

38A MLC



STATE OF NEW HAMPSHIRE
THE ADJUTANT GENERAL'S DEPARTMENT

BUSINESS ADMINISTRATION
STATE MILITARY RESERVATION
4 PEMBROKE ROAD
CONCORD, NEW HAMPSHIRE 03301-5652

David J. Mikolaities, Brigadier General
The Adjutant General

Warren M. Perry, Colonel (ret.)
Deputy Adjutant General

Phone: 603-225-1360
Fax: 603-225-1341
TDD Access: 1-800-735-2964

August 21, 2018

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

REQUESTED ACTION

- 1). The Adjutant General's Department respectfully requests approval to enter into a contract with M. E. Latulippe Construction, Inc. (vc #157609), P. O. Box 729, Ashland, New Hampshire 03217, in an amount not to exceed \$167,550.00, for the purpose of providing improvements to the Plymouth Readiness Center POV (Privately Owned Vehicle) site for the period of Governor and Council approval through December 31, 2018. **50% General - Capital Funds and 50% Federal Funds.**

- 2). Further authorize that a contingency in the amount of \$8,000.00 be approved for unforeseen conditions and/or owner-initiated changes for the Plymouth Readiness Center POV site construction, bringing the total to \$175,550.00. **50% General - Capital Funds and 50% Federal Funds.**

Funds are available in the SFY 2019 operating budget as follows:

02-12-12-120030-24160000 – ADJUTANT GENERAL – 15-220:1-I:F – Statewide Readiness Center	
034 - 500162 – Capital Projects – Repair/Renovation of Buildings	<u>FY 2019</u>
	\$ 88,729.09
02-12-12-120030-15330000 – ADJUTANT GENERAL – 17-228:1-I-F – Statewide Fire/Life/Safety	
Improvements - 034 - 500162 – Capital Projects – Repair/Renovation of Buildings	<u>FY 2019</u>
	\$ 78,820.91
034-500162 – Contingency	<u>\$ 8,000.00</u>
TOTAL	\$175,550.00

His Excellency Governor Christopher T. Sununu
and the Honorable Council
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EXPLANATION


This project is to provide for the upgrade of our Military Owned Vehicle and Privately Owned Vehicle parking lots at the Plymouth Readiness Center. Currently, the Readiness Center parking lots (both Military and Privately Owned Vehicles) are in disrepair and the pavement is severely deteriorated. We have difficulty contracting for snow plowing, as the pavement is so poor that it causes issues with plows. The project is to replace the existing pavement and revise the parking layout to be consistent with our Real Property Development Plan.

The chosen vendor was identified by placing a legal notice in the Union Leader on July 11, 12 and 13, 2018, and by distributing 12 requests for proposals, as well as advertising on the Administrative Services website. The Adjutant General's Department received five (5) bids with M. E. Latulippe Construction, Inc. submitting the qualified low bid.

The federal funds to pay for this Agreement are provided to the Adjutant General's Department by the National Guard Bureau pursuant to a Federal-State Master Cooperative Agreement for the mutual support of the New Hampshire Army National Guard. The cost of this contract shall be reimbursed to the State by the Federal government at a rate of 100%. Funds are available for this Agreement in Federal Fiscal year 2018. Execution under this Agreement for future year activities is subject to the availability of federal funding. In the event that federal funds are not available, general funds will not be requested to support this program.

The Contract has been approved for form, substance and execution by the Attorney General's Office.

Respectfully submitted,


David J. Mikolaities
Brigadier General
The Adjutant General



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August 21, 2018

BID SUMMARY
Plymouth Readiness Center Privately Owned Vehicles (POV) Improvements
19 Armory Road, Plymouth, NH 03264

A Request for Bid was advertised in July of 2018 for these services in the Manchester Union Leader, as well as on the Administrative Services website.

Requests for Bids were also distributed via email to 12 different vendors.

The following companies submitted bids:

Company	Bid	Add'l Allowance	Total
Andrews Construction	\$205,168.00	\$8,000.00	\$213,168.00
Greene & Russell, Inc.	\$248,800.00	\$8,000.00	\$256,800.00
Brandon Hiltz Const.	\$291,650.00	\$8,000.00	\$299,650.00
M. E. Latulippe Const.	\$167,550.00	\$8,000.00	\$175,550.00
R. M. Piper	\$243,580.00	\$8,000.00	\$251,580.00

M. E. Latulippe Construction submitted the qualified low bid.

Respectfully submitted,



Jeanette Patten
Procurement Technician

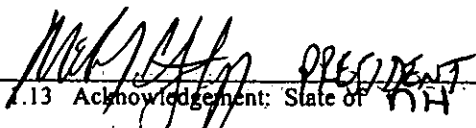
Notice: This agreement and all of its attachments shall become public upon submission to Governor and Executive Council for approval. Any information that is private, confidential or proprietary must be clearly identified to the agency and agreed to in writing prior to signing the contract.

AGREEMENT

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

GENERAL PROVISIONS

I. IDENTIFICATION.

1.1 State Agency Name THE ADJUTANT GENERAL'S DEPARTMENT		1.2 State Agency Address 4 PEMBROKE ROAD CONCORD, NEW HAMPSHIRE 03301	
1.3 Contractor Name M. E. Latulippe Construction, Inc.		1.4 Contractor Address P. O. Box 729, Ashland, NH 03217	
1.5 Contractor Phone Number (603) 968-7332	1.6 Account Number 10-012-2416 & 1533	1.7 Completion Date December 31, 2018	1.8 Price Limitation NTE \$175,550.00
1.9 Contracting Officer for State Agency Warren M. Perry		1.10 State Agency Telephone Number (603) 227-5094	
1.11 Contractor Signature 		1.12 Name and Title of Contractor Signatory Michael E. Latulippe, President	
1.13 Acknowledgement: State of <u>NH</u> , County of <u>Grafton</u> On <u>Aug 20, 2018</u> , 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.			
1.15.1 Signature of Notary Public or Justice of the Peace [Seal] <u>Susan J. Wood</u>			
1.13.2 Name and Title of Notary or Justice of the Peace <u>Susan J. Wood Notary</u>			
1.14 State Agency Signature <u>Warren Perry</u> Date: <u>8/21/18</u>		1.15 Name and Title of State Agency Signatory <u>WARREN M. PERRY DTAG</u>	
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: <u>RWR</u> On: <u>8/24/18</u>			
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.

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 M. E. LATULIPPE CONSTRUCTION, INC. is a New Hampshire Profit Corporation registered to transact business in New Hampshire on March 22, 1994. 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: 207146

Certificate Number: 0004163553



IN TESTIMONY WHEREOF,
I hereto set my hand and cause to be affixed
the Seal of the State of New Hampshire,
this 9th day of August A.D. 2018.

A handwritten signature in cursive script, appearing to read "William M. Gardner".

William M. Gardner
Secretary of State


CERTIFICATE OF VOTE

The undersigned hereby certifies that he is the Director of M.E. Latulippe Construction, Inc., and that the By-Laws of the Corporation were adopted on April 7, 1994, which included Article V, Section 3, namely:

"The President is authorized to sign bids and contracts in the Name of the Corporation."

And that such provision is in full force and effect as of this date.


Dated this 20th day of August, 2018.



Micheal E. Latulippe, Director.

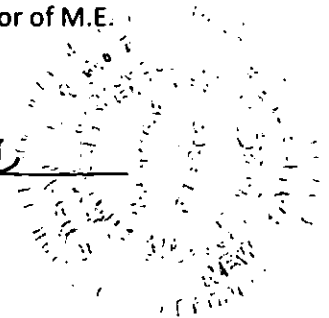
STATE OF NEW HAMPSHIRE
COUNTY OF GRAFTON

Before me, the undersigned officer, personally appeared Micheal E. Latulippe. Director of M.E. Latulippe Construction, Inc., and made truth to the statements herein contained.



Notary Public/Justice of the Peace

My commission expires: 1-13-21





CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
8/9/2018

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: Susan Gilman															
	PHONE (AC, No, Ext): (603) 224-2562	FAX (AC, No): (603) 224-8012														
E-MAIL ADDRESS: sgilman@rowleyagency.com																
INSURED M E Latulippe Construction, Inc. PO Box 729 Ashland NH 03217		<table border="1"> <tr> <th>INSURER(S) AFFORDING COVERAGE</th> <th>NAIC #</th> </tr> <tr> <td>INSURER A: Firemen's Ins Co of Wash. DC</td> <td>21784</td> </tr> <tr> <td>INSURER B: Acadia Insurance Company</td> <td>31325</td> </tr> <tr> <td>INSURER C:</td> <td></td> </tr> <tr> <td>INSURER D:</td> <td></td> </tr> <tr> <td>INSURER E:</td> <td></td> </tr> <tr> <td>INSURER F:</td> <td></td> </tr> </table>	INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A: Firemen's Ins Co of Wash. DC	21784	INSURER B: Acadia Insurance Company	31325	INSURER C:		INSURER D:		INSURER E:		INSURER F:	
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COVERAGES CERTIFICATE NUMBER: 18/19 Cert 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 SUBR INSD 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 GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC OTHER:		CPA001109134	05/01/2018	05/01/2019	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 250,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS		CAA001108034	05/01/2018	05/01/2019	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
B	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ 0		CUA001110934	05/01/2018	05/01/2019	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000
A	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 N/A	WPA001106034 3A States: NH	05/01/2018	05/01/2019	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 100,000 E.L. DISEASE - EA EMPLOYEE \$ 100,000 E.L. DISEASE - POLICY LIMIT \$ 500,000
A	Leased/Rented Equipment		CNA018376023	05/01/2018	05/01/2019	\$300,000 Limit of Liability

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
 Project: Plymouth POV Improvements Center, Plymouth, NH. State of New Hampshire, Adjutant General's Department BA is an additional insured as respects general liability, auto liability and umbrella if required by written contract with named insured.

CERTIFICATE HOLDER State of New Hampshire Adjutant General's Department BA 4 Pembroke Road, Bldg. C Concord, NH 03301-5652	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 Susan Gilman/SJG 

AIA Document A312™ – 2010

Performance Bond

Bond No. 2273494

CONTRACTOR:

(Name, legal status and address)
M.E. LATULIPPE CONSTRUCTION, INC.
P.O. Box 729, Ashland, NH 03217-0729

OWNER:

STATE OF NEW HAMPSHIRE
THE ADJUTANT GENERAL'S DEPARTMENT
4 Pembroke Road, Concord, NH 03301
(Name, legal status and address)

SURETY:

(Name, legal status and principal place
of business) NORTH AMERICAN SPECIALTY INSURANCE
COMPANY
AGENCY: P.O. Box 511
Concord, NH 03302-0511

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

AIA Document A312-2010 combines two separate bonds, a Performance Bond and a Payment Bond, into one form. This is not a single combined Performance and Payment Bond.

CONSTRUCTION CONTRACT

Date: September 20, 2018

Amount: ONE HUNDRED SEVENTY-FIVE THOUSAND FIVE HUNDRED FIFTY AND NO/100 DOLLARS (\$175,550.00)

Description: PLYMOUTH POV IMPROVEMENTS, 19 ARMORY ROAD,
(Name and location) PLYMOUTH, NH

BOND

Date: September 20, 2018

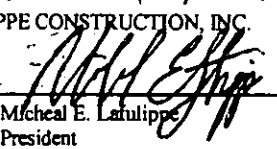
(Not earlier than Construction Contract Date)

Amount: ONE HUNDRED SEVENTY-FIVE THOUSAND FIVE HUNDRED FIFTY AND NO/100 DOLLARS (\$175,550.00)

Modifications to this Bond: None See Section 16

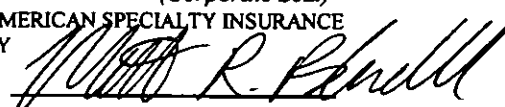
CONTRACTOR AS PRINCIPAL

Company: (Corporate Seal)
M.E. LATULIPPE CONSTRUCTION, INC.

Signature: 
Name: Michael E. Latulippe
and Title: President

SURETY

Company: (Corporate Seal)
NORTH AMERICAN SPECIALTY INSURANCE
COMPANY

Signature: 
Name: Matthew R. Blaisdell
and Title: Attorney-In-Fact

(Any additional signatures appear on the last page of this Performance

Bond.) (FOR INFORMATION ONLY — Name, address and telephone)

AGENT or BROKER:

THE ROWLEY AGENCY, INC.
P.O. Box 511
Concord, NH 03302-0511
(603) 224-2562

OWNER'S REPRESENTATIVE:

(Architect, Engineer or other party:)

§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

§ 2 If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Section 3.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after

- .1 the Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Section 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;
- .2 the Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and
- .3 the Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

§ 4 Failure on the part of the Owner to comply with the notice requirement in Section 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

§ 5 When the Owner has satisfied the conditions of Section 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

§ 5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

§ 5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

§ 5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Section 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

§ 5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:

- .1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or
- .2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

§ 6 If the Surety does not proceed as provided in Section 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Section 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

§ 7 If the Surety elects to act under Section 5.1, 5.2 or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication, for

- .1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;
- .2 additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Section 5; and
- .3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

§ 8 If the Surety elects to act under Section 5.1, 5.3 or 5.4, the Surety's liability is limited to the amount of this Bond.

§ 9 The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors and assigns.

§ 10 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 11 Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

§ 12 Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

§ 13 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

§ 14 Definitions

§ 14.1 Balance of the Contract Price. The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made, including allowance to the Contractor of any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

§ 14.2 Construction Contract. The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

§ 14.3 Contractor Default. Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

§ 14.4 Owner Default. Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

§ 14.5 Contract Documents. All the documents that comprise the agreement between the Owner and Contractor.

