Protest

The City will post a notice of the intent to award a contract at least ten (10) business days before an award is made. The notice will be available to all proposers who submitted a proposal via the City's electronic bid notification system at <http://www.longbeach.gov/purchasing/default.asp>. A proposer desiring to submit a



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protest for a proposal must do so within five (5) business days of the electronic notification of intent to award. The City Purchasing Agent must receive the protest by the close of business on the fifth (5th) business day following posting of notification of intent to award the contract. Proposers are responsible for registering with the City's electronic bid notification system and maintaining an updated Contractor profile. The City is not responsible for proposers' failure to obtain notification for any reason, including but not limited to failure to maintain updated email addresses, failure to open/read electronic messages and failure of their own computer/technology equipment. The City's RFP justification memo will be available for review by protestors once the notification of intent to award has been posted via the City's electronic bid notification system.

6.3 Form of Protest

The protest must be in writing and signed by the individual who signed the proposal or, if the proposer is a corporation, by an officer of the corporation, and addressed to the City Purchasing Agent. Protests may be submitted via US Mail, hand delivery or email, and must include a valid email address, street address and phone number sufficient to ensure that the City's decision concerning the protest will be received. Protests must set forth a complete and detailed statement of the grounds for the protest and include all relevant information to support the grounds stated, and must refer to specific portions of the RFP and attachments upon which the protest is based. Once the protest is received by the City Purchasing Agent, the City will not accept additional information on the protest unless the City requests it.

6.4 City Response to Protest

The City Purchasing Agent or designee will respond with a decision regarding the protest within five (5) business days of receipt of protest by email or US Mail to the address provided in the protest. This decision shall be final.

6.5 Limitation of Remedy

The procedure and time limits set forth herein are mandatory and are the proposer's sole and exclusive remedy in the event of a protest. The proposer's failure to comply with these procedures shall constitute a waiver of any right to further pursue a protest, including filing a Government Code Claim or initiation of legal proceedings.



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7. PROJECT SPECIFICATIONS

7.2 Chemical Warfare Agent (CWA) & Toxic Industrial Chemical (TIC) Detection

- The adopted system shall look for the presence of phosphorus, hydrogen/nitrogen, arsenic, sulfur, and hydrocarbons.
- The system shall detect, at a minimum, the parts per billion (ppb) level and identify the following CWA's:
 - Tabun(GA), Sarin(GB), Soman(GD), Cyclosarin(GF), VX, Mustard(H, HN, HL) & Hydrogen Cyanide(AC) and the following Toxic Industrial Chemicals (TICs) as a minimum: Chlorine(Cl₂), Sulfur Dioxide(SO₂), & Toulene(TDI).
- The system shall be unaffected by humidity, heat, or the presence of salt water.
- Meter data shall be represented as direct numeric readings or as applicable, in a graphic chart that displays readings over time.

7.3 Biological Detection (Optional)

- This system shall look for the presence of phosphorus, hydrogen/nitrogen, arsenic, sulfur, and hydrocarbons.
- Meter data will be represented as direct numeric readings or as applicable, in a graphic chart that displays readings over time.

7.4 Radio-isotope / Radiation / Neutron Detection

- The system shall provide gamma counting, gamma spectroscopy, and neutron counting. Isotope identification, source categorization, and directional localization.
- Unaffected by humidity, heat, or the presence of salt water.
- Meter data will be represented as direct numeric readings or as applicable, in a graphic chart that displays readings over time. Software will display graphic representations of radiological spectrum suitable for analysis.



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7.5 Multi-gas Detection

- 7.5.1 This system shall be an intelligent multi-gas monitoring instrument for the measurement of 1, 2, 3, 4 or 5 gases simultaneously, shown below on section 7.5.2.
- 7.5.2 This system shall include sensors for the following: carbon monoxide (CO), oxygen (O₂), hydrogen sulfide (H₂S), catalytic sensor for explosive vapors (LEL) and additional hydrogen cyanide (HCN) sensor.
- 7.5.3 This system should be able to be modified or expanded as desired, based on the results of a risk-based Threat and Vulnerability Protection Assessment (TVPA) and/or on your specific program requirements.
- 7.5.4 Meter data will be represented as direct numeric readings or as applicable, in a graphic chart that displays readings over time.

7.6 Telemetry Instruments

The system shall securely send data via a secured, minimum of 128-bit encrypted wireless signal to a supplied laptop and/or where applicable, hard wired to data telemetry panel or where applicable, integrated into current telemetry system.

No sensitive or secure data or information including without limitation, Meter readings, personnel, or equipment locations, or any alert or other message traffic whatsoever is shared by the System with any third-party. All subsystems and appliances are protected by means of a configurable administration account including user identification and password.

All 802.11 b/g/n transmission system is at a minimum be 802.11i compliant and support WPA2 AES 128bit encryption.

Unaffected by humidity, heat, or the presence of salt water.

8. WARRANTY/MAINTENANCE AND SERVICE

- Systems shall include a minimum of a (1) one-year warranty, and have the option to Include options for extended warranties and servicing contracts.
 - Optional: An extended warranty providing shall cover a minimum of 3 to 5 years of coverage. The warranty shall cover defects in materials and workmanship arising under normal wear and tear and when used in accordance with product documentation.



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- The award firm shall repair or replace any defective components or systems and the repaired or replaced system will continue to be warrantied for the remaining time of the original warranty period.
- Pricing provided for comprehensive, 5-year service contracts. These service contracts cover parts and labor to repair/maintain operation under normal wear and tear. In addition, if an issue cannot be resolved remotely, the firm will travel to the customer site for diagnosis/repair.

9. COMPANY BACKGROUND AND REFERENCES

9.1 Primary Contractor Information

Contractors must provide a company profile. Information provided shall include:

- Company ownership. If incorporated, the state in which the company is incorporated and the date of incorporation. An out-of-state Contractor must register with the State of California Secretary of State before a contract can be executed (<http://www.sos.ca.gov/business/>).
- Location of the company offices.
- Location of the office servicing any California account(s).
- Number of employees both locally and nationally. Specify the number of full time and part-time employees residing in Long Beach.
- Location(s) from which employees will be assigned.
- Name, address and telephone number of the Contractor's point of contact for a contract resulting from this RFP.
- Company background/history and why Contractor is qualified to provide the services described in this RFP.
- Length of time Contractor has been providing services described in this RFP to the **public and/or private sector**. Please provide a brief description.
- Resumes for key staff to be responsible for performance of any contract resulting from this RFP.

9.1.1 Financial stability: Proposers must provide financial statements giving the City enough information to determine financial stability. These statements may include, but are not limited to:

- a) Financial Statement or Annual Report;
- b) Business tax return;
- c) Statement of income and related earnings;



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The level and term of documentation required from the proposer to satisfy the City will be commensurate with the size and complexity of the contract and proposers should submit accordingly. If the information submitted by the proposer, or available from other sources, is insufficient to satisfy the City as to the proposer's contractual responsibility, the City may request additional information from the proposer or may deem the proposal non-responsive. The City's determination of the proposer's responsibility, for the purposes of this RFP, shall be final.

9.2 Subcontractor Information

9.2.1 Does this proposal include the use of subcontractors?

Yes _____ No _____ Initials _____

If "Yes", Contractor must:

- 9.2.1.1 Identify specific subcontractors and the specific requirements of this RFP for which each proposed subcontractor will perform services.
- 9.2.1.2 Provide the same information for any subcontractors as is indicated in Section 9.1 for the Contractor as primary contractor.
- 9.2.1.3 References as specified in Section 9.3 below must also be provided for any proposed subcontractors.
- 9.2.1.4 The City requires that the awarded Contractor provide proof of payment of any subcontractors used for this project. Proposals shall include a plan by which the City will be notified of such payments.
- 9.2.1.5 Primary contractor shall not allow any subcontractor to commence work until all insurance required of subcontractor is obtained.

9.3 References

Contractors should provide a minimum of five (5) references from similar projects performed for state and/or large local government clients within the last three years. Information provided shall include:

- Client name;
- Project description;
- Project dates (starting and ending);
- Staff assigned to reference engagement that will be designated for work per this RFP;
- Client project manager name and telephone number.



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9.4 Business License

The Long Beach Municipal Code (LBMC) requires all businesses operating in the City of Long Beach to pay a business license tax. In some cases, the City may require a regulatory permit and/or evidence of a State or Federal license. Prior to issuing a business license, certain business types will require the business license application and/or business location to be reviewed by the Development Services, Fire, Health, and/or Police Departments.

For more information, go to www.longbeach.gov/finance/business_license.

10. COST

- Pricing shall include furnish, deliver, and install one (1) fully functioning Chemical, Biological, Radiological, and Nuclear (CBRN) detection, and telemetry system for each Fire Boat.
 - Fire Boat 15 Vigilance total cost and Fire Boat 20 Protector total cost shall be itemized separately.
- Purchase of system for FB15 Vigilance.
- The second system to be purchased for FB20 is dependent upon grant award to LBFD.
- Per section 3.2, Third-Party assessment is to be included in the pricing.
- Proposers shall be ready to provide additional details on the cost for extended Warranty options. (see section 8) Such warranty options must include the years of service offered and pricing.

11. BONDS

11.1 Faithful Performance Bond

The successful proposer shall submit a Faithful Performance Bond for 100 percent of cost of bid. Successful bidder shall only be required to submit bond if award is made and notice is given from the City. The cost of the bond shall be included in the bid, and in the successful bidder's invoice. The bond will be issued to the City Long Beach, Purchasing Division, Long Beach City Hall, 411 West Ocean Blvd., 6th Floor, Long Beach, California 90802 and shall be submitted within ten (10) calendar days after notice of award. The Bond shall be submitted upon forms included herein or secured at the Office of the City Purchasing Agent (address above). The successful bidder shall use only the bond form supplied by the City.



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A corporation must have the bond executed by two (2) authorized officers. If the bond is executed by only one (1) authorized officer or a person not listed in Section 313 of the California Corporations Code, then the corporation must attach a certified copy of a resolution of its Board of Directors authorizing execution by said individual(s).

11.2 Labor and Materials Bond

The Contractor shall submit a Labor and Materials Bond to the City Purchasing Agent, Long Beach City Hall, 411 West Ocean Blvd., Lobby Level, Long Beach, California 90802, if the total bid amount is more than \$25,000.00. The amount of the bond shall be (Contractor shall complete) \$ _____ (which is 100 percent of the Contract amount) and shall be submitted within ten (10) calendar days after notice of award. The Bond shall be submitted upon forms included herein or secured at the Office of the City Purchasing Agent (address above).

A corporation must have the bond executed by two (2) authorized officers. If the bond is executed by only one (1) authorized officer or a person not listed in section 313 of the California Corporations Code, then the corporation must attach a certified copy of a resolution of its Board of Directors authorizing execution by said individual(s).

11.3 Notarial Acknowledgments Required with Bonds

Signatures of all principals and sureties shall be accompanied by the appropriate Notarial Acknowledgements. A Notarial Acknowledgement shall accompany each signature of each Principal and a Notarial Acknowledgement shall accompany the signature of the Surety. All bonds require the signatures of all principals and sureties, accompanied by the appropriate Notarial Acknowledgements, whether the company is located inside or outside the State of California.

12. ADDITIONAL REQUIREMENTS FROM FUNDING SOURCE

Any Contract arising from this procurement process may be funded in whole or in part by various granting entities. Pursuant to said grants, the Awarded Consultant is required to comply with (and to incorporate into its agreements with any sub-consultants) the following provisions in the performance of the Contract, as applicable.

- 12.1 Order of Precedence – In the event of conflicts or discrepancies between these Federal grant funding provisions and any other Contract document, the Federal grant provisions shall take precedence.
- 12.2 Access to Contractor's Records – The Awarded Contractor shall provide the City, the Office of State and Local Government Coordination and Preparedness, the Comptroller General of the United States, or any of their authorized representatives, access to any books, documents, papers, and records of the Awarded Contractor



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which are directly pertinent to the work performed under the Contract for the purposes of making audit, examination, excerpts or transcriptions.

- 12.3 Americans with Disabilities Act – The Awarded Contractor hereby certifies that it will comply, as applicable, with the Americans with Disabilities Act of 1990 (“ADA”), 42 USC §§ 12101 et seq., and its implementing regulations, including Subtitle A, Title II of the ADA. The Awarded Contractor will provide, as applicable, reasonable accommodations to allow qualified individuals with disabilities to have access to and to participate in its programs, services and activities in accordance with the provisions of the ADA. The Awarded Contractor will not discriminate against persons with disabilities nor against persons due to their relationship to or association with a person with a disability. Any contract entered into by the Awarded Contractor (or any subcontract thereof), relating to this Agreement, shall be subject to the provisions of this paragraph.
- 12.4 Compliance with Contract Work Hours and Safety Standard Act – The Awarded Contractor shall comply with the requirements of §§ 103 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C §§ 327-330) as supplemented by Department of Labor regulations (29 CFR Part 5).
- 12.5 Compliance with Copeland “Anti-Kickback” Act – The Awarded Contractor shall comply with the requirements of the Copeland “Anti-Kickback” Act (18 U.S.C. § 874) as supplemented in the Department of Labor regulations (29 CFR Part 3).
- 12.6 Compliance with Davis-Bacon Act – The Awarded Contractor shall comply with the requirements of the Davis-Bacon ACT (40 U.S.C. §§ 276 to 276-a7) as supplemented by Department of Labor regulations (29 CFR Part 5) where applicable and shall provide the City with all applicable payroll records on a weekly basis.
- 12.7 Copyright – The Awarded Contractor acknowledges the existence of requirements and regulations of the awarding Federal agency relating to copyrights and right in data, including, but not limited to those set forth in 44 CFR Part 13.34 which states: “The Federal awarding agency reserves royalty-free, nonexclusive, and irrevocable license to reproduce, publish or otherwise use, and to authorize others to use, for Federal Government purposes: (a) The copyright in any work developed under a grant, subgrant, or contract under a grant or subgrant; and (b) Any rights of copyright to which a grantee, subgrantee or a contractor purchases ownership with grant support.” The Awarded Contractor shall comply with 25 CFR 85.34.
- 12.8 Drug-Free Workplace – The Awarded Contractor hereby certifies that it shall provide or shall continue to provide a drug-free workplace as required by the Drug-Free Workplace Act of 1988 (41 U.S.C. § 701), and implemented at 44 CFR Part 17.
- 12.9 Energy Efficiency – The Awarded Contractor shall comply with all mandatory standards and policies relating to energy efficiency that are contained in the State of



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California's energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Pub. L.94-163, 89 Stat. 871).

- 12.10 Environmental Legislation – The Awarded Contractor shall comply with all applicable standards, orders or requirements issued under § 306 of the Clean Air Act (42 U.S.C. 1857 (h)), § 508 of the Clean Water Act (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR Part 15).
- 12.11 System for Award Management (SAM) – In accordance with Executive Orders 12549 and 12689 concerning suspension and debarment, contracts must prohibit contractors from awarding any subcontract to persons (individuals or organizations) listed as having an active exclusion of the Federal System for Awards Management Database (www.sam.gov).
- 12.12 Minority, Women and Other Business Enterprise Outreach – In accordance with CalEMA/Grantor directives, as applicable, firms who represent small business enterprises (SBEs), minority business enterprises (MBEs) and women business enterprises (WBEs) are encouraged to participate in competition for this opportunity. Any such enterprise shall include the appropriate SBE/MBE/WBE certification along with its proposal. The Awarded Contractor agrees that, to the extent contractors or subcontractors are utilized, the Awarded Contractors shall use small, minority, women-owned, or disadvantaged business concerns and contractors or subcontractors to the extent practicable and shall take the affirmative steps as set forth in 49 CFR §13.36(e).
- 12.13 National Preservation Acts – The Awarded Contractor shall assist City (if necessary) in assuring compliance with § 106 of the National Historic Preservation Act of 1966 (16 U.S.C. § 470), Executive Order 11593 (identification and protection of historic properties), the Archeological and Historical Preservation Act of 1974 (16 U.S.C. § 469 a-1 et seq.), and the National Environmental Policy Act of 1969 (42 U.S.C. § 4321).
- 12.14 Non-discrimination; Equal Employment Opportunity – The Awarded Contractor hereby assures the City that in performing its obligations pursuant to the Contract, it will comply with all applicable nondiscrimination requirements as set forth in 44 CFR Part 13.36. In addition, the Awarded Contractor shall comply with Executive Order 11246 of September 24, 1965, entitled "Equal Opportunity Employment," as amended by Executive Order 11375 of October 13, 1967, and as supplemented in Department of Labor regulations (41 CFR chapter 60), and where applicable to the nondiscrimination provisions of the Omnibus Crime Control and Safe Street Acts of 1968 (42 U.S.C. § 3789d), the Victims of Crimes Act (42 U.S.C. § 10604(e)), the Juvenile Justice and Delinquency Prevention Act (42 U.S.C. § 5672(b)), the Civil Rights Act of 1964 (42 U.S.C. § 2000d), the Rehabilitation Act of 1973 (29 U.S.C. § 794), the Americans with Disabilities Act of 1990 (42 U.S.C. §§ 12131-34), the Education Amendments of 1972 (20 U.S.C. §§ 1681, 1683, 1685-86), and the Age Discrimination Act of 1975 (42



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U.S.C. §§ 6101-07), see Executive Order 13279 (equal protection of the laws for faith-based and community organizations). This provision must be incorporated by Awarded Contractor into any subcontract exceeding \$10,000.

- 12.15 Patent Rights – The Awarded Contractor acknowledges the existence of requirements and regulations of the awarding Federal agency relating to patent rights with respect to any discovery or invention which arises or is developed in the course or under this Contract, including, but not limited to those regulations and requirements set forth in 44 CFR Part 13.36. Any discovery or invention that arises during the course of this Contract shall be immediately reported to the Department's project management team. The awarding Federal agency shall determine how rights in the invention/discovery shall be allocated consistent with "Government Patent Policy" and 37 CFR Part 401.
- 12.16 Payments, Reports, Records, Retention and Enforcement – The Awarded Contractor acknowledges the requirements and regulations set forth in 44 CFR Parts 13.36 through 13.42 and 49 CFR Part 18 and agrees to cooperate with the City in order to allow the City to comply with said requirements. The Awarded Contractor shall retain all of its records relating to the project for a period of five (5) years after City makes final payment to the Awarded Contractor and all other pending matters are closed.
- 12.17 Publications – All publications created and/or published with funding under any contract arising from this RFP shall prominently contain the following statement: "This document was prepared under a grant from FEMA's Grant Programs Directorate, U.S. Department of Homeland Security. Points of view or opinions in this document are those of the author(s) and do not necessarily represent the official position or policies of FEMA's Grant Programs Directorate or the U.S. Department of Homeland Security."
- 12.18 Rights to Data – The Grantor and the City shall have unlimited rights or copyright license to any data first produced or delivered under this Agreement. "Unlimited rights" means the right to use, disclose, reproduce, prepare derivative works, distribute copies to the public and perform and display publicly, or permit others to do so; as required by 48 CFR 27.401. Where the data are not first produced under this Contract or are published copyrighted data with the notice of 17 U.S.C § 401 or 402, the Grantor acquires the data under copyright license as set forth in 48 CFR 27.404(f)(2) instead of unlimited rights (48 CFR 27.404(a)).
- 12.19 Rights to Use Inventions – City and all grantors and/or awarding Federal Agency shall have an unencumbered right, and a non-exclusive, irrevocable, royalty-free license, to use, manufacture, improve upon and all others to do so for all governmental purposes, any invention developed under the Contract.



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13. TERMS, CONDITIONS AND EXCEPTIONS

- 13.1 This contract will be for a period of 24 months with three annual one-year renewal options at the discretion of the City. The contract term will not exceed 60 months.
- 13.2 The City reserves the right to alter, amend, or modify any provisions of this RFP, or to withdraw this RFP, at any time prior to the award of a contract pursuant hereto, if it is in the best interest of the City to do so.
- 13.3 The City reserves the right to waive informalities and minor irregularities in proposals received.
- 13.4 The City reserves the right to reject any or all proposals received prior to contract award.
- 13.5 The City shall not be obligated to accept the lowest priced proposal, but will make an evaluated.
- 13.6 Any irregularities or lack of clarity in the RFP should be brought to the Purchasing Division designee's attention as soon as possible so that corrective addenda may be furnished to prospective Contractors.
- 13.7 Proposals must include any and all proposed terms and conditions, including, without limitation, written warranties, maintenance/service agreements, license agreements, lease purchase agreements and the Contractor's standard contract language. The omission of these documents may render a proposal non-responsive.
- 13.8 Alterations, modifications or variations to a proposal may not be considered unless authorized by the RFP or by addendum or amendment.
- 13.9 Proposals which appear unrealistic in the terms of technical commitments, lack of technical competence, or are indicative of failure to comprehend the complexity and risk of this contract, may be rejected.
- 13.10 Proposals may be withdrawn by written or facsimile notice received prior to the proposal opening time.
- 13.11 The price and amount of this proposal must have been arrived at independently and without consultation, communication, agreement or disclosure with or to any other contractor, Contractor or prospective Contractor.
- 13.12 No attempt may be made at any time to induce any firm or person to refrain from submitting a proposal or to submit any intentionally high or noncompetitive proposal. All proposals must be made in good faith and without collusion.



