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Victoria F. Sheehan
Commissioner

THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION



William Cass, P.E.
Assistant Commissioner

His Excellency, Governor Christopher T. Sununu
and the Honorable Council
State House
Concord, New Hampshire 03301

Bureau of Materials & Research
June 14, 2019

REQUESTED ACTION

Authorize the Department of Transportation to enter into an Agreement with New Hampshire Boring Inc., of Derry, NH, Vendor 156599, for a total fee not to exceed \$400,000.00 for the purpose of providing on-call statewide geotechnical subsurface exploration services from the date of Governor and Council approval through June 30, 2022. 100% Federal Funds.

Funding to support this request are anticipated to be available in the following accounts in State FY 2020 and State FY 2021. Funding is contingent upon the availability and continued appropriation of funds in FY 2022, with the ability to adjust encumbrances through the Budget Office between State Fiscal Years if needed and justified:

	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>
04-96-96-963515-3054 Consolidated Federal Aid			
046-500464 General Consultants Non-Benefit	\$150,000.00	\$125,000.00	\$125,000.00

The Consolidated Federal Fund, AU 3054, is utilized at this time to encumber funds for this request. Actual funding sources will be determined by each particular project incurring expenses as a result of this request.

EXPLANATION

The Department requires geotechnical subsurface exploration (test boring) services to obtain soil, bedrock and groundwater information used in the design of various Department projects. Geotechnical subsurface explorations provide information needed to perform engineering analysis of foundations for bridges and other structures, for designing highway embankment fills and earth cuts, for assessing drainage needs, and for verifying existing conditions of constructed facilities. This Agreement is needed to supplement State forces engaged in similar efforts during high work-volume periods, and exclusively for performing subsurface explorations in areas of known or suspected ground or groundwater contamination and at sites requiring subsurface explorations on open water. State forces do not possess the required OSHA training or equipment to work in contaminated areas, nor do State forces have the necessary floatation equipment to work on open water.

The contractor selection process was in accordance with the Department's selection procedures for pre-qualified low-bid technical services contracts as outlined in the Department's Procurement Manual *Section 2.2 – Statewide Low Bid Contracts*. The contract was listed on the Department's "Projects Soliciting for Interest" webpage on February 1, 2019, and email notifications were also sent to ten (10) firms known to provide the required services on February 5, 2019. Letters of interest were received from the four (4) firms. Based on the information provided, the three (3) firms listed below of the four (4) interested firms were pre-qualified and

invited to bid on the proposed contract. One firm, Crawford Drilling Services, LLC, of Westminster, MA, was not pre-qualified due to its lack of capability to perform subsurface explorations on a water body. To enable proper comparison of bids, firms were provided a bid sheet with the same items and quantities listed, which represented the estimated amount of work for the duration of the Agreement. Bids were opened on May 9, 2019 with the following results:

<u>Firm</u>	<u>Location</u>	<u>Total Bid</u>	<u>Rank</u>
New Hampshire Boring Inc.	Derry, NH	\$ 455,157.50	A
Terracon Consultants, Inc.	Manchester, NH	\$ 467,967.50	B
S.W. Cole Explorations, LLC	Somersworth, NH	\$ 698,360.00	C

Two (2) Agreements were intended to be executed with the two firms submitting the lowest total bids. The lowest bidder was to be awarded a \$400,000.00 contract and the next lowest bidder was to be awarded a \$300,000.00 contract. New England Boring Contractors submitted the lowest total bid (Rank A) and is recommended for the \$400,000.00 contract. (Terracon Consultants, Inc. (Rank B) is recommended for the \$300,000.00 contract, as provided in a separate G&C letter.)

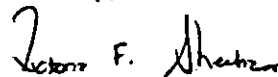
Although the bid cost exceeded the Department's estimate, the low bid by New England Boring Contractors is felt to be reasonable for the work involved. Bids were based on a sample project with hypothetical quantities used to establish unit costs for all 47 items in the contract. Items utilized on a typical on-call assignment are limited based on project needs, and bid prices for nearly half of the individual Items were less than the estimate, including commonly used Items such as general mobilization and barge rig borings. Re-advertising these contracts could result in higher prices and would delay a critical need for the Department. The Department considers it to be in the best interest of the State to accept this bid for the required services.

The Consolidated Federal Aid portion is 80% Federal Funds with 20% State match. Turnpike Toll Credit is being utilized for match requirements, effectively using 100% Federal funds.

The Agreement has been approved by the Attorney General as to form and execution. The Department has verified that the necessary funds are available. Copies of the fully executed Agreement are on file at the Secretary of State's Office and the Department of Administrative Services, and subsequent to Governor and Council approval will be on file at the Department of Transportation.

It is respectfully requested that authority be given to enter into an Agreement with New England Boring Contractors for on-call geotechnical subsurface exploration services (Statewide 42451) as outlined above.

Sincerely,



Victoria F. Sheehan
Commissioner

Department Estimate: \$400,000.00
 Low Bid: \$455,157.50
 Over Estimate: \$ 55,157.50

VFS/crd
 Attachments

**State of New Hampshire
Department of Transportation**

STATEWIDE ON-CALL 42451

Geotechnical Subsurface Exploration Services

Contract Dates: (G&C Approval Date) to June 30, 2022

**Contractor: New England Boring Contractors
PO Box 165
Derry, NH 03038
Vendor Number: 156599**

**Contractor Contact: Steven Garside, Operations Manager
Telephone: (603) 437-1610
Facsimile: (603) 437-0034
E-mail: steven.garside@neboring.com**

**DOT Contact: Charles R. Dusseault, PE
Bureau of Materials & Research
PO Box 483, 5 Hazen Drive
Concord NH 03302-0483**

**Telephone: (603) 271-3151
Facsimile: (603) 271-8700
E-mail: Chuck.Dusseault@dot.nh.gov**

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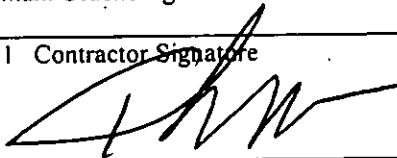
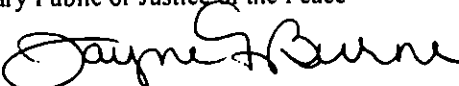
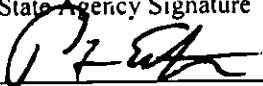
Notice: This agreement and all of its attachments shall become public upon submission to Governor and Executive Council for approval. Any information that is private, confidential or proprietary must be clearly identified to the agency and agreed to in writing prior to signing the contract.

AGREEMENT

The State of New Hampshire and the Contractor hereby mutually agree as follows:

GENERAL PROVISIONS

1. IDENTIFICATION.

1.1 State Agency Name Transportation, Bureau of Materials & Research		1.2 State Agency Address PO Box 483, 5 Hazen Drive, Concord, NH 03302-0483	
1.3 Contractor Name New Hampshire Boring, Inc.		1.4 Contractor Address PO Box 165, Derry, NH 03038	
1.5 Contractor Phone Number (603) 437-1610	1.6 Account Number 04-096-096-963515-3034	1.7 Completion Date June 30, 2022	1.8 Price Limitation \$400,000.00
1.9 Contracting Officer for State Agency William Oldenburg		1.10 State Agency Telephone Number (603) 271-1814	
1.11 Contractor Signature 		1.12 Name and Title of Contractor Signatory Thomas Garside, President	
1.13 Acknowledgement: State of NH , County of Hillsborough On 5/21/19 , before the undersigned officer, personally appeared the person identified in block 1.12, or satisfactorily proven to be the person whose name is signed in block 1.11, and acknowledged that s/he executed this document in the capacity indicated in block 1.12.			
1.13.1 Signature of Notary Public or Justice of the Peace  [Seal]			
1.13.2 Name and Title of Notary or Justice of the Peace JAYNE F. BURNE, Notary Public My Commission Expires Jan. 13, 2021			
1.14 State Agency Signature 		1.15 Name and Title of State Agency Signatory Peter E. Stammers Director of Project Development	
1.16 Approval by the N.H. Department of Administration, Division of Personnel (if applicable) By: _____ Director, On: _____			
1.17 Approval by the Attorney General (Form, Substance and Execution) (if applicable) By: Emily C. Garig On: 8/7/19			
1.18 Approval by the Governor and Executive Council (if applicable) By: _____ On: _____			

2. EMPLOYMENT OF CONTRACTOR/SERVICES TO BE PERFORMED. The State of New Hampshire, acting through the agency identified in block 1.1 ("State"), engages contractor identified in block 1.3 ("Contractor") to perform, and the Contractor shall perform, the work or sale of goods, or both, identified and more particularly described in the attached EXHIBIT A which is incorporated herein by reference ("Services").

3. EFFECTIVE DATE/COMPLETION OF SERVICES.

3.1 Notwithstanding any provision of this Agreement to the contrary, and subject to the approval of the Governor and Executive Council of the State of New Hampshire, if applicable, this Agreement, and all obligations of the parties hereunder, shall become effective on the date the Governor and Executive Council approve this Agreement as indicated in block 1.18, unless no such approval is required, in which case the Agreement shall become effective on the date the Agreement is signed by the State Agency as shown in block 1.14 ("Effective Date").

3.2 If the Contractor commences the Services prior to the Effective Date, all Services performed by the Contractor prior to the Effective Date shall be performed at the sole risk of the Contractor, and in the event that this Agreement does not become effective, the State shall have no liability to the Contractor, including without limitation, any obligation to pay the Contractor for any costs incurred or Services performed. Contractor must complete all Services by the Completion Date specified in block 1.7.

4. CONDITIONAL NATURE OF AGREEMENT.

Notwithstanding any provision of this Agreement to the contrary, all obligations of the State hereunder, including, without limitation, the continuance of payments hereunder, are contingent upon the availability and continued appropriation of funds, and in no event shall the State be liable for any payments hereunder in excess of such available appropriated funds. In the event of a reduction or termination of appropriated funds, the State shall have the right to withhold payment until such funds become available, if ever, and shall have the right to terminate this Agreement immediately upon giving the Contractor notice of such termination. The State shall not be required to transfer funds from any other account to the Account identified in block 1.6 in the event funds in that Account are reduced or unavailable.

5. CONTRACT PRICE/PRICE LIMITATION/PAYMENT.

5.1 The contract price, method of payment, and terms of payment are identified and more particularly described in EXHIBIT B which is incorporated herein by reference.

5.2 The payment by the State of the contract price shall be the only and the complete reimbursement to the Contractor for all expenses, of whatever nature incurred by the Contractor in the performance hereof, and shall be the only and the complete compensation to the Contractor for the Services. The State shall have no liability to the Contractor other than the contract price.