§ 15 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

§ 16 Modifications to this bond are as follows:

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL

Company:

(Corporate Seal) Company:

(Corporate Seal)

Signature: _____

Name and Title:

Address

Signature: _____

Name and Title:

Address

CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.

AIA Document A312™ – 2010

Payment Bond

Bond No. 2273494

CONTRACTOR:

(Name, legal status and address)
M.E. LATULIPPE CONSTRUCTION, INC.
P.O. Box 729, Ashland, NH 03217-0729

OWNER:

STATE OF NEW HAMPSHIRE
THE ADJUTANT GENERAL'S DEPARTMENT
4 Pembroke Road, Concord, NH 03301
(Name, legal status and address)

SURETY:

(Name, legal status and principal place
of business) NORTH AMERICAN SPECIALTY INSURANCE
COMPANY
AGENCY: P.O. Box 511
Concord, NH 03302-0511

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

AIA Document A312-2010 combines two separate bonds, a Performance Bond and a Payment Bond, into one form. This is not a single combined Performance and Payment Bond.

CONSTRUCTION CONTRACT

Date: September 20, 2018

Amount: ONE HUNDRED SEVENTY-FIVE THOUSAND FIVE HUNDRED FIFTY AND NO/100 DOLLARS (\$175,550.00)

Description: PLYMOUTH POV IMPROVEMENTS, 19 ARMORY ROAD,
(Name and location) PLYMOUTH, NH

BOND

Date: September 20, 2018

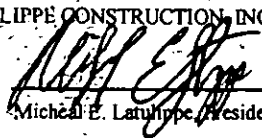
(Not earlier than Construction Contract Date)

Amount: ONE HUNDRED SEVENTY-FIVE THOUSAND FIVE HUNDRED FIFTY AND NO/100 DOLLARS (\$175,550.00)

Modifications to this Bond: None See Section 18


CONTRACTOR AS PRINCIPAL

Company: (Corporate Seal)
M.E. LATULIPPE CONSTRUCTION, INC.

Signature: 
Name and Title: Michael E. Latulippe, President

SURETY

Company: (Corporate Seal)
NORTH AMERICAN SPECIALTY INSURANCE
COMPANY

Signature: 
Name and Title: Matthew R. Blaisdell, Attorney-In-Fact

(Any additional signatures appear on the last page of this Payment

Bond.) (FOR INFORMATION ONLY — Name, address and telephone)

AGENT or BROKER:

OWNER'S REPRESENTATIVE:

(Architect, Engineer or other party:)

THE ROWLEY AGENCY, INC.
P.O. Box 511
Concord, NH 03302-0511
(603) 224-2562

§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner to pay for labor, materials and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.

§ 2 If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies and holds harmless the Owner from claims, demands, liens or suits by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Section 13) of claims, demands, liens or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract and tendered defense of such claims, demands, liens or suits to the Contractor and the Surety.

§ 4 When the Owner has satisfied the conditions in Section 3, the Surety shall promptly and at the Surety's expense defend, indemnify and hold harmless the Owner against a duly tendered claim, demand, lien or suit.

§ 5 The Surety's obligations to a Claimant under this Bond shall arise after the following:

§ 5.1 Claimants, who do not have a direct contract with the Contractor,

- .1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
- .2 have sent a Claim to the Surety (at the address described in Section 13).

§ 5.2 Claimants, who are employed by or have a direct contract with the Contractor, have sent a Claim to the Surety (at the address described in Section 13).

§ 6 If a notice of non-payment required by Section 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Section 5.1.1.

§ 7 When a Claimant has satisfied the conditions of Sections 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:

§ 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and

§ 7.2 Pay or arrange for payment of any undisputed amounts.

§ 7.3 The Surety's failure to discharge its obligations under Section 7.1 or Section 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Section 7.1 or Section 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

§ 8 The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Section 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

§ 9 Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.

§ 10 The Surety shall not be liable to the Owner, Claimants or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to, or give notice on behalf of, Claimants or otherwise have any obligations to Claimants under this Bond.

§ 11 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 12 No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Section 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

§ 13 Notice and Claims to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.

§ 14 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

§ 15 Upon request by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

§ 16 Definitions

§ 16.1 Claim. A written statement by the Claimant including at a minimum:

- .1 the name of the Claimant;
- .2 the name of the person for whom the labor was done, or materials or equipment furnished;
- .3 a copy of the agreement or purchase order pursuant to which labor, materials or equipment was furnished for use in the performance of the Construction Contract;
- .4 a brief description of the labor, materials or equipment furnished;
- .5 the date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
- .6 the total amount earned by the Claimant for labor, materials or equipment furnished as of the date of the Claim;
- .7 the total amount of previous payments received by the Claimant; and
- .8 the total amount due and unpaid to the Claimant for labor, materials or equipment furnished as of the date of the Claim.

§ 16.2 Claimant. An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.

§ 16.3 Construction Contract. The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

§ 16.4 Owner Default. Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

§ 16.5 Contract Documents. All the documents that comprise the agreement between the Owner and Contractor.

§ 17 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

§ 18 Modifications to this bond are as follows:

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL

Company:

(Corporate Seal) Company:

(Corporate Seal)

Signature: _____

Name and Title:

Address

Signature: _____

Name and Title:

Address

CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.

SWISS RE CORPORATE SOLUTIONS

NORTH AMERICAN SPECIALTY INSURANCE COMPANY
WASHINGTON INTERNATIONAL INSURANCE COMPANY
WESTPORT INSURANCE CORPORATION

GENERAL POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, THAT North American Specialty Insurance Company, a corporation duly organized and existing under laws of the State of New Hampshire, and having its principal office in the City of Overland Park, Kansas and Washington International Insurance Company a corporation organized and existing under the laws of the State of New Hampshire and having its principal office in the City of Overland Park, Kansas, and Westport Insurance Corporation, organized under the laws of the State of Missouri, and having its principal office in the City of Overland Park, Kansas each does hereby make, constitute and appoint:

DANIEL E. CHURCH, PAULA J. CANTARA, WILLIAM VER PLANCK, CHRISTINE HOSMER, JOHN M. HARBOTTLE, GARY P. LAPIERRE

BRUCE H. LANGLEY, MICHAEL P. O'BRIEN, RYAN M. STEVENS, and MATTHEW R. BLAISDELL JOINTLY OR SEVERALLY

Its true and lawful Attorney(s)-in-Fact, to make, execute, seal and deliver, for and on its behalf and as its act and deed, bonds or other writings obligatory in the nature of a bond on behalf of each of said Companies, as surety, on contracts of suretyship as are or may be required or permitted by law, regulation, contract or otherwise, provided that no bond or undertaking or contract or suretyship executed under this authority shall exceed the amount of:

ONE HUNDRED TWENTY FIVE MILLION (\$125,000,000.00) DOLLARS

This Power of Attorney is granted and is signed by facsimile under and by the authority of the following Resolutions adopted by the Boards of Directors of North American Specialty Insurance Company and Washington International Insurance Company at meetings duly called and held on March 24, 2000 and Westport Insurance Corporation by written consent of its Executive Committee dated July 18, 2011.

"RESOLVED, that any two of the President, any Senior Vice President, any Vice President, any Assistant Vice President, the Secretary or any Assistant Secretary be, and each or any of them hereby is authorized to execute a Power of Attorney qualifying the attorney named in the given Power of Attorney to execute on behalf of the Company bonds, undertakings and all contracts of surety, and that each or any of them hereby is authorized to attest to the execution of any such Power of Attorney and to attach therein the seal of the Company; and it is

FURTHER RESOLVED, that the signature of such officers and the seal of the Company may be affixed to any such Power of Attorney or to any certificate relating thereto by facsimile, and any such Power of Attorney or certificate bearing such facsimile signatures or facsimile seal shall be binding upon the Company when so affixed and in the future with regard to any bond, undertaking or contract of surety to which it is attached."



By [Signature] Steven P. Anderson, Senior Vice President of Washington International Insurance Company & Senior Vice President of North American Specialty Insurance Company & Senior Vice President of Westport Insurance Corporation

By [Signature] Michael A. Ito, Senior Vice President of Washington International Insurance Company & Senior Vice President of North American Specialty Insurance Company & Senior Vice President of Westport Insurance Corporation



IN WITNESS WHEREOF, North American Specialty Insurance Company, Washington International Insurance Company and Westport Insurance Corporation have caused their official seals to be hereunto affixed, and these presents to be signed by their authorized officers this 8TH day of FEBRUARY, 20 18.

North American Specialty Insurance Company
Washington International Insurance Company
Westport Insurance Corporation

State of Illinois
County of Cook

ss:

On this 8TH day of FEBRUARY, 20 18, before me, a Notary Public personally appeared Steven P. Anderson, Senior Vice President of

Washington International Insurance Company and Senior Vice President of North American Specialty Insurance Company and Senior Vice President of Westport Insurance Corporation and Michael A. Ito Senior Vice President of Washington International Insurance Company and Senior Vice President

of North American Specialty Insurance Company and Senior Vice President of Westport Insurance Corporation, personally known to me, who being by me duly sworn, acknowledged that they signed the above Power of Attorney as officers of and acknowledged said instrument to be the voluntary act and deed of their respective companies.



[Signature] M. Kenny, Notary Public

I, Jeffrey Goldberg, the duly elected Vice President and Assistant Secretary of North American Specialty Insurance Company, Washington International Insurance Company and Westport Insurance Corporation do hereby certify that the above and foregoing is a true and correct copy of a Power of Attorney given by said North American Specialty Insurance Company, Washington International Insurance Company and Westport Insurance Corporation which is still in full force and effect.

IN WITNESS WHEREOF, I have set my hand and affixed the seals of the Companies this 20th day of September, 20 18.

[Signature]



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

8/9/2018

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: Susan Gilman PHONE (A/C, No, Ext): (603) 224-2562 E-MAIL ADDRESS: sgilman@rowleyagency.com	FAX (A/C, No): (603) 224-8012
	INSURER(S) AFFORDING COVERAGE	
INSURED M E Latulippe Construction, Inc. PO Box 729 Ashland NH 03217	INSURER A: Firemen's Ins Co of Wash. DC	NAIC # 21784
	INSURER B: Acadia Insurance Company	NAIC # 31325
	INSURER C:	
	INSURER D:	
	INSURER E:	

COVERAGES **CERTIFICATE NUMBER:** 18/19 Cert **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 SUBR INSD 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 GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:		CPA001109134	05/01/2018	05/01/2019	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 250,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMPOP AGG \$ 2,000,000 \$
A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS		CAA001108034	05/01/2018	05/01/2019	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
B	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ 0		CDA001110934	05/01/2018	05/01/2019	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000 \$
A	<input checked="" type="checkbox"/> 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 <input checked="" type="checkbox"/> N N/A	WFA001106034 3A States: NH	05/01/2018	05/01/2019	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 100,000 E.L. DISEASE - EA EMPLOYEE \$ 100,000 E.L. DISEASE - POLICY LIMIT \$ 500,000
A	Leased/Rented Equipment		CXA018376023	05/01/2018	05/01/2019	\$300,000 Limit of Liability

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
 Project: Plymouth POV Improvements Center, Plymouth, NH. State of New Hampshire, Adjutant General's Department BA is an additional insured as respects general liability, auto liability and umbrella if required by written contract with named insured.

CERTIFICATE HOLDER State of New Hampshire Adjutant General's Department BA 4 Pembroke Road, Bldg. C Concord, NH 03301-5652	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 Susan Gilman/SJG <i>Susan Gilman</i>

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Jeanette Patten Log Out

ALERT - June 11, 2018: Entities registering in SAM must submit a notarized letter appointing their authorized Entity Administrator. Read our updated FAQs to learn more about changes to the notarized letter review process and other system improvements.

Search Results

Current Search Terms: m e latulippe* construction* inc*

Your search for "m e latulippe* construction* inc*" returned the following results...

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Entity	M. E. LATULIPPE CONSTRUCTION, INC.	Status: Active
DUNS: 194024121	CAGE Code: 6NVT6	View Details
Has Active Exclusion?: No	DoDAAC:	
Expiration Date: 03/06/2019	Debt Subject to Offset? No	
Purpose of Registrations - All Awards		

*Debarment
ME
latulippe
Const.*



IBM v1.P.17.20180810-1045
www8

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ADMINISTRATIVE SERVICES

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NH.Gov

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- Commissioner
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- Energy Management
- NH FIRST Employee Self Service
- Lean NH
- Real Property Asset Management
- Deferred Compensation Plan
- Recycling Program
- Workers Compensation

Bids & Proposals Details

Request # RFB ADJ GEN 2019-01

Description Plymouth POV Improvements

Comments

Status Contact

Closing Date 7/24/2018

Closing Time 2:00pm

Posted Date 7/10/2018

Request Type

Contract

Requisition Number

Category

Agency ADJUTANT GENERAL DEPT

Multiple Agencies

Division Adjutant General Dept

Contact [Jeanette Patten](#)

Addendums Referenced [Addendum 1](#)

Bid Result

[Download document here](#)

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ADJ GEN
59483

Fun & Games / Notices

su|do|ku

© Puzzles by Pappocom

	7					4	
8	3		9	1		2	7
			4	3			
5			7	2			3
4	1					9	2
6			5	4			8
			2	5			
9	5		1	7		3	4
	8					1	

Fill in the puzzle so that every row, every column and every 3x3 grid contains the digits 1 through 9. That means that no number is repeated in any row, column or grid. Shown at right is the answer to yesterday's puzzle.