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- 13.13 Prices offered by Contractors in their proposals are an irrevocable offer for the term of the contract and any contract extensions. The awarded Contractor agrees to provide the purchased services at the costs, rates and fees as set forth in their proposal in response to this RFP. No other costs, rates or fees shall be payable to the awarded Contractor for implementation of their proposal.
- 13.14 The City is not liable for any costs incurred by Contractors prior to entering into a formal contract. Costs of developing the proposals or any other such expenses incurred by the Contractor in responding to the RFP, are entirely the responsibility of the Contractor, and shall not be reimbursed in any manner by the City.
- 13.15 Proposal will become public record after the award of a contract unless the proposal or specific parts of the proposal can be shown to be exempt by law. Each Contractor may clearly label all or part of a proposal as "CONFIDENTIAL" provided that the Contractor thereby agrees to indemnify and defend the City for honoring such a designation. The failure to so label any information that is released by the City shall constitute a complete waiver of any and all claims for damages caused by any release of the information.
- 13.16 A proposal submitted in response to this RFP must identify any subcontractors, and outline the contractual relationship between the awarded Contractor and each subcontractor. An official of each proposed subcontractor must sign, and include as part of the proposal submitted in response to this RFP, a statement to the effect that the subcontractor has read and will agree to abide by the awarded Contractor's obligations.
- 13.17 The awarded Contractor will be the sole point of contract responsibility. The City will look solely to the awarded Contractor for the performance of all contractual obligations which may result from an award based on this RFP, and the awarded Contractor shall not be relieved for the non-performance of any or all subcontractors.
- 13.18 The awarded Contractor must maintain, for the duration of its contract, insurance coverages as required by the City. Work on the contract shall not begin until after the awarded Contractor has submitted acceptable evidence of the required insurance coverages.
- 13.19 Each Contractor must disclose any existing or potential conflict of interest relative to the performance of the contractual services resulting from this RFP. Any such relationship that might be perceived or represented as a conflict should be disclosed. The City reserves the right to disqualify any Contractor on the grounds of actual or apparent conflict of interest.
- 13.20 Each Contractor must include in its proposal a complete disclosure of any alleged significant prior or ongoing contract failures, any civil or criminal litigation or investigation pending which involves the Contractor or in which the Contractor has



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been judged guilty or liable. Failure to comply with the terms of this provision will disqualify any proposal. The City reserves the right to reject any proposal based upon the Contractor's prior history with the City or with any other party, which documents, without limitation, unsatisfactory performance, adversarial or contentious demeanor, significant failure(s) to meet contract milestones or other contractual failures.

- 13.21 The City will not be liable for Federal, State, or Local excise taxes.
- 13.22 Execution of **Attachment A** of this RFP shall constitute an agreement to all terms and conditions specified in the RFP, including, without limitation, the **Attachment B** contract form and all terms and conditions therein, except such terms and conditions that the Contractor expressly excludes.
- 13.23 The City reserves the right to negotiate final contract terms with any Contractor selected. The contract between the parties will consist of the RFP together with any modifications thereto, and the awarded Contractor's proposal, together with any modifications and clarifications thereto that are submitted at the request of the City during the evaluation and negotiation process. In the event of any conflict or contradiction between or among these documents, the documents shall control in the following order of precedence: the final executed contract, the RFP, any modifications and clarifications to the awarded Contractor's proposal, and the awarded Contractor's proposal. Specific exceptions to this general rule may be noted in the final executed contract.
- 13.24 Contractor understands and acknowledges that the representations above are material and important, and will be relied on by the City in evaluation of the proposal. Any Contractor misrepresentation shall be treated as fraudulent concealment from the City of the true facts relating to the proposal.
- 13.25 No announcement concerning the award of a contract as a result of this RFP may be made without the prior written approval of the City.
- 13.26 Proposers are advised that any contract awarded pursuant to this procurement process that exceeds \$100,000 shall be subject to the applicable provisions of Long Beach Municipal Code Section 2.73 et seq, the Equal Benefits Ordinance. Proposers shall refer to **Attachment G** for further information regarding the requirements of the ordinance.

All Proposers shall complete and return, with their bid, the Equal Benefits Ordinance Compliance form contained in **Attachment G**. Unless otherwise specified in the procurement package, Proposers do not need to submit with their bid supporting documentation proving compliance. However, supporting documentation verifying that the benefits are provided equally shall be required if the proposer is selected for award of a contract.



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- 13.27 All work performed in connection with construction shall be performed in compliance with all applicable laws, ordinances, rules and regulations of federal, state, county or municipal governments or agencies (including, without limitation, all applicable federal and state labor standards, including the prevailing wage provisions of sections 1770 *et seq.* of the California Labor Code), and (b) all directions, rules and regulations of any fire marshal, health officer, building inspector, or other officer of every governmental agency now having or hereafter acquiring jurisdiction.

Contractor shall indemnify, protect and hold harmless City, its Boards, Commissions, and their officials, employees and agents ("Indemnified Parties"), from and against any and all liability, claims, demands, damage, loss, obligations, causes of action, proceedings, awards, fines, judgments, penalties, costs and expenses, including attorneys' fees, court costs, expert and witness fees, and other costs and fees of litigation, arising or alleged to have arisen, in whole or in part, out of or in connection with (1) Contractor's breach or failure to comply with any of its obligations contained in this Contract, including any obligations arising from the Project's Contractor's compliance with or failure to comply with applicable laws, including all applicable federal and state labor requirements including, without limitation, the requirements of California Labor Code section 1770 *et seq.* or (2) negligent or willful acts, errors, omissions or misrepresentations committed by Contractor, its officers, employees, agents, subcontractors, or anyone under Contractor's control, in the performance of work or services under this Contract (collectively "Claims" or individually "Claim").

In addition to Contractor's duty to indemnify, Contractor shall have a separate and wholly independent duty to defend Indemnified Parties at Contractor's expense by legal counsel approved by City, from and against all Claims, and shall continue this defense until the Claims are resolved, whether by settlement, judgment or otherwise. No finding or judgment of negligence, fault, breach, or the like on the part of Contractor shall be required for the duty to defend to arise. City shall notify Contractor of any Claim, shall tender the defense of the Claim to Contractor, and shall assist Contractor, as may be reasonably requested, in the defense.

If a court of competent jurisdiction determines that a Claim was caused by the sole negligence or willful misconduct of Indemnified Parties, Contractor's costs of defense and indemnity shall be (1) reimbursed in full if the court determines sole negligence by the Indemnified Parties, or (2) reduced by the percentage of willful misconduct attributed by the court to the Indemnified Parties.

If the Contractor elects to use subcontractors, Contractor agrees to require its subcontractors to indemnify Indemnified Parties and to provide insurance coverage to the same extent as Contractor.

The provisions of this Section shall survive the expiration or termination of this Contract.



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Contractor agrees that all public work (as defined in California Labor Code section 1720) performed pursuant to this Agreement (the "Public Work"), if any, shall comply with the requirements of California Labor Code sections 1770 *et seq.* City makes no representation or statement that the project or any portion thereof, is or is not a "public work" as defined in California Labor Code section 1720.

In all bid specifications, contracts and subcontracts for any such Public Work, Contractor shall obtain the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work in this locality for each craft, classification or type of worker needed to perform the Public Work, and shall include such rates in the bid specifications, contract or subcontract. Such bid specifications, contract or subcontract must contain the following provision: "It shall be mandatory for the contractor to pay not less than the said prevailing rate of wages to all workers employed by the contractor in the execution of this contract. The contractor expressly agrees to comply with the penalty provisions of California Labor Code section 1775 and the payroll record keeping requirements of California Labor Code section 1771."



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Attachment A

CERTIFICATION OF COMPLIANCE WITH TERMS AND CONDITIONS OF RFP

I have read, understand and agree to comply with the terms and conditions specified in this Request for Proposal. Any exceptions **MUST** be documented.

SIGNATURE _____

EXCEPTIONS: Attach additional sheets if necessary. Please use this format.

EXCEPTION SUMMARY FORM

| RFP SECTION NUMBER | RFP PAGE NUMBER | EXCEPTION (PROVIDE A DETAILED EXPLANATION) |
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Attachment B

PRO-FORMA AGREEMENT

A different pro-forma agreement may be issued upon award.

The attached Pro-Forma is for informational purposes only.

AGREEMENT

THIS AGREEMENT is made and entered, in duplicate, as of _____, for reference purposes only, pursuant to a minute order adopted by the City Council of the City of Long Beach at its meeting on _____, 20__, by and between _____, a _____ corporation/limited liability company etc. ("Consultant"), with a place of business at _____, and the CITY OF LONG BEACH, a municipal corporation ("City").

WHEREAS, City requires specialized services requiring unique skills to be performed in connection with _____ ("Project"); and

WHEREAS, City has selected Consultant in accordance with City's administrative procedures and City has determined that Consultant and its employees are qualified, licensed, if so required, and experienced in performing these specialized services; and

WHEREAS, City desires to have Consultant perform these specialized services, and Consultant is willing and able to do so on the terms and conditions in this Agreement;

NOW, THEREFORE, in consideration of the mutual terms, covenants, and conditions in this Agreement, the parties agree as follows:

1. SCOPE OF WORK OR SERVICES.

A. Consultant shall furnish specialized services more particularly described in Exhibit "A", attached to this Agreement and incorporated by this reference, in accordance with the standards of the profession, and City shall pay for these services in the manner described below, not to exceed _____ Dollars (\$_____), at the rates or charges shown in Exhibit "B".

B. The City's obligation to pay the sum stated above for any one fiscal year shall be contingent upon the City Council of the City appropriating the necessary funds for such payment by the City in each fiscal year during the term of

1 this Agreement. For the purposes of this Section, a fiscal year commences on
2 October 1 of the year and continues through September 30 of the following year. In
3 the event that the City Council of the City fails to appropriate the necessary funds
4 for any fiscal year, then, and in that event, the Agreement will terminate at no
5 additional cost or obligation to the City.

6 C. Consultant may select the time and place of performance for
7 these services; provided, however, that access to City documents, records and the
8 like, if needed by Consultant, shall be available only during City's normal business
9 hours and provided that milestones for performance, if any, are met.

10 D. Consultant has requested to receive regular payments. City
11 shall pay Consultant in due course of payments following receipt from Consultant
12 and approval by City of invoices showing the services or task performed, the time
13 expended (if billing is hourly), and the name of the Project. Consultant shall certify
14 on the invoices that Consultant has performed the services in full conformance with
15 this Agreement and is entitled to receive payment. Each invoice shall be
16 accompanied by a progress report indicating the progress to date of services
17 performed and covered by the invoice, including a brief statement of any Project
18 problems and potential causes of delay in performance, and listing those services
19 that are projected for performance by Consultant during the next invoice cycle.
20 Where billing is done and payment is made on an hourly basis, the parties
21 acknowledge that this arrangement is either customary practice for Consultant's
22 profession, industry or business, or is necessary to satisfy audit and legal
23 requirements which may arise due to the fact that City is a municipality.

24 E. Consultant represents that Consultant has obtained all
25 necessary information on conditions and circumstances that may affect its
26 performance and has conducted site visits, if necessary.

27 F. CAUTION: Consultant shall not begin work until this
28 Agreement has been signed by both parties and until Consultant's evidence of

1 insurance has been delivered to and approved by City.

2 2. TERM. The term of this Agreement shall commence at midnight on
3 (BEGINNING DATE), and shall terminate at 11:59 p.m. on (ENDING DATE), unless sooner
4 terminated as provided in this Agreement, or unless the services or the Project is
5 completed sooner.

6 3. COORDINATION AND ORGANIZATION.

7 A. Consultant shall coordinate its performance with City's
8 representative, if any, named in Exhibit "C", attached to this Agreement and
9 incorporated by this reference. Consultant shall advise and inform City's
10 representative of the work in progress on the Project in sufficient detail so as to
11 assist City's representative in making presentations and in holding meetings on the
12 Project. City shall furnish to Consultant information or materials, if any, described
13 in Exhibit "D", attached to this Agreement and incorporated by this reference, and
14 shall perform any other tasks described in the Exhibit.

15 B. The parties acknowledge that a substantial inducement to City
16 for entering this Agreement was and is the reputation and skill of Consultant's key
17 employee, named in Exhibit "E" attached to this Agreement and incorporated by this
18 reference. City shall have the right to approve any person proposed by Consultant
19 to replace that key employee.

20 4. INDEPENDENT CONTRACTOR. In performing its services,
21 Consultant is and shall act as an independent contractor and not an employee,
22 representative or agent of City. Consultant shall have control of Consultant's work and the
23 manner in which it is performed. Consultant shall be free to contract for similar services to
24 be performed for others during this Agreement; provided, however, that Consultant acts in
25 accordance with Section 9 and Section 11 of this Agreement. Consultant acknowledges
26 and agrees that (a) City will not withhold taxes of any kind from Consultant's compensation;
27 (b) City will not secure workers' compensation or pay unemployment insurance to, for or
28 on Consultant's behalf; and (c) City will not provide and Consultant is not entitled to any of

1 the usual and customary rights, benefits or privileges of City employees. Consultant
2 expressly warrants that neither Consultant nor any of Consultant's employees or agents
3 shall represent themselves to be employees or agents of City.

4 5. INSURANCE.

5 A. As a condition precedent to the effectiveness of this
6 Agreement, Consultant shall procure and maintain, at Consultant's expense for the
7 duration of this Agreement, from insurance companies that are admitted to write
8 insurance in California and have ratings of or equivalent to A:V by A.M. Best
9 Company or from authorized non-admitted insurance companies subject to Section
10 1763 of the California Insurance Code and that have ratings of or equivalent to A:VIII
11 by A.M. Best Company, the following insurance:

12 i. Commercial general liability insurance (equivalent in
13 scope to ISO form CG 00 01 11 85 or CG 00 01 10 93) in an amount not less
14 than \$1,000,000 per each occurrence and \$2,000,000 general aggregate.
15 This coverage shall include but not be limited to broad form contractual
16 liability, cross liability, independent contractors liability, and products and
17 completed operations liability. City, its boards and commissions, and their
18 officials, employees and agents shall be named as additional insureds by
19 endorsement (on City's endorsement form or on an endorsement equivalent
20 in scope to ISO form CG 20 10 11 85 or CG 20 26 11 85 or both CG 20 10
21 07 04 and CG 20 37 07 04 or both CG 20 33 07 04 and CG 20 37 07 04),
22 and this insurance shall contain no special limitations on the scope of
23 protection given to City, its boards and commissions, and their officials,
24 employees and agents. This policy shall be endorsed to state that the insurer
25 waives its right of subrogation against City, its boards and commissions, and
26 their officials, employees and agents.

27 ii. Workers' Compensation insurance as required by the
28 California Labor Code and employer's liability insurance in an amount not

1 less than \$1,000,000. This policy shall be endorsed to state that the insurer
2 waives its right of subrogation against City, its boards and commissions, and
3 their officials, employees and agents.

4 iii. Professional liability or errors and omissions insurance
5 in an amount not less than \$1,000,000 per claim.

6 iv. Commercial automobile liability insurance (equivalent in
7 scope to ISO form CA 00 01 06 92), covering Auto Symbol 1 (Any Auto) in
8 an amount not less than \$500,000 combined single limit per accident.

9 B. Any self-insurance program, self-insured retention, or
10 deductible must be separately approved in writing by City's Risk Manager or
11 designee and shall protect City, its officials, employees and agents in the same
12 manner and to the same extent as they would have been protected had the policy
13 or policies not contained retention or deductible provisions.

14 C. Each insurance policy shall be endorsed to state that coverage
15 shall not be reduced, non-renewed or canceled except after thirty (30) days prior
16 written notice to City, shall be primary and not contributing to any other insurance
17 or self-insurance maintained by City, and shall be endorsed to state that coverage
18 maintained by City shall be excess to and shall not contribute to insurance or self-
19 insurance maintained by Consultant. Consultant shall notify City in writing within
20 five (5) days after any insurance has been voided by the insurer or cancelled by the
21 insured.

22 D. If this coverage is written on a "claims made" basis, it must
23 provide for an extended reporting period of not less than one hundred eighty (180)
24 days, commencing on the date this Agreement expires or is terminated, unless
25 Consultant guarantees that Consultant will provide to City evidence of uninterrupted,
26 continuing coverage for a period of not less than three (3) years, commencing on
27 the date this Agreement expires or is terminated.

28 E. Consultant shall require that all subconsultants or contractors

1 that Consultant uses in the performance of these services maintain insurance in
2 compliance with this Section unless otherwise agreed in writing by City's Risk
3 Manager or designee.

4 F. Prior to the start of performance, Consultant shall deliver to City
5 certificates of insurance and the endorsements for approval as to sufficiency and
6 form. In addition, Consultant shall, within thirty (30) days prior to expiration of the
7 insurance, furnish to City certificates of insurance and endorsements evidencing
8 renewal of the insurance. City reserves the right to require complete certified copies
9 of all policies of Consultant and Consultant's subconsultants and contractors, at any
10 time. Consultant shall make available to City's Risk Manager or designee all books,
11 records and other information relating to this insurance, during normal business
12 hours.

13 G. Any modification or waiver of these insurance requirements
14 shall only be made with the approval of City's Risk Manager or designee. Not more
15 frequently than once a year, City's Risk Manager or designee may require that
16 Consultant, Consultant's subconsultants and contractors change the amount, scope
17 or types of coverages required in this Section if, in his or her sole opinion, the
18 amount, scope or types of coverages are not adequate.

19 H. The procuring or existence of insurance shall not be construed
20 or deemed as a limitation on liability relating to Consultant's performance or as full
21 performance of or compliance with the indemnification provisions of this Agreement.

22 6. ASSIGNMENT AND SUBCONTRACTING. This Agreement
23 contemplates the personal services of Consultant and Consultant's employees, and the
24 parties acknowledge that a substantial inducement to City for entering this Agreement was
25 and is the professional reputation and competence of Consultant and Consultant's
26 employees. Consultant shall not assign its rights or delegate its duties under this
27 Agreement, or any interest in this Agreement, or any portion of it, without the prior approval
28 of City, except that Consultant may with the prior approval of the City Manager of City,

1 assign any moneys due or to become due Consultant under this Agreement. Any
2 attempted assignment or delegation shall be void, and any assignee or delegate shall
3 acquire no right or interest by reason of an attempted assignment or delegation.
4 Furthermore, Consultant shall not subcontract any portion of its performance without the
5 prior approval of the City Manager or designee, or substitute an approved subconsultant
6 or contractor without approval prior to the substitution. Nothing stated in this Section shall
7 prevent Consultant from employing as many employees as Consultant deems necessary
8 for performance of this Agreement.

9 7. CONFLICT OF INTEREST. Consultant, by executing this Agreement,
10 certifies that, at the time Consultant executes this Agreement and for its duration,
11 Consultant does not and will not perform services for any other client which would create
12 a conflict, whether monetary or otherwise, as between the interests of City and the interests
13 of that other client. Consultant further certifies that Consultant does not now have and shall
14 not acquire any interest, direct or indirect, in the area covered by this Agreement or any
15 other source of income, interest in real property or investment which would be affected in
16 any manner or degree by the performance of Consultant's services hereunder. And,
17 Consultant shall obtain similar certifications from Consultant's employees, subconsultants
18 and contractors.

19 8. MATERIALS. Consultant shall furnish all labor and supervision,
20 supplies, materials, tools, machinery, equipment, appliances, transportation and services
21 necessary to or used in the performance of Consultant's obligations under this Agreement,
22 except as stated in Exhibit "D".

23 9. OWNERSHIP OF DATA. All materials, information and data
24 prepared, developed or assembled by Consultant or furnished to Consultant in connection
25 with this Agreement, including but not limited to documents, estimates, calculations,
26 studies, maps, graphs, charts, computer disks, computer source documentation, samples,
27 models, reports, summaries, drawings, designs, notes, plans, information, material and
28 memorandum ("Data") shall be the exclusive property of City. Data shall be given to City,

1 and City shall have the unrestricted right to use and disclose the Data in any manner and
2 for any purpose without payment of further compensation to Consultant. Copies of Data
3 may be retained by Consultant but Consultant warrants that Data shall not be made
4 available to any person or entity for use without the prior approval of City. This warranty
5 shall survive termination of this Agreement for five (5) years.

6 10. TERMINATION. Either party shall have the right to terminate this
7 Agreement for any reason or no reason at any time by giving fifteen (15) calendar days
8 prior written notice to the other party. In the event of termination under this Section, City
9 shall pay Consultant for services satisfactorily performed and costs incurred up to the
10 effective date of termination for which Consultant has not been previously paid. The
11 procedures for payment in Section 1.B. with regard to invoices shall apply. On the effective
12 date of termination, Consultant shall deliver to City all Data developed or accumulated in
13 the performance of this Agreement, whether in draft or final form, or in process. And,
14 Consultant acknowledges and agrees that City's obligation to make final payment is
15 conditioned on Consultant's delivery of the Data to City.