5.3 The State reserves the right to offset from any amounts otherwise payable to the Contractor under this Agreement those liquidated amounts required or permitted by N.H. RSA 80:7 through RSA 80:7-c or any other provision of law.

5.4 Notwithstanding any provision in this Agreement to the contrary, and notwithstanding unexpected circumstances, in no event shall the total of all payments authorized, or actually made hereunder, exceed the Price Limitation set forth in block 1.8.

6. COMPLIANCE BY CONTRACTOR WITH LAWS AND REGULATIONS/ EQUAL EMPLOYMENT OPPORTUNITY.

6.1 In connection with the performance of the Services, the Contractor shall comply with all statutes, laws, regulations, and orders of federal, state, county or municipal authorities which impose any obligation or duty upon the Contractor, including, but not limited to, civil rights and equal opportunity laws. This may include the requirement to utilize auxiliary aids and services to ensure that persons with communication disabilities, including vision, hearing and speech, can communicate with, receive information from, and convey information to the Contractor. In addition, the Contractor shall comply with all applicable copyright laws.

6.2 During the term of this Agreement, the Contractor shall not discriminate against employees or applicants for employment because of race, color, religion, creed, age, sex, handicap, sexual orientation, or national origin and will take affirmative action to prevent such discrimination.

6.3 If this Agreement is funded in any part by monies of the United States, the Contractor shall comply with all the provisions of Executive Order No. 11246 ("Equal Employment Opportunity"), as supplemented by the regulations of the United States Department of Labor (41 C.F.R. Part 60), and with any rules, regulations and guidelines as the State of New Hampshire or the United States issue to implement these regulations. The Contractor further agrees to permit the State or United States access to any of the Contractor's books, records and accounts for the purpose of ascertaining compliance with all rules, regulations and orders, and the covenants, terms and conditions of this Agreement.

7. PERSONNEL.

7.1 The Contractor shall at its own expense provide all personnel necessary to perform the Services. The Contractor warrants that all personnel engaged in the Services shall be qualified to perform the Services, and shall be properly licensed and otherwise authorized to do so under all applicable laws.

7.2 Unless otherwise authorized in writing, during the term of this Agreement, and for a period of six (6) months after the Completion Date in block 1.7, the Contractor shall not hire, and shall not permit any subcontractor or other person, firm or corporation with whom it is engaged in a combined effort to perform the Services to hire, any person who is a State employee or official, who is materially involved in the procurement, administration or performance of this

Agreement. This provision shall survive termination of this Agreement.

7.3 The Contracting Officer specified in block 1.9, or his or her successor, shall be the State's representative. In the event of any dispute concerning the interpretation of this Agreement, the Contracting Officer's decision shall be final for the State.

8. EVENT OF DEFAULT/REMEDIES.

8.1 Any one or more of the following acts or omissions of the Contractor shall constitute an event of default hereunder ("Event of Default"):

8.1.1 failure to perform the Services satisfactorily or on schedule;

8.1.2 failure to submit any report required hereunder; and/or

8.1.3 failure to perform any other covenant, term or condition of this Agreement.

8.2 Upon the occurrence of any Event of Default, the State may take any one, or more, or all, of the following actions:

8.2.1 give the Contractor a written notice specifying the Event of Default and requiring it to be remedied within, in the absence of a greater or lesser specification of time, thirty (30) days from the date of the notice; and if the Event of Default is not timely remedied, terminate this Agreement, effective two (2) days after giving the Contractor notice of termination;

8.2.2 give the Contractor a written notice specifying the Event of Default and suspending all payments to be made under this Agreement and ordering that the portion of the contract price which would otherwise accrue to the Contractor during the period from the date of such notice until such time as the State determines that the Contractor has cured the Event of Default shall never be paid to the Contractor;

8.2.3 set off against any other obligations the State may owe to the Contractor any damages the State suffers by reason of any Event of Default; and/or

8.2.4 treat the Agreement as breached and pursue any of its remedies at law or in equity, or both.

9. DATA/ACCESS/CONFIDENTIALITY/PRESERVATION.

9.1 As used in this Agreement, the word "data" shall mean all information and things developed or obtained during the performance of, or acquired or developed by reason of, this Agreement, including, but not limited to, all studies, reports, files, formulae, surveys, maps, charts, sound recordings, video recordings, pictorial reproductions, drawings, analyses, graphic representations, computer programs, computer printouts, notes, letters, memoranda, papers, and documents, all whether finished or unfinished.

9.2 All data and any property which has been received from the State or purchased with funds provided for that purpose under this Agreement, shall be the property of the State, and shall be returned to the State upon demand or upon termination of this Agreement for any reason.

9.3 Confidentiality of data shall be governed by N.H. RSA chapter 91-A or other existing law. Disclosure of data requires prior written approval of the State.

10. **TERMINATION.** In the event of an early termination of this Agreement for any reason other than the completion of the Services, the Contractor shall deliver to the Contracting Officer, not later than fifteen (15) days after the date of termination, a report ("Termination Report") describing in detail all Services performed, and the contract price earned, to and including the date of termination. The form, subject matter, content, and number of copies of the Termination Report shall be identical to those of any Final Report described in the attached EXHIBIT A.

11. **CONTRACTOR'S RELATION TO THE STATE.** In the performance of this Agreement the Contractor is in all respects an independent contractor, and is neither an agent nor an employee of the State. Neither the Contractor nor any of its officers, employees, agents or members shall have authority to bind the State or receive any benefits, workers' compensation or other emoluments provided by the State to its employees.

12. **ASSIGNMENT/DELEGATION/SUBCONTRACTS.** The Contractor shall not assign, or otherwise transfer any interest in this Agreement without the prior written notice and consent of the State. None of the Services shall be subcontracted by the Contractor without the prior written notice and consent of the State.

13. **INDEMNIFICATION.** The Contractor shall defend, indemnify and hold harmless the State, its officers and employees, from and against any and all losses suffered by the State, its officers and employees, and any and all claims, liabilities or penalties asserted against the State, its officers and employees, by or on behalf of any person, on account of, based or resulting from, arising out of (or which may be claimed to arise out of) the acts or omissions of the Contractor. Notwithstanding the foregoing, nothing herein contained shall be deemed to constitute a waiver of the sovereign immunity of the State, which immunity is hereby reserved to the State. This covenant in paragraph 13 shall survive the termination of this Agreement.

14. INSURANCE.

14.1 The Contractor shall, at its sole expense, obtain and maintain in force, and shall require any subcontractor or assignee to obtain and maintain in force, the following insurance:

14.1.1 comprehensive general liability insurance against all claims of bodily injury, death or property damage, in amounts of not less than \$1,000,000 per occurrence and \$2,000,000 aggregate; and

14.1.2 special cause of loss coverage form covering all property subject to subparagraph 9.2 herein, in an amount not less than 80% of the whole replacement value of the property.

14.2 The policies described in subparagraph 14.1 herein shall be on policy forms and endorsements approved for use in the State of New Hampshire by the N.H. Department of Insurance, and issued by insurers licensed in the State of New Hampshire.

14.3 The Contractor shall furnish to the Contracting Officer identified in block 1.9, or his or her successor, a certificate(s) of insurance for all insurance required under this Agreement. Contractor shall also furnish to the Contracting Officer identified in block 1.9, or his or her successor, certificate(s) of insurance for all renewal(s) of insurance required under this Agreement no later than thirty (30) days prior to the expiration date of each of the insurance policies. The certificate(s) of insurance and any renewals thereof shall be attached and are incorporated herein by reference. Each certificate(s) of insurance shall contain a clause requiring the insurer to provide the Contracting Officer identified in block 1.9, or his or her successor, no less than thirty (30) days prior written notice of cancellation or modification of the policy.

15. WORKERS' COMPENSATION.

15.1 By signing this agreement, the Contractor agrees, certifies and warrants that the Contractor is in compliance with or exempt from, the requirements of N.H. RSA chapter 281-A ("*Workers' Compensation*").

15.2 To the extent the Contractor is subject to the requirements of N.H. RSA chapter 281-A, Contractor shall maintain, and require any subcontractor or assignee to secure and maintain, payment of Workers' Compensation in connection with activities which the person proposes to undertake pursuant to this Agreement. Contractor shall furnish the Contracting Officer identified in block 1.9, or his or her successor, proof of Workers' Compensation in the manner described in N.H. RSA chapter 281-A and any applicable renewal(s) thereof, which shall be attached and are incorporated herein by reference. The State shall not be responsible for payment of any Workers' Compensation premiums or for any other claim or benefit for Contractor, or any subcontractor or employee of Contractor, which might arise under applicable State of New Hampshire Workers' Compensation laws in connection with the performance of the Services under this Agreement.

16. WAIVER OF BREACH. No failure by the State to enforce any provisions hereof after any Event of Default shall be deemed a waiver of its rights with regard to that Event of Default, or any subsequent Event of Default. No express failure to enforce any Event of Default shall be deemed a waiver of the right of the State to enforce each and all of the provisions hereof upon any further or other Event of Default on the part of the Contractor.

17. NOTICE. Any notice by a party hereto to the other party shall be deemed to have been duly delivered or given at the time of mailing by certified mail, postage prepaid, in a United States Post Office addressed to the parties at the addresses given in blocks 1.2 and 1.4, herein.

18. AMENDMENT. This Agreement may be amended, waived or discharged only by an instrument in writing signed by the parties hereto and only after approval of such amendment, waiver or discharge by the Governor and Executive Council of the State of New Hampshire unless no

such approval is required under the circumstances pursuant to State law, rule or policy.

19. CONSTRUCTION OF AGREEMENT AND TERMS.

This Agreement shall be construed in accordance with the laws of the State of New Hampshire, and is binding upon and inures to the benefit of the parties and their respective successors and assigns. The wording used in this Agreement is the wording chosen by the parties to express their mutual intent, and no rule of construction shall be applied against or in favor of any party.

20. THIRD PARTIES. The parties hereto do not intend to benefit any third parties and this Agreement shall not be construed to confer any such benefit.

21. HEADINGS. The headings throughout the Agreement are for reference purposes only, and the words contained therein shall in no way be held to explain, modify, amplify or aid in the interpretation, construction or meaning of the provisions of this Agreement.

22. SPECIAL PROVISIONS. Additional provisions set forth in the attached EXHIBIT C are incorporated herein by reference.

23. SEVERABILITY. In the event any of the provisions of this Agreement are held by a court of competent jurisdiction to be contrary to any state or federal law, the remaining provisions of this Agreement will remain in full force and effect.

24. ENTIRE AGREEMENT. This Agreement, which may be executed in a number of counterparts, each of which shall be deemed an original, constitutes the entire Agreement and understanding between the parties, and supersedes all prior Agreements and understandings relating hereto.