9	2	8	4	1	5	6	3	7
5	1	7	3	2	6	9	4	8
6	4	3	8	9	7	2	5	1
4	8	9	1	6	2	5	7	3
3	5	6	7	4	9	1	8	2
2	7	1	5	3	8	4	6	9
8	3	2	9	5	4	7	1	6
7	9	5	6	8	1	3	2	4
1	6	4	2	7	3	8	9	5

WONDERWORD

HOW TO PLAY: All the words are horizontally, vertically, diagonally, or both horizontally and vertically. Strike the letter of the word and strike the word.

CELEBRITIES BORN IN 1911

B E A S G N
A R L A G U
N I K E L L
A C R Y S B
A A R O N J
D S S Y L A
A A U H N G
I M V T N O
C M L I F
A Y R M D L
T C R S S O
S U W R N O
A L E I A C
N Y D Y L L
A A S S I L

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Aaron, Aidan, Albarn, Anas, Celine, Cliff, Cora, Craig, David, Dion, Eric, Film, Hawk, Hugh, Jackman, Jen, Marc, Melissa, Molly, Ow, Sange, Shaggy, Smith, Yesterday's Answer, New

The cryptoquip is a simple substitution cipher. Each letter stands for another. If you think you have solved the puzzle, single letters, short words, and words with vowels give you clues to locating vowels.

Legal Notice

Request for Proposals
Auditing Consultant
July 3, 2018

Lakes Region Planning Commission (LRPC), one of nine RPCs in the state authorized under NHRSA 36, requests proposals for auditing assistance.

LRPC has an operating budget of approximately \$839,000. LRPC uses the following fund types: Membership Appropriations, Grants, Agency Municipal, State and Federal Funds.

The following applications are computerized using software modules provided by QuickBooks: Cash Receipts, Payroll, Accounts Payable, and General Ledger.

LRPC operates on a July 1st through June 30th fiscal year basis. The base year to be audited will be the

Legal Notice

PUBLIC NOTICE
Request for Bids

The State of New Hampshire, Adjutant General's Department is soliciting bids for improvements to be completed at the Plymouth POV, Plymouth Readiness Center, Plymouth, New Hampshire. A bid package and specifications may be obtained at the NH Adjutant General's Department, Jeanette Patten, at (603) 227-5094 or Jeanette.Patten@nh.gov. Written or electronic proposals must be submitted to the Adjutant General's Department no later than 2:00 p.m. on Tuesday, July 24, 2018. (U.L. July 11, 12, 13)

OKTND PYAM

TB PB PUA

QUTNDG Y

U X L W K M

Yesterday's Crypt
CALL THE CARE
SUPPORT STRU
TRESTLING.

Today's Crypt

Legal Notice

STATE OF NEW HAMPSHIRE
ADJUTANT GENERAL'S DEPARTMENT
EXHIBIT A – SERVICES

PROJECT NAME: Plymouth POV Site Improvements

The Exhibit A – (“Services”) as stated in the contract (Form P-37) and related to the above referenced project, shall include all the information and requirements about the project that are derived from the project specifications, the authorized construction drawings/documents and clarification sketches as well as any addendums.

PROJECT OVERVIEW:

This project generally consists of the demolition, reclamation and repaving of the existing Privately Owned Vehicle (POV) pavement areas at the Plymouth, NH, National Guard Readiness Center. It includes miscellaneous site improvements as indicated on the plans and a new pavement marking layout.

**STATE OF NEW HAMPSHIRE
THE ADJUTANT GENERAL'S DEPARTMENT**

**EXHIBIT B, P37 AGREEMENT
THE CONTRACT PRICE, METHOD OF PAYMENT AND TERMS OF PAYMENT**

**SUBJECT: PLYMOUTH POV IMPROVEMENTS
PLYMOUTH ARMORY, 19 ARMORY ROAD, PLYMOUTH, NH 03264**

The Contract Price

The Adjutant General's Department will pay the contractor a maximum total of \$175,550.00. This amount shall not be exceeded without issuance of an amendment to this agreement and approval by the Governor and Executive Council of the State of New Hampshire.

The undersigned, having carefully examined the specifications for the referenced services, hereby proposes to furnish all materials and to perform all work for the above-captioned project in strict accordance with said specifications for the following price amount.

Contract price:	\$ <u>167,550.00</u>
Allowance for unforeseen conditions And/or owner-initiated changes:	\$ <u>8,000.00</u>
Total contract price:	\$ <u>175,550.00</u>

Terms and Method of Payment

The Contractor shall submit invoices to the State on a monthly basis as the work is completed. The State shall pay such invoices within 30 days of receipt upon acceptance and approval by the Adjutant General's Department.

Invoices will be submitted by the contractor to:

The Adjutant General's Department
BA Office
4 Pembroke Road, Bldg. C
Concord, NH 03301-5652

**STATE OF NEW HAMPSHIRE
THE ADJUTANT GENERAL'S DEPARTMENT**

EXHIBIT C, SPECIAL PROVISIONS

SUBJECT: CFMO Projects

The following special provisions modify, change, delete or add to the General Provisions of the agreement. Where any part of the General Provisions is modified or voided by these Special Provisions, the unaltered provisions for that part shall remain in effect.

1. The term "Contracting Officer" as used in this agreement shall mean the State's Contracting Officer as is specified at item #1.9 of the General Provisions of this agreement or his authorized representative. The CFMO will assign project managers at the departments' sole discretion to act as the authorized representative.

2. General Provisions are amended as follows:

- a. **Provision 7. PERSONNEL sub-part 7.2:** Delete the period at the end of the provision, and add the following:

"or who is a member of the National Guard or a federal employee of the National Guard."

- b. **Provision 9. DATA: ACCESS; CONFIDENTIALITY; PRESERVATION:** Add the following sub-part:

9.4 Between the Effective Date and three (3) years after the Completion Date, as often as the State or Federal Government shall demand, the Contractor shall make available for audit purposes, all records that pertain to this Agreement. Upon demand the contractor shall provide copies of such documents which may include invoices, payrolls, records of personnel, and other information relating to all matters covered in this agreement.

- c. **Provision 14. INSURANCE AND BOND:** *Add* the following sub-sub-part:

14.1.3 Insurance against all claims arising from the Contractor's use of automobiles in the conduct of this agreement, in amounts of not less than \$250,000.00 per person bodily injury liability, \$500,000.00 per occurrence bodily injury liability and \$50,000.00 property damage liability.

5. GOVERNING REGULATIONS:

Title 2 Code of Federal Regulations (CFR) Part 200, and NGR 5-1, shall govern this Agreement and include the following terms and conditions:

Nondiscrimination.

The Grantee covenants and agrees that no person shall be subject to discrimination or denied benefits in connection with the State's performance under the MCA. Accordingly, and to the extent applicable, the Grantee covenants and agrees to comply with the following national policies prohibiting discrimination:

- a. On the basis of race, color or national origin, in Title VI of the Civil Rights Act of 1964 (42 U.S.C. Section 2000d et seq.), as implemented by DoD regulations at 32 CFR Part 195.
- b. On the basis of race, color or national origin, in Executive Order 11246 as implemented by Department of Labor regulations at 41 CFR Chapter 60.
- c. On the basis of sex or blindness, in Title IX of the Education Amendments of 1972 (20 U.S.C. Section 1681, et seq.), as implemented by DoD regulations at 32 CFR Part 196.
- d. On the basis of age, in The Age Discrimination Act of 1975 (42 U.S.C. Section 6101, et seq.), as implemented by Department of Health and Human Services regulations at 45 CFR Part 90.
- e. On the basis of handicap, in Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794), as implemented by Department of Justice regulations at 28 CFR part 41 and DoD regulations at 32 CFR Part 56.

Lobbying.

- a. The state covenants and agrees that it will not expend any funds appropriated by Congress to pay any person for influencing or attempting to influence an officer or employee of any agency, or a Member of Congress in connection with any of the following covered federal actions. The awarding of any federal contract; the making of any federal grant; the making of any federal loan; the entering into of any CA; and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or Cooperative Agreement.
- b. The Final Rule, New Restrictions on Lobbying, issued by the Office of Management and Budget and the Department of Defense (32 CFR Part 28) to implement the provisions of Section 319 of Public Law 101-121 (31 U.S.C. Section 1352) is incorporated by reference and the state agrees to comply with all the provisions thereof, including any amendments to the Interim Final Rule that may hereafter be issued.

Drug-Free work Place.

The Grantee covenants and agrees to comply with the requirements regarding drug-free workplace requirements in of 32 CFR Part 26, which implements Section 5151-5160 of the Drug-Free Workplace act of 1988 (Public Law 100-690, Title V, Subtitle D; 41 U.S.C. 701, et seq.).

Environmental Protection.

a. The Grantee covenants and agrees that its performance under this Agreement shall comply with:

- (1) The requirements of Section 114 of the Clean Air Act (42 U.S.C. Section 7414);
- (2) Section 308 of the Federal Water Pollution Control Act (33 U.S.C. Section 1318), that relates generally to inspection, monitoring, entry reports, and information, and with all regulations and guidelines issued thereunder;
- (3) The Resources Conservation and Recovery Act (RCRA);
- (4) The Comprehensive Environmental Response, Compensation and Liabilities Act (CERCLA);
- (5) The National Environmental Policy Act (NEPA);
- (6) The Solid Waste Disposal Act (SWDA));
- (7) The applicable provisions of the Clean Air Act (42 U.S.C. 7401, et seq.) and Clean Water Act (33 U.S.C. 1251, et seq.), as implemented by Executive Order 11738 and Environmental Protection Agency (EPA) rules at 40 CFR Part 31;
- (8) To identify any impact this award may have on the quality of the human environment and provide help as needed to comply with the National Environmental Policy Act (NEPA, at 42 U.S.C. 4321, et seq.) and any applicable federal, state or local environmental regulation.

b. In accordance with the EPA rules, the parties further agree that the Grantee shall also identify to the awarding agency (NGB) any impact this award may have on:

- (1) The quality of the human environment, and provide help the agency may need to comply with the National Environmental Policy Act (NEPA, at 42 U.S.C 4321, et seq.) and to prepare Environment Impact Statements or other required environmental documentation. In such cases, the recipient agrees to take no action that will have an adverse environmental impact (e.g., physical disturbance of a site such as breaking of ground) until the agency provides written notification of compliance with the environmental impact analysis process.
- (2) Flood-prone areas, and provide help the agency may need to comply with the National Flood Insurance Act of 1968 and Flood Disaster Protection Act of 1973 (42 U.S.C. 4001, et seq.), which require flood insurance, when available, for federally assisted construction or acquisition in flood-prone areas.
- (3) Coastal zones, and provide help the agency may need to comply with the Coastal Zone Management Act of 1972 (16 U.S.C. 1451, et seq.), concerning protection of U.S. coastal resources.
- (4) Coastal barriers, and provide help the agency may need to comply with the Coastal Barriers Resource Act (16 U.S.C. 3501 et seq.), concerning preservation of barrier resources.
- (5) Any existing or proposed component of the National Wild and Scenic Rivers System, and provide help the agency may need to comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. 1271 et seq.).
- (6) Underground sources of drinking water in areas that have an aquifer that is the sole or principal drinking water source, and provide help the agency may need to comply with the Safe Drinking Water Act (42 U.S.C 300H-3).

Use of United States Flag Carriers.

a. The state covenants and agrees that travel supported by U.S. Government funds under this agreement shall use U.S.-flag air carriers (air carriers holding certificates under 49 U.S.C. 41102) for international air transportation of people and property to the extent that such service is available, in accordance with the International Air Transportation Fair Competitive Practices Act of 1974 (49 U.S.C. 40118) and the inter-operative guidelines issued by the Comptroller General of the United States in the March 31, 1981, amendment to Comptroller General Decision B138942.

b. The state agrees that it will comply with the Cargo Preference Act of 1954 (46 U.S.C. Chapter 553), as implemented by Department of Transportation regulation at 46 CFR 381.7, and 46 CFR 381.7(b).

Debarment and Suspension.

Non-federal entities and contractors are subject to the non-procurement debarment and suspension regulations implementing Executive Orders 12549 and 12689, 2 CFR part 180. These regulations restrict awards, sub awards, and contracts with certain parties that are debarred, suspended, or otherwise excluded from or ineligible for participation in Federal assistance programs or activities. The grantee agrees to comply with the DOD implementation of 2 CFR Part 180 (at 2 CFR Part 1125) by checking the Excluded Parties List System (EPLS) at www.sam.gov to verify contractor eligibility to receive contracts and subcontracts resulting from this Agreement. The grantee and sub recipients shall not solicit offers from, nor award contracts to contractors listed in EPLS. This verification shall be documented in the grantee and sub recipient contract files, and shall be subject to audit by the grantor and Federal/State audit agencies

Buy American Act.

The state covenants and agrees that it will not expend any funds appropriated by Congress without complying with The Buy American Act (41 U.S.C.10a et seq.). The Buy American Act gives preference to domestic end products and domestic construction material. In addition, the Memorandum of Understanding between the United States of America and the European Economic Community (EEC) on Government Procurement, and the North American Free Trade Agreement (NAFTA), provide that EEC and NAFTA end products and construction materials are exempted from application of the Buy American Act.

Uniform Relocation Assistance and real Property Acquisition Policies.

The state covenants and agrees that it will comply with CFR 49 part 24, which implements the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (42 U.S.C. Section 4601 et seq.) and provides for fair and equitable treatment of persons displaced by federally assisted programs or persons whose property is acquired as a result of such programs.

Copeland “Anti-Kickback” Act.

The state covenants and agrees that it will comply with the Copeland “Anti-Kickback” Act (18 U.S.C. Section 874) as supplemented in Department of Labor regulations (29 CFR Part 3). As applied to this agreement, the Copeland “Anti-Kickback” Act makes it unlawful to induce, by force, intimidation, threat of procuring dismissal from employment, or otherwise, any person employed in the construction or repair of public buildings or public works, financed in whole or in part by the United States, to give up any part of the compensation to which that person is entitled under a contract of employment.