16 11. CONFIDENTIALITY. Consultant shall keep all Data confidential and
17 shall not disclose the Data or use the Data directly or indirectly, other than in the course of
18 performing its services, during the term of this Agreement and for five (5) years following
19 expiration or termination of this Agreement. In addition, Consultant shall keep confidential
20 all information, whether written, oral or visual, obtained by any means whatsoever in the
21 course of performing its services for the same period of time. Consultant shall not disclose
22 any or all of the Data to any third party, or use it for Consultant's own benefit or the benefit
23 of others except for the purpose of this Agreement.

24 12. BREACH OF CONFIDENTIALITY. Consultant shall not be liable for
25 a breach of confidentiality with respect to Data that: (a) Consultant demonstrates
26 Consultant knew prior to the time City disclosed it; or (b) is or becomes publicly available
27 without breach of this Agreement by Consultant; or (c) a third party who has a right to
28 disclose does so to Consultant without restrictions on further disclosure; or (d) must be

disclosed pursuant to subpoena or court order.

13. ADDITIONAL COSTS AND REDESIGN.

A. Any costs incurred by City due to Consultant's failure to meet the standards required by the scope of work or Consultant's failure to perform fully the tasks described in the scope of work which, in either case, causes City to request that Consultant perform again all or part of the Scope of Work shall be at the sole cost of Consultant and City shall not pay any additional compensation to Consultant for its re-performance.

B. If the Project involves construction and the scope of work requires Consultant to prepare plans and specifications with an estimate of the cost of construction, then Consultant may be required to modify the plans and specifications, any construction documents relating to the plans and specifications, and Consultant's estimate, at no cost to City, when the lowest bid for construction received by City exceeds by more than ten percent (10%) Consultant's estimate. This modification shall be submitted in a timely fashion to allow City to receive new bids within four (4) months after the date on which the original plans and specifications were submitted by Consultant.

14. AMENDMENT. This Agreement, including all Exhibits, shall not be amended, nor any provision or breach waived, except in writing signed by the parties which expressly refers to this Agreement.

15. LAW. This Agreement shall be construed in accordance with the laws of the State of California, and the venue for any legal actions brought by any party with respect to this Agreement shall be the County of Los Angeles, State of California for state actions and the Central District of California for any federal actions. Consultant shall cause all work performed in connection with construction of the Project to be performed in compliance with (1) all applicable laws, ordinances, rules and regulations of federal, state, county or municipal governments or agencies (including, without limitation, all applicable federal and state labor standards, including the prevailing wage provisions of sections 1770

1 *et seq.* of the California Labor Code); and (2) all directions, rules and regulations of any fire
2 marshal, health officer, building inspector, or other officer of every governmental agency
3 now having or hereafter acquiring jurisdiction.

4 16. PREVAILING WAGES.

5 A. Consultant agrees that all public work (as defined in California
6 Labor Code section 1720) performed pursuant to this Agreement (the "Public
7 Work"), if any, shall comply with the requirements of California Labor Code sections
8 1770 *et seq.* City makes no representation or statement that the Project, or any
9 portion thereof, is or is not a "public work" as defined in California Labor Code
10 section 1720.

11 B. In all bid specifications, contracts and subcontracts for any
12 such Public Work, Consultant shall obtain the general prevailing rate of per diem
13 wages and the general prevailing rate for holiday and overtime work in this locality
14 for each craft, classification or type of worker needed to perform the Public Work,
15 and shall include such rates in the bid specifications, contract or subcontract. Such
16 bid specifications, contract or subcontract must contain the following provision: "It
17 shall be mandatory for the contractor to pay not less than the said prevailing rate of
18 wages to all workers employed by the contractor in the execution of this contract.
19 The contractor expressly agrees to comply with the penalty provisions of California
20 Labor Code section 1775 and the payroll record keeping requirements of California
21 Labor Code section 1771."

22 17. ENTIRE AGREEMENT. This Agreement, including all Exhibits,
23 constitutes the entire understanding between the parties and supersedes all other
24 agreements, oral or written, with respect to the subject matter in this Agreement.

25 18. INDEMNITY.

26 A. Consultant shall indemnify, protect and hold harmless City, its
27 Boards, Commissions, and their officials, employees and agents ("Indemnified
28 Parties"), from and against any and all liability, claims, demands, damage, loss,

obligations, causes of action, proceedings, awards, fines, judgments, penalties, costs and expenses, arising or alleged to have arisen, in whole or in part, out of or in connection with (1) Consultant's breach or failure to comply with any of its obligations contained in this Agreement, including any obligations arising from the Project's compliance with or failure to comply with applicable laws, including all applicable federal and state labor requirements including, without limitation, the requirements of California Labor Code section 1770 *et seq.* or (2) negligent or willful acts, errors, omissions or misrepresentations committed by Consultant, its officers, employees, agents, subcontractors, or anyone under Consultant's control, in the performance of work or services under this Agreement (collectively "Claims" or individually "Claim").

B. In addition to Consultant's duty to indemnify, Consultant shall have a separate and wholly independent duty to defend Indemnified Parties at Consultant's expense by legal counsel approved by City, from and against all Claims, and shall continue this defense until the Claims are resolved, whether by settlement, judgment or otherwise. No finding or judgment of negligence, fault, breach, or the like on the part of Consultant shall be required for the duty to defend to arise. City shall notify Consultant of any Claim, shall tender the defense of the Claim to Consultant, and shall assist Consultant, as may be reasonably requested, in the defense.

C. If a court of competent jurisdiction determines that a Claim was caused by the sole negligence or willful misconduct of Indemnified Parties, Consultant's costs of defense and indemnity shall be (1) reimbursed in full if the court determines sole negligence by the Indemnified Parties, or (2) reduced by the percentage of willful misconduct attributed by the court to the Indemnified Parties.

D. The provisions of this Section shall survive the expiration or termination of this Agreement.

19. AMBIGUITY. In the event of any conflict or ambiguity between this

1 Agreement and any Exhibit, the provisions of this Agreement shall govern.

2 20. NONDISCRIMINATION.

3 A. In connection with performance of this Agreement and subject
4 to applicable rules and regulations, Consultant shall not discriminate against any
5 employee or applicant for employment because of race, religion, national origin,
6 color, age, sex, sexual orientation, gender identity, AIDS, HIV status, handicap or
7 disability. Consultant shall ensure that applicants are employed, and that
8 employees are treated during their employment, without regard to these bases.
9 These actions shall include, but not be limited to, the following: employment,
10 upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or
11 termination; rates of pay or other forms of compensation; and selection for training,
12 including apprenticeship.

13 B. It is the policy of City to encourage the participation of
14 Disadvantaged, Minority and Women-Owned Business Enterprises in City's
15 procurement process, and Consultant agrees to use its best efforts to carry out this
16 policy in its use of subconsultants and contractors to the fullest extent consistent
17 with the efficient performance of this Agreement. Consultant may rely on written
18 representations by subconsultants and contractors regarding their status.
19 Consultant shall report to City in May and in December or, in the case of short-term
20 agreements, prior to invoicing for final payment, the names of all subconsultants
21 and contractors hired by Consultant for this Project and information on whether or
22 not they are a Disadvantaged, Minority or Women-Owned Business Enterprise, as
23 defined in Section 8 of the Small Business Act (15 U.S.C. Sec. 637).

24 21. EQUAL BENEFITS ORDINANCE. Unless otherwise exempted in
25 accordance with the provisions of the Ordinance, this Agreement is subject to the
26 applicable provisions of the Equal Benefits Ordinance (EBO), section 2.73 et seq. of the
27 Long Beach Municipal Code, as amended from time to time.

28 A. During the performance of this Agreement, the Consultant

1 certifies and represents that the Consultant will comply with the EBO. The
2 Consultant agrees to post the following statement in conspicuous places at its place
3 of business available to employees and applicants for employment:

4 "During the performance of a contract with the City of Long Beach, the
5 Consultant will provide equal benefits to employees with spouses and its
6 employees with domestic partners. Additional information about the City of
7 Long Beach's Equal Benefits Ordinance may be obtained from the City of
8 Long Beach Business Services Division at 562-570-6200."

9 B. The failure of the Consultant to comply with the EBO will be
10 deemed to be a material breach of the Agreement by the City.

11 C. If the Consultant fails to comply with the EBO, the City may
12 cancel, terminate or suspend the Agreement, in whole or in part, and monies due or
13 to become due under the Agreement may be retained by the City. The City may
14 also pursue any and all other remedies at law or in equity for any breach.

15 D. Failure to comply with the EBO may be used as evidence
16 against the Consultant in actions taken pursuant to the provisions of Long Beach
17 Municipal Code 2.93 et seq., Contractor Responsibility.

18 E. If the City determines that the Consultant has set up or used its
19 contracting entity for the purpose of evading the intent of the EBO, the City may
20 terminate the Agreement on behalf of the City. Violation of this provision may be
21 used as evidence against the Consultant in actions taken pursuant to the provisions
22 of Long Beach Municipal Code Section 2.93 et seq., Contractor Responsibility.

23 22. NOTICES. Any notice or approval required by this Agreement shall
24 be in writing and personally delivered or deposited in the U.S. Postal Service, first class,
25 postage prepaid, addressed to Consultant at the address first stated above, and to City at
26 411 West Ocean Boulevard, Long Beach, California 90802, Attn: City Manager, with a copy
27 to the City Engineer at the same address. Notice of change of address shall be given in
28 the same manner as stated for other notices. Notice shall be deemed given on the date

1 deposited in the mail or on the date personal delivery is made, whichever occurs first.

2 23. COPYRIGHTS AND PATENT RIGHTS.

3 A. Consultant shall place the following copyright protection on all
4 Data: © City of Long Beach, California ____, inserting the appropriate year.

5 B. City reserves the exclusive right to seek and obtain a patent or
6 copyright registration on any Data or other result arising from Consultant's
7 performance of this Agreement. By executing this Agreement, Consultant assigns
8 any ownership interest Consultant may have in the Data to City.

9 C. Consultant warrants that the Data does not violate or infringe
10 any patent, copyright, trade secret or other proprietary right of any other party.
11 Consultant agrees to and shall protect, defend, indemnify and hold City, its officials
12 and employees harmless from any and all claims, demands, damages, loss, liability,
13 causes of action, costs or expenses (including reasonable attorney's fees) whether
14 or not reduced to judgment, arising from any breach or alleged breach of this
15 warranty.

16 24. COVENANT AGAINST CONTINGENT FEES. Consultant warrants
17 that Consultant has not employed or retained any entity or person to solicit or obtain this
18 Agreement and that Consultant has not paid or agreed to pay any entity or person any fee,
19 commission or other monies based on or from the award of this Agreement. If Consultant
20 breaches this warranty, City shall have the right to terminate this Agreement immediately
21 notwithstanding the provisions of Section 10 or, in its discretion, to deduct from payments
22 due under this Agreement or otherwise recover the full amount of the fee, commission or
23 other monies.

24 25. WAIVER. The acceptance of any services or the payment of any
25 money by City shall not operate as a waiver of any provision of this Agreement or of any
26 right to damages or indemnity stated in this Agreement. The waiver of any breach of this
27 Agreement shall not constitute a waiver of any other or subsequent breach of this
28 Agreement.

26. CONTINUATION. Termination or expiration of this Agreement shall not affect rights or liabilities of the parties which accrued pursuant to Sections 7, 10, 11, 17, 19, 22 and 28 prior to termination or expiration of this Agreement.

27. TAX REPORTING. As required by federal and state law, City is obligated to and will report the payment of compensation to Consultant on Form 1099-Misc. Consultant shall be solely responsible for payment of all federal and state taxes resulting from payments under this Agreement. Consultant shall submit Consultant's Employer Identification Number (EIN), or Consultant's Social Security Number if Consultant does not have an EIN, in writing to City's Accounts Payable, Department of Financial Management. Consultant acknowledges and agrees that City has no obligation to pay Consultant until Consultant provides one of these numbers.

28. ADVERTISING. Consultant shall not use the name of City, its officials or employees in any advertising or solicitation for business or as a reference, without the prior approval of the City Manager or designee.

29. AUDIT. City shall have the right at all reasonable times during the term of this Agreement and for a period of five (5) years after termination or expiration of this Agreement to examine, audit, inspect, review, extract information from and copy all books, records, accounts and other documents of Consultant relating to this Agreement.

30. THIRD PARTY BENEFICIARY. This Agreement is not intended or designed to or entered for the purpose of creating any benefit or right for any person or entity of any kind that is not a party to this Agreement.

IN WITNESS WHEREOF, the parties have caused this document to be duly executed with all formalities required by law as of the date first stated above.

(NAME OF CONSULTANT)

_____, 20__

By _____
Name _____
Title _____

_____, 20__

By _____

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Name _____
Title _____

"Consultant"

CITY OF LONG BEACH, a municipal
corporation

_____, 20____ By _____
City Manager

"City"

This Agreement is approved as to form on _____, 20____.

CHARLES PARKIN, City Attorney

By _____
Deputy



City of Long Beach
Purchasing Division
411 West Ocean Boulevard, 6th Floor
Long Beach, CA 90802

Attachment C

Statement of Non-collusion

The proposal is submitted as a firm and fixed request valid and open for 90 days from the submission deadline.

This proposal is genuine, and not sham or collusive, nor made in the interest or in behalf of any person not herein named; the proposer has not directly or indirectly induced or solicited any other proposer to put in a sham proposal and the proposer has not in any manner sought by collusion to secure for himself or herself an advantage over any other proposer.

In addition, this organization and its members are not now and will not in the future be engaged in any activity resulting in a conflict of interest, real or apparent, in the selection, award, or administration of a subcontract.

Authorized signature and date

Print Name & Title



City of Long Beach
Purchasing Division
411 West Ocean Boulevard, 6th Floor
Long Beach, CA 90802

Attachment D

Debarment, Suspension, Ineligibility and Voluntary Exclusion Certification

Please read Acceptance of Certification and Instructions for Certification before completing

As a current or potential vendor for the City of Long Beach (City) your firm, through its business relationship with the City, may be the recipient of federal grant funds. As such, the City is required to document that neither your business entity or organization, nor any of your principals are debarred, suspended, ineligible, or have voluntarily been excluded from receiving federal grant funds. Consistent with Executive Order No. 12549 Title 2 CFR Part 180 Subpart C, all potential recipients of federal grant funds are required to comply with the requirements specified below. By submission of proposal/bid/agreement, the undersigned, under penalty of perjury, certifies that the participant, nor any of its principals in the capacity of owner, director, partner, officer, manager, or other person with substantial influence in the development or outcome of a covered transaction, whether or not employed by the participant:

- Are not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any Federal department or agency;
- Have not, within a three (3) year period preceding this bid/agreement/proposal, been suspended, debarred, voluntarily excluded or declared ineligible by a federal agency;
- Do not presently have a proposed debarment proceeding pending;
- Have not, within a three (3) year period preceding this bid/agreement/proposal, been indicted or convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct;
- Have not, within a three (3) year period preceding this bid/agreement/proposal, had one or more public transactions (Federal, State, or local) terminated for cause or default.

If reorganization, management turnover, or a shift or change of principals' status occurs, written notice must be submitted within 21 days. Subsequent disclosure of unfavorable information will be subject to thorough review and remedial action. Updated versions of this certification may be requested on a routine basis.

Where the potential prospective recipient of Federal assistance funds is unable to certify to any of the statement in this certification, such prospective participant shall attach an explanation to the applicable bid/agreement/proposal.

Business/Contractor/Agency

Name of Authorized Representative

Title of Authorized Representative

Signature of Authorized Representative

Date

r20141001



City of Long Beach
Purchasing Division
411 West Ocean Boulevard, 6th Floor
Long Beach, CA 90802

Acceptance of Certification

1. This bid/agreement/proposal or like document has the potential to be a recipient of Federal funds. In order to be in compliance with Code of Federal Regulations, the City requires this completed form. By signing and submitting this document, the prospective bidder/proposer is providing the certification and acknowledgement as follows:
2. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549.
3. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective recipient of Federal assistance funds knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
4. The potential recipient of Federal assistance funds agrees by submitting this bid/agreement/proposal or like document that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

Instructions for completing the form, Attachment –Debarment Certification

1. The City of Long Beach sometimes receives Federal funding on certain purchases/projects. To ensure that the City is in compliance with Federal regulations we require this form to be completed.
2. The City of Long Beach checks the System for Award Management at www.sam.gov to make sure that Contractors who are awarded City contracts and/or purchase orders are not debarred or suspended. Prospective contractors should perform a search on this website for your company and or persons associated with your business.
3. If your business is in compliance with the conditions in the form, please have the appropriate person complete and sign this form and return with your bid/proposal/agreement.
4. If at any time, your business or persons associated with your business become debarred or suspended, we require that you inform us of this change in status.
5. If there are any exceptions to the certification, please include an attachment. Exceptions will not necessarily result in denial of award, but will be considered in determining bidder responsibility. For any exception, indicate to whom it applies, initiating agency and dates of action.
6. Note: Providing false information may result in criminal prosecution or administrative sanctions.

***If you have any questions on how to complete this form, please contact the
Purchasing Division in the City of Long Beach Business Services Bureau at 562-570-6200.***

Rev 12.11.13



City of Long Beach
Purchasing Division
411 West Ocean Boulevard, 6th Floor
Long Beach, CA 90802

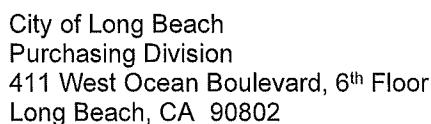
Attachment E

W-9 Request for Taxpayer Identification Number and Certification

[W-9 Form must be signed and dated.]

[Form-Fillable PDF available at <http://www.irs.gov/pub/irs-pdf/fw9.pdf>]

[Vendor Application Form is for internal City use only.]

Form **W-9** (Rev. 12-2014)



City of Long Beach
Purchasing Division
411 West Ocean Boulevard, 6th Floor
Long Beach, CA 90802

VENDOR APPLICATION FORM

| | |
|---|--|
| Company Name (same as line 1 on W9): | |
| DBA Name (same as line 2 on W9): | |
| Federal Tax ID Number (or SSN): | required (this number is a fed tax ID: <input type="radio"/> leave blank if not applicable SSN: <input type="radio"/> |
| Web Address: | |
| Purchase Order Address: | |
| Attn: | |
| City: | |
| State: | Zip Code: |
| Contact Name: | |
| Email: | |
| Phone Number: | |
| Fax: | |
| Toll Free: | |
| If 'remit to' address is the same as the purchase order address, put SAME in first box only | |
| 'Remit to' Address : | |
| Attn: | |
| City: | |
| State: | Zip Code: |
| Contact Name: | |
| Email: | |
| Phone Number: | |
| Fax: | |
| Toll Free: | |

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|---|-----------------------------------|-----------------------------------|---------------------------|-------------------------------------|---------------------------------------|
| Type of Ownership: | | | | | |
| Individual <input type="radio"/> | Partnership <input type="radio"/> | Corporation <input type="radio"/> | LLC <input type="radio"/> | Nonprofit <input type="radio"/> | Government <input type="radio"/> |
| Composition of Ownership (at least 51% of ownership of the organization) (check all that apply) | | | | | |
| MBE <input type="radio"/> | WBE <input type="radio"/> | Local <input type="radio"/> | DBE <input type="radio"/> | Certified SBE <input type="radio"/> | Certified Micro <input type="radio"/> |
| State certification number: | | | | | |



City of Long Beach
Purchasing Division
411 West Ocean Boulevard, 6th Floor
Long Beach, CA 90802

Attachment F

Secretary of State Certification

Please provide print out showing your business is registered with the California Secretary of State.

(Note, individual and sole proprietor companies are not required to register)

Awarded vendors/contractors must be registered with the California Secretary of State prior to contract execution. For more information, please consult:

www.kepler.sos.ca.gov/

The screenshot shows the California Secretary of State's Business Search website. The browser address bar displays "http://kepler.sos.ca.gov/". The page header includes the California Secretary of State's name, Alex Padilla, and a navigation menu with links such as "Business Programs", "Notary & Authentications", "Elections", "Campaign & Lobbying", "State Archives", and "Registries". The main content area is titled "Business Search" and provides instructions on how to use the search tool. It includes a search type selector (Corporation Name, Limited Liability Company/Limited Partnership Name, Entity Number) and a search button. A disclaimer at the bottom states that the tool is for informational purposes only and does not constitute a legal opinion.

California Secretary of State Alex Padilla

Business Search

This search provides access to domestic stock, domestic nonprofit and qualified foreign corporations, limited liability company and limited partnership information of record with the California Secretary of State. For additional information about entity addresses and the names and addresses of the principals of the entity, order a copy of the last complete Statement of Information (for corporations and limited liability companies) or formation and amendment documents (for limited partnerships). For information on ordering certificates, copies of documents and/or status reports or to request a more extensive search, refer to [Information Requests](#).

Please note: This search is not intended to serve as a name availability search. For information on checking or reserving a name, refer to [Name Availability](#).