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EXHIBIT A: TECHNICAL SERVICES TO BE PROVIDED

2.1 LOCATION AND DESCRIPTION OF PROJECT

The types of services required under the terms of this AGREEMENT shall be SUBSURFACE EXPLORATIONS, defined herein, that the DEPARTMENT may require at any time during this AGREEMENT until its completion date.

2.2 SUPPLEMENTARY DEFINITIONS

In addition to terms defined elsewhere in this AGREEMENT and in Section 101 of the DEPARTMENT's Standard Specifications for Road & Bridge Construction, the following definitions shall be applicable:

2.2.1 ENGINEER

An employee or designated representative of the DEPARTMENT, responsible for observation of the work performed by the CONTRACTOR and for communication with the CONTRACTOR concerning the DEPARTMENT's project objectives and requirements. The term ENGINEER includes without limitation engineers, technicians, geologists, soil scientists, earth scientists, and others so designated.

2.2.2 SUBSURFACE EXPLORATIONS

The term SUBSURFACE EXPLORATIONS shall include but not be limited to the following subsurface investigations to be performed by CONTRACTOR with geotechnical drilling equipment: cased wash borings; hollow-stem auger borings; solid-stem auger probes; stationary piston tube sampling; diamond bit coring; spin-casing; installation of groundwater sampling (monitoring) wells, groundwater level (observation) wells and piezometers; pavement coring; and decommissioning of existing groundwater monitoring or observation wells.

2.2.3 MUTCD

For development and implementation of traffic control, the current version of the "Manual on Uniform Traffic Control Devices for Streets and Highways" published by the United States Department of Transportation Federal Highway Administration (defined as MUTCD for this AGREEMENT) shall define acceptable practice and signage. FHWA has the manual available (for purchase in hard copy or on CD, or printable in PDF format) through the Internet at the following link: <http://mutcd.fhwa.dot.gov/index.htm>.

2.3 SCOPE OF WORK

2.3.1 SUBSURFACE EXPLORATIONS to Be Provided

The work to be performed under the terms of this AGREEMENT shall be geotechnical SUBSURFACE EXPLORATIONS, as defined under paragraph 2.2.2 of this AGREEMENT, which the DEPARTMENT may assign to determine subsurface conditions at various DEPARTMENT project sites throughout the State. Project sites may include present and/or proposed locations for roadways, bridges, or other structures anywhere within the State of New Hampshire, or in an adjacent state for projects that cross a border. The CONTRACTOR will not be required to work on more than one work site at any given time, unless by mutual agreement between the DEPARTMENT and the CONTRACTOR. Work may be required both on land and over inland water bodies. Work may be required in an area of known or suspected contaminated soil or groundwater, so HAZWOPER protocols may be needed in performance of the work. Work in adverse weather and winter conditions may also be required since assignments can occur at any time during the contract. Standard contract compensation rates will be applicable to all working conditions without adjustment.

2.3.2 Purpose and Cooperation

The purpose of these SUBSURFACE EXPLORATIONS is to obtain reliable data regarding character and elevation of soil and rock formations. The CONTRACTOR shall give the DEPARTMENT every facility to obtain its own records and determine every detail of the work as it progresses.

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2.3.3 Drilling Rigs to Be Furnished By the CONTRACTOR

This AGREEMENT requires SUBSURFACE EXPLORATIONS to be made by several alternative types of equipment. Definitions of the categories of drill rigs to be provided by the CONTRACTOR are listed below. The final decision regarding mobilization of different types of drill rigs, for assignment of the equipment category to be utilized on each boring and for payment purposes, will be made by the ENGINEER in consultation with the CONTRACTOR.

The CONTRACTOR shall have the capability of furnishing, when directed, one working drill rig with accessory equipment and equipment operators on the site at all times for the duration of the work. If the drill rig breaks down or becomes damaged so it is unusable, it shall be replaced with a working drill rig without compensation. The DEPARTMENT reserves the option to request more than one drill rig be furnished on a project; however, it is anticipated that most assignments will require a single rig. On assignments requiring multiple rigs, the CONTRACTOR may, with approval of the DEPARTMENT, utilize hired equipment or the services of a subcontractor for the additional drill rig(s). Any additional drill rigs on a project beyond the one required will be compensated as a general mobilization or at direct costs if subcontracted.

2.3.3.1 Cathead Rig

A cathead rig means a light-weight, power-assisted test boring machine having a power-driven rotating drum mounted on a portable tripod, or other portable soil drive sampling equipment, which can be man carried to a boring location that is not accessible to a vehicle-mounted drill rig.

2.3.3.2 Truck Rig

A truck rig means a test boring drilling machine mounted on a highway vehicle that is normally driven under its own power both to the work site and to the boring location. This class of drill rig includes wheeled trailer mounted drill rigs towed by a truck.

2.3.3.3 Track Rig

A track rig means a test boring drilling machine mounted on a tracked vehicle or on an all terrain vehicle (ATV) which is normally transported to the work site on a trailer and which can then be driven under its own power off the highway over rough terrain to the boring location.

2.3.3.4 Skid Rig

A skid rig means a test boring drilling machine mounted on skids or on a trailer that is dragged or towed to the drilling location using a self-mounted winch or other machinery.

2.3.3.5 Barge Rig

A barge rig means a drill rig mounted on a barge, raft or other flotation equipment, for drilling on surface water bodies, together with support boats, trailers or other vehicles needed for site mobilization/demobilization and access for CONTRACTOR and ENGINEER to and from the drill rig. The CONTRACTOR may, with prior DEPARTMENT approval, subcontract barge work over inland water bodies.

2.3.4 Equipment Condition

All equipment provided by the CONTRACTOR shall be properly maintained in sound condition and shall be of a quality and type suitable for subsurface drilling. In the judgment of the ENGINEER any mobilized equipment that does not meet these conditions may be rejected, and the CONTRACTOR will replace the rejected equipment without additional compensation.

2.3.5 Personnel, Boring Foreman

The CONTRACTOR shall furnish only competent, trained and experienced personnel consisting of a minimum of one driller and one helper for each drill rig. The CONTRACTOR shall also keep at the site of the work, at all times during its progress, a competent boring foreman and any necessary assistants. The CONTRACTOR may designate the driller to act as the boring foreman. The boring foreman shall represent the CONTRACTOR, and all directions given by the ENGINEER to the foreman shall be as binding as if given to the CONTRACTOR directly.

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2.3.6 Landowner Contacts

CONTRACTOR shall not notify or contact private landowners without obtaining prior approval from the DEPARTMENT. The DEPARTMENT may require CONTRACTOR to contact private landowners located outside the project limits whose property the CONTRACTOR desires to cross for ease of access to the locations of the SUBSURFACE EXPLORATIONS. As stated under paragraph 2.4.5, the DEPARTMENT shall be responsible for landowner contacts for properties having proposed exploration locations.

2.3.7 Pre-Job Site Meeting

For each Notice to Proceed issued by the DEPARTMENT to the CONTRACTOR under paragraph 2.4.2, the CONTRACTOR shall provide a representative to meet with a representative from the DEPARTMENT at the location of the proposed SUBSURFACE INVESTIGATIONS, if such a meeting is requested by the ENGINEER. The Pre-Job Site Meeting will take place a minimum of 10 business days prior to initiation of SUBSURFACE INVESTIGATIONS. The purpose of the Pre-Job Site Meeting will be to discuss the proposed scope of work, site access, traffic control, landowner access, and any other issues that may relate to the performance of the SUBSURFACE INVESTIGATIONS. The CONTRACTOR shall not be compensated separately for attending the Pre-Job Site Meeting.

2.3.8 Standard Work Day

The CONTRACTOR shall work a minimum 8-hour workday. No work shall be done before 7:00 a.m. or after 3:00 p.m., prevailing time, or on Saturdays, Sundays or legal State holidays, unless expressly permitted by the DEPARTMENT. Once the CONTRACTOR establishes a project work schedule within the requirements of this paragraph, the ENGINEER may order the CONTRACTOR to suspend work during a portion of the standard workday, for special situations that are in the best interest of the DEPARTMENT. The determination of a special situation and qualification for payment of Standby Time will be made solely by the ENGINEER.

2.3.9 Professional Conduct

CONTRACTOR personnel or subcontractor shall perform the assigned work under this AGREEMENT in a professional and cooperative manner. If these conditions are not met by any CONTRACTOR personnel or subcontractor, they shall be removed from the work site immediately upon request of the ENGINEER. The CONTRACTOR shall not be compensated separately for replacement of personnel rejected by the ENGINEER or for standby time resulting from the CONTRACTOR's failure to meet these conditions.

2.3.10 Environmental Regulations

Equipment and work practices for projects located within the jurisdiction of the New Hampshire Department of Environmental Services Wetlands Bureau shall meet all applicable statutes, rules and permitting requirements for wetlands. Work in areas of known or suspected soil or groundwater contamination shall comply with applicable New Hampshire Department of Environmental Services hazardous material rules and OSHA regulations. The installation or decommissioning of groundwater monitoring wells shall comply with the New Hampshire Department of Environmental Services Water Well Board rules, http://www.gencourt.state.nh.us/rules/state_agencies/we100-1000.html.

2.3.11 Utility Clearance

The CONTRACTOR shall not proceed with any SUBSURFACE EXPLORATIONS without receiving notice from the ENGINEER that the DEPARTMENT has performed a utility clearance including contacting DIG-SAFE as described in paragraph 2.4.6. Alternately if assigned, the CONTRACTOR shall perform all utility clearance related tasks including: pre-marking, contacting DIG-SAFE, and contacting other non-member utility owners, prior to commencement of the SUBSURFACE EXPLORATIONS. On occasion, the services of a utility locating company may be required for locating a utility that is not a member of DIG-SAFE. If authorized by the ENGINEER, this service shall be hired by the CONTRACTOR, the cost of which will be reimbursed as a direct expense. The CONTRACTOR may perform their own utility clearance even if this task is performed by the DEPARTMENT; however, the CONTRACTOR will not be compensated by the DEPARTMENT in this circumstance. DIG SAFE can be contacted by calling 811 or 1-888-344-7233, or by visiting their website at <http://www.digsafe.com/>.

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2.3.12 Traffic Control Plan

When SUBSURFACE EXPLORATIONS will be performed in or adjacent to traffic, requiring traffic controls provided by the CONTRACTOR, the CONTRACTOR shall prepare a written TRAFFIC CONTROL PLAN and submit it to the DEPARTMENT for review and approval a minimum of 10 business days prior to the start date specified in the Notice to Proceed defined in paragraph 2.4.2. The draft TRAFFIC CONTROL PLAN shall describe proposed traffic control setups and devices to be used at each exploration location and for any CONTRACTOR mobilization or demobilization operations near traffic.