Contract Work Hours and Safety Standards Act.

The state covenants and agrees that it will comply with Sections 103 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. Sections 3701-3708) as supplemented by Department of Labor regulations (29 CFR Part 5). As applied to this agreement, the Contract Work Hours and Safety Standards Act specifies that no laborer or mechanic doing any part of the work contemplated by this agreement shall be required or permitted to work more than 40 hours in any workweek unless paid for all additional hours at not less than 1.5 times the basic rate of pay.

Environmental Management System Notice for Contractors and Contractor employees

The New Hampshire Army National Guard (NHARNG) has implemented an environmental Management System (eMS), in accordance with Executive Orders 13423 and 13514, to guide its operations in an environmentally sound manner. Under its eMS, the NHARNG has identified significant activities, products or services that can interact with the environment (known as aspects) and potential environmental impacts from its operations. The significant environmental aspects are listed below:

- Energy Use
- Vehicle Travel (fleet) Between Work Stations

These significant aspects and their associated impacts are closely monitored by the NHARNG. Further, the NHARNG is tracking the success of the implementation plans established to achieve the NHARNG's objectives.

For the purposes of this notice, applicability is limited to those actions that the contractor or subsequent employees are likely to perform on NHARNG properties.

The primary purpose of this notice is to communicate the three basic tenets of the NHARNG's eMS policy:

- eMS (ISO 14001) is the management system the NHARNG uses to implement the Adjutant General's Environmental Policy;
- The eMS Environmental Policy commits the NHARNG to comply with environmental laws and regulations, to prevent pollution and to promote continual improvement of the eMS; and
- Contractors are responsible for knowing the environmental impacts of their services, and must understand the management requirements for any activities that could affect any of NHARNG's significant aspects, or that could result in potential environmental impacts.

Energy Use

The NHARNG is committed to reducing its consumption of energy. Reducing energy consumption may be realized by turning off electrical equipment when not in use, or reducing heating temperatures/increasing cooling temperatures, using alternative fuels (if available, such as E85 or biodiesel), etc. Contracts that include the use or installation of equipment will seek the most energy efficient technology within the scope of the contract.

Vehicle Travel (fleet) Between Work Stations

The NHARNG is committed to preventing pollution through monitoring of Federal GSA Fleet vehicle usage. Usage of fleet vehicles by contractors is prohibited.

Significant aspects likely to be affected by contractor's activities, products, or services:
(To be discussed at the Kickoff meeting)

Review of specific contract provisions related to environmental aspects:
(To be discussed at the Kickoff meeting)

Contact Information:

The Adjutant General's Dept. Environmental Staff (603) 227-1439

Resources Provided Upon Contractor Request:

NHARNG Integrated Cultural Resources Management Plan (ICRMP)

NHNG Green Procurement Plan

Facility Specific Integrated Contingency Plans (ICPs); established for the State Military Reservation, Manchester RC / FMS, Army Aviation Support Facility (AASF)

NHARNG Hazardous Waste Management Plan

GENERAL CONDITIONS

1. CONTRACT DOCUMENTS

- A. The Contract Documents consist of the Contract Agreement, General Conditions, and Supplementary General Conditions, Drawings and Specifications, including all Addenda issued prior to execution of the Contract; Bonds where required; insurance certificates: and subsequently thereto, Change Orders issued in accordance with the General Conditions.
- B. The Contract Documents shall be signed by the Department and the Contractor in as many original counterparts as may be mutually agreed. No Contract shall be considered as in effect until it has been fully executed by all of the parties thereto and the award concurred in by Governor and Council. If there is federal funding, it must also have the concurrence of the applicable Federal Agency having jurisdiction.
- C. This Contract is executed in a number of counterparts, each of which is an original and constitutes the entire agreement between the parties. This Contract shall be construed according to the laws of the State of New Hampshire. No portion of this Contract shall be understood to waive the sovereign immunity of the State. This Contract shall not be amended, except as specified herein, except with the approval of the Governor and Council.
- D. The Contract Documents are complementary and anything called for by one of the Contract Documents and not called for by the others shall be of like effect as if required by all.
- E. Should the Contract Documents disagree in themselves or with each other, the Contractor shall provide the better quality or greater quantity of work and or materials, unless specifically otherwise directed by written Addendum to the Contract.
- F. The Contractors and all subcontractors shall refer to all of the Contract Documents, including those not specifically showing the work of their specialized trades, and shall perform all work reasonably inferable from them as being necessary to produce the intended results.
- G. All indications or notations which apply to one of a number of similar situations, materials or processes shall be deemed to apply to all such situations, materials or processes wherever they appear in the work, except where a contrary result is clearly indicated by the Contract Documents.
- H. Where codes, standards, requirements, and publications of public and private bodies are referred to in the Contract Documents, such references shall be understood to be to the latest revision prior to the date of receiving Bids, except where otherwise indicated.
- I. Where no explicit quality or standards for materials or workmanship is established for work, such work is to be of good quality for the intended use and consistent with the quality of the surrounding work and of the construction of the Project in general.
- J. All manufactured articles, materials, and equipment shall be applied, installed, connected, erected, tested, cleaned, and conditioned in accordance with the manufacturer's written or printed directions and instructions, unless specifically indicated otherwise in the Contract Documents.
- K. The Drawings are generally made to scale, but all working dimensions shall be taken from the figured dimensions or by actual measurements at the job; in
no case by scaling. Study and compare all the Drawings and verify all

figures before laying out or constructing work. The Contractor shall be responsible for errors in his work that might have been avoided thereby. Whether or not an error is believed to exist, deviation from the Drawings and the dimensions given thereon shall be made only after approval in writing from the Department.

- L. The Mechanical, Fire Protection (sprinkler) and Electrical Drawings, when provided, are diagrammatic only, and are not intended to show the exact physical locations or configurations of work. Such work shall be installed to clear all obstructions, permit proper clearances by coordinating his work with other trades, and present an orderly appearance where exposed.

2. ACCESS TO THE WORK

- A. The Contractor shall provide for access to the work for inspection by the Department and government officials having jurisdiction. The Consultant, Engineer, and officials of Local, State, and Federal Agencies in the case of such programs as they administer and their authorized representatives shall have access at all times to the work for inspection wherever it is in preparation or progress, and the Contractor shall provide proper facilities for such access and inspection.

3. CONTRACT ADMINISTRATION

- A. The Department shall determine the amount, quality, and acceptability and fitness of all parts of the work, shall interpret the Contract Documents, and any Change Orders, and shall decide all other issues in connection with the work. The Department shall have the authority to approve or order changes in the work that alter the terms or conditions of the Contract. The Department shall confirm in writing any oral order, direction, requirements or determination.
- B. When a Federal Agency participates in the cost of the work covered by this Contract, the work shall be under the observation and inspection of the Department, but subject to the inspection and approval of the proper officials of the Federal Agency.

4. ACCIDENT PROTECTION

- A. It is a condition of this Contract, and shall be made a condition of each subcontract entered into pursuant to the Contract, that the Contractor and any Subcontractors shall not require any laborer or mechanic employed in the performance of the Contract to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous to his health or safety as determined by construction safety and health standards of the Occupational Safety and Health Administration, United States Department of Labor, which standards include, by reference, the established Federal Safety and Health Regulations for Construction. These standards and regulations comprise Part 1910 and Part 1926 respectively of Title 29 of the Code of Federal Regulations and are set forth in the Federal Register. In the event any revisions in the Code of Federal Regulations are published, such revisions will be deemed to supersede the appropriate Part 1910 and Part 1926, and be effective as of the date set forth in the revised regulation.

5. HAZARDOUS MATERIALS

- A. The Contractor shall also be aware of laws and regulations relating to hazardous materials that may be encountered during construction operations, either within project limits or at material sites off the project. The health and safety of employees, the general public, and the potential of damage to the overall environment is possible if hazardous materials are not recognized, reported, and the appropriate action taken to dispose of, remove from the site, or otherwise contain the possible contaminants.
- B. If any abnormal condition is encountered or exposed that indicates the presence of a

hazardous material or toxic waste, construction operations shall be immediately suspended in the area and the Department notified. No further work shall be conducted in the area of the contaminated material until the site has been investigated and the Department has given approval to continue the work in the area. The Contractor shall fully cooperate with the Department and perform any remedial work as directed. Work shall continue in other areas of the Project unless otherwise directed.

- C. Exposure to hazardous materials may result from contact with, but not necessarily limited to, such items as drums, barrels, and other containers, waste such as cars, batteries, and building construction debris. Containers leaking unknown chemicals or liquids, abandoned cars leaking petroleum products, batteries leaking acid, construction debris which may include asbestos, or any other source of suspected hazardous material found within excavation areas or stockpiled on land within construction limits shall be referred to the Department of Environmental Services and the Department so that a proper identification of the materials may be made and disposal procedures initiated as required.
- D. Disposition of the hazardous material or toxic waste shall be made under the requirements and regulations of the Department of Environmental Services. Work required disposing of these materials and any remedial work shall be performed under a Supplemental Agreement or Contract item, if included in the Contract.

6. SUBCONTRACTS

- A. Nothing contained in the Specifications or Drawings shall be construed as creating any contractual relationship between any Subcontractor and the Department. The Divisions or Sections of the Specifications are not intended to control the Contractor in dividing the work among Subcontractors or to limit the work performed by any trade.
- B. The Contractor shall be as fully responsible to the Department for the acts and omissions of Subcontractors and of persons employed by them, as he is for the acts and omissions of persons directly employed by him.
- C. The Contractor shall, without additional expense to the State, utilize the services of specialty Subcontractors, as required.
- D. The Department will not normally undertake to settle any differences between the Contractor and his Subcontractors or between Subcontractors.
- E. The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the work to bind Subcontractors to the Contractor by the terms of the General Conditions and other Contract Documents insofar as applicable to the work of Subcontractors and to give the Contractor the same power as regards terminating any subcontract that the Department may exercise over the Contractor under any provisions of the Contract Documents.
- F. Within fifteen (15) days after the award of the Contract, the Contractor shall submit a complete list of all of the Subcontractors setting forth in detail the work they will be responsible for. If a subcontractor is added during the construction process the Contractor will revise the list and resubmit to the Department.

7. RESPONSIBILITY OF CONTRACTOR TO ACT IN EMERGENCY

- A. In case of any emergency that threatens loss or injury of property, and/or safety of life, the Contractor shall act, without previous instructions from the Department, as the situation may warrant. He shall notify the Department thereof immediately thereafter. Any compensation claimed by the Contractor together with substantiating documents in regard to expense, shall be submitted to the Department and the amount of compensation shall be determined by agreement.

8. SEPARATE CONTRACTS

- A. The Department may award other Contracts in connection with the Project, the work under which will proceed simultaneously with the execution of this Contract. The Contractor shall coordinate operations with those of other Contractors.

9. MUTUAL RESPONSIBILITY OF CONTRACTORS

- A. If the Contractor or any of his/her Subcontractors or employee's causes loss or damage to any separate Contractor or Subcontractor on the work, the Contractor or Subcontractor agrees to settle with such separate Contractor or Subcontractor by agreement, if he/she will so settle. If such separate Contractor or Subcontractor sues the State because of any loss so sustained, the Department shall notify the Contractor and/or their subcontractors, who shall indemnify and hold harmless the Department against any expenses or judgment arising there from.

10. PAYMENTS TO CONTRACTOR

- A. The Department will manifest payments to the Contractor each calendar month on the basis of duly certified and approved estimate of the work performed during the preceding period. In preparing estimates, the material delivered on the site and any preparatory work done may be taken into consideration.
- B. At least ten (10) days before the end of the billing period, the Contractor shall submit to the Department an itemized Requisition for Payment, supported by such data substantiating the Contractor's right to payment as the Department may require. If payment is to be made on account of materials or equipment not incorporated in the work, but delivered and suitably stored at the site, such payment shall be conditional upon submission by the Contractor of bills of sale or such other procedure satisfactory to the Department to establish the State's title to such materials or equipment or otherwise protect the State's interest including applicable insurance.
- C. Immediately upon receipt of the Department Approved Monthly Requisition for Payment, Contractor shall post same at the Contractor's Field Office or project site in a location where Subcontractors and Suppliers have clear access.
- D. A five (5) percent retainage of the value of the work performed on each partial estimate will be deducted and retained by the Department until after completion of the entire Contract in an acceptable manner. The balance remaining after the specified percentage has been retained, less all previous payments, will be certified for payment on each partial estimate.
- E. Within thirty (30) days after acceptance, the Department shall pay to the Contractor the amount of the Contract less all prior payments. All prior payments and estimates, including those relative to extra work, shall be subject to correction by this payment, which is throughout this Contract called the Final Payment.
- F. Retainage will be released at Final Payment.
 - i. After the Certificate of Substantial Completion has been issued, upon written application by the Contractor and with the approval of the Surety, the Department may release a portion of the retained amount.
- G. Payment for Material On Hand:
 - i. Partial payments are made for materials to be incorporated in the Work, provided the materials meet the requirements of the Contract and are delivered on, or in the vicinity of, the Project site and stored in acceptable places. Partial payments will not exceed 90 percent of the Contract unit price for the item or the amount supported by copies of paid invoices, freight bills, or other supporting documents required by the Department. The quantity paid will not exceed the corresponding

quantity estimate in the Contract. No partial payment will be made on living or perishable materials until incorporated in the Work.