To conduct a search:

- Select the applicable search type.
- Enter the entity name or number you wish to search. Note: If entering the entity number of a corporation, the number must begin with the letter C.
- Select the Search button.
- For help with searching an entity name or number, refer to [Search Tips](#).

Search Type:

☐ Corporation Name ☐ Limited Liability Company/Limited Partnership Name ☐ Entity Number

Entity Name or Number:

Disclaimer: This tool allows you to search the Secretary of State's California Business Search database for abstracts of information for domestic stock, domestic nonprofit and qualified foreign corporations, limited liability companies and limited partnerships that have filed with this office. This search tool groups corporations separately from limited liability companies and limited partnerships and returns all entities for the search criteria in the respective groups regardless of the current status.

Although every attempt has been made to ensure that the information contained in the database is accurate, the Secretary of State's office is not responsible for any loss, consequence, or damage resulting directly or indirectly from reliance on the accuracy, reliability, or timeliness of the information that is provided. All such information is provided "as is." For information on ordering copies of the official business entity records for a particular entity, please refer to [Information Requests](#).

ATTACHMENT G

INSURANCE REQUIREMENTS



City of Long Beach
Purchasing Division
411 W. Ocean Blvd 6th Floor
Long Beach, CA 90802

INSURANCE REQUIREMENTS

INSURANCE. As a condition precedent to the effectiveness of this Agreement, Contractor shall procure and maintain at Contractor's expense for the duration of this Agreement from an insurance company that is admitted to write insurance in the State of California or that has a rating of or equivalent to an A:VIII by A.M. Best and Company the following insurance:

- Successful bidder shall obtain and maintain at its expense until completion of performance and acceptance by the City, from an insurer:
 - Admitted (Licensed) in the State of California with a current financial responsibility rating of an Excellent or better and a current financial size category (FSC) of V (Capital Surplus and Conditional Surplus Funds of greater than \$10 million) or greater rating as reported by AM Best Company or equivalent, unless waived in writing by the City's Risk Manager, or
 - Non-admitted in the State of California with a current financial responsibility rating of an Excellent or better and a current financial size category (FSC) of VIII (Capital Surplus Funds or greater than \$100 million) or greater rating as reported by AM Best Company or equivalent, unless waived in writing by City's Risk Manager.
- Commercial general liability insurance equivalent in coverage scope to ISO CG 00 01 10 93 naming the **City of Long Beach and its Boards, officials, employees, and agents** as additional insureds on a form equivalent in coverage scope to ISO CG 20 10 11 85 from and against claims, demands, causes of action, expenses, costs, or liability for injury to or death of persons, or damage to or loss of property arising out activities performed by or on behalf of the Contractor in an amount not less than One Million Dollars (US \$1,000,000) per occurrence and Two Million Dollars (US \$2,000,000) in general aggregate. Such insurance shall not exclude XCU (explosion, underground, and collapse) perils, sudden and accidental pollution and cleanup liability, or mobile equipment.
- Workers' compensation coverage as required by the Labor Code of the State of California, endorsed, as applicable, to include United States Longshoremen and Harbor Workers' Compensation Act coverage and Jones' Act coverage, and Employer's liability insurance with minimum limits of One Million Dollars (US \$1,000,000) per accident or occupational illness. The policy shall be endorsed with a waiver of the Contractor's and its insurer's right of subrogation against the **City of Long Beach and its Boards, officials, employees, and agents**.
- Commercial automobile liability insurance equivalent in coverage scope to ISO CA 00 01 06 92 in an amount not less than One Million Dollars (US \$1,000,000) combined single limit (CSL) covering Symbol 1 ("any auto").
- Excess liability insurance on a following form basis insurance in excess of the coverage provided by (a), including additional insured coverage for (a) only, in an amount not less than Four Million Dollars (\$4,000,000) per claim and in aggregate.



City of Long Beach
Purchasing Division
411 W. Ocean Blvd 6th Floor
Long Beach, CA 90802

- If Contract involves use of watercraft, Watercraft Liability Insurance as follows:
 - The Contractor shall procure and maintain during the term of this Contract, at its own expense, watercraft liability coverage with either Marine Liability, Protection & Indemnity Coverage, or the Boats Endorsement 24 12 11 85, or comparable endorsement, on the General Liability Coverage:
- Limit of Insurance: \$1,000,000 Per Occurrence/Annual Aggregate Policy shall be endorsed with a Waiver of Subrogation Endorsement and an Additional Insured Endorsement naming the **City of Long Beach and its Boards, officials, employees, and agents** as additional insureds.
- If Contract involves rigging,, Riggers Liability Insurance as follows:
 - Riggers Liability Insurance, either by separate policy or endorsement on the General Liability Policy. With a Rigger's Liability Limit of at least \$2,000,000 Per Occurrence
- Any self-insurance program or self-insurance retention must be approved separately in writing by City and shall protect **City of Long Beach, its Boards, and their officials, employees, and agents** in the same manner and to the same extent as they would have been protected had the policy or policies not contained retention provisions. Each insurance policy shall be endorsed to state that coverage shall not be suspended, voided, or canceled by either party except after twenty (20) days prior written notice to City, and shall be primary and not contributing to any other insurance or self-insurance maintained by City.
- *Any subcontractors which Contractor may use in the performance of this Agreement shall be required to indemnify the City to the same extent as the Contractor and to maintain insurance in compliance with the provisions of this section.*
- Contractor shall maintain at its expense, until completion of performance and acceptance by City, from an insurer:
 - Admitted (licensed) in the State of California with a current financial responsibility rating of A (Excellent) or better and a current financial size category (FSC) of V (capital surplus and conditional surplus funds of greater than \$10 million) or greater rating as reported by A.M. Best Company or equivalent, unless waived in writing by City's Risk Manager, or
 - Non-admitted in the State of California with a current financial responsibility rating of A (Excellent) or better and a current financial size category (FSC) of VIII (capital surplus and conditional surplus funds of greater than \$100 million) or greater rating as reported by A.M. Best Company or equivalent, unless waived in writing by the City's Risk Manager.
- All coverages for Subcontractors shall be subject to the requirements stated herein and shall be maintained at no expense to the City.
- Contractor shall deliver to City certificates of insurance and original endorsements for approval as to sufficiency and form prior to the start of performance hereunder. The certificates and



City of Long Beach
Purchasing Division
411 w. Ocean Blvd 6th Floor
Long Beach, CA 90802

endorsements for each insurance policy shall contain the original signature of a person authorized by that insurer to bind coverage on its behalf.

- Before any of Contractor's or Subcontractor's employees shall do any work on the City's property, Contractor shall furnish the City with the required certificates evidencing that such insurance is being maintained. Such certificates shall specify the date when such insurance expires. Such insurance shall be maintained until after the Work under the Contract has been completed and accepted.
- "Claims-made" policies are not acceptable unless City Risk Manager determines that "Occurrence" policies are not available in the market for the risk being insured. In a "Claims-made" policy is accepted, it must provide for an extended reporting period of not less than three (3) years.
- City reserves the right to require complete certified copies of all said policies at any time. Any modification or waiver of the insurance requirements herein shall be made only with the approval of City Risk Manager. The procuring of insurance shall not be construed as a limitation on liability or as full performance of the indemnification provisions of this Agreement.
- Such insurance as required herein or in any other documents to be considered a part hereof shall not be deemed to limit Contractor's liability under this agreement.
- Contractor shall defend, indemnify and hold harmless the City, its officials and employees from and against any and all liability for claims for bodily injury and property damage arising out of negligent acts, omissions or errors of any employee of Contractor at the Site.
- Contractor shall list the name and location of the place of business of each Subcontractor who will perform work, labor or services for Contractor, or who specially fabricates and installs a portion of the Work or improvement in an amount in excess of one-half of one percent of Contractor's total contract cost. The Subcontractor list shall be submitted with Contractor's Bid.

By submitting a signature below, Bidder promises that insurance requirements can be provided as requested.

| | | | |
|---------------|-------|--------|-------|
| Printed Name: | _____ | Title: | _____ |
| Signature: | _____ | Date: | _____ |

ATTACHMENT H

EQUAL BENEFITS ORDINANCE (EBO) FORM

EQUAL BENEFITS ORDINANCE DISCLOSURE FORM

As a condition of being awarded a contract with the City of Long Beach ("City"), the selected Contractor/Vendor ("Contractor") may be required during the performance of the Contract, to comply with the City's nondiscrimination provisions of the Equal Benefits Ordinance ("EBO") set forth in the Long Beach Municipal Code section 2.73 et seq. The EBO requires that during the performance of the contract, the Contractor shall provide equal benefits to its employees with spouses and employees with domestic partners. Benefits include but are not limited to, health benefits, bereavement leave, family medical leave, membership and membership discounts, moving expenses, retirement benefits and travel benefits. A cash equivalent payment is permitted if an employer has made all reasonable efforts to provide domestic partners with access to benefits but is unable to do so. A situation in which a cash equivalent payment might be used if where the employer has difficulty finding an insurance provider that is willing to provide domestic partner benefits.

The EBO is applicable to the following employers:

- For-profit employers that have a contract with the City for the purchase of goods, services, public works or improvements and other construction projects in the amount of \$100,000 or more
- For-profit entities that generate \$350,000 or more in annual gross receipts leasing City property pursuant to a written agreement for a term exceeding 29 days in any calendar year

Contractors who are subject to the EBO must certify to the City before execution of the contract that they are in compliance with the EBO by completing the EBO Certification Form, attached, or that they have been issued a waiver by the City. Contractors must also allow authorized City representatives access to records so the City can verify compliance with the EBO.

The EBO includes provisions that address difficulties associated with implementing procedures to comply with the EBO. Contractors can delay implementation of procedures to comply with the EBO in the following circumstances

- 1) By the first effective date after the first open enrollment process following the contract start date, not to exceed two years, if the Contractor/vendor submits evidence of taking reasonable measures to comply with the EBO; or
- 2) At such time that the administrative steps can be taken to incorporate nondiscrimination in benefits in the Contractor/vendor's infrastructure, not to exceed three months; or
- 3) Upon expiration of the contractor's current collective bargaining agreement(s).

Compliance with the EBO

If a contractor has not received a waiver from complying with the EBO and the timeframe within which it can delay implementation has expired but it has failed to comply with the EBO, the

Contractor may be deemed to be in material breach of the Contract. In the event of a material breach, the City may cancel, terminate or suspend the City agreement, in whole or in part. The City also may deem the Contractor an irresponsible bidder and disqualify the Contractor from contracting with the City for a period of three years. In addition, the City may assess liquidated damages against the Contractor which may be deducted from money otherwise due the Contractor. The City may also pursue any other remedies available at law or in equity.

By my signature below, I acknowledge that the Contractor understands that to the extent it is subject to the provisions of the Long Beach Municipal Code section 2.73, the Contractor shall comply with this provision.

Printed Name: _____ Title: _____

Signature: _____ Date: _____

Business Entity Name: _____

**CERTIFICATION OF COMPLIANCE WITH THE
EQUAL BENEFITS ORDINANCE**

Section 1. CONTRACTOR/VENDOR INFORMATION

Name: _____ Federal Tax ID No. _____
Address: _____
City: _____ State: _____ ZIP: _____
Contact Person: _____ Telephone: _____
Email: _____ Fax: _____

Section 2. COMPLIANCE QUESTIONS

- A. The EBO is inapplicable to this Contract because the Contractor/Vendor has no employees. _____ Yes _____ No
- B. Does your company provide (or make available at the employees' expense) any employee benefits? _____ Yes _____ No
(If "yes," proceed to Question C. If "no," proceed to section 5, as the EBO does not apply to you.)
- C. Does your company provide (or make available at the employees' expense) any benefits to the spouse of an employee?
_____ Yes _____ No
- D. Does your company provide (or make available at the employees' expense) any benefits to the domestic partner of an employee?
_____ Yes _____ No (If you answered "no" to both questions C and D, proceed to section 5, as the EBO is not applicable to this contract. If you answered "yes" to both Questions C and D, please continue to Question E. If you answered "yes" to Question C and "no" to Question D, please continue to section 3.)
- E. Are the benefits that are available to the spouse of an employee identical to the benefits that are available to the domestic partner of an employee? _____ Yes _____ No
(If "yes," proceed to section 4, as you are in compliance with the EBO. If "no," continue to section 3.)

Section 3. PROVISIONAL COMPLIANCE

- A. Contractor/vendor is not in compliance with the EBO now but will comply by the following date:
- _____ By the first effective date after the first open enrollment process following the contract start date, not to exceed two years, if the Contractor/vendor submits evidence of taking reasonable measures to comply with the EBO; or
- _____ At such time that the administrative steps can be taken to incorporate nondiscrimination in benefits in the Contractor/vendor's infrastructure, not to exceed three months; or

_____ Upon expiration of the contractor's current collective bargaining agreement(s).

- B. If you have taken all reasonable measures to comply with the EBO but are unable to do so, do you agree to provide employees with a cash equivalent? (The cash equivalent is the amount of money your company pays for spousal benefits that are unavailable for domestic partners.)

_____ Yes _____ No

Section 4. REQUIRED DOCUMENTATION

At time of issuance of purchase order or contract award, you may be required by the City to provide documentation (copy of employee handbook, eligibility statement from your plans, insurance provider statement, etc.) to verify that you do not discriminate in the provision of benefits.

Section 5. CERTIFICATION

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that I am authorized to bind this entity contractually. By signing this certification, I further agree to comply with all additional obligations of the Equal Benefits Ordinance that are set forth in the Long Beach Municipal Code and in the terms of the contract of purchase order with the City.

Executed this _____ day of _____, 20____, at _____,

Name _____ Signature _____

Title _____ Federal Tax ID No. _____

ATTACHMENT I
REFERENCE LIST



City of Long Beach
Purchasing Division
411 W Ocean Blvd/6th Floor
Long Beach CA 90802

Reference Information Form

Client/Contractor Name _____

Project Manager/Contact Name _____ E-mail _____ Ph. No. _____

Address _____

Project Description _____

Project Dates (Start and End) _____ Contract Term(s) _____ Contract Amount _____

Client/Contractor Name _____

Project Manager/Contact Name _____ E-mail _____ Ph. No. _____

Address _____

Project Description _____

Project Dates (Start and End) _____ Contract Term(s) _____ Contract Amount _____

Client/Contractor Name _____

Project Manager/Contact Name _____ E-mail _____ Ph. No. _____

Address _____

Project Description _____

Project Dates (Start and End) _____ Contract Term(s) _____ Contract Amount _____

Client/Contractor Name _____

Project Manager/Contact Name _____ E-mail _____ Ph. No. _____

Address _____

Project Description _____

Project Dates (Start and End) _____ Contract Term(s) _____ Contract Amount _____

Client/Contractor Name _____

Project Manager/Contact Name _____ E-mail _____ Ph. No. _____

Address _____

Project Description _____

Project Dates (Start and End) _____ Contract Term(s) _____ Contract Amount _____



City of Long Beach
Fire Boat CBRN Detection and Telemetry Equipment

RFP No. FD21-060

HDT Response Number: 20210726

NARRATIVE / TECHNICAL PROPOSAL

To:
City of Long Beach
Purchasing Division
411 West Ocean Boulevard,
6th Floor
Long Beach, CA 90802

James Vazquez, Buyer
(562) 570-5384



HDT Expeditionary Systems, Inc.
30500 Aurora Road, Suite 100
Solon, OH 44139
CAGE Code: 92878
DUNS: 079176894
Large Business

26 July 2021

This response includes data that shall not be disclosed outside the City of Long Beach and shall not be duplicated, used, or disclosed -- in whole or in part -- for any purpose other than to evaluate this response for information. If, however, a contract is awarded to this offeror as a result of -- or in connection with -- the submission of this data, the City of Long Beach shall have the right to duplicate, use, or disclose the data to the extent provided in the resulting contract. This restriction does not limit the City's right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction are contained in all pages of this response.

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1.0 Project Overview

HDT Expeditionary Systems, Inc. (HDT) has prepared this proposal to identify and describe our approach for providing the City of Long Beach and the LBFD the most effective and reliable Chemical, Biological, Radiological and Nuclear (CBRN) detection, identification and telemetry system that meets all of the RFP requirements for Fire Boat (FB)15 "Vigilance" and Fire Boat (FB)20 "Protector". HDT will use our world-renowned staff of CBRN detection and identification and CBRN protection Subject Matter Experts (SMEs) to perform the necessary detailed risk-based Threat and Vulnerability Protection Assessments (TVPAs), engineering, design, installation, integration, Testing & Commissioning (T&C) and comprehensive, turnkey project implementation related services, on a per vessel basis, meeting every requirement of the RFP.

As will be detailed in the following sections, HDT utilizes a detection manufacturer-agnostic and vendor-agnostic approach, based on several hundred previous applications and the information developed and received to date. We will be using only "marine-hardened" detection and identification equipment to deliver the most effective and reliable performance, with the highest Protection Factor (PF) achievable, to maximize situational awareness and the detection and identification related protection provided for your personnel in the most cost-effective manner. HDT staff have several decades of experience in this highly specialized area. We plan to deliver comprehensive, turnkey project services utilizing the services of your local Al Larson Boat Shop (ALBS) who performs the normal shipyard maintenance related services for these very vessels, to install the systems and ensure the highest quality results. We have also been working with the Al Larson Boat Shop (ALBS), who performs the normal shipyard maintenance related services for these very vessels, to finalize their quotation to us for the necessary work, but due to the compressed schedule between the time of the 06 July 21 site walkdown and the proposal due date, ALBS has not been able to complete their quotation to us. As a result, we have included in our proposal submission the HDT estimate for completing the necessary work utilizing all HDT personnel or a combination of HDT and ALBS personnel depending upon the details of the finalized ALBS quotation to HDT. So either way, we are covered with respect to the work that needs to be completed.

2.0 Scope of Project {Section 3}

HDT has a team of personnel highly experienced in CBRN-focused risk-based TVPA, engineering, integrated systems design and turnkey project implementation. Several of our SMEs have more than 30 years of experience each, and several others have more than 20 years each, with the total experience required for these types of systems spanning more than a combined 150 years. Experience includes:

- risk-based assessment
- engineering
- design
- construction

- installation
- integration
- T&C
- operations
- maintenance
- Concept of Operations (ConOps) developmental assistance
- training
- lifecycle sustainment

And, the design and manufacture of the CBRN filtration for your vessels, as well as the upcoming scheduled maintenance for the systems.

We have performed a preliminary risk-based TVPA focused evaluation of your vessel applications based on the information that has been made available to date, coupled with the observations made and discussions during the 06 July 2021 walkdown. We have combined this information with our more than 30 years of experience in this field to prepare this proposal response to provide the most effective and reliable CBRN detection and identification system available in the world today. From a truly vendor-neutral, risk-based TVPA perspective, this proposal meets all of the RFP requirements.

Based on the answers to the questions submitted, the receipt of additional information, and based on the completion of the detailed risk-based TVPA to be completed post-award, desired, necessary and appropriate adjustments to the proposed integrated systems design can easily be made following the completion of the detailed assessment, analysis of the results and conversations with your staff regarding the findings.

In the interim, the integrated CBRN detection system proposed by HDT described herein, makes use of the most effective and reliable detection and identification equipment that has been specifically designed and optimized for use in harsh salt-water marine environments, to provide:

- the highest degree of Chemical Warfare Agent/Toxic Industrial Chemical (CWA/TIC) detection and identification
- Tier-1 biological agent detection, radioisotope identification, radiation detection and neutron detection
- multi-gas detection – with several hundred previous shipboard and critical mission related applications to date.

Our focus is on providing a risk-based CBRN detection and identification, manufacturer-agnostic and vendor-neutral approach, using only equipment that was specifically designed for use and extensively deployed in the harshest of shipboard environments to provide you with the most effective and reliable CBRN threat agent detection and identification system, delivering the highest detection-related Protection Factor (PF) achievable, in the most cost-effective manner to safeguard your personnel.

The selection and installation of the CBRN detection and identification system recommended will allow the LBFD personnel to safely operate from within the uncontaminated, protected environment of the Citadel with detection and identification capabilities that include all of the CBRN threat agent materials identified in *Section 7 - Project Specifications* of the RFP. Additionally all of the CBRN threat agent detection and identification related information will be securely and reliably transmitted back to the new CBRN detection and identification system headend ruggedized laptop computer to be located within the protected Citadel. Transmission will be accomplished via a wired communications network to eliminate the loss of signal, interference, loss of connection and lack of security related problems that so often can plague wireless communication systems in shipboard applications. Bulkheads need to be penetrated and there is so much other signal interference and potential for signal loss. That is why at the 06 July 21 mandatory walkdown, the HDT SME discussed and inquired about the use of a wired CBRN detection and identification system on the vessel; because when the very life of personnel is at risk, a loss in wireless communications is not acceptable.