The DEPARTMENT will provide written review comments on the draft TRAFFIC CONTROL PLAN to the CONTRACTOR a maximum of 5 business days following receipt of CONTRACTOR'S draft TRAFFIC CONTROL PLAN. The CONTRACTOR will incorporate the DEPARTMENT'S comments into a final TRAFFIC CONTROL PLAN, which will become the basis for traffic control for the duration of that assignment.

The TRAFFIC CONTROL PLAN and the implementation of the TRAFFIC CONTROL PLAN shall conform to the MUTCD, as defined in paragraph 2.2.3. By signing this AGREEMENT, CONTRACTOR acknowledges possession of and familiarity with the MUTCD.

At its discretion, the DEPARTMENT will develop the TRAFFIC CONTROL PLAN and provide traffic control with its own forces for the CONTRACTOR. The CONTRACTOR shall not be entitled to any reimbursement for traffic controls set up by the DEPARTMENT.

2.3.13 Excavation Permits

The CONTRACTOR shall obtain any necessary excavation permit from the local municipality or State Maintenance District before proceeding with any SUBSURFACE EXPLORATIONS under this AGREEMENT. The cost of any permit is reimbursable as a direct expense.

2.4 MATERIAL FURNISHED BY THE DEPARTMENT

The DEPARTMENT will provide the following items to the CONTRACTOR.

2.4.1 Project Assignment

As needs develop on a project-by-project basis, the DEPARTMENT will contact the CONTRACTOR and request their services. Each specific assignment will be issued in a letter, or verbally with a follow-up letter to document the verbal notice. The project assignment letter will identify the project location and will include an exploration location plan and an estimate of the quantity of work required.

2.4.2 Notice to Proceed

The DEPARTMENT will issue a Notice to Proceed, notifying the CONTRACTOR to begin work on a specific project. The Notice to Proceed will include a maximum dollar cost for the work (the so-called upset fee) that will not be exceeded by the CONTRACTOR. The Notice to Proceed will also include dates, set in consultation with the CONTRACTOR, for starting and completing work on the assigned project. The Project Assignment and the Notice to Proceed may be combined into a single document.

2.4.3 Plans and Field Survey

The DEPARTMENT will provide the CONTRACTOR with an exploration layout plan and field survey required to locate requested explorations, probes, or wells. Locations of work on water will be marked with a survey stake where possible, or may be determined by the CONTRACTOR from reference stakes and a suitable benchmark provided by the DEPARTMENT. The ENGINEER may modify exploration locations in the field to accommodate actual field conditions. The ENGINEER will discuss such modifications with the CONTRACTOR prior to initiating SUBSURFACE EXPLORATIONS at any modified locations. If, in the judgment of the ENGINEER or CONTRACTOR, the TRAFFIC CONTROL PLAN should be amended to address a modified exploration location, the ENGINEER and CONTRACTOR will discuss and amend the TRAFFIC CONTROL PLAN before commencing SUBSURFACE EXPLORATIONS at the modified location. If the ENGINEER and CONTRACTOR cannot amend the TRAFFIC CONTROL PLAN to their mutual satisfaction, then no SUBSURFACE EXPLORATION shall be performed at the modified location until the traffic control measures are resolved.

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2.4.4 Pre-Job Site Meeting

The DEPARTMENT will schedule and coordinate the Pre-Job Site Meeting per paragraph 2.3.7. Attendance by a knowledgeable representative of the CONTRACTOR is required.

2.4.5 Notice of Entry Letters and Landowner Contacts

The DEPARTMENT will contact landowners verbally and/or by mail and provide notice of Entry letters to property owners within the project limits who are to be affected by the work, and the DEPARTMENT will be responsible for communicating with property owners within the project limits. As stated under paragraph 2.3.6, the CONTRACTOR shall be responsible for landowner contacts needed for the convenience of their operations.

2.4.6 Utility Clearance

It is intended for all assignments that the DEPARTMENT will perform the utility clearance of the work site. The DEPARTMENT will pre-mark the project site and notify the utility damage prevention system, DIG-SAFE, of the intended SUBSURFACE EXPLORATIONS. The DEPARTMENT will inform the CONTRACTOR of identified utilities near the work. In the event the DEPARTMENT cannot complete the utility clearance, the CONTRACTOR will be assigned this task per paragraph 2.3.11.

2.4.7 Wetlands Permit, Notification to the Wetlands Board

The DEPARTMENT will file a wetlands permit application in consultation with the CONTRACTOR, for assignments requiring a permit. For projects within the jurisdiction of the Wetlands Board but for which no permit is required, the DEPARTMENT will notify the Wetlands Bureau, and other bodies as required, of the intended work. The CONTRACTOR shall subsequently comply with the terms and conditions listed on the Wetlands Permit and/or the applicable Rules.

2.4.8 Services of Uniformed Officers

The DEPARTMENT will pay directly for services of uniformed police officers required under paragraph 2.7.4.

2.4.9 Inspection of the Work

The CONTRACTOR's work shall be done in accordance with this AGREEMENT under the general direction of the DEPARTMENT or its authorized representatives. All work shall be accomplished only in the presence of the ENGINEER.

2.5 WORK SCHEDULES AND PROGRESS REPORTS

2.5.1 Assignment Start Date

The CONTRACTOR shall begin work on an assigned project on the start date specified in the Notice to Proceed, or by a later date mutually agreed upon by the CONTRACTOR and the ENGINEER. Once equipment is mobilized and explorations begin, the CONTRACTOR shall work continuously to complete the assignment without delay unless agreed otherwise by the ENGINEER.

2.5.2 Assignment Completion Date

The completion date for work to be done on a specific site will be specified in the Notice to Proceed. The DEPARTMENT shall establish the completion date after consultation with the CONTRACTOR. Extension of the completion date beyond that specified in the Notice to Proceed shall be at the discretion of the DEPARTMENT.

2.5.3 Submission of Materials and Reports

Soil and rock samples, pavement cores, driller field notes if requested, and other required records shall be submitted to the DEPARTMENT within two weeks after completion of field work.

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2.6 NUMBER AND LOCATION OF EXPLORATIONS

2.6.1 Exploration Location Plan

The Exploration Location Plan for each work site will show the proposed number and type of explorations and the sampling requirements. During the progress of the work, the DEPARTMENT may direct that certain explorations be omitted, may require that the number of explorations be increased, may change sampling requirements, or may change the types or required depths of explorations. Any such change will be based on the needs of the work as determined by the DEPARTMENT and shall be carried out by the CONTRACTOR as if originally specified for the work.

2.6.2 Obstructions

The DEPARTMENT makes no representations as to the character of the ground through which the SUBSURFACE EXPLORATIONS are to be made, or that any SUBSURFACE EXPLORATION location given will be found free from obstructions. If field conditions indicate a need to offset SUBSURFACE EXPLORATIONS from their planned location, the new locations shall be approved by the ENGINEER before work is started at the offset location.

2.7 MAINTENANCE OF TRAFFIC

2.7.1 Traffic Control Plan

CONTRACTOR shall be responsible for implementing and adhering to the final TRAFFIC CONTROL PLAN, as approved by the DEPARTMENT, defined under paragraph 2.3.12. Any deviations from the final TRAFFIC CONTROL PLAN shall be discussed with and approved by the ENGINEER prior to implementation in the field.

2.7.2 Notify Local Police

The CONTRACTOR shall obtain permission from and coordinate work activities with local police authorities before beginning any SUBSURFACE EXPLORATIONS as needed.

2.7.3 Flaggers

When required by the final TRAFFIC CONTROL PLAN, the CONTRACTOR shall provide flaggers for traffic control, as a Contract pay item, to control and direct the safe and expeditious movement of traffic through and around the work zones, and to promote increased safety to motorists, pedestrians, the CONTRACTOR's work force, and DEPARTMENT personnel. Flaggers shall be clothed and equipped in accordance with the MUTCD.

2.7.4 Uniformed Officers

It is intended that uniformed officers will be utilized when a lane closure is required to do the explorations, and CONTRACTOR's TRAFFIC CONTROL PLAN, defined under paragraph 2.3.12, shall reflect this intent. Either the DEPARTMENT or CONTRACTOR may require inclusion of uniformed officers in the Traffic Control Plan for circumstances other than lane closures, if, in its judgment, uniformed officers should be provided for safety.

2.8 ABANDONED BORINGS

Borings shall not be abandoned before reaching the final depth ordered by the DEPARTMENT except on the approval of the ENGINEER. No payment will be made for borings abandoned by reasons of an accident or negligence attributed to the CONTRACTOR. Borings abandoned before reaching required depth, due to an obstruction or other reasonable cause beyond the control of the CONTRACTOR such that the boring cannot be completed with the equipment required under this AGREEMENT, shall be replaced by a supplementary boring adjacent to the original and carried to the required depth. Penetration of the supplemental boring to the completed depth of the original boring may be made by any means selected by the CONTRACTOR and approved by the ENGINEER. Samples shall be taken in the supplementary boring from the elevation at which the original boring was abandoned in a manner specified for the original boring.

If abandoned for reasons acceptable to the ENGINEER, payment will be made for the portion of the abandoned boring approved by the ENGINEER, at the appropriate unit prices for boring and sampling stated in the

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AGREEMENT, provided the CONTRACTOR presents soil samples and records as specified plus a written statement on the obstruction which necessitated relocating the boring. Payment will also be made for the portion of the supplementary boring extending below the approved, final elevation of the original boring.

2.9 CASING AND HOLLOW-STEM AUGERS

2.9.1 Equipment Requirement

The CONTRACTOR shall provide pipe or drill casing and hollow-stem augers in quantities and sizes adequate for expeditious performance of the work. Casing and hollow-stem augers shall have inside diameters not less than 3 inches for all borings. Larger sizes of casing may be required where obstructions or hard driving require "telescoping" of casing to advance the minimum size casing to the depth of sampling. All holes are to be cased or augered for the upper ten feet and to greater depths as needed to meet field conditions. The ENGINEER may require casing or augers for the full depth of boring if, in the ENGINEER's opinion, successful boring and sampling operations cannot be carried out without casing or augers.

2.9.2 Advancement

Casing shall be driven by a drop weight or spun using a diamond casing shoe. If spun, casing advancement shall be halted six inches above the sampling depth identified by the ENGINEER. Drilling mud or hollow-stem augers may be permitted for use in this work, with the approval of the ENGINEER. Hollow-stem augers shall be equipped with a bottom plug during drilling to limit entrance of soil up inside the augers.

2.10 SOIL SAMPLING DEVICES

Soil sampling devices shall be as described below and approved by the ENGINEER before use:

2.10.1 Split Spoon Sampler

Split spoon sampler shall be a two-inch outside diameter, split-barrel sampler with a 24-inch long barrel, equivalent to the equipment described in the American Association of State Highway and Transportation Officials (AASHTO) T 206-09 test method, available for reference from the ENGINEER.