- ii. When material payments exceed \$100,000 or 10 percent (10%) of the total contract amount, whichever is less, notarized copies of paid invoices or copies of canceled checks for all such materials must be submitted to the Department within 45 days of the end date of the estimate on which the material allowance was paid. Failure to provide such documentation will result in the deduction of such material allowance from future estimates until documentation is provided.
- iii. All material and work covered by partial payments made shall thereupon become the sole property of the Department, but this provision shall not be construed as relieving the Contractor of the sole responsibility of all materials and work upon which payments have been made or the restoration of any damaged work or as a waiver of the right of the State to require the fulfillment of all the terms of the Contract.

H. Payment for Material Not on Hand:

- i. The Department will not pay for products and or materials that have not been delivered and stored properly on the construction site.

I. Release of Claims:

- i. Neither the final payment nor any part of the retained percentage shall become due until the Contractor shall deliver a complete release of all claims arising under and by virtue of this Contract, including claims for all Subcontractors and suppliers of either materials or labor, plus a release of the Contract Bond and a statement that all Subcontractors and suppliers have been paid. The Department, may pay any and all such claims, in whole or in part, and deduct the amount or amounts so paid from any partial or final payment.

J. Final Payment:

- i. Application for Final Payment received from the Contractor will be processed for payment not less than 60 days after project acceptance and final completion unless accompanied by a release of the Contract Bond. This payment shall be the amount of the Contract, amended by approved change orders, less previous payments minus liquidated damages, additional penalties or holdbacks. All prior partial estimates and payments shall be subject to correction in the final estimate and payment.

K. Acceptance of Final Payment Constitutes Release:

- i. The acceptance of the Final Payment by the Contractor shall be and shall operate as a release to the Contractor of all claims and of all liability to the Department for all things done or furnished in connection with this work. No payment, however, final or otherwise, shall operate to release the Contractor and its Sureties from any obligations under this Contract or the Contract Bond. Acceptance of Final Payment shall not impact any warranties provided by the Contractor with respect to this project.

11. LIMITATION OF CONSTRUCTION OPERATIONS

The normal working hours will be from 7:00 am until 3:30 pm M-F unless otherwise agreed in writing by the department.

In the State of New Hampshire, legal holidays occur on:

- a. New Year's Day
- b. Washington's Birthday
- c. Memorial Day Fourth of July

- d. Labor Day
- e. Veterans' Day
- f. Thanksgiving Day and Day After
- g. Christmas Day
- h. Whenever a holiday is observed on a Friday or a Monday. The Contractor shall be required to suspend work for three (3) calendar days.
- i. No work shall be performed on Saturday, Sundays or legal holidays except in cases of emergency and upon permission of the Department.

12. CONTRACTOR'S TITLE TO MATERIALS

- A. No materials or supplies for the work shall be purchased by the Contractor or any Subcontractor subject to any chattel mortgage or under a conditional sale or other agreement by which an interest is retained by the seller. The Contractor warrants that he has good title to all materials and supplies for which he accepts partial payment. If any claim is made with respect to materials provided by the contractor, subcontractors, or Independent Contractors, the Contractor shall defend any such claim and shall pay any judgment or settlement thereon.

13. CHANGES IN WORK

- A. The Department may at any time, by a written order, and without notice to the Sureties, make changes in the Drawings and Specifications and Completion Date of this Contract and within the general scope thereof.
- B. The order shall stipulate the mutual agreed upon lump sum price, which shall be added to or deducted from the Contract Price. The Contractor shall furnish an itemized breakdown of the prices used in computing the value of any change that might be ordered.
- C. The compensation herein provided shall be accepted by the Contractor as payment in full, including superintendence, bond, overhead, and profit, for extra work performed on a force account basis. For all such work, the Contractor shall furnish certified copies of the payrolls on forms provided for that purpose, invoices of all materials, and such other information as may be required by the Department.

14. TAXES

- A. The Contractor shall pay all applicable Federal, State and Local sales and other taxes, except taxes and assessments on the real property comprising the site of the Project.

15. PATENTS

- A. The Contractor shall hold and save the Department and its officers, agents, servants, and employees harmless from liability of any nature including cost and expenses, for or on account of any patented or unpatented invention, process, article or applicable manufactured or used in the performance of the Contract, including its use, unless otherwise specifically stipulated in the Contract Documents.

16. ASSIGNMENTS

- A. The Contractor shall not assign the whole or any part of this Contract or any monies due or to become due hereunder, without the written consent of the Department and

of all Sureties executing any Bonds on behalf of the Contractor if in connection with said Contract.

17. SUPERINTENDENCE BY CONTRACTOR

- A. The Contractor shall employ a competent Foreman or Superintendent, satisfactory to the Department, on the work site at all times to supervise the work in progress, with authority to act for him. The Contractor shall not change superintendents without permission from the Department and shall submit a request in writing with justification for such a change.
 - i. The superintendent shall be responsible for verifying that all materials, installation, coordination, and workmanship are in conformance with the contract documents.
 - ii. Unless the Department has granted prior written approval, the superintendent shall not, himself, engage in "hands on" construction work.
 - iii. In the event the superintendent fails or refuses to perform functions mentioned above as determined by the Department, the Contractor agrees to a stipulated penalty of up to \$500.00 per day, in addition to any liquidated damages provided hereunder.

18. FAILURE TO COMPLETE WORK ON TIME

- A. If the Contractor fails to complete all of the work or sections of the Project, if sections are indicated, within the time specified in the Contract or within any additional time allowed, for each working day the Liquidated Damages identified in Section C below will be deducted from any money due the Contractor. This deduction will be made, not as a penalty, but as fixed, agreed liquidated damages for inconvenience to the Department and for reimbursing the Department the cost of the Administration of the Contract, including personnel, time, engineering and inspection. Should the amount of money otherwise due the Contractor be less than the amount of such liquidated damages, the Contractor and its Surety shall be liable to the Department for such deficiency.
- B. If the Department permits the Contractor to continue and finish the work after the time fixed for its completion, it shall in no way operate as a waiver on the part of the Department of any of its rights under the Contract. When the final acceptance has been duly made by the Department, any liquidated damage charges shall end.
- C. The fixed, agreed, liquidated damages shall be assessed in accordance with the following schedule.

<u>Original Contract Amount</u>		<u>Amount of Liquidated damages per day</u>
From more than:	to and including:	
0	25,000	\$200.00
25,000	50,000	\$300.00
50,000	100,000	\$400.00
100,000	500,000	\$500.00

19. SUBSTANTIAL COMPLETION AND FINAL INSPECTION

- A. When the Department has determined the work to be substantially complete, he shall

promptly notify the Contractor. Upon notification, the Contractor shall submit to the Department a list of items of work to be completed or corrected, accompanied by a cost value of these items. The Department will also provide a "punch List" of items to be completed based on their interpretation of the required finished product. The failure to include any items of such list does not alter the responsibility of the Contractor to complete all work in accordance with the Contract Documents. On the basis of an inspection by the Department which determines that the work is substantially complete, a certificate of Substantial Completion shall establish the Date of Substantial Completion and state the responsibilities of the Department and the Contractor for security, maintenance, heat, utilities, damage to the work and insurance, and fix the time limit within which the Contractor shall complete the items listed herein. Warranties required by the Contract Documents shall commence on the Date of Substantial Completion unless otherwise provided in the Certificate of Substantial Completion.

- B. If the Contractor fails to proceed to complete the items on the "punch list," then in addition to the corrective measures listed in the Certificate of Substantial Completion, the Department may use the monies still due the Contractor to have such items completed and the Contractor shall lose any claim to the monies so used.
- C. Upon written notice that the work is ready for final inspection and acceptance, the Department shall promptly make such inspection, and when they find the work acceptable under the Contract Documents and the Contract fully performed, a Certificate of Final Payment will be issued. The Contractor shall provide all certificates and reports, as required, throughout the contract and shall coordinate their preparation and submission. Failure to submit such certificates and reports shall be considered default of contract.

20. TERMINATION OF CONTRACT WITH FAULT

- A. If the Contractor:
 - i. Fails to begin work under Contract within the time specified in the notice to proceed, or
 - ii. Fails to perform the work with sufficient workmen and equipment, or with sufficient materials to assume prompt completion of said work, or
 - iii. Performs the work unsuitably or neglects or refuses to remove materials or to perform anew such work as may be rejected as unacceptable and unsuitable, or
 - iv. Discontinues the prosecution of the work, or
 - v. Fails to resume work, which has been discontinued, within a reasonable time after notice to do so, or
 - vi. Becomes insolvent or has declared bankruptcy, or commits any act of bankruptcy or insolvency, or
 - vii. Fails to pay subcontractors and material/product suppliers, or
 - viii. Makes an assignment for the benefit of creditors, or
 - ix. For any other causes whatsoever, fails to carry on the work in an acceptable manner.
- B. The Department will give notice, in writing, to the Contractor and his Surety for such

delay, neglect, and default for any item identified above.

- i. If the Contractor or Surety does not proceed in accordance with the Notice, then the Department will, upon the Contractor's failure to comply with such Notice, have full power and authority without violating the Contract, to take the prosecution of the work out of the hands of the Contractor. The Department may enter into an agreement for the completion of said Contract according to the terms and conditions thereof, or use such other methods as in his opinion will be required for the completion of said Contract in an acceptable manner.
- ii. All extra costs and charges incurred by the Department as a result of such delay, neglect or default, together with the cost of completing the work under the Contract will be deducted from any monies due or which may become due said Contractor. If such expenses exceed the sum that would have been payable under the Contract, then the Contractor and the Surety shall be liable and shall pay to the Department, the amount of such excess.

21. TERMINATION OF CONTRACT WITHOUT FAULT

- A. Except in cases controlled by the preceding section, the Department, for any cause, including, but not limited to an order of any Federal authority or petition of the Contractor due to circumstances beyond his control may by written notice to the Contractor and the Surety terminate the Contract or any portion thereof subject to the Condition(s) i, ii, iii and iv provided below.
- B. Notwithstanding anything to the contrary contained in these condition, it is understood and agreed by the parties hereto that all obligations of the Department hereunder, including the continuance of payments, are contingent upon the availability and continued appropriation of State and/or Federal Funds, and in no event shall the Department be liable for any payments hereunder in excess of such available or appropriated funds. In the event of a reduction, termination or failure to appropriate any or all such available funds or appropriations or a reduction of expenditures of State funds the Department may, by written notice to the Contractor and Surety, immediately terminate this Contract in whole or in part in accordance with the following conditions:
 - i. When a Contract, or portion thereof, is terminated before completion of all items of work in the Contract, payment will be made for the actual items of work completed. Payment of items of work not completed at time of termination shall be the greater of the following amounts: (1) a percentage of the Contract unit price, which percentage shall be the percentage of completion of the particular item at time of termination or (2) such amount as shall be mutually agreed upon by the parties. No claim for loss of anticipated profits on items or units of work not completed will be allowed.
 - ii. Reimbursement for organization of the work and mobilization, when not otherwise included in the Contract, shall be made where the volume of work completed is too small to compensate the Contractor for these expenses under the Contract; the intent being that an equitable settlement be made with the Contractor.
 - iii. Acceptable materials, obtained or ordered by the Contractor for the work, and

that are not incorporated in the work shall, at the option of the Contractor, be purchased from the Contractor based upon the delivered cost of the materials at such points of delivery as may be designated by the Department. The Contractor shall do everything possible to cancel unfilled orders.

- iv. Termination of a Contract, or a portion thereof, shall not relieve the Contractor of his responsibilities for the work completed nor shall it relieve his Surety of its obligations for and concerning any claims arising out of the work performed.

22. ASSIGNMENT PROVISION

- A. The Contractor hereby agrees that it will assign to the Department all causes of action that it may acquire under the anti-trust laws of New Hampshire and the United States as a result of conspiracies, combinations or contracts in restraint of trade which affect the price of goods or services obtained by the Department under this Contract, if so requested by the Department.

END OF SECTION

PRICE AND PAYMENT PROCEDURES

1. REQUISITION FOR PAYMENT
 - A. Submit two copies of each application on the AIA Application and Certificate for Payment G702 and Continuation sheet G703 or another document/form that has been previously approved by the Department.
 - B. Content and Format: Items on the Requisition for Payment shall be consistent with the items on the Proposal Form. Utilize the Schedule of Values as documentation for payment items.
 - C. Submit updated construction schedule with each Requisition for Payment.
 - D. Payment Period: Submit at intervals stipulated in the General Conditions.
 - E. Submit with transmittal letter to the attention of the project Architect/Engineer for review and approval.
 - F. Substantiating Data: When the Department requires substantiating information, submit data justifying dollar amounts in question.

2. SCHEDULE OF VALUES
 - A. Submit printed schedule on AIA Form G703 - Continuation Sheet for G702 or approved equal. (See item 1.A above)
 - B. Submit Schedule of Values within 15 days after date of issuance of Notice to Proceed. Failure to submit within specified time period will constitute Default of Contract.
 - C. Format: Utilize Table of Contents of these specifications. Identify each line item with number and title of major specification section. Identify bonds, insurance, general conditions, allowances etc.
 - D. Include a separate line item for closeout to include record drawings, owner's manuals and other pertinent information due to the Department.
 - E. Include a separate line item for the amount of each Allowance and Alternates specified in this section. For unit cost Allowances, identify quantities taken from Contract Documents multiplied by unit cost to achieve total for each item.
 - F. Revise schedule to list approved Change Orders, with each Requisition or Payment.