As a result, the HDT integrated CBRN detection and identification system utilizes only the most marine-hardened, effective and reliable CBRN detection and identification equipment. Redundant wired communications of CBRN threat agent material alarm indications are used to maximize situational awareness, real-time intelligence and the Protection Factor (PF) provided by the detection, identification, air sampling, data collection and analysis system from potential CBRN threat agent materials and environments. The resulting CBRN threat agent related information is then transmitted via wired communications to the CBRN detection and identification headend computer display, with both interior and exterior audible alarm indications, to other desired shipboard command and control, alarm annunciation and display systems. Secure, encrypted communications are sent to HM FRO, LBFD and elsewhere (as desired) via use of the AT&T FirstNet system. Therefore, the HDT recommended system is 100 percent compliant with the RFP requirements identified in *Section 3, Section 7* and throughout the entire RFP.

2.1 Design

With respect to the design of the system, to provide the detection and identification related capabilities to meet all of the requirements identified in *Section 7* of the RFP, as well as with respect to additional CBRN threat agent materials of concern to the U.S. Government (USG), the design of the HDT integrated CBRN detection and identification system makes use of the detector manufacturer, vendor-agnostic risk-based TVPA approach. This approach has been utilized by HDT SMEs in several hundred previous applications and will provide the LBFD with the most effective and reliable CBRN detection and identification system, with the highest PF achievable, in the most cost-effective and easily expandable manner for decades of LBFD personnel protection and use.

The benefit of more than 150 years of combined experience was utilized in preparing the HDT proposed solution. This included utilizing our risk-based approach that takes

into account this extensive, unparalleled experience in the analysis of, detection, identification and protection from CBRN threat agent materials, multiple CBRN threat agent dispersal studies, aerosol dynamics, airflow analysis, Computational Fluid Dynamics (CFD) and the Modeling and Simulation (M&S) work necessary for the effective risk-based assessment, design, development, implementation and lifecycle sustainment required for many of the most effective and reliable CBRN detection and CBRN protection related systems installed in the world today.

Additionally, based upon a review of the RFP requirements and the conversations at the 06 July 21 walkdown, HDT made the decision to only include detection and identification equipment with extensive prior use in harsh shipboard type environments. As a result, many of what are considered “bleeding-edge” technologies or technologies that have only had primarily land-based applications to date (which also suffered from extensive detection related performance and reliability related issues in those applications) were excluded from consideration. As a result, there are many of what are termed “stand-off” threat agent detection and identification technologies that are unfortunately still too problematic with respect to their detection related performance and reliability, even in the land-based testing and applications to date. Therefore, these unreliable systems were eliminated from consideration for use in your vessel applications due to the much harsher shipboard operating environment and the much more complex analysis scenarios that exist at sea –a combination of the vessel being underway in what can be extremely rough seas, inclement weather, salt fog and spray, airborne fire and chemical smoke from potential shipboard fires, tank farm fires, storage tank fires, land-based structure fires, multiple types of engine exhaust, etc.

So, due to the harshness and the complexities of the seaborne analysis environment and HDT’s desire to not include what have been highly problematic and unreliable systems to date in seaborne and even land-based applications, HDT has only included detection and identification equipment with extensive prior seaborne shipboard applications, with an application and use environment equivalent to or much harsher than the operating environment of these two vessels for the LBFD. Based on this analysis approach and our experience, the proposed CBRN threat agent detection and identification system utilizes:

- ***The Environics ChemPro FXi CWA/TIC Detection and Identification Unit***

The design and installation have been optimized to provide effective and reliable shipboard CWA/TIC detection and identification related performance and reliability. Used in more than 100 previous shipboard applications around the world to date with a threat agent detection library that includes detection of all of the CWA/TIC threat agent materials identified in *Section 7.2* of the RFP with identification by class.

- ***The Teledyne FLIR IBAC 2 Tier-1 Biological Agent Detection Trigger with an Integrated Sample Collector***

Used in several hundred previous applications, the design has been optimized for effective and reliable shipboard use to provide a Tier-1 trigger indication in the

event of the detection of a potential biological threat agent material, triggering the automated collection of a sample thereof for subsequent Polymerase Chain Reaction (PCR) confirmatory analysis in compliance with all of the requirements of *Section 7.3* of the RFP.

- ***The Teledyne FLIR DU 403.3 NGH and DU 416.2 NGH Radioisotope Identification, Radiation Detection and Neutron Detection Units***

The design has been optimized for shipboard detection, identification, survey and interdiction use, and they have been used in a multitude of USG and DOD applications to date. Compliance with all of the gamma counting, gamma spectroscopy, neutron counting, isotope identification, source categorization, directional localization and requirements of *Section 7.4* of the RFP are met.

- ***The MSA Ultima® X-5000 Multi-Gas Gas Monitor***

The design and configuration has been optimized for harsh shipboard environments for the detection and identification of all of the threat agent materials identified in *Section 7.5* of the RFP and for meeting all requirements of *Section 7.5* – with several thousand previous applications to date, to include the previous models.

- ***The ENSCO SenseGuard™ Integrated CBRN Detection, Identification and Early Warning Headend System***

Provides the utmost in effective and reliable CBRN detection, identification and CBRN protection related situational awareness, secure communications and command and control capabilities to comply with all of the requirements of *Section 7.6* of the RFP, and as specified throughout the RFP.

Figures 1, 2, 3 and 4 on the following pages show the HDT preliminary CBRN detection and identification equipment mounting locations based on the information received to date, the results of the 06 July 21 site walkdown and HDT's experience over the past 30+ years in this highly specialized arena. As identified herein, a detailed risk-based TVPA is planned for post-award; the results of which, along with the receipt of additional information and conversations with your staff during the process could modify the equipment types and/or the installation locations that are shown.

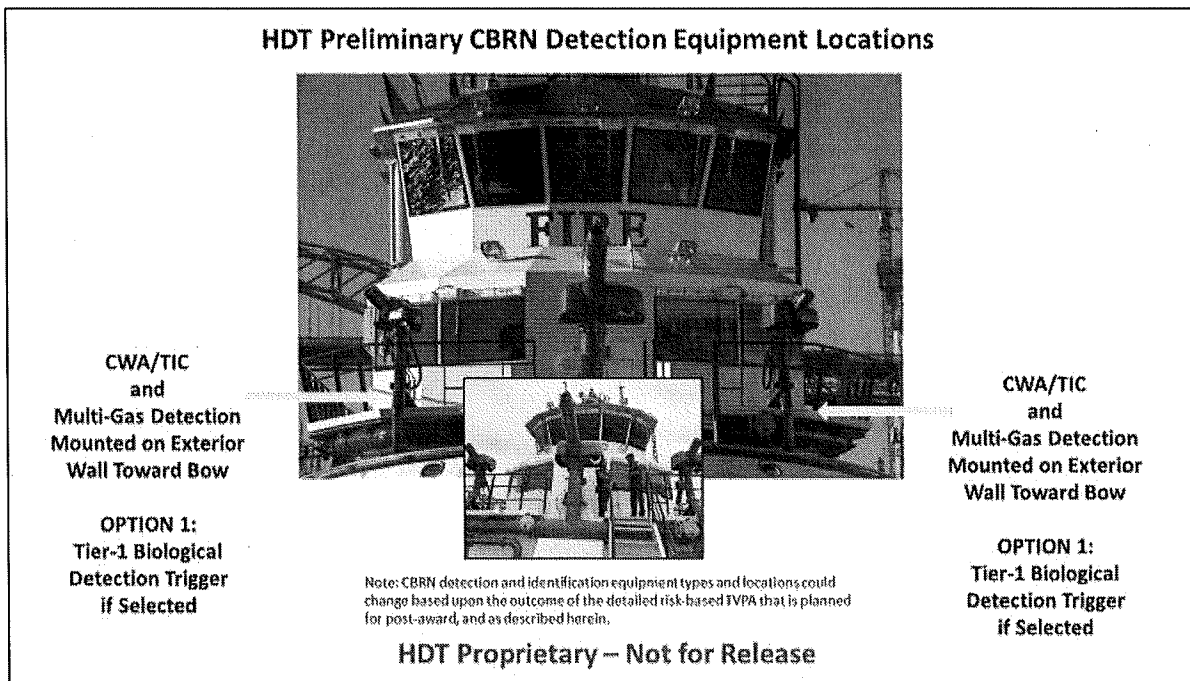


Figure 1 - HDT Preliminary CBRN Detection Equipment Installation Locations

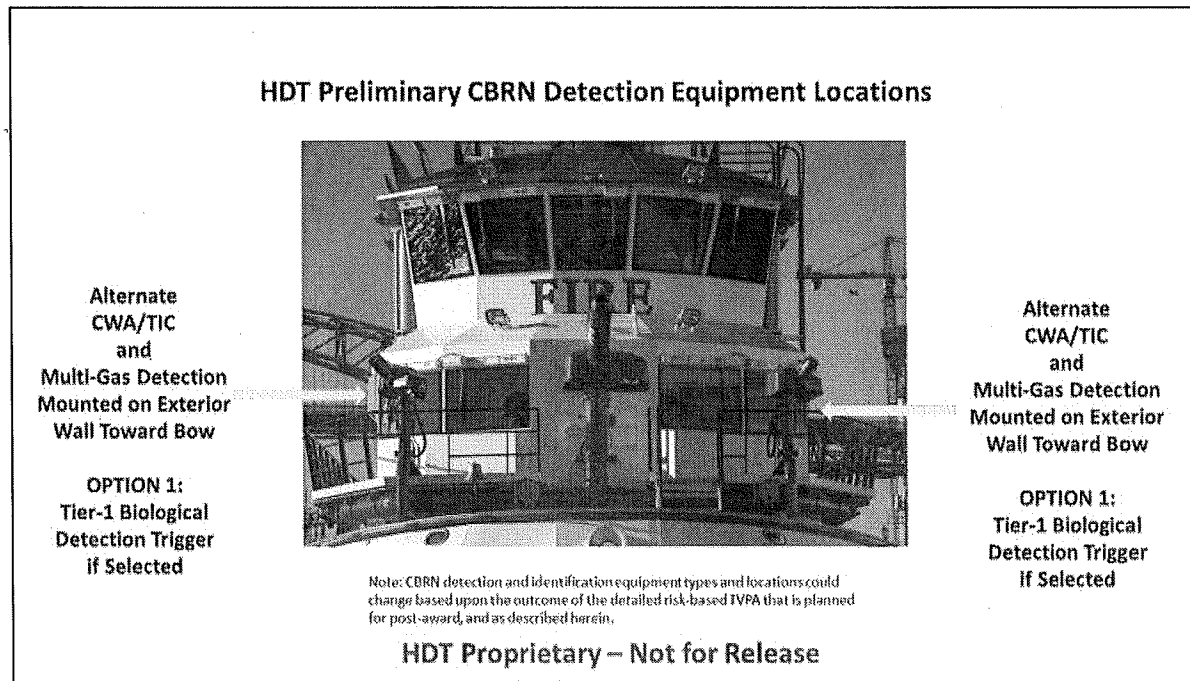


Figure 2 - HDT Preliminary CBRN Detection Equipment Installation Locations

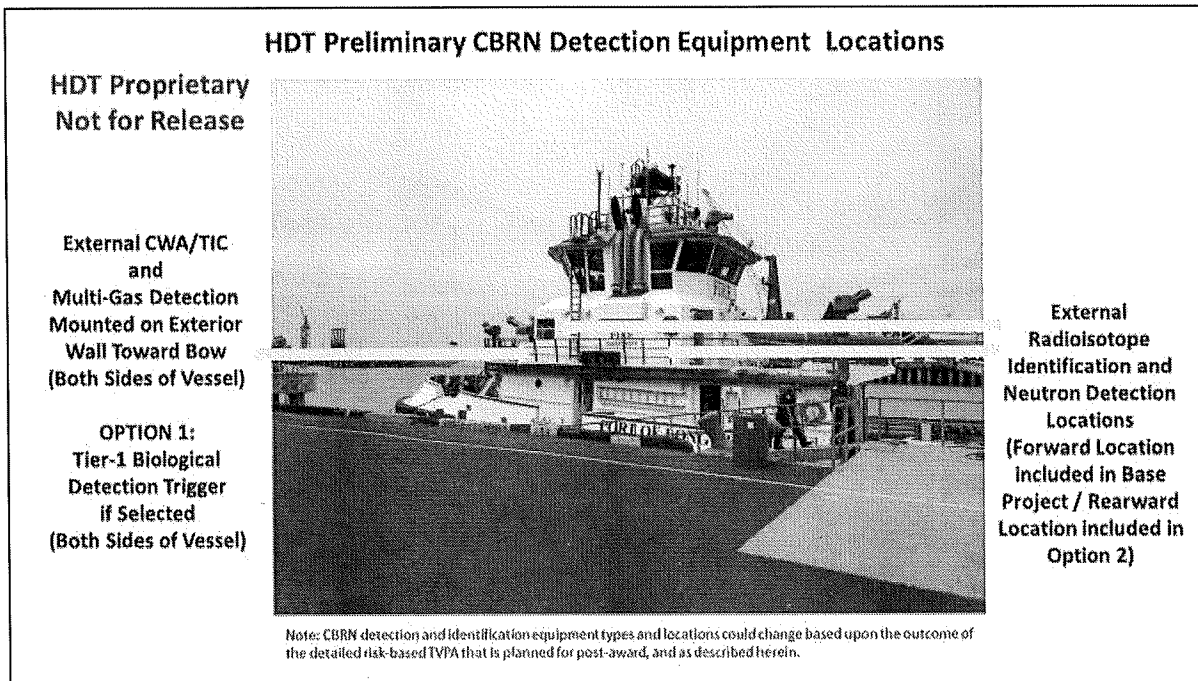


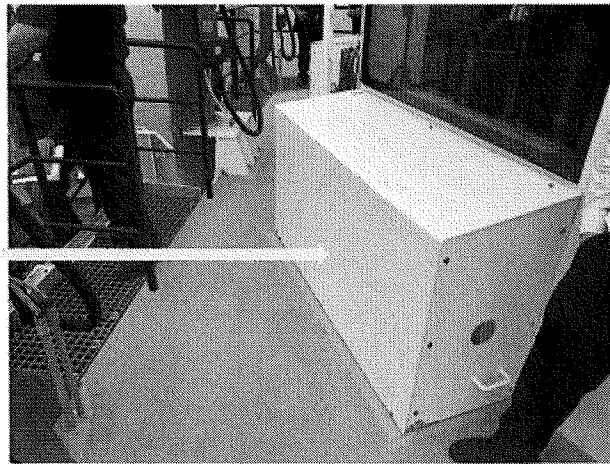
Figure 3 - HDT Preliminary CBRN Detection Equipment Installation Locations

Figure 4 shows the potential power and communications routing pathway that could easily be utilized with the necessary modifications being done in a shop rather than onboard – which would greatly simplify the process.

HDT Preliminary CBRN Detection Equipment Locations

Existing Exterior UPS System Enclosure
that is Easily Removable for Shop
Based Modifications and Routing of
Power and Communications.

(Port and Starboard Bow Locations)



HDT Proprietary
Not for Release

Figure 4 - HDT Preliminary CBRN Detection Equipment Installation Locations – Potential Power and Communications Routing via Use of Existing Enclosure Pathways

The table in **Figure 5** provides additional information on the locations and the capabilities of the HDT CBRN Detection & Identification System.

| HDT CBRN Detection & Identification System – Equipment Locations and Capabilities | Port | Starboard | Citadel | Wired Onboard Communications | Headend Computer |
|--|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| CWA/TIC Detection and Identification in an Environmentally Hardened Enclosure with Shock and Vibration Isolation (Exterior) | X | X | N/A | X | X |
| CWA/TIC Detection and Identification with Shock and Vibration Isolation (Citadel) | N/A | N/A | X | X | X |
| Radioisotope Identification/Radiation Detection/Neutron Detection with Shock and Vibration Isolation (Exterior) | X | X | N/A | X | X |
| Radioisotope Identification/Radiation Detection/Neutron Detection with Shock and Vibration Isolation (Citadel) | N/A | N/A | X | X | X |
| Multi-gas Detection and Identification with Shock and Vibration Isolation (Exterior) | X | X | N/A | X | X |
| Multi-gas Detection and Identification with Shock and Vibration Isolation (Citadel) | N/A | N/A | X | X | X |
| Dedicated UPS Units | Citadel | Citadel | Citadel | Included | Citadel |
| CBRNE Threat Agent Detection and Identification Headend System Ruggedized Laptop with Communications to AT&T FirstNet System | Citadel | Citadel | Citadel | Citadel | Citadel |
| Network Communications / Switch / Interface Equipment | Wired Communications | Wired Communications | Wired Communications | Wired Communications | Wired Communications |
| Antennae for Remote Communications to AT&T FirstNet System | N/A | N/A | N/A | Yes | Yes |
| Citadel Annunciation | Yes | Yes | Yes | Yes | Yes |
| External Annunciation | Yes | Yes | Yes | Yes | Yes |
| Redundant Wired Communications | Yes | Yes | Yes | Yes | Yes |
| Easy Future Detection and Identification Equipment Upgrade, Expansion and Changeout Capabilities | Yes | Yes | Yes | Yes | Yes |
| Easy Connection to Alternate Shipboard Command and Control and Monitoring Systems | Yes | Yes | Yes | Yes | Yes |
| Easy Future CBRN Filtration System Integration and Performance Optimization | Yes | Yes | Yes | Yes | Yes |
| OPTION 1: Biological Agent Tier-1 Trigger and Collector (Exterior) | X | X | N/A | X | X |
| OPTION 1: Biological Agent Tier-1 Trigger and Collector (Citadel) | N/A | N/A | X | X | X |
| OPTION 1: Biological Agent Tier-1 Trigger and Collector Wired Network Communications | Wired Communications | Wired Communications | Wired Communications | Wired Communications | Wired Communications |
| Option 2: Enhanced Radioisotope Identification, Radiation Detection and Neutron Detection to Further Enhance the Recommended Radioisotope Identification, Radiation Detection and Neutron Detection Capabilities | X | X | N/A | X | X |
| OPTION 2: Enhanced Radioisotope Identification, Radiation Detection and Neutron Detection Wired Network Communications | X | X | N/A | X | X |
| Option 3: Supplemental CBRNE Detection and Identification Headend Ruggedized Laptop with All Software and Configuration for a Second Location / Redundancy | X | X | X | X | X |
| Wireless Communications to AT&T FirstNet System | Yes via New CBRN Headend System | Yes via New CBRN Headend System | Yes via New CBRN Headend System | Yes via New CBRN Headend System | Yes via New CBRN Headend System |

Figure 5 - HDT CBRN Detection & Identification System – Preliminary Equipment Locations and Capabilities

Use or disclosure of data contained on this sheet is subject to the restrictions on the title page of this document

2.2 Equipment

The following CBRN threat agent detection and identification equipment has been selected for inclusion in the HDT proposed solution. If based upon the results of the detailed risk-based TVPA, the receipt of additional information and/or subsequent discussions with your staff, additional and/or alternate equipment can be utilized and integrated into the HDT system.

CWA/TIC Detection

The Environics ChemPro FXi unit provides real time detection of CWA/TIC related threat agent materials and identification by class of the threat agent materials detected. The unit has been specifically designed to provide effective and reliable operation in shipboard and critical mission facility related applications requiring 24/7/365 CWA/TIC threat agent monitoring. The unit uses an open IMS-based technology that requires the use of no consumables unlike other IMS-based technologies.

The ChemPro FXi is shown in **Figure 6**, without its external shipboard mounting enclosure, that would also be included for the ChemPro FXi units to be mounted on the exterior portion of each vessel. The unit is compliant with naval IACS E10 standards.

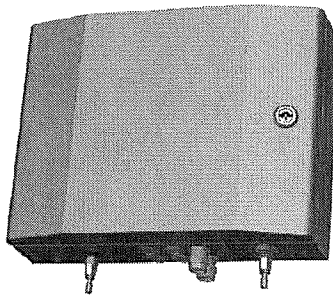


Figure 6 - Environics ChemPro FXi without Shipboard Mounting Enclosure

Included in **Figure 7** is the Threat Agent Detection Library for the unit.

| Alarm Indications | Agents | Alarm limits |
|-------------------|--|----------------------|
| Nerve | Sarin (GB), Tabun (GA), Soman (GD), Cyclosarin (GF), VX (including degraded VX and Russian | 1 mg/m ³ |
| Blister | Sulphur mustard (HD) | 5 mg/m ³ |
| | Lewisite (L) | 2 mg/m ³ |
| | Nitrogen mustard (HN3) | 5 mg/m ³ |
| Blood | Hydrogen cyanide (AC) | 50 mg/m ³ |
| | Cyanogen chloride (CK) | 50 mg/m ³ |
| Toxic | Ammonia (NH ₃) | 300 ppm |
| | Arsine (AsH ₃) | 3 ppm |
| | Boron trichloride (BCl ₃) | 2 ppm |
| | Boron trifluoride (BF ₃) | 25 ppm |
| | Carbon disulphide (CS ₂) | 500 ppm |
| | Chlorine (CL ₂) | 10 ppm |
| | Diborane (B ₂ H ₆) | 15 ppm |
| | Ethylene oxide (C ₂ H ₄ O) | 800 ppm |
| | Fluorine (F ₂) | 25 ppm |
| | Formaldehyde (CH ₂ O) | 20 ppm |
| | Hydrogen bromide (HBr) | 30 ppm |
| | Hydrogen chloride (HCl) | 50 ppm |
| | Hydrogen fluoride (HF) | 30 ppm |
| | Hydrogen sulphide (H ₂ S) | 10 ppm |
| | Nitric acid (HNO ₃) | 25 ppm |
| | Phosphorous trichloride (PCl ₃) | 25 ppm |
| | Sulphur dioxide (SO ₂) | 100 ppm |
| Chemical Detected | Generic alarm for chemicals in hazardous concentrations or chemical mixtures | |

Figure 7 - ChemPro FXi Library Showing Alarm Indications and Alarm Limits

Note: All of the CWA/TIC threat agent materials identified in Section 7.2 of the RFP are included in the "Agents" column with Toluene categorized in the "Chemical Detected" row shown at the bottom on the library listing – with identification categories shown in column 1 "Alarm Indications".