2.10.2 Stationary Piston Tube Sampler

Stationary piston tube sampler shall be a three-inch diameter thin wall tube sampler containing a close-fitting piston operated by a separate piston rod and a sampler head, with appropriate spring and piston rod check, in accordance with the equipment requirements of the AASHTO T 207-12 test method, available for reference from the ENGINEER.

2.11 SOIL BORINGS

2.11.1 Typically Preferred Method

CONTRACTOR shall commence SUBSURFACE EXPLORATIONS using drive and wash casing, unless an alternative approach is approved in advance by the ENGINEER.

2.11.2 Advancement

Borings will typically be made by advancing casing of the size required and to the extent needed to maintain an open hole without collapse of the hole, and removing soil from within the casing by washing or by drilling with rotary drill utilizing clean wash water. Recirculation of wash water using a washtub may be permitted, so long as the washtub is of adequate capacity and is fitted with a baffle to limit reintroduction of soil cuttings into the borehole. Casing shall be advanced in stages of not more than the specified sampling interval, after which the material within the casing shall be cleaned out to the depth of the casing using a tri-cone roller bit. Bottom discharge washing procedures, including washing through a sampling spoon or open-ended drill rod, shall not be permitted, unless the ENGINEER gives prior approval. A bottom plug shall be used during advancement of hollow-stem augers to limit the entry of soil cuttings into the augers, unless ENGINEER approves otherwise.

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2.11.3 Split Spoon Samples

Split spoon samples shall be taken in accordance with AASHTO T 206-09, available for reference from the ENGINEER, at vertical intervals typically no greater than 5 feet. The ENGINEER may require continuous split spoon sampling on some borings. After reaching required sampling depth, drilling shall be stopped, the disturbed materials shall be removed from the hole, and a split spoon sample of the underlying undisturbed material shall be taken. A sample retainer basket shall be used in the sampler. The samples shall be removed from the hole in unwashed condition in such a manner as to provide a true sample of soil formations from which they are recovered. Additional requirements for soil sampling beyond the specifications of Exhibit D are as follows:

2.11.3.1 Hammer

A 140-pound automatic hammer shall be used to drive the split spoon sampler for all soil borings. A safety hammer or "doughnut" hammer shall not be utilized unless the ENGINEER gives prior approval. If requested by the ENGINEER, the CONTRACTOR shall provide a hammer system for which the energy transfer efficiency has been determined according to ASTM D4633. For a cathead setup a safety hammer can be used. The CONTRACTOR shall operate the cathead in accordance with Exhibit D.

2.11.3.2 Record-keeping

CONTRACTOR shall record the number of blows required to drive the sampler each 6-inch increment and record the number of blows and actual distance driven for each increment less than 6 inches.

2.11.3.3 Recovery

A recovered split spoon sample measuring at least 25 percent of the driven distance is considered acceptable. When the recovery is less than specified, the CONTRACTOR shall immediately attempt to take a second sample below the depth unsuccessfully sampled, unless directed otherwise by the ENGINEER. Additional samples collected for reason of insufficient recovery of the first sample will not be compensated separately.

2.11.4 Stationary Piston Tube Sampling

Stationary Piston Tube Sampling procedures shall be in accordance with AASHTO T-207-12, available for reference from the ENGINEER. Tube sample ends shall be filled with microcrystalline wax, and then sealed with a cap and electrical tape. Tube samples shall be protected from vibration, shock, temperature extremes, and freezing conditions. The ENGINEER will transport stationary piston tube samples.

2.11.5 Sample Preservation and Labeling Requirements

Immediately on removal from the hole, a portion of the sample recovered in the split barrel sampler or the bottom of the tube sample shall be tightly sealed in a screw-top glass sample jar. The sample jars shall be of a sufficient size such that the samples are placed in the jars in the condition in which they are removed from the split-barrel sampler, without squeezing, masking, or otherwise excessively distorting the sample. For protection during transport and storage, the jars shall be packed in close fitting cardboard boxes with dividers. Each sample jar shall be labeled to show plainly the project name and number, the number of the hole, the depth from which the sample was taken, the sample number, the length of the soil sample recovered, and the number of blows for penetration of the sampler as previously specified. Each box of sample jars shall be labeled to show the project name and the boring number for samples within the box. The CONTRACTOR shall provide such containers, keeping a sufficient supply on-hand to prevent any delay in the work.

2.11.6 Telescoped Casing

In the event that obstructions or other drilling difficulties are encountered such that casing can no longer be advanced, the CONTRACTOR may continue the SUBSURFACE EXPLORATION by advancing smaller diameter casing within and beyond the original casing. If so performed, compensation will be made at the appropriate unit prices for boring and sampling stated in the AGREEMENT for advancement as follows: advancement of the original, larger-diameter casing from the ground surface to the depth of

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its termination, plus compensation for advancement of the smaller diameter, telescoped casing from the depth of termination of the original casing to the bottom of the exploration. No compensation will be made for the smaller diameter casing from the ground surface to the depth of termination of the original casing.

2.12 CORE DRILLING IN ROCK

2.12.1 Specification

Core drilling in rock shall follow the provisions of AASHTO T 225-16, available for reference from the ENGINEER, unless otherwise directed. In borings designated for core drilling in rock, casing with an inner diameter of not less than 3 inches shall be driven to and seated onto bedrock. Double-tube rock coring equipment that results in a core measuring a minimum of 1.875 inches in diameter shall be required. The ENGINEER, on a case-by-case basis, may allow smaller diameters.

2.12.2 Penetration Distance

The CONTRACTOR shall drill a minimum distance of five feet into sound bedrock or to depths as directed by the ENGINEER.

2.12.3 Recovery

Individual drill runs in the coring operations shall in no case exceed the capacity of the core barrel and shall be of such an amount, depending on the nature of the rock encountered, as to assure maximum core recovery. Every effort shall be made by the CONTRACTOR to obtain as full recovery of rock core as possible, and all significant actions of the bit and reasons for loss of core shall be recorded in the boring log.

2.12.4 Sample Preservation And Labeling Requirements

The CONTRACTOR shall preserve and deliver to the DEPARTMENT the entire rock core. Unless otherwise directed, the CONTRACTOR shall follow the applicable provisions of AASHTO T 225-16, available for reference from the ENGINEER, for packaging, labeling, and transporting rock core samples.

2.13 PAVEMENT CORES

Pavement cores shall be made in existing pavement structures through their full thickness, which includes both asphalt and concrete pavements, to obtain a pavement core specimen with a nominal six (6) inch diameter, or as directed by the ENGINEER. Pavement core specimens shall be labeled clearly, so their location of origin can be determined. Pavement core specimens that break into small or many pieces shall be stored in a container or bag, otherwise no container is needed, and the core specimens shall be delivered to the DEPARTMENT.

2.14 GROUNDWATER LEVEL OBSERVATIONS

Observation shall be made of groundwater levels in all completed explorations on land. Any and all unusual water conditions and gain or loss of water in boring operations shall be recorded completely in the boring logs. When drilling mud is used to stabilize the hole, the drill hole shall be thoroughly flushed with clean water on completion of the boring to allow the observation of groundwater levels. Bore holes should be left open as long as practical to allow more stabilized groundwater level measurements.

2.15 GROUNDWATER LEVEL OBSERVATION (MONITORING) WELL INSTALLATION

Groundwater level observation wells shall consist of either, as directed by the ENGINEER, 1-1/2 inch or 2 inch nominal diameter solid well pipe, slotted plastic well screen (0.010 inch slot width), a bottom plug, and a PVC top plug that are installed in a previously drilled boring. **For wells with 1-1/2 inch diameter well pipe, 3 inch diameter or larger casing shall be used for the bored hole. For wells with 2 inch diameter well pipe, 4 inch diameter or larger casing shall be used for the bored hole.** The well construction and material requirements of ASTM D5092 (Available for reference from the ENGINEER) shall be followed unless directed otherwise herein or by the ENGINEER. The well screen shall be a minimum length of 10 feet. The installed depth within the boring shall be determined by the ENGINEER. Backfilling of the boring in which the well is installed shall generally consist of a bottom bentonite seal (minimum 1 foot thickness), filter sand from a minimum of 1 foot below the bottom of the well screen to a minimum of 1 foot above the top of the well screen, and a minimum 2-foot thick bentonite clay seal along the riser pipe. General backfill above the bentonite clay seal may be soil

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cuttings removed from the boring or other approved material. An approximately three foot high stickup of riser pipe above the ground surface shall be provided for wells with a riser protective standpipe.

As directed, a lockable, steel protective riser casing or a flush-mounted road box shall be installed for protection of the well pipe. Riser casings and road boxes shall be installed with a surface seal of concrete at least one foot thick. Riser standpipes shall be provided with a padlock and two keys when requested. The padlock brand shall be "Master Lock" with brass key #3212 unless otherwise directed by the ENGINEER.

A Well Completion Report(s) shall be completed per the New Hampshire Department of Environmental Services Water Well Board Rules We 802. A blank copy of the report can be provided by the ENGINEER, or it can be obtained from the DES website at <http://des.nh.gov/organization/divisions/water/dwgb/www/categories/forms.htm>. A copy of the completed Well Completion Report shall be provided to the ENGINEER upon request.

2.16 GROUNDWATER LEVEL OBSERVATION (MONITORING) WELL DECOMMISSIONING

An existing groundwater observation well or monitoring well shall be decommissioned (removed) and the well hole properly backfilled per paragraph 2.18. The CONTRACTOR shall possess a valid NH water well contractor license to perform this work. A well may be in an area of known or suspected contaminated soil or groundwater, so HAZWOPER protocols may be needed in performance of the work. Materials salvaged from the removed well shall become the property of the CONTRACTOR. An Abandoned Well Registration Report shall be completed per the New Hampshire Department of Environmental Services Water Well Board Rules We 604. A blank copy of the report can be provided by the ENGINEER, or it can be obtained from the DES website at <http://des.nh.gov/organization/divisions/water/dwgb/www/categories/forms.htm>. A copy of the completed Abandonment Well Registration Report shall be provided to the ENGINEER upon request.

2.17 LOGS AND SAMPLE DELIVERY

2.17.1 Logs

During the progress of each exploration the CONTRACTOR shall keep a log of the drilling operation. The log shall generally include the items listed in Section 8 of AASHTO T-206-09, available for reference from the ENGINEER.

2.17.2 Sample Delivery

Soil and rock core samples shall be delivered to a location designated by the DEPARTMENT.