3. UNIT PRICES
 - A. Authority: Measurement methods are delineated in individual specification sections.
 - B. Measurement methods delineated in individual specification sections complement criteria of this section. In event of conflict, requirements of individual specification section govern,
 - C. Take measurements and compute quantities. Architect/Unit Quantities: Quantities and measurements indicated in Bid Form are for contract purposes only. Quantities and measurements supplied or placed in the Work shall determine payment

- i. When actual Work requires more or fewer quantities than those quantities indicated, provide required quantities at unit sum/prices contracted.
- D. Payment Includes: Full compensation for required labor, products, tools, equipment, plant and facilities, transportation, services and incidentals; erection, application or installation of item of the Work; overhead and profit,
- E. Final payment for Work governed by unit prices will be made on basis of actual measurements and quantities accepted by Architect/Engineer multiplied by unit sum/price for Work incorporated in or made necessary by the Work.
- F. Measurement of Quantities: Measurement by Weight: Concrete reinforcing steel, rolled or formed steel or other metal shapes will be measured by handbook weights. Welded assemblies will be measured by handbook or scale weight.
- G. Measurement by Volume: Measured by cubic dimension using mean length, width and height or thickness.
- H. Measurement by Area: Measured by square dimension using mean length and width or radius.
- I. Linear Measurement: Measured by linear dimension, at item centerline or mean chord.
- J. Stipulated Sum/Price Measurement: Items measured by weight, volume, area, or linear means or combination, as appropriate, as completed item or unit of the Work.

4. CHANGE PROCEDURES

- A. Submittals: Submit name of individual authorized to receive change documents, and be responsible for informing others in Contractor's employ or Subcontractors of changes to the Work.
- B. The Department will advise of minor changes in the Work not involving adjustment to Contract Sum/Price or Contract Time, or that may be necessary to carry out the work included in the Contract, by issuing Supplemental Instructions.
- C. The Department may issue a Proposal Request including a detailed description of proposed changes with supplementary or revised Drawings and specifications, with or without a change in Contract Time for executing the change. The Contractor will prepare and submit estimate within ten days.
- D. Contractor may propose changes by submitting a request for change(s) to the Department, describing proposed change and its full effect on the Work. Each request shall be a separate item and sequentially numbered. Include a statement describing reason for the change, and effect on Contract Sum/Price and Contract Time with full documentation and a statement describing effect on Work by separate or other Contractors.
- E. Stipulated Sum/Price Change Order: Based on Proposal Request and Contractor's fixed price quotation or Contractor's request for Change Order as approved by the Department. Submit the breakdown of the following items on a Department Change Order Form for review and approval by the Department:
 - i. The Contractor shall include the following indirect costs for work performed by the General Contractor as part of the Contractors' price:
 - a. Worker's Compensation and Employee Liability.
 - b. Unemployment and Social Security Taxes.

- ii. In addition to the above indirect costs the General Contractor shall be allowed the following markups:
 - a. Twenty percent (20%). Said twenty percent (20%) shall be all inclusive for overhead, supervision, and profit for Work performed by the General Contractor.
 - b. Ten percent (10%) on that part of work performed by all Subcontractors.
 - iii. On any change that involves a net credit to the State, no allowance for overhead, supervision and profit shall be figured.
 - iv. Contractor shall provide back-up information for all change order pricing.
 - v. Extension of Contract Time: State any requests for extension of Contract Time with justification for such a request.
- F. Unit Price Change Order: For contract unit prices and quantities, the Change Order will be executed on fixed unit price basis. For unit costs or quantities of units of work which are not pre-determined, execute Work under Construction Change Directive. Changes in Contract Sum/Price or Contract Time will be computed as specified for Time and Material Change Order.
- G. Construction Change Directive: The Department may issue a directive instructing the Contractor to proceed with changes in the Work, for subsequent inclusion in a Change Order. Document will describe changes in the Work, and designate method of determining any change in Contract Sum/Price or Contract Time. Promptly execute change. Failure to comply will result in Default of Contract.
- H. Time and Material Change Order: Submit itemized account and supporting data within 10 days of completion of change. The Department will determine change allowable in Contract Sum/Price and Contract Time as provided in Contract Documents.
- i. Maintain detailed records of work done on Time and Material basis. Provide full information required for evaluation of proposed changes, and to substantiate costs for changes in the Work.
- I. Execution of Change Orders: The Contractor is responsible for preparing and updating a spreadsheet log itemizing all Proposed Changes. A separate spreadsheet shall be completed for each Allowance Item. The spreadsheet shall include columns for Proposed Change Number, Description, Amount of Change, Status, and Approved Amounts. In addition a current balance remaining shall be included. Change Orders will be processed per the following procedures:
- i. The Department reviews cost for Change in Work. If needed the Department will request additional items, back-up information, and request any possible changes or clarifications.
 - ii. Contractor can proceed with Change Order Work with direction from the Department.
 - iii. Contractor shall not proceed with any work that will exceed the amount of Allowance remaining.
 - iv. Fully signed and executed Change Order is issued by the Department to the Consultant and Contractor.
- J. Correlation Of Contractor Submittals:
- i. Promptly revise Schedule of Values and Application for Payment forms to

record each authorized Change Order as separate line item and adjust Contract Sum/Price.

- ii. Promptly revise progress schedules to reflect change in Contract Time, revise sub-schedules to adjust times for other items of work affected by the change, and resubmit.
- iii. Promptly enter changes in Project Record Documents.

5. DEFECT ASSESSMENT

- A. Any work or materials found to be defective or not in compliance with the plans and specifications in the determination of the Department shall be handled in the following manner.
- B. Replace the Work, or portions of the Work, not conforming to specified requirements.
- C. If, in the opinion of the Department, it is not practical to remove and replace the Work, the Department will direct appropriate remedy or adjust payment.
- D. The defective Work may remain, but unit sum/price will be adjusted to new sum/price at discretion of the Department.
- E. Defective Work will be repaired to instructions of and acceptance by the Department and unit sum/price will be adjusted to new sum/price at discretion of the Department.
- F. Authority of the Department to assess defects and identify payment adjustments, is final.
- G. Non-Payment For Rejected Products: Payment will not be made for rejected products for any of the following:
 - i. Products wasted or disposed of in a manner that is not acceptable.
 - ii. Products determined as unacceptable before or after placement.
 - iii. Products not completely unloaded from transporting vehicle.
 - iv. Products placed beyond lines and levels of required Work.
 - v. Products remaining on hand after completion of the Work.
 - vi. Loading, hauling, and disposing of rejected products.

6. ALTERNATES

- A. Alternates quoted on Proposal Forms will be reviewed and accepted or rejected at the Department's discretion. Accepted Alternates will be identified in the Department - Contractor Agreement.
- B. Coordinate related work and modify surrounding work.

7. ALLOWANCES

- A. Allowance # 1: Include in the Contract, a stipulated sum/price of \$XX for use upon the Department's instruction. Allowance will make money available for modifications and/or additions to contract items due to owner initiated changes, unforeseen conditions, for unknown, latent or differing existing conditions, for testing of hazardous materials or for the removal of hazardous materials, asbestos, lead, mercury, sealant etc. that are encountered by construction
- B. Contractor's costs for products, delivery, installation, labor, insurance, payroll, taxes, equipment rental, overhead and profit will be included in Change Orders authorizing expenditure of funds from this Allowance. The cost of the bond for the amount of

Allowance shall be included as part of the lump sum base bid.

- C. Funds will be drawn from an Allowance only by Change Order. Contractor can proceed with Change Order Work against Allowance with direction from the Department. The Contractor shall not proceed with any work that will exceed the amount of Allowance remaining.
- D. Notwithstanding the Contractor's objection, the Department may at any time reduce the funds remaining in the Allowance by Change Order.
- E. At Final Payment of the Contract, funds remaining in the Allowance will be credited to the Department.

8. TESTING AND INSPECTION

- A. Testing and Inspecting: Cost to engage testing and inspecting agency; execution of tests and inspecting; and reporting results are to be paid by the Contractor.
- B. Testing as required by plan and specification shall be performed by an independent certified testing agency that may not be a subsidiary or employee of the Contractor.
- C. Contractor shall make all testing information readily available to the Department for review before proceeding to the next phase of any such tested work.

END OF SECTION

ADMINISTRATIVE REQUIREMENTS

1. COORDINATION AND PROJECT CONDITIONS
 - A. Coordinate scheduling, submittals, and Work of various sections of the Specifications to ensure efficient and orderly sequence of installation of interdependent construction elements.

2. LAWS, PERMITS, AND REGULATIONS
 - A. The Contractor shall obtain and pay for all licenses and permits as may be required of him by law, and shall pay for all fees and charges for connection to outside services, and use of property other than the site of the work for storage of materials or other purposes.
 - B. The Contractor shall comply with all Federal, State and Local laws, ordinances, regulations, and requirements applicable to work hereunder, including building code requirements. If the Contractor ascertains at any time that any requirement of this Contract is at variance with applicable laws, ordinances, regulations or building code requirements, he shall promptly notify the Department in writing.
 - C. The Contractor will comply with the "Underground Utility Damage Prevention System" by notification to DIG-SAFE SYSTEM of intent to excavate near or around any underground utility installations in public ways. The Contractor shall call 1-800/225-4977 at least seventy-two (72) hours in advance of starting any excavation. Saturdays, Sundays and legal holidays are not included in the computation of the required seventy-two (72) hour notice. The Contractor will be responsible for locating all underground utilities and piping prior to the commencement of construction.

3. PROTECTION OF WORK AND PROPERTY
 - A. The Contractor shall, at all times, safely guard the Department's property from injury or loss in connection with this Contract. He shall, at all times, safely guard and protect his own work and that of adjacent property from damage. All passageways, guard fences, lights, and other facilities required for protection by State or Municipal laws, regulations, and local conditions must be provided and maintained.

4. USE OF PREMISES AND REMOVAL OF DEBRIS
 - A. The Contractor expressly undertakes at his own expense:
 - i. Take every precaution against injuries to persons or damage to property.
 - ii. Comply with the regulations governing the operations of premises that are occupied and to perform his Contract in such a manner as not to interrupt or interfere with the operation of the Department.
 - iii. Perform any work necessary to be performed after working hours or on

- Sunday or legal holidays without additional expense to the Department, but only when authorized to do so by the Department.
- iv. Store his apparatus, materials, supplies, and equipment in such orderly fashion at the site of the work as will not unduly interfere with the progress of his work or the work of any other Contractors.
 - v. Place upon the work or any part thereof, only such loads as are consistent with the safety of that portion of the work.
 - vi. Provide daily clean up and legal disposal of all refuse, rubbish, scrap materials and debris caused by the construction operation. At all times the project site shall present a neat, orderly, and workmanlike appearance.
 - vii. Affect all cuttings, fitting or patching of his work required to make the same conform to the Plans and Specifications.
 - viii. Before final payment, the contractor shall remove all surplus materials, false-work, temporary structures including foundations thereof, plant of any description, and debris of every nature resulting from his operations and put the site in a neat, orderly condition. The Contractor shall replace in kind, all walks and roadways damaged, and shall repair and reseed or re-sod all lawns.

5. ENGINEERING AND LAYOUT

- A. The Contractor shall provide competent Engineering services to execute the work in accordance with the Contract requirements. He shall verify the figures shown on the Drawings before undertaking any construction work and shall be responsible for the accuracy of the finished work.
- B. The Department has established, or will establish, such general reference points as will, in his judgment, enable the Contractor to proceed with the work. If the Contractor finds that any previously established reference points have been destroyed or displaced, he shall notify the Department.
- C. The Contractor shall protect and preserve all of the established bench marks and monuments and shall make no changes in locations without the written approval of the Department. Any of them that may be lost or destroyed, or which require shifting because of necessary changes in grades or locations shall be subject to prior approval by the Department, be replaced and accurately located by the Contractor.
- D. Storage locations for materials, equipment and appliances; the location of construction trailers, sheds, temporary toilets, etc., and parking areas for construction workers at the job site shall be determined by the Department, the Contractor and the Consultant at a pre-construction conference.

6. STATE LABOR REQUIREMENTS

- A. Work Certificate for Contractors Before Beginning Their Work on Public Projects
 - i. Pursuant to RSA 21-I:80 and RSA 228:4-b, prior to any work being done by an individual contracts, such contractor, including ALL subcontractors and independent contractors, shall provide a Work Certificate for Contractors Before Beginning their Work on Public Projects (Work Certificate) to the Department. Samples for which can be obtained at

<https://das.nh.gov/publicworks/PWdocuments.asp>

- ii. The Work Certificate of this Contractor is required to be provided for APPROVAL of the Contract. This Work Certificate shall be provided to Contractor during the Contract approval process by the Department. All required information shall be completed with attached documentation and shall be returned to the Department.
 - iii. Subcontractors, including main and lower tier, will not be allowed to perform work until their Work Certificates have been submitted to the Department via this Contractor.
 - iv. This Contractor shall maintain a log of all submitted subcontractor Work Certificates on-site either electronically or on paper. The log shall identify all main and lower-tier subcontractors and the status of the Work Certificate submission. This log shall be reviewed each Progress Meeting to coordinate scheduled work with required Work Certificate submissions. An up-dated log shall be submitted with each Payment Application.
- B. The Contractor shall obey all applicable State and Federal Labor laws.
 - C. Pursuant to RSA 21-I:81-a, the Contractor shall provide to the Contract Administrator a list of all the names and addresses of the CEO, CFO, other LLC principals, and each subcontractor to be used in the performance of the contract. This list shall be provided at the Preconstruction meeting. The name and address of each subcontractor shall be provided on the Subcontractor/Employee Master List (below).
 - D. The Contractor shall maintain a Subcontractor/Employee Master List (Master List) of all personnel performing work on the job site, including the Contractor's employees, all subcontractors and subcontractor employees, and all independent contractors. Pursuant to RSA 21-I:81-b, the Master List shall identify which entity has hired each subcontractor and independent contractor and which entity is providing Workers Compensation coverage for the on-site personnel. The Master List shall also confirm that each employee has an OSHA-10 certification as required per RSA 227:5-a. Subcontractors and independent contractors will not be allowed to perform any work until they have been correctly identified on the Master List. A sample Master List document, created in Microsoft Word, can be obtained at <https://das.nh.gov/publicworks/PWdocuments.asp>. The initial Master List submission shall be at the Preconstruction meeting.
 - E. The Master List shall be posted on the jobsite and updated as needed to reflect any new subcontractors and independent contractors. The Master List shall be reviewed at each Progress Meeting. On a monthly basis, the Contractor shall provide to the Department a .pdf or Microsoft Word file of the Master List, showing all current subcontracts.
 - F. The Contractor shall maintain a daily log-in sheet of all personnel performing work on the jobsite. Personnel shall list their name, name of employer or identify themselves as independent contractors. No contractor performing work on the job site shall be allowed on site without first signing the daily log-in sheet.
 - G. The Contractor shall verify that personnel listed on the daily log-in sheet are also listed on the Master List. If personnel are not listed on the Master List, they will not be allowed on site until their employer has certified, in writing, that the

employee is covered under Workers Compensation coverage for the appropriate work classification noted on the Work Certificate.