The HDT Team also has the ability to be able to integrate your existing detection and identification equipment into the new proposed system, when and if desired, if it has the necessary communications-related capabilities. We can also make appropriate equipment and systems related substitutions, additions and deletions, where and as desired and necessary, as previously discussed.

Biological Agent Detection – Option 1

The Teledyne FLIR IBAC 2 (formerly named IBAC 2.0 or Fido B2) is designed to provide real-time and fully automatic Tier-1 detection of aerosolized biological agents. The detector is designed to operate unattended and continuously 24/7/365 without any consumables other than the integral collector filters. The IBAC 2 is a real-time optical sensor that counts individual airborne particulates and provides the ability to discriminate a biological agent based on elastic scattering and fluorescence emission.

The sensor operates by pulling air particles into the device at 3.8 liters/minute. The particles pass through an optical illumination region where they are excited by a 405 nm continuous-wave laser beam. The light pulses that scatter off of the particles are then measured to determine their size and concentration. Simultaneously, the wavelength of the light emitted from the particles is measured to determine fluorescence. If the emitted light falls within a specific wavelength band, the particles are fluorescent and considered to be biological particles. The IBAC 2, shown in **Figure 8**, has more than 1,000 units deployed to date with more than 5,000,000 hours of effective operational runtime.



Figure 8 - Teledyne FLIR IBAC 2 Tier-1 Biological Agent Trigger Shown with an Integral Sample Collector

The integral IBAC 2 sample inlet and collector, which can be seen in **Figure 8** as the smaller and the larger “mushroom-shaped” covers, respectively, are designed to be easily removed for remote installation as in a shipboard or a vehicle type of application. So, we have the flexibility of IBAC 2 mounting location options aboard the vessels to maximize the effectiveness and reliability of the equipment. As a result, we can mount the IBAC 2 units externally on the Port and the Starboard sides with wired communications back to the CBRN detection headend system or we can remotely mount the sample inlet and collector assemblies on the exterior of the vessel and route the collector control wiring harness and the sample and exhaust lines to the exterior of the vessel. We have the ability to utilize either configuration, depending upon the results of the more detailed risk-based TVPA that is planned to be completed post-award – to include a detailed review of the design of the vessel and the ConOps utilized with respect thereto.

Radioisotope Identification / Radiation Detection / Neutron Detection

Use of the Teledyne FLIR DU 403.3 NGH and DU 416.2 NGH Radioisotope Identification/Radiation Detection/Neutron Detection units are included for use in the HDT CBRN detection and identification system for monitoring both the interior protected space within the Citadel and externally, respectively. Some may question why a unit that has been designed for permanent outdoor applications would be recommended for an indoor application. The answer is that for a shipboard application such as this, the

use of an outdoor rated unit is recommended for use due to the close proximity to salt water, salt water spray and fog; not to mention, decontamination when and if so required. So as a result, the DU 403.3 NGH unit is recommended for use within the Citadel to provide detection and identification capabilities in the event that there is a breach, leak or loss in the protection provided by the CBRN ColPro system. The larger DU 416.2 NGH units that were specifically designed for these types of harsh, exterior, marine type detection, identification and survey missions would be mounted on the exterior of the vessel to provide the same type of radioisotope identification, radiation detection and neutron detection capabilities as the DU 403.3 NGH units – with their performance optimized to provide for far greater detection and identification distances.

As we indicated in the HDT August 2020 submittal, one of our team members at that time, who is now a HDT staff member, served as the Vice President – Protection Technology for FLIR/ICx Technologies and he is directly responsible for having provided the risk-based TVPA, engineering, design, installation, integration, T&C, operations, maintenance, ConOps developmental assistance, training and lifecycle sustainment related technical support and services for several hundred CBRNE detection and protection related applications to date – to include with IBAC units and radioisotope identification/radiation detection/neutron detection units. This includes the custom modification, adaptation and optimization of the operational software for IBAC units and radioisotope identification, radiation detection, neutron detection units to optimize the deployed detection related effectiveness, reliability of detection and the operational performance of each of these units in their many deployed configurations, and to minimize the number of false alarm indications. This level of expertise and hands-on experience over the past couple decades is not available from any other source.

The DU 403.3 NGH has been designed for use in outdoor applications. It contains a 51 mm (2.0 inch)*76 mm (3.0 inch) Sodium Iodide (NaI) scintillation detector with an energy compensated Geiger-Müller (GM) detector included for high dose rate situations. This provides for excellent sensitivity even to small, low activity radiation sources particularly when monitoring people or packages. The cylinder shaped weatherproof housing is made of PVC-U and is capable of handling all weather conditions. The unit recommended by HDT also contains an optional Helium-3 (He-3) neutron detector and moderator. The units were designed to be mounted on buildings, fencing, vehicles, above doorways, stadiums, or anywhere radioisotope identification, radiation detection and neutron detection is desired.

Shown in **Figure 9** is the Teledyne FLIR DU 403.3 NGH Radioisotope Identification/Radiation Detection/Neutron Detection unit.

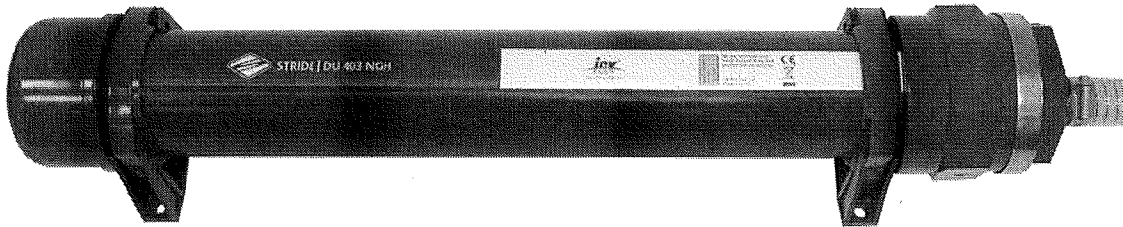


Figure 9 - Teledyne FLIR DU 403.3 NGH Radioisotope Identification/Radiation Detection/Neutron Detection Unit

This instrument, which provides excellent performance and reliability when deployed in the proper applications, has in some cases been misapplied by other parties in past applications for which it was not designed. As a result, it could not deliver the performance and reliability that was expected due to the fact that it was misapplied by the assessment and design teams that made the recommendations, prepared the designs and installed the units. This will not be the case with HDT, because HDT SMEs are intimately familiar with the design, application, integration, operations, limitations and interpretation of and recommended responses to the radioisotope identification, radiation detection and neutron detection related information that is provided by the instrument under all operating conditions.

The DU 416.2 NGH radioisotope identification, radiation detection and neutron detection unit has been specifically designed for use in exterior harsh marine environments where there is a need for additional sensitivity due to greater distance to the potential target and/or shielding of the radioactive material. The DU 416.2 NGH contains an extremely sensitive 51 mm (2.0 inch) *102 mm (4.0 inch) *406 mm (16.0 inch) NaI scintillation detector and an energy compensated GM detector for high dose rate applications. This provides excellent sensitivity even with small, low activity radiation sources particularly when scanning other vessels, freight and/or in other difficult monitoring scenarios. The units recommended to be installed by HDT also contain an optional Helium-3 (He-3) neutron detector and moderator. The unit is specifically designed with a waterproof enclosure with integral shock and vibration isolation for effective and reliable external shipboard use even in the harshest of environmental conditions.

Figure 10 shows a photograph of (2) DU 416.2 NGH units in a previous deployed maritime application. These are now available with custom colors and graphics to be hidden in plain sight.

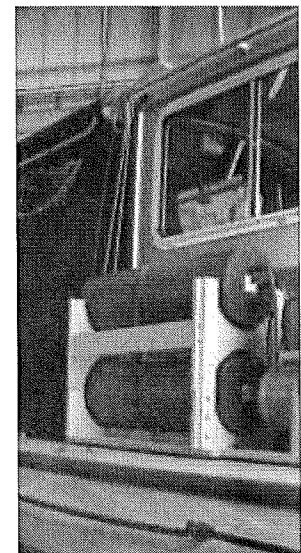





Figure 10 - Teledyne FLIR DU 416.2 NGH Radioisotope Identification/Radiation Detection/Neutron Detection Units.

The following tables (**Figure 11**) are included to show the DU 403.3 NGH and the DU 416.2 NGH detection and identification library and how potential threat agent materials would be categorized. The table is sorted by element names and lists the following properties. This information along with comprehensive spectral information meeting and surpassing the requirements identified in Section 7.4 of the RFP would be displayed on the CBRN detection and identification system headend computer display, along with the required numeric readings, detector response curves and spectral data for analysis.

- Nuclide name in standard notation
- Nuclide name in simplified notation
- Half life
- Severity as:

| | |
|---|-------------|
|  | Innocent |
|  | Suspicious |
|  | Threatening |

- Usage

NORM: Naturally Occurring Radioactive Material

MED: Medically used material

IND: Industrially used material








SNM: Special nuclear material

- Remarks on occurrence or application









| | |
|-------------------------------------|--|
| Background | <p>I <i>Naturally occurring radioactive material</i></p> <p>The ubiquitous background radiation is emitted from a variety of mostly natural and some artificial sources such as unstable nuclides contained in most chemical elements comprising the lithosphere, biosphere, and atmosphere; cosmic radiation from outer space; and applications of nuclear technology for weapons, power plants and medicine. The background recorded by an instrument is, of course, spoiled by non-natural sources present while measuring the background.</p> |
| Unknown | <p>S <i>Unknown nuclear material</i></p> <p>An unknown source of radiation. Further investigations are necessary.</p> |
| Americium | |
| ^{241}Am 433 a Am-241 | <p>T <i>Industrially used material</i></p> <p>Most commonly used in smoke detectors and to measure levels of toxic lead in paint samples. Also used to ensure uniform thickness in rolling processes like steel and paper production. May be combined with beryllium or lithium to produce a neutron source.</p> |
| Barium | |
| ^{133}Ba 10.75 a Ba-133 | <p>I <i>Industrially used material</i></p> <p>Used in nuclear medicine for patient attenuation correction during an imaging technique (i.e. S.P.E.C.T. imaging) for yielding 3D information of the patient's internal organs, etc.</p> |
| Bismuth | |
| ^{207}Bi 38 a Bi-207 | <p>I <i>Industrially used material</i></p> <p>Principle use is for research and may be found as a byproduct of proton reactions with lead.</p> |
| Californium | |
| ^{252}Cf 2.645 a Cf-252 | <p>T <i>Special nuclear material</i></p> <p>Difficult to produce and hence used only for some specialist applications, e.g., monitoring ground water movement, treating cervical or brain cancer. ^{252}Cf is a spontaneous fission source and often used as neutron source.</p> |

| Cesium | | |
|-----------------------------|-----------|---|
| ^{134}Cs Cs-134 | 2.07 a | <p>I <i>Industrially used material</i></p> <p>Used as a tracer for radiation leaks. This nuclide is a fission product in nuclear reactors. It can occur in the radioactive fall-out resulting from hazardous incidents in nuclear power plants.</p> |
| ^{137}Cs Cs-137 | 30.07 a | <p>I <i>Industrially used material</i></p> <p>Used as radiotracers to measure and control the liquid flow in oil pipelines and to tell researchers whether oil wells are plugged by sand. Utilized in density and fill height sensors to ensure the correct fill level for food, drugs and other products. This nuclide is a fission product in nuclear reactors. It can occur in the radioactive fall-out resulting from hazardous incidents in nuclear power plants.</p> |
| Chromium | | |
| ^{51}Cr Cr-51 | 27 d 17 h | <p>I <i>Industrially used material</i></p> <p>Used in research in red blood cell survival studies.</p> |
| Cobalt | | |
| ^{57}Co Co-57 | 272 d | <p>I <i>Industrially used material</i></p> <p>Included in medical in-vitro diagnostic kits, it is commonly used as a radiological "marker" to estimate organ size.</p> |
| ^{60}Co Co-60 | 5.3 a | <p>I <i>Industrially used material</i></p> <p>Used to sterilize surgical instruments and to improve the safety and reliability of industrial fuel oil burners. Also used in cancer treatment, food irradiation, industrial gauges and radiography.</p> |
| Europium | | |
| ^{152}Eu Eu-152 | 13.5 a | <p>I <i>Industrially used material</i></p> <p>Used in nuclear reactor control rods. In some countries this nuclide has been substituted in place of ^{60}Co for radiation therapy.</p> |
| Gallium | | |
| ^{67}Ga Ga-67 | 3 d 6 h | <p>I <i>Medically used material</i></p> <p>Used to pinpoint infections and tumors. Also used in PET scans for studying the brain and the heart functions.</p> |

| | |
|--|--|
| Holmium | |
| ^{166m}Ho 1200 a Ho-166m | <p>I <i>Industrially used material</i></p> <p>Used in physics experiments and research and can also be used in nuclear control rods used in reactors.</p> |
| Indium | |
| ^{111}In 2 d 19 h In-111 | <p>I <i>Medically used material</i></p> <p>Used for special diagnostic studies, e.g. brain studies, infection and colon transit studies.</p> |
| Iodine | |
| ^{123}I 13 h I-123 | <p>I <i>Medically used material</i></p> <p>Used to diagnose thyroid function/dysfunction. Also used in PET scans for studying the brain and the heart functions.</p> |
| ^{125}I 60 d I-125 | <p>I <i>Medically used material</i></p> <p>Used in a medical procedure for detecting hormone levels in the blood. Used for cancer treatment of the brain and prostate. It is also used to diagnose deep vein blood clots in the leg, and certain kinds of kidney maladies.</p> |
| ^{131}I 8 d I-131 | <p>I <i>Medically used material</i></p> <p>Used for therapy such as imaging the thyroid and treating its related cancers. Also used to diagnose abnormal liver function, kidney blood flow and urinary tract obstruction. This nuclide is a fission product in nuclear reactors. It can occur in the radioactive fall-out resulting from hazardous incidents in nuclear power plants.</p> |
| Iridium | |
| ^{192}Ir 74 d Ir-192 | <p>I <i>Industrially used material</i></p> <p>Temporarily implanted in wire form for use as an internal radiotherapy source in cancer treatment. Also used to test the integrity of pipeline welds, boilers and aircraft parts.</p> |
| Lutetium | |
| ^{177m}Lu 160 d 10 h Lu-177m | <p>I <i>Medically used material</i></p> <p>^{177m}Lu bound to octreotate is used in radionuclide therapy for neuroendocrine tumours.</p> |

| | | |
|-----------------------------|----------|--|
| Manganese | | |
| ^{54}Mn Mn-54 | 312 d |  <i>Industrially used material</i> Used to study and predict the behavior of heavy metal pollutants within the outflow of waste water from mining operations. |
| Molybdenum | | |
| ^{99}Mo Mo-99 | 2 d 18 h |  <i>Industrially used material</i> Used for generating $^{99\text{m}}\text{Tc}$. |
| Neptunium | | |
| ^{237}Np Np-237 | 2.14 Ma |  <i>Special nuclear material</i> No major commercial uses except in the production of ^{238}Pu . |
| Palladium | | |
| ^{103}Pd Pd-103 | 17 d |  <i>Medically used material</i> Used to make sealed-source, radiotherapy implant "seeds" for implanting into the prostate as a means of treating early stage prostate cancer. |
| Plutonium | | |
| mixPu Rg. Pu | 6561 a | <i>Reactors-grade Plutonium</i>  <i>Special nuclear material</i> Plutonium with more than 19 % ^{240}Pu |
| mixPu Wg. Pu | 24100 a | <i>Weapons-grade Plutonium</i>  <i>Special nuclear material</i> Plutonium with less than 7 % ^{240}Pu . Used to build most nuclear fission weapons, bombs, and warheads. |
| Potassium | | |
| ^{40}K K-40 | 1.277 Ga |  <i>Naturally occurring radioactive material</i> There are no specific commercial or medical uses for this isotope of potassium, but it is occurring naturally. Typical concentrations found in food deliver 140–180 $\mu\text{Sv/a}$. Higher ^{40}K concentrations can present a considerable cancer inducing risk. |

| Radium | |
|--|--|
| ^{226}Ra 1600 a Ra-226 | <p>I <i>Naturally occurring radioactive material</i></p> <p>A decay product of uranium and thorium, it occurs in virtually all rock, soil, and water in low concentrations. 20 % of the ^{226}Ra that is ingested via food and water is deposited into the bone. Although this makes the nuclide dangerous itself, it presents its greatest risk when it decays into ^{222}Ra, which is an odorless, tasteless, radioactive gas that can be inhaled into the lungs.</p> |
| Samarium | |
| ^{153}Sm 47 h Sm-153 | <p>I <i>Industrially used material</i></p> <p>Pharmaceutically marketed as "Quadramet", it is used for relieving pain caused by secondary cancers within the bone. Also used for treating prostate and breast cancer.</p> |
| Selenium | |
| ^{75}Se 120 d Se-75 | <p>I <i>Industrially used material</i></p> <p>In the form of seleno-methionine this nuclide is used to investigate enzyme production in the digestive tract.</p> |
| Sodium | |
| ^{22}Na 2.6 a Na-22 | <p>I <i>Industrially used material</i></p> <p>Used to study the sodium-potassium exchange-dynamic of nerve axons within the nervous systems of living organisms. Also used to locate leaks in industrial pipe lines and in oil well studies.</p> |
| Technetium | |
| $^{99\text{m}}\text{Tc}$ 6 h 1 m Tc-99m | <p>I <i>Medically used material</i></p> <p>Used for imaging the heart muscle, lungs, brain, and the skeletal system. Other uses include imaging the kidney, liver, thyroid, spleen, gall bladder, salivary and lacrimal glands, and the heart blood pool. It is also used to investigate other medical issues, like certain types of infections. Also used for tracing sewage and liquid waste movements within city infrastructures. This nuclide is a fission product in nuclear reactors. It can occur in the radioactive fall-out resulting from hazardous incidents in nuclear power plants.</p> |

| Thallium | | |
|-------------------|----------|--|
| ^{201}Tl | 3 d 1 h |  <i>Medically used material</i> Used for diagnosing coronary artery disease and other heart problems. |
| Tl-201 | | |
| Thorium | | |
| ^{232}Th | 14.05 Ga | ^{232}Th or ^{232}U  <i>Naturally occurring radioactive material</i> Found naturally occurring in abundance within the earth crust, it is not fissile itself, but can be used to generate the fissile element ^{233}U . ^{232}Th is used in gas lantern mantles and WIG welding rods. The spectra of ^{232}Th and ^{232}U are very similar. |
| Th-232/U-232 | | |
| Uranium | | |
| mixU | 4.468 Ga | Depleted uranium ($^{235}\text{U} < 0.25\%$)  <i>Special nuclear material</i> |
| DU | | |
| mixU | | Highly enriched uranium ($^{235}\text{U} > 20\%$)  <i>Special nuclear material</i> Can be effectively used to manufacture a nuclear fission weapon, and is a primary concern because the design complexity required is far less than that required for a ^{239}Pu based weapon. |
| HEU | | |
| mixU | 704 Ma | Lightly enriched uranium ($^{235}\text{U} < 20\%$)  <i>Special nuclear material</i> |
| LEU | | |
| mixU | |  <i>Special nuclear material</i> Used as a base material for generating ^{239}Pu . |
| U | | |
| ^{232}U | 68.9 a | ^{232}U or ^{232}Th  <i>Special nuclear material</i> The spectra of ^{232}Th and ^{232}U are very similar. |
| U-232/Th-232 | | |
| ^{233}U | 160 ka |  <i>Special nuclear material</i> Used in nuclear power generators. Although the United States demonstrated/detonated in 1955 a ^{233}U based bomb core, the use of ^{233}U within a weapon is not as viable of a choice for a weapon when compared to ^{235}U . |
| U-233 | | |

| Xenon | | |
|-------------------|---------|---|
| ^{133}Xe | 5 d 6 h | <p>I <i>Medically used material</i></p> <p>^{133}Xe is used for blood flow measurements and to image the heart, lungs, and brain, for example, by means of tomography.</p> |
| Xe-133 | | |

Figure 11 - Teledyne FLIR DU 403.3 NGH and DU 416.2 NGH Detection and Identification Library

The HDT Team also has the ability to integrate your existing detection and identification equipment into the new proposed system, when and as desired, if it has the necessary communications related capabilities. We can make appropriate equipment and systems related substitutions, additions and deletions, where and as necessary, based on the receipt of additional information, future conversations and the results of the more detailed risk-based TVPA and vessel inspection that is planned for post-award as part of the detailed risk-based assessment and design process.