2.18 SEALING EXPLORATIONS

At the direction of the ENGINEER, completed borings and decommissioned wells shall be sealed with grout or bentonite clay. The sealing method will depend upon specific site conditions and may consist of one of the following methods or other method required by the New Hampshire Water Department of Environmental Services Water Well Board Rules PART We 604 for well abandonment and decommissioning:

2.18.1 Neat Cement Grout

Pumped through a tremie tube to fill the boring from the bottom and displace drilling fluid during grouting.

2.18.2 Portland Cement-Bentonite Grout

Placed per 2.18.1.

2.18.3 Straight Bentonite Clay Grout

Placed per 2.18.1.

2.18.4 Bentonite Chips

Placed into the top of the boring and allowed to settle to the bottom of the boring. Care shall be used in placement of bentonite chips to prevent bridging in the annulus between the well and the casing.

2.19 CLEAN UP, SITE RESTORATION

The CONTRACTOR shall clean up and leave the work site in a neat and workmanlike manner, to the satisfaction of the ENGINEER. The CONTRACTOR shall exercise due care and shall take every precaution against injuring

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pavement, utilities, or other property, and shall repair any damage which may occur. Any property damage resulting from the CONTRACTOR's work shall be promptly reported to the ENGINEER. On completion of the work at any exploration location, the CONTRACTOR shall remove equipment, materials and spoil. Brush and other cuttings shall be removed from the work site, as directed by the ENGINEER. All boreholes on land shall be backfilled completely to minimize settlement of the surface. Bore holes may be grouted or filled with soil which is tamped and rodded. The ground surface; whether sidewalks, pavement or grass areas, shall be restored to original condition by patching, seeding or placing sod. No holes, depressions, cracks or protrusions resulting from the work and which is unsightly or could present a hazard to the public will be permitted to remain. The CONTRACTOR may be recalled to the site, during the one-year period following the completion of work, to repair surface settlement or cracks that develop in the work area. Except for explorations the ENGINEER orders to be sealed for which there is a separate pay item, CONTRACTOR shall not be compensated separately for clean up, filling of holes, and other site restoration.

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EXHIBIT B: CONTRACT PRICE, METHOD AND TERMS OF PAYMENT

Note: The following provisions are ADDED to those listed in the State of New Hampshire Agreement Form P-37.

5.1.1 Payment Schedule And Stipulations

The work required under the terms of this AGREEMENT shall be paid for in accordance with the following schedule and stipulations:

5.1.1.1 Agreement Amount

The total cost of all work, expenses and profit under this AGREEMENT shall not exceed **Four Hundred Thousand Dollars (\$400,000.00)**. No payment will be made for work performed in excess of this amount.

5.1.1.2 Compensation Rates

The rates tabulated in the Bid Schedule shall include all charges attributed to direct costs, fringe benefits, payroll taxes, overhead, direct expenses and profit and shall be used in billing for all work done under this AGREEMENT. Sublet portions of the AGREEMENT will be paid at rates tabulated in the Bid Schedule.

5.1.1.3 Method of Measurement.

The amount of work to be paid for shall be the quantity of work, satisfactorily performed by the CONTRACTOR in accordance with the AGREEMENT, completed and accepted by the ENGINEER as conforming to the requirements of these Specifications.

5.1.1.4 Invoicing For Payment

Payments on account of the fee for services rendered under this AGREEMENT will be made by the DEPARTMENT when provided a completely itemized, project-by-project bill submitted on a monthly basis by the CONTRACTOR. The CONTRACTOR has the option to submit a single bill for a given assignment, upon completion of the work, in lieu of monthly bills. Final payments will be based on quantities of work completed and accepted by the DEPARTMENT.

5.1.1.5 Records Retention

The CONTRACTOR shall maintain adequate cost records for all work performed under this AGREEMENT. All records and other evidence pertaining to cost incurred shall be made available at all reasonable times during the AGREEMENT period and for three (3) years from the date of final voucher payment for examination by the STATE, Federal Highway Administration, or other authorized representatives of the Federal Government (if utilized on a Federally funded project), and copies thereof shall be furnished if requested. Applicable cost principles are contained in the Federal Acquisition Regulation (FAR) in Title 48 of the Code of Federal Regulations (Subpart 31.2 and Subpart 31.105).

5.1.1.6 Basis of Payment and Definition of Pay Items.

The accepted quantity of work will be paid for at the contract unit prices for the work as defined below. For payment purposes, borings drilled from an existing bridge deck or with machinery standing in water shall be considered as soil borings on land, and measurement shall be from the ground surface at the bottom of the water body to the bottom of boring.

ITEM NO. 01 Mobilization and Demobilization Tasks

ITEM NO. 01.1 General Mobilization and Demobilization

For general mobilization and demobilization for each assigned project on which the CONTRACTOR performs subsurface exploration services, payment will be made at the contract unit price for the number of drill rigs, as directed in the Notice To Proceed, to simultaneously work on the assignment. This item includes all costs of providing and maintaining the necessary drill rig, plus all equipment, tools, supplies, and personnel, stipulated in this Contract and/or required to perform the work, and for costs of moving to and from the job site, including loading, unloading, trucking and transportation. The mobilization also includes costs of providing and maintaining all signs, cones, and barricades required to complete the work, except those traffic control devices for which there is a separate pay item. An exchange of drill rigs during the course of the work made for the CONTRACTOR's convenience is not considered a separate mobilization for pay purposes.

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In the event the CONTRACTOR submits monthly invoices for work performed on partially completed projects, the General Mobilization will be prorated as follows. Fifty percent (50%) of the contract price for this item will be payable to the CONTRACTOR at the time of first compensation, after substantially all equipment and materials necessary for performing the work are on site and ready for use. The remaining fifty percent (50%) will be payable to the CONTRACTOR at the time of final payment for all work performed on the project, after removal of all equipment and materials from the site and after site restoration to the satisfaction of the ENGINEER.

General Mobilization and Demobilization for assignments involving only the decommissioning of monitoring wells will be paid at one-half the contract unit price.

ITEM NO. 01.2 Flotation Equipment Mobilization And Demobilization

For general mobilization and demobilization of a raft and other flotation equipment required to do borings over water, payment will be made at the contract unit price for each assigned project site where flotation equipment is required, as determined by the ENGINEER. **The single payment under this item will cover all costs incurred by the CONTRACTOR in providing flotation and other equipment needed to mobilize to and demobilize from a water site, to include all associated equipment rental costs and/or costs for subcontracting this portion of the work.** This item includes all costs incurred in providing and maintaining the raft and other flotation equipment, a service boat, navigational warning devices, equipment, tools, supplies, and personnel, stipulated in this Contract and/or required to perform the work over water, and for costs of moving the required equipment and CONTRACTOR's personnel to and from the job site, including loading, unloading, trucking and transportation. Equipment provided under this item shall include a boat to provide access to and from the flotation equipment from shore for both CONTRACTOR and ENGINEER. This item covers work on inland water bodies, which includes tidal streams and rivers but not ocean marine work, within New Hampshire. Drilling quantities over water will be paid under other items in the contract including Barge Rig Boring, Item 02.5. **This item will be paid in addition to the General Mobilization, Item No. 01.1.**

ITEM NO. 01.3 Utility and DIG-SAFE Clearance

For performing utility clearance of a worksite, which shall include all SUBSURFACE EXPLORATION locations within an assignment, payment will be made at the contract unit price for each assignment. If the assignment scope of work is modified by the ENGINEER, and this change requires additional utility clearance, then an addition payment will be made at the contract unit price. For DIG-SAFE renewals, follow up utility clearances or re-marking of previously cleared worksites, payment will not be made again. **This item will only be paid if the ENGINEER assigns the utility clearing task to the CONTRACTOR.** The CONTRACTOR may perform their own utility clearance; however, the CONTRACTOR will not be compensated if the DEPARTMENT performs this task. If authorized by the ENGINEER, the services of a utility locating company shall be reimbursed as a direct expense.

ITEM NO. 02 Per-Boring Mobilization Set-Up

ITEM NO. 02.1 Cathead Boring

For each boring performed with a cathead or other portable equipment as determined in advance by the ENGINEER, one mobilization set-up charge will be paid at the contract unit price per boring for each boring performed. This item will cover all costs of moving the drill rig, signs, cones, barricades, equipment, tools, supplies and personnel stipulated between borings on the assigned project work site, and, if necessary, will include loading, unloading, trucking and transportation between borings.

ITEM NO. 02.2 Truck Rig Boring

For each truck rig boring, as determined in advance by the ENGINEER, one mobilization set-up charge will be paid at the contract unit price per boring for each boring performed. This item will cover all costs of moving the drill rig, signs, cones, barricades, equipment, tools, supplies and personnel stipulated between borings on the assigned project work site, and, if necessary, will include loading, unloading, trucking and transportation between borings.

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ITEM NO. 02.3 Track Rig Boring

For each track rig boring, as determined in advance by the ENGINEER, one mobilization set-up charge will be paid at the contract unit price per boring for each boring performed. This item will cover all costs of moving the drill rig, signs, cones, barricades, equipment, tools, supplies and personnel stipulated between borings on the assigned project work site, and, if necessary, will include loading, unloading, trucking and transportation between borings.

ITEM NO. 02.4 Skid Rig Boring

For each skid rig boring, as determined in advance by the ENGINEER, one mobilization set-up charge will be paid at the contract unit price per boring for each boring performed. This item will cover all costs of moving the drill rig, signs, cones, barricades, equipment, tools, supplies and personnel stipulated between borings on the assigned project work site, and, if necessary, will include loading, unloading, trucking and transportation between borings.

ITEM NO. 02.5 Barge Rig Boring

For each water boring, as determined in advance by the ENGINEER, requiring the use of a raft or other flotation equipment, one mobilization set-up charge will be paid at the contract unit price per boring for each boring performed. This item will cover all costs of moving the drill rig, raft and/or other flotation equipment, service boat, signs, cones, barricades, navigational warning devices, equipment, tools, supplies, and personnel stipulated between borings on the assigned project work site, and, if necessary, will include loading, unloading, trucking and transportation for moves between borings.

ITEM NO. 03 Drive Casing, 3-inch And 4-inch Diameters

ITEM NO. 03.1 Soil Boring, 3-inch Diameter Drive Casing On Land

For 3-inch minimum diameter soil borings on land, including split-barrel samples taken at standard 5-foot sampling intervals, sample jars and delivery to the DEPARTMENT, payment will be made at the contract unit price per foot for the actual linear feet of boring completed and accepted within each 50-foot payment depth increment, measured to the nearest 0.1 foot from the ground surface or bottom of the water body to the depth of boring in soil.