- H. The Contractor shall post four (4) mandatory labor posters in a conspicuous, weather-tight place at the jobsite: Protective Legislation Law; Criteria to Establish an Employee or Independent Contractor; NH Minimum Wage Law; and Whistleblowers Protection Act. These posters can be found at the NH Dept. of Labor website <https://www.nh.gov/labor/forms/mandatory-posters.htm>
- I. The Contractor shall maintain, on the jobsite, copies of OSHA-10 certificates for all personnel listed on the Master List and required per RSA 277:5-a to have OSHA-10 certificates.

7. PRECONSTRUCTION MEETING

- A. The Department will schedule a meeting at the Project site prior to Contractor occupancy.
- B. Attendance required (unless otherwise waived): Department Representatives, Architect/Engineer, Special Consultants, Contractor's Project Manager, Contractor's Superintendent, and major Subcontractors.
- C. Potential Agenda Topics:
 - i. Designation of personnel representing parties in Contract.
 - ii. The Contractor shall submit Work Certificates as defined in this section for the contractor and all know subcontractors.
 - iii. Submission of Work Certificate Log.
 - iv. Submission of names and addresses of the Contractor's CEO, CFO, other LLC principals, and each subcontractor. The name and address of each subcontractor shall be reported on the Master List.
 - v. Submission of Master List of subcontractors and all personnel expected to be on site.
 - vi. Review daily log in sheet requirement and format. Contractor shall verify that personnel listed on log-in sheet are also on Master List
 - vii. Review file of OSHA 10 certificates for all on-site personnel required to be certified per RSA 277:5a
 - viii. Verify that four (4) mandatory labor posters are posted in a conspicuous weather tight place.
 - ix. Submission of list of products, schedule of values, and construction schedule.
 - x. Use of premises by the Department and Contractor.
 - xi. Department's requirements and partial occupancy.
 - xii. Construction facilities and controls provided by the Department.
 - xiii. Temporary utilities provided by the Department.
 - xiv. Survey and building layout.
 - xv. Security and housekeeping procedures.
 - xvi. Schedules.
 - xvii. Traffic Control Plan.
 - xviii. Safety Plan
 - xix. Application for payment procedures.
 - xx. Procedures for testing.
 - xxi. Procedures for maintaining record documents.

- xxii. Requirements for start-up of equipment.
 - xxiii. Inspection and acceptance of equipment put into service during construction period.
- D. Consultant shall record minutes and distribute copies within two days after meeting to participants, with one copy to each person in attendance and one to those affected by decisions made.
8. PROGRESS MEETINGS
- A. Schedule and administer meetings throughout progress of the Work at weekly intervals.
 - B. Attendance required (unless otherwise waived): Department Representative(s), Architect/Engineer, Special Consultants, Contractor's project Manager, Contractor's Superintendent, and major Subcontractors.
 - C. Potential Agenda Topics:
 - i. Review minutes of previous meetings.
 - ii. Review of Work progress.
 - iii. Field observations, problems, and decisions.
 - iv. Identification of problems impeding planned progress.
 - v. Review of submittals schedule and status of submittals.
 - vi. Review work certificate log.
 - vii. Review Master List of Subcontractors and on site personnel.
 - viii. Review daily log-in sheets. Contractor shall verify that all personnel on log-in sheets are on Master List and all OSHA -10 certificates required per RSA 277:5a are on file.
 - ix. Review of off-site fabrication and delivery schedules
 - x. Corrective measures to regain projected schedules
 - xi. Planned progress during succeeding work period.
 - xii. Safety Plan update.
 - xiii. Coordination of projected progress.
 - xiv. Maintenance of quality and work standards.
 - xv. Effect of proposed changes on progress schedule and coordination.
 - xvi. Other business relating to the Work.
 - D. Consultant shall record minutes and distribute copies within two days after meeting to participants, with one copy to each person in attendance and one to those affected by decisions made.
9. PRE-INSTALLTION MEETINGS
- A. This shall be performed prior to beginning work on each definable feature of work; after all required plans/documents/materials are approved/accepted, and after copies are at the work site. This meeting shall include:
 - i. A review of each paragraph of applicable specifications, reference codes, and standards. A copy of those sections of referenced codes and standards applicable to that portion of the work to be accomplished in the field shall be made available by the Sub-Contractors at this meeting. These copies shall be maintained in the field and available for use by the Department until final acceptance of the work.
 - ii. A review of the contract drawings.

- iii. A check to assure that all materials and/or equipment have been tested, submitted, and approved. Review of provisions that have been made to provide required control inspection and testing.
 - iv. Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the contract.
 - v. A physical examination of required materials, equipment, and sample work to assure that they are on hand, conform to approved shop drawings or submitted data, and are properly stored.
 - vi. Reviews of the appropriate safety procedures to assure safety requirements are met.
 - vii. Discussion of procedures for controlling quality of the work including repetitive deficiencies. (Document construction tolerances and workmanship standards for that feature of work.)
 - viii. A check to ensure that the portion of the plan for the work to be performed has been accepted by the Department.
 - ix. Resolve all differences.
 - x. The Department shall be notified at least 48 hours in advance of beginning this meeting. This meeting shall be conducted by the Contractors Quality Control Manager and attended by the Department representative, superintendent, other Quality Control personnel (as applicable), and the foreman responsible for the definable feature to include all Sub-Contractor supervision. The Contractor shall instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.
- B. The Contractor shall record minutes and distribute copies within two days after the meeting to participants, with one copy to each person in attendance and one to those affected by the decisions.

10. INITIAL MEETING

- A. This shall be accomplished at the beginning of a definable feature of work.
 - i. A check of work to ensure that it is in full compliance with contract requirements. Review minutes of the preparatory meeting.
 - ii. Verify adequacy of controls to ensure full contract compliance.
 - iii. Verify required control inspection and testing.
 - iv. Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Compare with required sample panels as appropriate.
 - v. Resolve all differences.
 - vi. Check safety to include compliance with and upgrading of the safety plan.
 - vii. The Department shall be notified at least 72 hours in advance of beginning the initial work.
 - viii. The initial phase should be repeated for each new crew to work onsite, or any time acceptable specified quality standards are not being met.

END OF SECTION

SECTION 01 33 00

SUBMITTAL PROCEDURES

1. SUBMITTAL PROCEDURES

- A. Submittals shall be made for all materials to be used in construction of the project for review and acceptance of the Department PRIOR to installation of said materials.
- B. The word "Submittals" shall include all products and materials that will become part of the finished product whether or they are specified in the construction documents. This shall also include any shop drawings that need to be approved for any kind of layout of installation. (i.e.: Rebar, steel fabrication, etc...)
- C. Shop drawings will be reviewed for the limited purpose of checking for conformance with information given and design concept expressed in the contract documents.
- D. Contractor to indicate any special utility and/or electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances on shop drawings as applicable.
- E. Transmit each submittal electronically via e-mail with a cover sheet and all pertinent information for review to the Department and the Department's Consultant simultaneously. Schedule submittals to expedite the Project.
- F. Sequentially number transmittal forms and separate items logically. Mark revised submittals with original number and sequential alphabetic suffix.
- G. Identify Project, Contractor, subcontractor and supplier; pertinent drawing and detail number, and specification section number, appropriate to submittal.
- H. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with requirements of the Work and Contract Documents. Incomplete items or items submitted without the Contractor's signed stamp of approval thereon will be returned rejected.
- I. For each submittal for review, allow 14 days excluding delivery time to and from Architect, Engineer and the Department and Contractor.
- J. The Department and the Department's Consultant will review submittals and coordinate return of same to the Contractor.
- K. Identify variations from Contract Documents and product or system limitations that may be detrimental to successful performance of completed Work.
- L. Allow space on submittals for Contractor and Architect or Engineer review stamps.
- M. When revised for resubmission, identify changes made since previous submission.
- N. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report inability to comply with requirements.

- O. Work shall not begin until submittal items have been approved and returned to General Contractor by the Department.
- P. Contractor shall keep a binder on site of all approved submittals for review by the Department and their consultants at any time during construction.

2. CONSTRUCTION PROGRESS SCHEDULES

- A. Submit initial schedule at Preconstruction Meeting.
- B. Submit revised Progress Schedules with each Application for Payment.
- C. Distribute copies of revised schedules to Project site file, subcontractors, suppliers, and other concerned parties.
- D. Instruct recipients to promptly report, in writing, problems anticipated by projections indicated in schedules.
- E. Submit horizontal bar chart with separate line for each section of Work, identifying first work day of each week.

3. SAMPLES

- A. Submit for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
- B. Samples For Selection as specified in individual specification sections or as noted on plans:
 - i. Submit to the Department for aesthetic, color, or finish selection.
 - ii. Submit samples of finishes from full range of manufacturers' standard colors, textures, and patterns for the Department and Architect/Engineer selection.
- C. Submit samples to illustrate functional and aesthetic characteristics of Products, with integral parts and attachment devices, Coordinate sample submittals for interfacing work.
- D. Include identification on each sample with full Project information.
- E. Submit number of samples specified in individual specification sections; the Department will retain one sample and Architect or Engineer will retain one sample.
- F. Reviewed samples which may be used in the Work are indicated in individual specification sections.

4. TEST REPORTS

- A. Submit for Department and Architect and Engineer's knowledge as required per plans or individual specification sections.
- B. Submit test reports for information for limited purpose of assessing conformance with information given and design concept expressed in Contract Documents.

5. CERTIFICATES

- A. When specified in individual specification sections, submit certification by manufacturer, installation/application subcontractor, or Contractor, to the Department in quantities specified for Product Data.
- B. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.

- C. Certificates may be recent or previous test results on material or Product, but must be acceptable to the Department.

6. MANUFACTURER'S INSTRUCTIONS

- A. When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, to the Department in quantities specified for Product Data.
- B. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.

7. CONSTRUCTION PHOTOGRAPHS

- A. Provide photographs of site and construction throughout progress of Work.
- B. Contractor will **NOT** take any photographs of military personnel or equipment.
- C. Contractor will **NOT** use any project photographs for any reason other than stated in this section without prior written consent of the Department.
- D. Each month submit photographs with Application for Payment.
- E. Photographs: Submit digital images on compact discs.
- F. Additionally to progress photos take four site photographs from differing directions and four interior photographs of each building area indicating relative progress of the Work, five days maximum prior to submitting.
- G. Take photographs as evidence of existing project conditions.
- H. Identify each image, identify name of Project, orientation of view, date and time of view.

END OF SECTION

TEMPORARY FACILITIES AND CONTROLS

1. TEMPORARY ELECTRICITY
 - A. The Department will allow incidental electrical use for this project if needed.
2. TEMPORARY LIGHTING FOR CONSTRUCTION PURPOSES
 - A. No temporary lighting is anticipated for this project.
3. TEMPORARY HEATING
 - A. No temporary heating is anticipated for this project.
4. TEMPORARY COOLING
 - A. No temporary cooling is anticipated for this project.
5. TEMPORARY VENTILATION
 - A. No temporary ventilation is anticipated for this project.
6. TELEPHONE SERVICE
 - A. Contractor to provide 24 hour emergency call list that will reach a supervisor with decision making authorization.
 - B. Contractor to provide the phone number and email address that may be used to reach the on-site project supervisor during regular business hours.
7. WATER SERVICE
 - A. The Department will not provide water service for this project.
8. TEMPORARY SANITARY FACILITIES
 - A. Provide and maintain required facilities and enclosures. Existing facility use is not permitted. Provide facilities at time of project mobilization.
9. FIELD OFFICES AND SHEDS
 - A. Do not use existing facilities for field offices or for storage.
 - B. Provide Portable or mobile buildings, or buildings constructed with floors raised above ground, securely fixed to foundations with steps and landings at entrance doors. Maintain during progress of Work; remove at completion of Work.
 - C. Storage Areas And Sheds: Size to storage requirements fill products of individual Sections, allowing for access and orderly provision for maintenance and for inspection of products..
 - D. Maintenance and Cleaning: Maintain approach walks free of mud, water, and snow.
 - E. Removal: At completion of Work remove buildings, foundations, utility services, and debris. Restore areas to previous condition.

10. VEHICULAR ACCESS

- A. Construct temporary access roads from public thoroughfares to serve construction area, of width and load bearing capacity to accommodate unimpeded traffic for construction purposes, if required.
- B. Construct temporary bridges and culverts to span low areas and allow unimpeded drainage, if required.
- C. Extend and relocate vehicular access as Work progress requires, provide detours as necessary for unimpeded traffic flow.
- D. Provide unimpeded access for emergency vehicles. Maintain 20 feet (6 m) wide driveways with turning space between and around combustible materials.
- E. Provide and maintain access to fire hydrants and control valves free of obstructions.
- F. Provide means of removing mud from vehicle wheels before entering streets.