Multi-Gas Detection

The MSA Ultima® X-5000 series of Multi-Gas detectors provide real time detection and identification of all of the threat agent materials identified in *Section 7.5* of the RFP and the units meet all of the requirements that are specified throughout *Section 7.5* and throughout the RFP. An Ultima X-5000 series unit is shown in **Figure 12**. These units have been specifically designed for use in extremely harsh saltwater and shipboard environments, as well as for use in explosive environments.

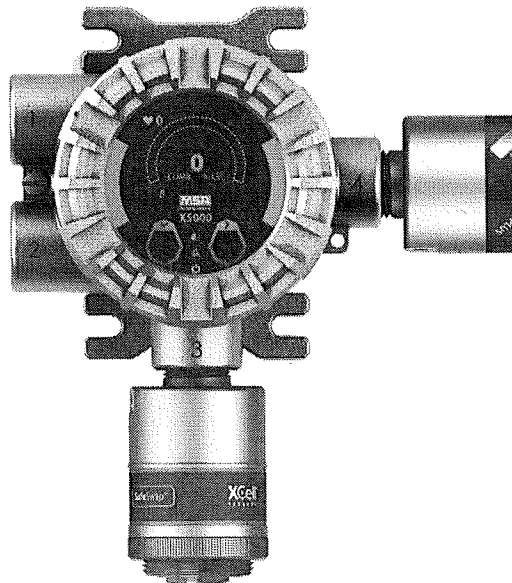


Figure 12 - MSA Ultima X-5000 Multi-Gas Detection and Identification Unit

Specifically with respect to the requirements of *Section 7.5.2*, the “system shall include sensors for the following: carbon monoxide (CO), oxygen (O₂), hydrogen sulfide (H₂S), catalytic sensor for explosive vapors (LEL) and additional hydrogen cyanide (HCN) sensor.” The system recommended by HDT includes the detection and identification of all of these threat agent materials using the recommended X-5000 units with the detection, alarm and identification related information available locally at the easily readable sunlight and outdoor optimized unit displays, via the wired communications to the new CBRN detection and identification system headend computer display, via the redundant relay interfaces and remotely via the AT&T FirstNet communications. To date, more than ten thousand of these units and their predecessor have been deployed in extremely harsh operating environments and HDT has had systems running for decades using MSA Ultima threat agent detection and identification systems, with highly effective and reliable results year after year, with only the recommended periodic maintenance and module replacement being required.

Included in **Figure 13** are abbreviated tables showing the operational performance, repeatability, reliability and classification of a small subset of the X-5000 configurations available, that includes the detection and identification of all of the threat agent materials required in *Section 7.5* of the RFP. As we proceed forward, the HDT recommended system can be easily expanded and modified for the inclusion of a multitude of additional threat agent materials, in addition to those specified in *Section 7.5.2*, if and as desired.

| Gas | Default Range | Selectable Full Scale Range | Resolution | Response Time* | | Repeatability | Zero Drift | Operating Temperature | | Sensor Life | Classification |
|--|---------------|-----------------------------|------------|----------------|-----------|---------------|--------------------|-----------------------|--------------|-------------|----------------|
| | | | | T50 | T90 | | | Min | Max | | |
| Carbon Monoxide - 100 | 0 - 100 ppm | 10 - 1000 ppm | 1 ppm | < 3 Sec | < 9 Sec | < +/- 1% | < 1% FS / Year | -40 C (-40 F) | 60 C (140 F) | 5 Years | Div/Zone 1 |
| Carbon Monoxide - 1000 | 0 - 1000 ppm | 10 - 1000 ppm | 1 ppm | < 3 Sec | < 9 Sec | < +/- 1% | < 1% FS / Year | -40 C (-40 F) | 60 C (140 F) | 5 Years | Div/Zone 1 |
| Carbon Monoxide - 500 | 0 - 500 ppm | 10 - 1000 ppm | 1 ppm | < 3 Sec | < 9 Sec | < +/- 1% | < 1% FS / Year | -40 C (-40 F) | 60 C (140 F) | 5 Years | Div/Zone 1 |
| Carbon Monoxide H ₂ Resistant | 0 - 100 ppm | 10 - 1000 ppm | 1 ppm | < 3 Sec | < 9 Sec | < +/- 1% | < 1% FS / Year | -40 C (-40 F) | 60 C (140 F) | 5 Years | Div/Zone 1 |
| Hydrogen | 0 - 1000 ppm | 250 - 1000 ppm | 10 ppm | < 40 Sec | < 185 Sec | < +/- 10% | < 1% FS / Month | -30 C (-22 F) | 50 C (122 F) | 2 Years | Div/Zone 1 |
| Hydrogen Cyanide | 0 - 50 ppm | 25 - 50 ppm | 1 ppm | < 8 Sec | < 30 Sec | < +/- 15% | < 1% FS / Month | -20 C (-4 F) | 40 C (40 F) | 2 Years | Div/Zone 1 |
| Hydrogen Sulfide - 10 | 0 - 10 ppm | 10 - 100 ppm | 0.1 ppm | < 7 Sec | < 23 Sec | < +/- 1% | < 1% FS / Year | -40 C (-40 F) | 60 C (140 F) | 5 Years | Div/Zone 1 |
| Hydrogen Sulfide - 50 | 0 - 50 ppm | 10 - 100 ppm | 0.1 ppm | < 7 Sec | < 23 Sec | < +/- 1% | < 1% FS / Year | -40 C (-40 F) | 60 C (140 F) | 5 Years | Div/Zone 1 |
| Hydrogen Sulfide - 100 | 0 - 100 ppm | 10 - 100 ppm | 0.1 ppm | < 7 Sec | < 23 Sec | < +/- 1% | < 1% FS / Year | -40 C (-40 F) | 60 C (140 F) | 5 Years | Div/Zone 1 |
| Hydrogen Sulfide - 500 | 0 - 500 ppm | 20 - 500 ppm | 1 ppm | < 20 Sec | < 60 Sec | < +/- 10% | < 1% FS / Month | -40 C (-40 F) | 50 C (122 F) | 2 Years | Div/Zone 1 |
| Oxygen | 0 - 25% | 5 - 25% | 0.10% | < 6 Sec | < 11 Sec | < +/- 1% Vol | < 0.2 % Vol / Year | -40 C (-40 F) | 60 C (140 F) | 5 Years | Div/Zone 1 |
| Oxygen (FM) | 0 - 25% | 5 - 25% | 0.10% | < 6 Sec | < 11 Sec | < +/- 1% Vol | < 0.2 % Vol / Year | -40 C (-40 F) | 60 C (140 F) | 5 Years | Div/Zone 1 |
| Oxygen, Low | 0 - 25% | 2 - 25% | 0.10% | < 10 Sec | < 30 Sec | < +/- 10% | < 1% FS / Month | -30 C (-22 F) | 50 C (122 F) | 2 Years | Div/Zone 1 |

| Gas | Default Range | Selectable Full Scale Range | Resolution | Response Time* | | Repeatability | Zero Drift | Operating Temperature | | Sensor Life | Warranty | Classification |
|---------------------|---------------|-----------------------------|------------|----------------|----------|---------------|-----------------|-----------------------|--------------|-------------|----------|----------------|
| | | | | T50 | T90 | | | Min | Max | | | |
| Methane (5.0 %) | 0 - 100% LEL | 20 - 100% LEL | 1% | < 10 Sec | < 22 Sec | < +/- 1% LEL | < 5% LEL / Year | -40 C (-40 F) | 60 C (140 F) | 5 Years | 3 Years | Div/Zone 1 |
| Propane (2.1 %) | 0 - 100% LEL | 20 - 100% LEL | 1% | < 10 Sec | < 22 Sec | < +/- 1% LEL | < 5% LEL / Year | -40 C (-40 F) | 60 C (140 F) | 5 Years | 3 Years | Div/Zone 1 |
| Heptane (1.05 %) | 0 - 100% LEL | 20 - 100% LEL | 1% | < 10 Sec | < 22 Sec | < +/- 1% LEL | < 5% LEL / Year | -40 C (-40 F) | 60 C (140 F) | 5 Years | 3 Years | Div/Zone 1 |
| Nonane (0.8 %) | 0 - 100% LEL | 20 - 100% LEL | 1% | < 10 Sec | < 22 Sec | < +/- 1% LEL | < 5% LEL / Year | -40 C (-40 F) | 60 C (140 F) | 5 Years | 3 Years | Div/Zone 1 |
| Hydrogen (4.0 %) | 0 - 100% LEL | 20 - 100% LEL | 1% | < 10 Sec | < 22 Sec | < +/- 1% LEL | < 5% LEL / Year | -40 C (-40 F) | 60 C (140 F) | 5 Years | 3 Years | Div/Zone 1 |
| Methane (4.4 % EN) | 0 - 100% LEL | 20 - 100% LEL | 1% | < 10 Sec | < 22 Sec | < +/- 1% LEL | < 5% LEL / Year | -40 C (-40 F) | 60 C (140 F) | 5 Years | 3 Years | Div/Zone 1 |
| Propane (1.7 % EN) | 0 - 100% LEL | 20 - 100% LEL | 1% | < 10 Sec | < 22 Sec | < +/- 1% LEL | < 5% LEL / Year | -40 C (-40 F) | 60 C (140 F) | 5 Years | 3 Years | Div/Zone 1 |
| Heptane (0.85 % EN) | 0 - 100% LEL | 20 - 100% LEL | 1% | < 10 Sec | < 22 Sec | < +/- 1% LEL | < 5% LEL / Year | -40 C (-40 F) | 60 C (140 F) | 5 Years | 3 Years | Div/Zone 1 |
| Nonane (0.7 % EN) | 0 - 100% LEL | 20 - 100% LEL | 1% | < 10 Sec | < 22 Sec | < +/- 1% LEL | < 5% LEL / Year | -40 C (-40 F) | 60 C (140 F) | 5 Years | 3 Years | Div/Zone 1 |

Figure 13 - Abbreviated MSA Ultima X-5000 Electrochemical Sensor and XCell Catalytic Bead Sensor Tables

Use or disclosure of data contained on this sheet is subject to the restrictions on the title page of this document

Telemetry Instruments

Based on the requirements of the RFP, the discussions at the 06 July 21 walkdown and an initial risk-based TVPA of the application for the vessels, HDT made the decision to include use of the ENSCO SENSEGUARD CBRN headend detection and identification system, due to the fact that it fits in well with the HDT detector manufacturer vendor-agnostic approach to provide each Client with the most effective and reliable engineered solutions possible for their specific needs and applications. Our decision is based on almost 20 years of experience in the custom design, application, integration and use of the ENSCO systems to provide the most effective, reliable and secure CBRNE detection and identification headend systems for both classified and unclassified applications. In fact, HDT staff personnel have extensive, unique expertise and experience in designing, installing and optimizing the configuration of the ENSCO systems to deliver the most effective and reliable performance that is not available from any other source.

What is planned for this application is the use of a wired communications system onboard the vessel to completely eliminate the host of problems that always seem to plague wireless systems from a connection, penetration, bandwidth and a lack of secure communications perspective. As a result, each of the identified CBRN detection and identification units will communicate via wired communications to the ENSCO CBRN ruggedized headend laptop to be located in the protected Citadel with both audible and visual alarm indications, as well as external alarm indications and secure communications via the AT&T FirstNet system off of the vessel in accordance with all of the requirements of *Section 7.6* of the RFP.

Additionally, we plan to import a vessel floorplan, map or overhead image of the vessel into the system, which we would then use to display the CBRN detection and identification related information to maximize situational awareness and ease of use. The custom designed headend system display would have almost infinite customizability and future expansion capability as additional detection and identification equipment is added or changed out in future years. Additionally, the HDT planned system would have the ability to easily communicate with other onboard systems via the use of the multiple planned communications pathways.

This system would be very similar to previous systems that HDT staff personnel have designed and recommended for use for some of this nation's most sensitive and secure CBRNE threat agent detection and identification applications. HDT staff also have singularly unique experience optimizing the performance of both the CBRN detection and identification equipment recommended herein and the ENSCO SENSEGUARD CBRN detection and identification headend system to deliver the highest degree of effective and reliable performance to safeguard your personnel.

The proposed HDT comprehensive, integrated CBRN detection and identification system will allow LBFD, other First Responders and key decision makers to make the most informed decisions in the face of what could be extremely serious CBRN related

threats from the safety of the protected area of the vessel and from shore via use of the AT&T FirstNet system. Additionally, HDT has included as an option a second fully configured CBRN detection and identification system headend ruggedized laptop for use in a second location onboard the vessel or elsewhere, if desired. The HDT system will also be easily customizable and expandable, with the capability for the automatic initiation of appropriate response actions, including audible alarms, tailored response checklists, external system alerts, and automated system-level actions to allow life-saving actions to be implemented extremely quickly.

Features & Benefits

- Open architecture software system can easily be configured to meet your specific needs.
- Rapid interpretation of incident CBRN detection and identification data and automatic initiation of response mechanisms offer quick decision making and systems related responses.
- Multi-sensor automated detection algorithms for the reduction of false alarms.
- Plug-in architecture allows unlimited numbers and types of sensors to be added, upgraded, or swapped out at any time.
- Integrated and comprehensive sensor view reduces staffing requirements.
- Intuitive, easy to understand, custom-designed, multilevel headend computer graphics with all of the CBRN detection and identification related information displayed by location on the imported maps, drawings and photographs of the vessel (as applicable) based on the desired templates.
- Comprehensive and easy access to all of the CBRN detection and identification related data, event recording, meter data, numeric readings, and time-based detection plots meeting and surpassing all of the requirements of Section 7 and throughout the RFP.

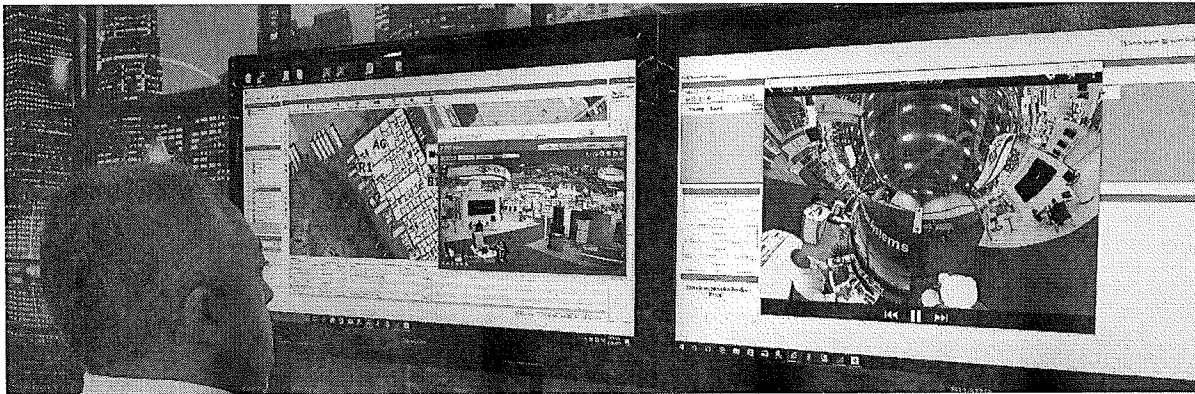


Figure 14 - Custom Designed ENSCO CBRN Detection and Identification Headend System

Enhanced Radioisotope Identification/Radiation Detection/Neutron Detection – Option 2

HDT has included in the base portion of their proposal response what past testing and more than 30 years of experience have proven to be much more effective and reliable radioisotope identification, radiation detection and neutron detection capabilities than have been available previously to the City of Long Beach and the LBFD based upon the information shared to date on existing capabilities and equipment. None of the detection and identification equipment or the integrated system that is being recommended for consider and use by HDT is powered by unreliable battery or rechargeable power sources and all of the equipment communicates via a wired communications system to the CBRN detection and identification system headend computer. Additionally and critically important is the fact that the radioisotope identification, radiation detection and neutron detection equipment that HDT is recommending will provide detection related effectiveness and reliability that is orders of magnitude higher than handheld units and what we believe may have been previously deployed fixed units.

Additionally, based on past experience, we would like to recommend as Option 2, the inclusion of additional radioisotope identification, radiation detection and neutron detection units on the vessel to significantly enhance the detection and identification related capabilities even further, if and when the budget allows, to further maximize the radioisotope identification, radiation detection and neutron detection capabilities, so that the detection and identification distance can be increased to the maximum extent possible from suspect vessels and land-based potential threats. The units that we have included in the “base project” configuration will provide much more extensive detection and identification related coverage and detection and identification distance, but these capabilities can be even further enhanced, if so desired and allowed by the project budget, in either the initial or a subsequent project phase.

We unfortunately have experienced situations when trying to provide the most highly effective, accurate and reliable detection and identification capabilities achievable, where our proposal is being compared with other low bid, lesser quality, less effective systems. This may stem from the fact that the offerors either manufacture, represent, distribute or resell the products they are recommending, they are providing less than effective results, and/or the products are misapplied due to their limited knowledge of the actual performance, reliability and limitations of the equipment that they are recommending.

Unfortunately, this type of scenario has occurred many times in the past where ineffective equipment and systems were procured and installed based on the recommendations of less than truly experienced suppliers, distributors, resellers and consultants whose “experience” was gained in the pages of a book and/or at university. They offered very limited or no real world experience with the capabilities, effectiveness, limitations, proper application, design, integration, performance optimization, operations, interpretation, and response to, maintenance and lifecycle sustainment necessary for these types of systems. As a result, we have unfortunately seen hundreds of situations

where tens of millions of dollars have been wasted on equipment and systems that did not provide the operational performance and reliability that was promised and required. As a result, the equipment and systems had to be replaced or supplemented where possible. And, in some of the cases, quality equipment was utilized, but the performance of the equipment and the limitations thereof were not completely understood by the less than qualified personnel making the equipment and systems related recommendations, so what was quality equipment was misapplied; and as a result, ineffective or less than effective performance and reliability were the result.

With any type of project, including CBRN detection and identification projects, it is hard enough to get the project related funding that is necessary the first time, not to mention the second time or the third time. Therefore, we always recommend relying on actual hands-on, true, real-world experience to ensure that the equipment and integrated systems that are ultimately purchased and installed will deliver the most effective and reliable performance, with the highest PF achievable, to safeguard personnel to the maximum extent possible for decades to come.

Supplemental CBRN Detection and Identification Headend Ruggedized Laptop – Option 3

HDT has included as Option 3 a supplemental or second ruggedized laptop with all of the same software and configuration as the primary unit for use in a second location on the vessel and for redundancy.

2.3 Installation

The installation, integration, T&C, operations and maintenance related training that is provided by HDT for these types of custom designed systems is an area in which HDT personnel excel. HDT has multiple personnel with more than 30 years of experience each – with a HDT staff of more than 1,000 personnel around the world. As a result, the HDT project execution and installation team has an extremely deep bench of highly skilled and experienced personnel and resources from which to draw. This includes decades of experience in the mechanical, electrical and communications related infrastructure design, installation, modification and integration arenas necessary to implement these types of turnkey projects in accordance with all standards and requirements.

As part of project execution, HDT plans to have experienced personnel on site throughout the entire process from completing the detailed risk-based TVPA that is planned, through installation, integration, T&C, acceptance and the training portions of the project to ensure that all portions of the project are executed as planned to deliver the most effective and reliable results in the highest quality manner. This is where the experience of the HDT staff also provides great benefit, because the equipment and the system that we are recommending to be selected, designed and installed has been specifically recommended for effective and reliable shipboard use based on HDT's

experience and usage history – which allows us to effectively plan for installation and integration optimizations such as the potential to utilize existing wiring pathways and penetrations that may be available for use under the enclosures shown in Figure 4.

2.4 Integration

The integration of these types of custom designed and integrated CBRN detection and identification systems, with both new and existing legacy systems, is also where the HDT personnel excel with more than 30 years of experience in several hundred previous applications to date. HDT personnel have been responsible for the risk-based TVPAs, engineering, design, installation, integration, T&C, operations and maintenance related training necessary for the CBRN detection and identification related systems for some of this nation's most sensitive and secure critical mission related applications and for a multitude of other highly sensitive applications – all with excellent results.

There is no other manufacturer or service provider in the world with more experience than HDT in the risk-based TVPA, custom design and integration of the CBRN detection and identification equipment and system recommended for use herein. There is also no other manufacturer or service provider in the world that can integrate the CBRN detection and identification system recommended to be installed with the existing CBRN protection system, with the expertise, skills and experience that would be required – with the resulting performance and reliability of the integrated systems being optimized to provide the most effective and reliable performance, with the highest PF achievable, in the most cost-effective manner to provide an even safer working environment for LBFD personnel while extending the life of the system, when and if desired.