ITEM NO. 03.11 Soil Boring, 3-Inch Diameter Drive Casing on Land, depth 0 to 50 ft

ITEM NO. 03.12 Soil Boring, 3-Inch Diameter Drive Casing on Land, depth 50 to 100 ft

ITEM NO. 03.13 Soil Boring, 3-Inch Diameter Drive Casing on Land, depth 100 to 150 ft

ITEM NO. 03.14 Soil Boring, 3-Inch Diameter Drive Casing on Land, depth over 150 ft

ITEM NO. 03.2 Soil Boring, 3-inch Diameter Drive Casing On Water

For 3-inch minimum diameter soil borings drilled from flotation equipment on water, including split-barrel samples taken at standard 5-foot sampling intervals, sample jars and delivery to the DEPARTMENT, payment will be made at the contract unit price per foot for the actual linear feet of boring completed and accepted within each 50-foot payment depth increment, measured to the nearest 0.1 foot from the bottom of the water body to the depth of the boring in soil.

ITEM NO. 03.21 Soil Boring, 3-Inch Diameter Drive Casing on Water, depth 0 to 50 ft

ITEM NO. 03.22 Soil Boring, 3-Inch Diameter Drive Casing on Water, depth 50 to 100 ft

ITEM NO. 03.23 Soil Boring, 3-Inch Diameter Drive Casing on Water, depth 100 to 150 ft

ITEM NO. 03.24 Soil Boring, 3-Inch Diameter Drive Casing on Water, depth over 150 ft

ITEM NO. 03.3 Soil Boring, 4-inch Diameter Drive Casing On Land

For 4-inch minimum diameter soil borings on land, including split-barrel samples taken at standard 5-foot sampling intervals, sample jars and delivery to the DEPARTMENT, payment will be made at the contract unit price per foot for the actual linear feet of boring approved in advance by the ENGINEER and completed and accepted within each 50-foot payment depth increment, measured to the nearest 0.1 foot from the ground surface or the bottom of the water body to the depth of the boring in soil.

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- ITEM NO. 03.31 Soil Boring, 4-Inch Diameter Drive Casing on Land, depth 0 to 50 ft
- ITEM NO. 03.32 Soil Boring, 4-Inch Diameter Drive Casing on Land, depth 50 to 100 ft
- ITEM NO. 03.33 Soil Boring, 4-Inch Diameter Drive Casing on Land, depth 100 to 150 ft
- ITEM NO. 03.34 Soil Boring, 4-Inch Diameter Drive Casing on Land, depth over 150 ft

ITEM NO. 03.4 Soil Boring, 4-inch Diameter Drive Casing On Water

For 4-inch minimum diameter soil borings drilled from flotation equipment on water, including the split-barrel samples taken at standard 5-foot sampling intervals, sample jars and delivery to the DEPARTMENT, payment will be made at the contract unit price per foot for the actual linear feet of boring approved in advance by the ENGINEER and completed and accepted within each 50-foot payment depth increment, measured to the nearest 0.1 foot from the bottom of the water body to the depth of the boring in soil. The water depth above the bottom of the water body will be added to determine the soil boring depth; however, the water depth itself will not be paid.

- ITEM NO. 03.41 Soil Boring, 4-Inch Diameter Drive Casing on Water, depth 0 to 50 ft
- ITEM NO. 03.42 Soil Boring, 4-Inch Diameter Drive Casing on Water, depth 50 to 100 ft
- ITEM NO. 03.43 Soil Boring, 4-Inch Diameter Drive Casing on Water, depth 100 to 150 ft
- ITEM NO. 03.44 Soil Boring, 4-Inch Diameter Drive Casing on Water, depth over 150 ft

ITEM NO. 04 Casing Bit Diamond Wear for Spin Casing

For 3-inch or 4-inch diameter cased soil borings on land or water performed using spin casing with a diamond bit, payment will be made at the contract unit price per foot for the actual linear feet of boring completed and accepted, measured to the nearest 0.1 foot from the ground surface or bottom of the water body to the bottom of the hole. Payment under this pay item will be in addition to the corresponding payment made under ITEM NO. 03 above, for compensation for normal wear of the diamond casing bit.

ITEM NO. 05 Soil Boring, 3-inch or 4-inch Hollow Stem Auger Borings On Land

For 3-inch or 4-inch minimum diameter hollow stem auger soil borings on land, including split-barrel samples taken at standard 5-foot sampling intervals, sample jars and delivery to the DEPARTMENT, payment will be made at the contract unit price per foot for the actual linear feet of boring completed and accepted, measured to the nearest 0.1 foot from the ground surface. **Note that auger borings will not be required at depths greater than 50 feet nor on water.**

ITEM NO. 06 Additional Split Spoon Samples

For additional split barrel samples taken in excess of the subsidiary rate of one sample per 5 feet of boring depth, including sample jars and delivery to the DEPARTMENT, payment will be made at the contract unit price per sample for each sample in excess of the average of one sample per 5 feet over the full depth of the boring in soil.

ITEM NO. 07 3-inch Piston Samples

For 3-inch undisturbed stationary piston tube samples including the Shelby tube and delivery to the DEPARTMENT, payment will be made at the contract unit price for the actual number of samples taken and accepted.

ITEM NO. 08 Rock Core

ITEM NO. 08.1 Rock Core On Land

For coring bedrock, boulders, or very dense glacial till soils on land with diamond rock coring tools, including the core box and delivery of core samples to the DEPARTMENT, payment will be made at the contract unit price per foot for the actual linear feet of bedrock or boulders cored and accepted, within each 50-foot payment depth increment, measured to the nearest 0.1 foot.

- ITEM NO. 08.11 Rock Core on Land, depth 0 to 50 ft
- ITEM NO. 08.12 Rock Core on Land, depth 50 to 100 ft
- ITEM NO. 08.13 Rock Core on Land, depth 100 to 150 ft
- ITEM NO. 08.14 Rock Core on Land, depth over 150 ft

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ITEM NO. 08.2 Rock Core On Water

For coring bedrock or boulders from flotation equipment on water with rock coring tools, including the core box and delivery of core samples to the DEPARTMENT, payment will be made at the contract unit price per foot for the actual linear feet of bedrock or boulders cored and accepted, within each 50-foot payment depth increment, measured to the nearest 0.1 foot. The water depth above the bottom of the water body will be added to determine the soil boring depth; however, the water depth itself will not be paid.

ITEM NO. 08.21 Rock Core on Water, depth 0 to 50 ft

ITEM NO. 08.22 Rock Core on Water, depth 50 to 100 ft

ITEM NO. 08.23 Rock Core on Water, depth 100 to 150 ft

ITEM NO. 08.24 Rock Core on Water, depth over 150 ft

ITEM NO. 09 Pavement Cores

For pavement core specimens obtained, which includes all asphalt and concrete pavement cored in the pavement structure regardless of thickness at a location, payment will be made at the contract unit price for each pavement core completed and accepted. **A drill rig mobilization will also be paid under Item 02 for each pavement core location in addition to this item.** Soil and bedrock drilling and sampling below a pavement core will be paid under other items in the contract. Pavement cored or ground by roller bit in performance of a test boring will be paid under other items in the contract.

ITEM NO. 10 Bore Hole Sealing

ITEM NO. 10.1 Bore Hole Sealing, Cased Boring

For sealing cased borings, as directed by the ENGINEER, payment will be made at the contract unit price per foot for the actual linear feet of boring sealed by the CONTRACTOR and accepted by the ENGINEER, measured to the nearest foot. This item includes the cost of providing and maintaining all materials, specialized tools, equipment, and personnel required to perform the work.

ITEM NO. 10.2 Bore Hole Sealing, Auger Boring

For sealing auger borings, as directed by the ENGINEER, payment will be made at the contract unit price per foot for the actual linear feet of boring sealed by the CONTRACTOR and accepted by the ENGINEER, measured to the nearest foot. This item includes the cost of providing and maintaining all materials, specialized tools, equipment, and personnel required to perform the work.

ITEM NO. 11 Observation Wells

ITEM NO. 11.1 Groundwater Level Observation Well with 1-1/2" Diameter Well Pipe

For groundwater level observation wells installed in a previously drilled boring, payment will be made at the contract unit price per foot for the actual linear feet of well screen plus riser pipe installed and accepted, measured to the nearest 0.1 foot from the bottom of the installation to the ground surface. Well pipe extending above the ground surface in a riser protective casing will not be included in the measurement for payment, but will be subsidiary to this item. **This ITEM includes all materials and labor necessary to construct a well in accordance with paragraph 2.15 of this AGREEMENT, including bottom and top bentonite seals, filter sand, well screen, general backfill, and riser pipe.** Filter sand and bentonite clay used, as directed by the ENGINEER, in excess of the amounts specified in paragraph 2.15 and the protective casing or road box (if ordered) are not included in this item and are paid separately. The previously drilled boring will be paid under other items in the AGREEMENT. The cost for completing reports per paragraph 2.15 is subsidiary to this item.

ITEM NO. 11.2 Groundwater Level Observation Well with 2" Diameter Well Pipe

For groundwater level observation wells installed in a previously drilled boring, payment will be made at the contract unit price per foot for the actual linear feet of well screen plus riser pipe installed and accepted, measured to the nearest 0.1 foot from the bottom of the installation to the ground surface. Well pipe extending above the ground surface in a riser protective casing will not be included in the

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measurement for payment, but will be subsidiary to this item. **This ITEM includes all materials and labor necessary to construct a well in accordance with paragraph 2.15 of this AGREEMENT, including bottom and top bentonite seals, filter sand, well screen, general backfill, and riser pipe.** Filter sand and bentonite clay used, as directed by the ENGINEER, in excess of the amounts specified in paragraph 2.15 and the protective casing or road box (if ordered) are not included in this item and are paid separately. The previously drilled boring will be paid under other items in the AGREEMENT. The cost for completing reports per paragraph 2.15 is subsidiary to this item.

ITEM NO. 11.3 Bentonite Clay

For commercially prepared bentonite clay chips or pellets used, as directed by the ENGINEER, exceeding the quantity subsidiary to ITEM NO. 11.1 or 11.2, payment will be made at the contract unit price per foot for the actual linear feet of boring backfilled, measured to the nearest foot.

ITEM NO. 11.4 Filter Sand

For commercially washed and bagged filter sand used, as directed by the ENGINEER, exceeding the quantity subsidiary to ITEM NO. 11.1 or 11.2, payment will be made at the contract unit price per foot for the actual linear feet of boring backfilled, measured to the nearest foot.

ITEM NO. 11.5 Protective Riser Casing

For protective riser casing installed for a groundwater level observation (monitoring) wells, payment will be made at the contract unit price per each for the actual number of protective casings installed and accepted, to include all materials required in construction of the item. The locking cover, padlock, and key(s) shall be subsidiary to the Protective Casing item.

ITEM NO. 11.6 Flush Mounted Road Box

For a flush mounted road box used for protection of a groundwater level observation (monitoring) well, payment will be made at the contract unit price per each for the number of road boxes installed and accepted, to include all materials required in construction of the item.