The installation and integration of the recommended CBRN detection equipment and system, and the optimization thereof, to deliver the most effective, reliable and easy to use system is also an area where HDT staff excel having the personnel on staff with the unique experience to modify the detection related equipment and headend software, as necessary, to deliver the highest detection related effectiveness and reliability with the lowest false alarm rates. Much of this will be done prior to the FAT in preparation for such – which you will then see the results of with respect to the FAT you witness. Then, when the equipment and system is installed and integrated on the vessel, the settings for the individual detectors and for the system as a whole will again be adjusted and optimized based on the installed configuration and on the specific backgrounds associated with the vessel. So prior to final acceptance of the system, the individual performance of each detector and of the overall system will then be optimized based upon the as-installed configuration, using a combination of the simulants, test gases and radioactive sources testing that is completed, along with the completion of any headend monitoring system related customization and modifications that are desired for ease of operator use.

2.5 Testing

As described in our August 2020 submittal, the T&C of these types of custom designed, integrated CBRN detection, identification and CBRN protection systems is an area that HDT personnel excel in with more than 30 years of experience in several hundred

applications to date. With this system, as with all of the custom designed systems, prior to the equipment for the system ever being shipped to the site for installation, the entire system first undergoes a comprehensive Client-witnessed Factory Acceptance Test (FAT) to test, to verify and to document proper equipment and system-related performance in all operating modes, prior to the disassembly of the system for shipment to the site for installation. Each step in the FAT process is documented on the step by step detailed FAT procedure that will be developed with Client witnessing and sign-off throughout the entire process and at the completion of the FAT.

The information and the results from the FAT will then be utilized for input into the development of the official Equipment, System and Performance Validation Procedures that will be developed for on-site use when the CBRN detection and identification system is installed on the vessel/s. So by the time the custom designed system is installed on the vessel, the equipment and the system will have already been through complete Client-witnessed and documented performance testing, and then once the system is installed aboard the vessel and thoroughly tested, the official CBRN Detection and Identification System Equipment, System and Performance Validation Testing, witnessed by Client staff, would commence. As part of this step by step process, each function and each response for each piece of equipment and for the integrated system would be tested and the response documented on the step by step procedure, under all equipment and system operational modes, to test and to document proper equipment and proper system related operations and responses in all operational modes. In performing the testing, a combination of test gases, simulants and radioactive sources would be utilized to test and to document the proper equipment and integrated systems related performance under all operating conditions, and all test results would be documented on the signed and stamped Equipment, System and Performance Validation Procedures.

2.6 Operations

As part of the custom designed and extensive training that would be planned for the City of Long Beach and the LBFD staff, HDT SMEs will train personnel on the proper operation and response of each portion of the CBRN detection and identification system, as well as on the overall system under all operational modes. This would include the proper interpretation and response to all equipment and system-related responses, alarm indications, sensor diagnostic indications (maintenance indications) and the steps necessary to ensure that the equipment and integrated system continue to provide the most effective and reliable service, with the highest PF achievable, to safeguard the health and well-being of the LBFD personnel under all operating conditions. Multiple classes would be planned in coordination with LBFD personnel to

coincide with the official T&C, acceptance of the system and thereafter. Multiple classes would be scheduled during the planned 40-hour training period that has been included in the HDT proposal to ensure that the topics being covered in each class are the most applicable for each class audience, and a dedicated class would be provided for the CBRN detection and identification system software and headend platform.

The HDT Team also stands ready to assist the LBFD with the ConOps development process, utilizing their years of combined experience over the past 30+ years in this extremely specialized field. This would ensure that the LBFD has all of the proper information and executable procedures necessary to properly operate, utilize, interpret, respond to and perform the necessary operator-related maintenance necessary.

2.7 Professional Services

HDT has a highly experienced staff of CBRN SMEs to provide comprehensive CBRN-focused risk-based TVPA, CBRN detection and identification, CBRN protection and multiple other types of Antiterrorism/Force Protection (AT/FP) related solutions for each of its clients from a vendor-agnostic, risk-based TVPA perspective. This ensures that all of the equipment and integrated systems recommended will deliver the most effective and reliable CBRN detection, identification and CBRN protection related performance, with the highest PF achievable, in the most cost-effective manner based on the specific needs and requirements of each application. HDT does this by employing many of the world's leading experts in this field with all of the security clearances, expertise, certifications and training at the highest levels that are necessary for these types of asymmetric threat agent detection, identification and protection related systems. This includes the HDT Director of CBRN Integrated Protection, Biosecurity and Chemical Security, who is cleared at the Top Secret level, with whom you met at the mandatory 06 July 2021 site walkdown. This expertise and experience is in addition to the unparalleled HDT staff of world renowned SMEs, plus the singularly unique experience of the dedicated HDT engineering staff, the HDT Engineering Center, the in-house HDT Testing Laboratory and all of the comprehensive, worldwide unique capabilities, experience and comprehensive services offered and provided by HDT since 1937, that are required to effectively deliver these types of turnkey, integrated, custom-designed systems.

2.8 Third Party Assessment

As discussed at the 06 July 2021 mandatory walkdown and submitted in the questions by HDT, HDT has staff members that specialize in performing CBRN detection and CBRN protection-focused risk-based TVPAs with more than 30 years of experience. Accordingly and per Addendum 1, HDT will use our own experts to perform the Assessment.

As discussed in our August 2020 submittal and throughout this submission, this CBRN detection and identification and CBRN protection focused risk-based TVPA based methodology and experience has been responsible for delivering many of the most

effective and reliable CBRNE detection and CBRN protection related solutions available in the world today. And the systems that were recommended, designed and installed have delivered the highest levels of detection, identification and protection-related performance, effectiveness and reliability in the most cost-effective manner, per the specific needs and requirements for each application.

Due to the fact that we are not a CBRN detector and identification equipment manufacturer, we can provide truly manufacturer-agnostic, vendor-agnostic, turnkey, engineered solutions, support and services that are not available from any other source, including:

- Completely objective equipment and systems related risk-based TVPAs based on more than 30 years of experience in several hundred application locations to date at both the classified and the unclassified levels
- Comprehensive engineering and integrated systems design related recommendations
- Custom designed and integrated systems based on the specific needs and requirements of each application – with no “cookie-cutter” solutions based solely on what a company may manufacture or that a dealer or reseller may represent; hence, tainting and biasing their recommendations and approach
- Comprehensive, turnkey installation, integration, T&C, operations and maintenance related technical support and services, as well as equipment and system performance optimization
- Comprehensive ConOps developmental assistance
- Comprehensive equipment and integrated systems-related training that is custom tailored to the needs of the attendees for each training class
- Comprehensive equipment and systems lifecycle sustainment related technical support and services covering every aspect of the CBRN detection and CBRN protection related systems that are recommended, designed and installed

As indicated previously, we benefit from having multiple personnel as HDT SMEs with over 30 years of experience each in this arena. The Director of CBRN Integrated Protection, Biosecurity and Chemical Security for HDT previously served as the Vice President – Protection Technology for FLIR/ICx Technologies. He has been directly responsible for providing the risk-based TVPAs, engineering, design, installation, integration, T&C, operations, maintenance, ConOps developmental assistance, training and lifecycle sustainment related technical support and services for several hundred CBRNE detection and protection related applications to date.

HDT's experience is based on always taking a risk-based manufacturer-agnostic and vendor-neutral approach to always ensure that the recommendations that are made, and that the custom-designed and engineered solutions that are provided and installed, deliver the most effective and reliable performance, with the highest PF achievable, in the most cost-effective manner. This ensures that the maximum degree of detection and protection system-related effectiveness and reliability is provided for each specific application location – which is not possible from other sources that are directly tied back to the manufacturer of the detection and identification equipment.

In fact, past projects have included the custom design and integration of several of the units that you may currently use which could be integrated into the new system in the future, if so desired. Additionally, HDT is the designer and manufacturer of most CBRN ColPro systems used by the DOD, DHS, multiple other USG Agencies and elsewhere throughout the world by other NATO countries for thousands of shipboard, vehicle, transportable and fixed site critical mission related applications. This includes the systems currently installed on the "Vigilance" (Fireboat #15) and the "Protector" (Fireboat #20), which although specified by the Navy (NSWC) and installed by the boat manufacturer, were designed by HDT as part of the Navy Backfit Program – with the CBRN protection filters also being manufactured by HDT. Therefore, there is no other source in the world with more actual real-world experience than HDT. We provide the necessary risk-based TVPAs, engineering, design, installation, integration, T&C, operations, maintenance, ConOps developmental assistance, training and lifecycle sustainment related SME support and services required for these types of highly specialized CBRN detection, identification and CBRN protection systems in order to deliver the most effective and reliable, integrated CBRN detection, identification and CBRN protection systems, with the highest PF achievable, in the most cost-effective manner.

3.0 Project Specifications {Section 7}

| Para # | Requirement | Comply (Y/N) | Discussion |
|--------|---|--------------|--|
| 7.2 | Chemical Warfare Agent (CWA) & Toxic Industrial Chemical (TIC) Detection | | |
| | The adopted system shall look for the presence of phosphorus, hydrogen/nitrogen, arsenic, sulfur, and hydrocarbons. | Yes | Per the CWA/TIC detection information included herein, HDT is fully compliant with this requirement and all of the requirements of the RFP. |
| | The system shall detect, at a minimum, the parts per billion (ppb) level and identify the following CWA's: Tabun(GA), Sarin(GB), Soman(GD), Cyclosarin(GF), VX, Mustard(H, HN, HL) & Hydrogen Cyanide(AC) and the following Toxic Industrial Chemicals (TICs) as a minimum: Chlorine(Cl ₂), Sulfur Dioxide(SO ₂), & Toulene(TDI). | Yes | Per the CWA/TIC detection information included herein, HDT is fully compliant with this requirement with parts per million (ppm) detection levels for all of the threat agent materials listed, as well as for numerous others, as identified in the included device library. The answers to the questions approved use of ppm levels. |
| | The system shall be unaffected by humidity, heat, or the presence of salt water. | Yes | All of the equipment specified by HDT herein is marinized and fully compliant with these requirements. |
| | Meter data shall be represented as direct numeric readings or as applicable, in a graphic chart that displays readings over time. | Yes | The HDT recommended system described herein is fully compliant with this requirement. |
| 7.3 | Biological Detection (Optional) | | |
| | This system shall look for the presence of phosphorus, hydrogen/nitrogen, arsenic, sulfur, and hydrocarbons. | Yes | The HDT recommended equipment and system as described herein is fully compliant with the equipment and requirements specified throughout the USG and DOD for Tier-1 biological agent |

| Para # | Requirement | Comply (Y/N) | Discussion |
|--------|--|--------------|---|
| | | | detection systems using automated triggers and collectors, including use of the same equipment as is used by the USG and DOD. As discussed at the 06 July 21 walkdown and in the questions submitted, the materials referenced are not biological threat agent materials. |
| | Meter data will be represented as direct numeric readings or as applicable, in a graphic chart that displays readings over time. | Yes | The HDT recommended system described herein is fully compliant with this requirement. |
| 7.4 | Radio-isotope / Radiation / Neutron Detection | | |
| | Meter data will be represented as direct numeric readings or as applicable, in a graphic chart that displays readings over time. | Yes | The HDT recommended system described herein is fully compliant with this requirement. |
| | Unaffected by humidity, heat, or the presence of salt water. | Yes | The HDT recommended system described herein is fully compliant with this requirement. |
| | Meter data will be represented as direct numeric readings or as applicable, in a graphic chart that displays readings over time. Software will display graphic representations of radiological spectrum suitable for analysis. | Yes | The HDT recommended system described herein is fully compliant with this requirement. |
| 7.5 | Multi-gas Detection | | |
| 7.5.1 | This system shall be an intelligent multi-gas monitoring instrument for the measurement of 1, 2, 3, 4 or 5 gases simultaneously, shown below on section 7.5.2. | Yes | The HDT recommended system described herein is fully compliant with this requirement. |
| 7.5.2 | This system shall include sensors for the following: carbon monoxide (CO), oxygen (O2), hydrogen sulfide (H2S), catalytic sensor for explosive vapors (LEL) and additional hydrogen cyanide (HCN) sensor. | Yes | The HDT recommended system described herein is fully compliant with this requirement. |
| 7.5.3 | This system should be able to be modified or expanded as desired, based on the results of a risk-based Threat and Vulnerability Protection Assessment (TVPA) and/or on your specific program requirements. | Yes | The HDT recommended system described herein is fully compliant with this requirement. |
| 7.5.4 | Meter data will be represented as direct numeric readings or as applicable, in a graphic chart that displays readings over time. | Yes | The HDT recommended system described herein is fully compliant with this requirement. |
| 7.6 | Telemetry Instruments | | |
| | The system shall securely send data via a secured, minimum of 128-bit encrypted wireless signal to a supplied | Yes | The HDT recommended system described herein is fully compliant with this requirement. |

| Para # | Requirement | Comply (Y/N) | Discussion |
|--------|--|--------------|---|
| | laptop and/or where applicable, hard wired to data telemetry panel or where applicable, integrated into current telemetry system. | | |
| | No sensitive or secure data or information including without limitation, Meter readings, personnel, or equipment locations, or any alert or other message traffic whatsoever is shared by the System with any third-party. All subsystems and appliances are protected by means of a configurable administration account including user identification and password. | Yes | The HDT recommended system described herein is fully compliant with this requirement. |
| | All 802.11 b/g/n transmission system is at a minimum be 802.11i compliant and support WPA2 AES 128bit encryption. | Yes | The HDT recommended system described herein is fully compliant with this requirement. |
| | Unaffected by humidity, heat, or the presence of salt water. | Yes | The HDT recommended system described herein is fully compliant with this requirement. |

4.0 Warranty/Maintenance and Service {Section 8}

- The custom designed CBRN detection and identification system recommended herein would include a one-year base system warranty with the option to purchase extended warranties and service contracts. The warranty would cover defects in materials and workmanship arising due to only normal wear and tear when used in accordance with all product instructions and documentation from the equipment manufacturer and HDT. Warranty coverage requires that the equipment and systems be properly maintained per the recommendations and requirements of the HDT service plans for the associated coverage period.
- Option 4 is also provided to extend the warranty coverage for a total of five years. The warranty would cover defects in materials and workmanship arising due to only normal wear and tear when used in accordance with all product instructions and documentation from the manufacturer and HDT. Warranty coverage requires that the equipment and systems be properly maintained per the recommendations and requirements of the HDT service plans for the associated coverage period.
- Under the terms of the warranties that are selected, HDT would repair or replace any defective component/s or portions of the system or facilitate the repair or replacement thereof, and the repaired or replaced defective component/s, portions of the system and the system would continue to be

warranted for the remaining time of the original warranty period that was selected for covered equipment, system components and the system that are used in accordance with all manufacturer and HDT operations, maintenance and use instructions, for use only in normal conditions for which the equipment, components and/or portions of the system were designed.

- Option 5 is included for a comprehensive five-year service contract. This comprehensive service contract would cover parts and labor to repair/maintain the equipment and system provided by HDT that has been operated only under normal operating conditions and that has been properly maintained in accordance with all HDT and manufacturer instructions and user manual requirements with respect to normal operation and normal wear and tear in accordance with the design specifications. If an issue cannot be resolved remotely, HDT will travel to the site for diagnosis/repair.
- All periodic system maintenance, equipment and system-wide testing that is planned for every six months, and which is included in the Five-Year Extended Service Plan, is required and would be scheduled for mutually agreed upon dates with at least three weeks advance notice for planning and travel purposes.
- Therefore, all warranty, extended warranty, maintenance and service contract related requirements of *Section 8* of the RFP have been met.

5.0 Company Background and References {Section 9}

5.1 Primary Contractor Information – Company Profile {9.1}

| | |
|-----------------------------|---|
| Company ownership. | HDT Expeditionary Systems, Inc. is incorporated in the State of Delaware. Date of Incorporation: April 1, 1981 |
| Location of company offices | HDT maintains offices at the following locations: <ul style="list-style-type: none"> • Solon, OH (Headquarters) • Cincinnati, OH • Mansfield, OH • Geneva, OH • Edgewood, MD • Evanston, IL • Florence, KY • Fredericksburg, VA • Huntsville, AL • Spokane, WA • Swindon, UK |

| | |
|--|--|
| Location of office serving any California account(s) | Employees from various HDT locations could be called upon to serve any customer |
| Number of employees both locally and nationally. Specify the number of full time and part-time employees residing in Long Beach. | HDT has more than 1,200 employees worldwide. None reside in Long Beach, CA |
| Location(s) from which employees will be assigned | HDT SME support from across the US, as well as HDT local support. |
| Name, Address and telephone number of the Contractor's point of contact for a contract resulting from this RFP | Mr. Robert M. Hodges, Jr., Vice President (540) 460-6499 HDT Expeditionary Systems, Inc. 30500 Aurora Road, Suite 100 Solon, OH 44139 |
| Company background / history and why Contractor is qualified to provide the services described in this RFP | HDT SME personnel specialize in the CBRN detection and identification and CBRN protection risk-based TVPA, engineering, design, installation, integration, T&C, operations, maintenance, ConOps developmental assistance, training and lifecycle sustainment related services required for this project. |
| Length of time Contractor has been providing services described in this RFP to the public and/or private sector . Please provide a brief description. | HDT SME personnel have been providing these services for more than 30 years, as described herein, to include several hundred previous applications at both the classified and the unclassified levels. |
| Resumes for key staff to be responsible for performance of any contract resulting from this RFP. | Please refer to Attachment 2 – Key Staff Resumes |

5.1.1 Financial Stability {9.1.1}

HDT has been in business since 1937. We are owned by the private investment firm Nexus Capital Management. Nexus has a policy of not releasing financial statements or tax returns. We understand that the City of Long Beach requires something to indicate the financial stability of our company. Other than our assertion that HDT is a strong and viable company, we are a medium size defense contractor in good standing with the U.S. Government. We currently hold Federal contracts in excess of \$50 million for services and production of CBRNE systems, shelters, generators, heaters, environmental control units, containerized weapon systems, robotic manipulator arms, and unmanned ground systems. Our registration to do business with the Federal Government can be verified through www.beta.SAM.gov and by Dunn & Bradstreet. The entity name, DUNS number, and CAGE code are shown below:

Entity Name: HDT Expeditionary Systems Inc.
CAGE Code: 92878
DUNS: 079176894

5.2 Subcontractor Information {9.2}

Does this proposal include the use of subcontractors? Yes ☐ No ☒ Initials

Handwritten initials in black ink, appearing to be 'RMS'.

As described herein, as of the time of writing, signature, initialing and submission, only HDT personnel have been included in our proposal submission.

5.3 References {9.3}

See Attachment 2 for List of References.

5.4 Business License {9.4}

HDT recognizes the requirement to obtain a business license from the City of Long Beach prior to the commencement of services. HDT intends to apply for a business license upon notice of award

EXHIBIT “B”

Cost/Rates

HDT Expeditionary Systems, Inc.
Revised Price Proposal
Fire Boat CBRN Detection & Telemetry Equipment
June 2, 2022

| HDT Proposal Requested Modification/Clarification Fire Boat 15 | HDT Quote |
|---|-----------------------|
| 1. Streamlined Exterior CWA/TIC Detection and Identification System Quote. Reference Request No. 2. | \$656,189.59 |
| a. 5-Year Overall Duration Extended Warranty Quote on only the CWA/TIC Detection and Identification Equipment. Reference Request No. 6. | \$19,888.27 |
| b. Faithful Performance Bond – additional 2.5% of total price inclusive of lines 1 and 1c. only | \$16,901.95 |
| c. Labor and Materials Bond – additional 2.5% of total price inclusive of lines 1 and 1c. only | \$16,901.95 |
| Subtotal Boat 15 | \$709,881.76 |
| HDT Proposal Requested Modification/Clarification Fire Boat 20 | HDT Quote |
| 1. Streamlined Exterior CWA/TIC Detection and Identification System Quote. Reference Request No. 2. | \$656,189.59 |
| a. 5-Year Overall Duration Extended Warranty Quote on only the CWA/TIC Detection and Identification Equipment. Reference Request No. 6. | \$19,888.27 |
| b. Faithful Performance Bond – additional 2.5% of total price inclusive of lines 1 and 1c. only | \$16,901.95 |
| c. Labor and Materials Bond – additional 2.5% of total price inclusive of lines 1 and 1c. only | \$16,901.95 |
| Subtotal Boat 20 | \$709,881.76 |
| Grand Total | \$1,419,763.52 |

EXHIBIT “C”

City’s Representative(s):

David Honey, Manager

Office: 562.570.2517

David.Honey@longbeach.gov

Paul Alvarado, Assistant Fire Chief

Office: 562.570.2586

Paul.Alvarado@longbeach.gov

EXHIBIT “D”

Materials/Information Furnished: None

EXHIBIT “E”

Consultant’s Key Employee(s):

Jamie Woodard, Senior Contracts and
Compliance Manager

Office: 540.479.8120

Jamie.Woodard@hdtglobal.com

Deb Tucker, Director of Business Development
Operations

Office: 540.460.6458

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Timothy Stickler, Director of CBRN Integrated
Protection, Biosecurity, and Chemical Security

Office: 301.204.5122

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