ITEM NO. 11.7 Decommission Groundwater Level Observation (Monitoring) Well

For removing well components; patching pavement with cold patch or concrete; or raking, loaming and seeding, as directed to obliterate a well location, payment will be made at the contract unit price per each for the number of wells decommissioned. This item includes the cost of providing all materials, equipment, and personnel required to perform the work. The cost for completing reports per paragraph 2.16 is subsidiary to this item. However, payment will also be made under Item 10.1 for the depth of well pipe sealed.

ITEM NO. 12 Traffic Control

ITEM NO. 12.1 Traffic Control Flaggers

For traffic control services of flaggers, payment will be made at the contract unit price per hour per flagger for the actual time such traffic control services are authorized and provided, measured to the nearest hour. Payment for services of uniformed officers, when required by the ENGINEER, will be paid directly by the DEPARTMENT.

ITEM NO. 12.2 Traffic Control for High Volume Lane Closure

For traffic control services required to close a lane of the traveled way of a State or Federal highway or to close the shoulder of an Interstate highway, payment will be made at the contract unit price per hour for the actual working time such traffic control services are authorized and provided, measured to the nearest hour. There will be a minimum pay quantity of four hours for each day during which a lane closure is required. The time required to set up and to remove the traffic control devices, up to two hours per day, is included in the time to be measured. This item shall include the cost of providing, setting up, and removing all traffic control devices required for a lane closure meeting the requirements of the MUTCD.

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This item covers the additional costs associated with lane closures on high volume roadways (i.e., major State highways, Interstate highways).

ITEM NO. 13 Standby Time

For standby time ordered by the ENGINEER, payment will be made at the unit price stated in the AGREEMENT for the actual time work is suspended during a regular 8-hour work day, measured to the nearest half-hour. This item includes all compensation to the CONTRACTOR for time not worked, including, but not limited to: labor, equipment use, overhead, and profit. Standby time will be paid for that portion of the regular 8-hour workday that the CONTRACTOR is on site and ready to work while work is suspended for a special situation. No payment will be made for standby time unless the CONTRACTOR is on site and prepared to work during the ordered suspension of work, or if the special situation does not exist as determined by the ENGINEER. Work suspended due to CONTRACTOR operations, for breakdowns, for travel, or for weather-related delays does not constitute a special situation for payment of standby time.

ITEM NO. 14 Direct Costs

Direct Costs is not a bid item. This item will be used to estimate and account for costs that may be incurred in performance of the SUBSURFACE EXPLORATIONS. Direct costs include such things as police detail costs, permit fees, hired utility clearance services, subcontracted drilling services, or other miscellaneous costs that are pre-authorized by the ENGINEER and are not covered under other bid items in the AGREEMENT. Payment will be made at the actual dollar cost to the CONTRACTOR. No mark up will be allowed for anything reimbursed under this item. A copy of any invoice or bill for the cost incurred or the services provided shall be provided to the ENGINEER before reimbursement will be made.

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EXHIBIT C: SPECIAL PROVISIONS

22. STANDARD SPECIFICATIONS

This contract shall be administered in general accordance with the applicable provisions of Division 100 of the 2016 State of New Hampshire Department of Transportation Standard Specifications for Road and Bridge Construction as modified or amended in the AGREEMENT. In particular, but not limited to:

- Section 101 – Definitions and Terms
- Section 102 – Bidding Requirements and Conditions
- Section 103 – Award and Execution of Contract
- Section 104 – Scope of Work
- Section 105 – Control of the Work
- Section 106 – Control of Material
- Section 107 – Legal Relations and Responsibility to Public
- Section 108 – Prosecution and Progress
- Section 109 – Measurement and Payment

Standard Specifications Internet link:

<http://www.nh.gov/dot/org/projectdevelopment/highwaydesign/specifications/index.htm>

22.1 Proposal Guaranty

The requirements of Section 102.09 of the Standard Specifications are waived, and no proposal guaranty is required for consideration of a bid proposal.

22.2 Contract Bond

The requirements of Section 103.05 of the Standard Specifications are waived, and no contract bond is required for this Agreement.

22.3 Insurance

The insurance requirements in Section 107.11 of the Standard Specifications are waived except where required by law and for the requirement for comprehensive general liability and comprehensive automobile liability insurance. The CONTRACTOR shall obtain comprehensive automobile liability insurance covering all motor vehicles, including owned, hired, borrowed, and non-owned vehicles, for all claims of bodily injury, death, or property damage, in policy amount of not less than \$500,000 combined

22.4 Subletting of Contract

In addition to the requirements of Section 108.01 of the Standard Specifications, all subcontracts shall be in writing. A copy of each subcontract shall be submitted for the DEPARTMENT's records.

22.5 Contract Completion Date

No new tasks may be assigned after the contract completion date in 1.7; however, the CONTRACTOR shall complete any assigned tasks begun prior to the completion date, but not yet completed, in accordance with the terms and compensation specified in this AGREEMENT. This shall be subject to the written mutual agreement of both parties, which shall include a revised date of completion to allow completion of any previously assigned tasks.

22.6 Failure To Complete On Time

Replace the Liquidated Damages schedule in Section 108.09 of the Standard Specifications with the following: Should the CONTRACTOR fail to complete the work on a specific assignment in accordance with the AGREEMENT within the time limit specified for the assignment, the CONTRACTOR shall pay to the STATE the sum of one-hundred dollars (\$250.00) for every calendar day that the time consumed in the said completion exceeds the completion date specified in the Notice to Proceed letter. This sum shall not be considered a penalty, but as liquidated damages that the DEPARTMENT will suffer by reason of said delay. The DEPARTMENT shall deduct and may retain the amount of such liquidated damages out of moneys that may be due or become due to the CONTRACTOR under this AGREEMENT



Corporate Resolution

I, Sheryll A Dupont, hereby certify that I am duly elected Clerk/Secretary of New Hampshire Boring Inc., dba New England Boring Contractors. I hereby certify the following is a true copy of a vote taken at a meeting of the Board of Directors/, duly called and held on February 12, 2019 at which a quorum of the Directors was present and voting.

VOTED: That, Thomas A Garside, President is duly authorized to enter into Statewide On-Call 42451 Geotechnical Subsurface Exploration Services on behalf of New Hampshire Boring Inc, dba New England Boring Contractors with the State of New Hampshire and any of its agencies or departments, and further is authorized to execute any documents which may in his judgement be desirable or necessary to effect the purpose of this vote.

I hereby certify that said vote has not been amended or repealed and remains in full force and effect as of the date of the contract to which this certificate is attached. I further certify that it is understood that the State of New Hampshire will rely on this certificate as evidence that the person listed above currently occupy the position indicated and that they have full authority to bind the corporation. To the extent that there are any limits on the authority of any listed individual to bind the corporation in contracts with the State of New Hampshire, all such limitations are expressly stated herein.

DATED: May 21, 2019

ATTEST

Name and Title

Sheryll Dupont
Secretary

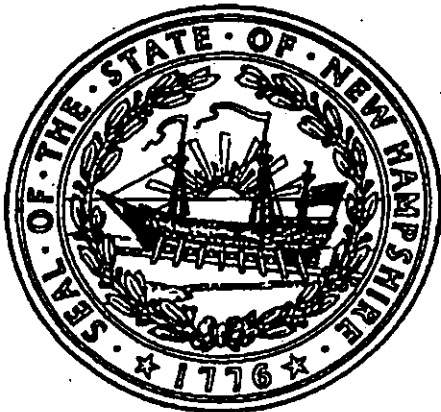
State of New Hampshire
Department of State

CERTIFICATE

I, William M. Gardner, Secretary of State of the State of New Hampshire, do hereby certify that NEW HAMPSHIRE BORING, INC. is a New Hampshire Profit Corporation registered to transact business in New Hampshire on December 13, 1988. I further certify that all fees and documents required by the Secretary of State's office have been received and is in good standing as far as this office is concerned.

Business ID: 136975

Certificate Number: 0004518430



IN TESTIMONY WHEREOF,
I hereto set my hand and cause to be affixed
the Seal of the State of New Hampshire,
this 21st day of May A.D. 2019.

A handwritten signature in black ink, appearing to read "William M. Gardner".

William M. Gardner
Secretary of State



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
5/21/2019

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER THE ROWLEY AGENCY INC. 45 Constitution Avenue P.O. Box 511 Concord NH 03302-0511		CONTACT NAME: Christine H. Holman, CPCU, CIC PHONE (A/C, No, Ext): (603) 224-2562 FAX (A/C, No): (603) 224-8012 E-MAIL ADDRESS: cholman@rowleyagency.com	
		INSURER(S) AFFORDING COVERAGE	NAIC #
		INSURER A: Executive Risk Indemnity	
		INSURER B: Federal Insurance Co.	
		INSURER C: Beazley Syndicates	
		INSURER D: Peerless Insurance Company	
		INSURER E: Travelers Insurance Company	
		INSURER F: Chubb National Insurance Co.	

COVERAGES **CERTIFICATE NUMBER:** 18-19 all lines **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> XCU Included <input checked="" type="checkbox"/> contractual GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC OTHER:			All states other than CT: 54309774-00 CT: Carrier: F 54309773	09/01/2018	09/01/2019	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000	
B	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input checked="" type="checkbox"/> ALL OWNED AUTOS <input checked="" type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS			(18)54309772	09/01/2018	09/01/2019	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$	
F	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ 10,000			EUP-71MB4162-18-NF	09/01/2018	09/01/2019	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000	
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A	005-4309775 3A: NH, MA, ME, CT, NY, NJ, RI, VT, PA USL & B Applies	09/01/2018	09/01/2019	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000	
C	Pollution incl Poll Legal			ENP0002669-01 - DED: \$10,000	09/01/2018	09/01/2019	Per Claim/Ann Agg	\$2M / \$2M
D	Contractors Equipment			IM8994229	09/01/2018	09/01/2019	Limit - \$2500 ded	3,220,837

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
 Project: Statewide On-Call Agreement 42451, Geotechnical Exploration Services, Account# 04-096-096-963515-3054.

CERTIFICATE HOLDER

State of New Hampshire
 DOT
 7 Hazen Drive
 PO Box 483
 Concord, NH 03302

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE
 C Holman, CPCU, CIC/C *Christine H. Holman*

COMMENTS/REMARKS

Marine Pollution Policy
Policy #52-81428
09/01/2018-09/01/2019
Water Quality Insurance
Liability Limit: \$1,000,000
Protection & Indemnity Liability (P&I)
Acadia Insurance
Policy #CHA 5168021-10
09/01/2018-09/01/2019
Liability Limit \$1,000,000
Hull Coverage
1996 Steel Barge - Agreed Valuation \$164,000
Deductible - 2,500