11. PARKING

- A. Provide temporary gravel surface parking areas to accommodate construction personnel if required. Restore areas to previous condition.
- B. Do not block access to the military vehicle storage area other than temporarily while working.

12. PROGRESS CLEANING AND WASTE REMOVAL

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in clean and orderly condition.
- B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing spaces.
- C. Collect and remove waste materials, debris, and rubbish from site weekly and dispose off-site.

13. BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas to allow for the Department's use of the site and facility, and to protect existing facilities and adjacent properties from damage from construction operations and demolition.
- B. Provide barricades and covered walkways required by authorities having jurisdiction for public rights-of-way land for public access to existing building.
- C. Provide protection for plants designated to remain. Replace damaged plants.
- D. Protect non-owned vehicular traffic, stored materials, site and structures from damage.

14. SECURITY

- A. Security Program:
 - i. Protect new Work and existing premises from theft, vandalism, and unauthorized entry.
- B. Entry Control.
 - i. Restrict entrance of persons and vehicles into Project site and existing facilities,
 - ii. Allow entrance only to authorized persons with proper identification.
 - iii. Maintain log of workers and visitors, make available to Department on request.
 - iv. Coordinate access of Department personnel to site in coordination with

Department security forces.

C. Personnel Identification

- i. Maintain list of accredited persons, submit copy to Department on request.
- ii. A driver's license or other acceptable positive identification will be required.

15. WATER CONTROL

- A. Grade site to drain. Maintain excavations free of water. Provide, operate, and maintain pumping equipment.
- B. Protect site from puddling or running water. Provide water barriers as required to protect site from soil erosion.

16. DUST CONTROL

- A. Execute Work by methods to minimize raising dust from construction operations.
- B. Provide positive means to prevent air-borne dust from dispersing into atmosphere.

17. EROSION AND SEDIMENT CONTROL

- A. Plan and execute construction by methods to control surface drainage from cuts and fills, from borrow and waste disposal areas, prevent erosion and sedimentation.
- B. Minimize surface area of bare soil exposed at one time.
- C. Provide temporary measures including berms, dikes, and drains, and other devices to prevent water flow.
- D. Construct fill and waste areas by selective placement to avoid erosive surface silts or clays.
- E. Periodically inspect earthwork to detect evidence of erosion and sedimentation; promptly apply corrective measures.

18. POLLUTION CONTROL

- A. Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations.
- B. Comply with pollution and environmental control requirements of authorities having jurisdiction.

19. RODENT CONTROL

- A. Provide methods, means, and facilities to prevent rodents from accessing or invading premises.

20. REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary utilities, equipment, facilities and materials prior to Final Application for Payment.
- B. Remove underground installations. Grade site as indicated on Drawings.
- C. Clean and repair damage caused by installation or use of temporary work.
- D. Restore existing facilities used during construction to original condition.

END OF SECTION

PRODUCT REQUIREMENTS

1. **PRODUCTS**
 - A. Furnish products of qualified manufacturers suitable for intended use. Furnish products of each type by single manufacturer unless specified otherwise.
 - B. All materials and equipment shall be new, except as specifically permitted by Contract Documents.
 - C. Furnish interchangeable components from same manufacturer for components being replaced.
 - D. The use of asbestos containing materials shall be prohibited.
2. **PRODUCT DELIVERY REQUIREMENTS**
 - A. Transport and handle products in accordance with manufacturer's instructions.
 - B. Promptly inspect shipments to ensure products comply with requirements, quantities are correct, and products are undamaged.
 - C. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.
3. **PRODUCT STORAGE AND HANDLING REQUIREMENTS**
 - A. Store and protect products in accordance with manufacturers' instructions.
 - B. Store with seals and labels intact and legible. Store sensitive products in weather tight, climate controlled, enclosures in an environment favorable to product.
 - C. For exterior storage of fabricated products, place on sloped supports above ground.
 - D. Provide bonded off-site storage and protection when site does not permit on-site storage or protection, only with prior approval from the Department.
 - E. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
 - F. Store loose granular materials on solid flat surfaces in well-drained area. Prevent mixing with foreign matter.
 - G. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
 - H. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.
4. **PRODUCT OPTIONS**
 - A. Products Specified by Reference Standards or by Description Only: Any product meeting those standards or description.
 - B. Products Specified by Naming One or More Manufacturers with or without provision for substitutions: Products of one of manufacturers named and meeting specifications, no options or substitutions allowed. Submit request for substitution for any manufacturer not named in accordance with the following article.

5. PRODUCT SUBSTITUTION PROCEDURES

- A. Where Bidding Documents stipulate particular Products, substitution requests will ONLY be considered before receipt of Bids. Submit requests per the requirements specified in this section.
 - i. All requests shall be submitted to the Department not later than five (5) business days before the hour and day set for bid opening. Incomplete requests or requests received after this deadline will not be considered.
 - ii. All requests that are approved and are acceptable to the Department will be issued as part of an Addendum to each Bidder who has received a set of bidding documents, so that all Bidders may avail themselves of the change in submitting their Proposals.
- B. Substitutions may be considered after bid opening when a product becomes unavailable through no fault of the Contractor. The Contractor shall apply to the Department, in writing, within ten (10) days of his realizing his inability to furnish the article specified, describing completely the substitution he desires to make. The Contractor shall include a dated written statement from the manufacturer outlining an explanation for the unavailability of the product. Substitutions for reasons of lead times, i.e., the time between when the Contractor orders necessary materials from the vendor and anticipated delivery, will only be reviewed if the lead time is more than the length of the contract time. The Department may extend the contract time to accommodate the product specified. No additional costs from the Contractor will be considered due to the fact that the Contractor shall verify lead times and coordinate with contract time during the bidding phase.
- C. Document each request with complete data substantiating compliance of proposed Substitution with Contract Documents.
- D. A request constitutes a representation that Bidder:
 - i. Has investigated proposed product and determined that it meets or exceeds quality level of specified product.
 - ii. Will provide same warranty for Substitution as for specified product.
 - iii. Will coordinate installation and make changes to other Work which may be required for the Work to be complete with no additional cost to the State.
 - iv. Waives claims for additional costs or time extension which may subsequently become apparent.
 - v. Will reimburse Department and Architect/Engineer for review or redesign services associated with re-approval by authorities having jurisdiction.
- E. Substitutions will not be considered when they are indicated or implied on Shop Drawing or Product Data submittals, without separate written request, or when acceptance will require revision to Contract Documents.

F. Substitution Submittal Procedure:

- i. Submit request for Substitution via email for consideration by the Department. Limit each request to one proposed Substitution.
- ii. Submit Shop Drawings, Product Data, and certified test results attesting to proposed product equivalent. Burden of proof is on proposer.
- iii. The Department will notify Bidders in writing of decision to accept by issuing an addendum.

END OF SECTION

SECTION 01 70 00

EXECUTION REQUIREMENTS

1. CLOSEOUT PROCEDURES

- A. Submit a signed Substantial Completion Application attesting that the Contract Documents have been reviewed, Work has been inspected, and that all Work is complete in accordance with Contract Documents and ready for the Department review.
- B. Only after completion of all Punch List items and submission of all items the Contractor shall submit a Final Application for Payment identifying total adjusted Contract Sum, previous payments, and sum remaining due.

2. FINAL CLEANING

- A. Execute final cleaning prior to final project assessment.
- B. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.
- C. Clean equipment and fixtures to sanitary condition with cleaning materials appropriate to surface and material being cleaned. Clean new light fixtures free from dust, dirt and finger prints.
- D. Replace filters of operating equipment.
- E. Clean debris from roofs, roof drains, downspouts, and drainage systems.
- F. Clean site, sweep paved areas, rake landscaped surfaces.
- G. Remove waste and surplus materials, rubbish, and construction facilities from site.

3. STARTING OF SYSTEMS

- A. Coordinate schedule for start-up of various equipment and systems.
- B. Notify the Department seven days prior to start-up of each item.
- C. Verify each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, and for conditions which may cause damage.
- D. Verify tests, meter readings, and specified electrical characteristics agree with those required by equipment or system manufacturer.
- E. Verify wiring and support components for equipment are complete and tested.
- F. When specified in individual specification Sections, require manufacturer to provide authorized representative to be present at site to inspect, check, and approve equipment or system installation prior to start-up, and to supervise placing equipment or system in operation.
- G. Execute start-up under supervision of applicable manufacturer's representative and Contractors' personnel in accordance with manufacturer's instructions.

- H. Submit a written report stating that the equipment or system has been properly installed and is functioning correctly.
4. DEMONSTRATION AND INSTRUCTIONS
- A. Demonstrate operation and maintenance of products and equipment to Department personnel prior to date of Substantial Completion at mutually agreed time.
 - B. For equipment or systems requiring seasonal operation, schedule and perform demonstration for other season within six months with department personnel.
 - C. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with the Department personnel in detail to explain all aspects of operation and maintenance.
 - D. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at agreed time, at designated location.
 - E. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.
 - F. Required instruction time for each item of equipment and system is specified in individual sections.
5. TESTING, ADJUSTING AND BALANCING
- A. Contractor will appoint and employ services of independent firm to perform testing, adjusting and balancing of systems and equipment.
 - B. Independent firm will perform services specified.
 - C. Reports will be submitted by independent firm to the Department indicating observations and results of tests and indicating compliance or non-compliance with requirements of Contract Documents.
6. PROTECTING INSTALLED CONSTRUCTION
- A. Protect installed Work and provide special protection where specified in individual specification sections.
 - B. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
 - C. Provide protective coverings at walls, projections, jambs, sills and soffits of openings.
 - D. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
 - E. Prohibit traffic or storage upon waterproofed or roofed surfaces. When traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
 - F. Prohibit traffic from landscaped areas.
7. PROJECT RECORD DOCUMENTS
- A. Maintain on site one set of the following record documents; record actual revisions to the Work:
 - i. Drawings.
 - ii. Specifications.
 - iii. Addenda.

- iv. Change Orders and other modifications to the Contract.
 - v. Reviewed Shop Drawings, Product Data, approved submittals and Samples.
 - vi. Manufacturer's instruction for assembly, installation, and adjusting.
- B. Ensure data is complete and accurate, enabling future reference by the Department.
 - C. Store record documents separate from documents used for construction.
 - D. Record information concurrent with construction progress, not less than weekly.
 - E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
 - i. Manufacturer's name and product model and number.
 - ii. Product substitutions or alternates utilized.
 - iii. Changes made by Addenda and modifications.
 - F. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
 - i. Measured depths of foundations in relation to finish floor datum.
 - ii. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - iii. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
 - iv. Field changes of dimension and detail.
 - v. Details not on original Contract drawings.
 - vi. Contractor to provide record drawings in AutoCad or Revit format compatible with current Department software as well as in PDF format.
 - vii. Contractor to supply three (3) full size paper sets of record drawings to Department.
 - G. Submit documents to the Department prior to final payment and release of retainage.
8. OPERATION AND MAINTENANCE DATA
- A. Submit data bound in 8 1/2 x 11 inch text pages, three D side ring binders with durable plastic covers. (2 complete copies of all materials required.)
 - B. Prepare binder cover with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS", title of project, and subject matter of binder when multiple binders are required.
 - C. Internally subdivide binder contents with permanent page dividers, logically organized as described below; with tab titling clearly printed under reinforced laminated plastic tabs.
 - D. Contents: Prepare Table of Contents for each volume, with each product or system description identified, typed on white paper, in three parts as follows:
 - i. Part 1: Directory, listing names, addresses, and telephone numbers of Architect/Engineers), Contractor, Subcontractors, and major equipment suppliers.
 - ii. Part 2: Operation and maintenance instructions, arranged by system and subdivided by specification section. For each category, identify names, addresses, and telephone numbers of Subcontractors and suppliers.
Identify the following:
 - a. Significant design criteria.
 - b. List of equipment.
 - c. Parts list for each component.

- d. Operating instructions.
- e. Maintenance instructions equipment and systems.
- f. Maintenance instructions for special finishes, including recommended cleaning methods, materials and schedules, and special precautions identifying detrimental agents.
- iii. Part 3: Project documents and certificates, including the following as required:
 - a. Shop drawings and product data.
 - b. Air and water balance reports.
 - c. Certificates.
 - d. Originals and Photocopies of warranties and bonds.

9. MANUAL FOR MATERIALS AND FINISHES

- A. Submit one copy of preliminary draft or proposed formats and outlines of contents before start of Work. The Department will review draft and return one copy with comments.
- B. For equipment, or component parts of equipment put into service during construction and operated by the Department, submit documents within ten days after acceptance.
- C. Submit one copy of completed volumes prior to Substantial Completion. Draft copy be reviewed and returned with Architect/Engineer comments. Revise content of document sets as required prior to final submission.
- D. Submit two sets of revised final volumes in final form prior to final inspection.
- E. Building Products, Applied Materials, and Finishes: Include product data, with catalog number, size, composition, and color and texture designations. Include information for re-ordering custom manufactured products.
- F. Instructions for Care and Maintenance: Include manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- G. Moisture Protection and Weather Exposed Products: Include product data listing applicable reference standards, chemical composition, and details of installation. Include recommendations for inspections, maintenance, and repair.
- H. Additional Requirements: As specified in individual product specification sections.
- I. Include listing in Table of Contents for design data, with tabbed fly sheet and space for insertion of data.

10. MANUAL FOR EQUIPMENT AND SYSTEMS

- A. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. Contract Administrator will review draft and return one copy with comments.
- B. For equipment, or component parts of equipment put into service during construction and operated by the Department, submit documents within ten days after acceptance.
- C. Submit one copy of completed volumes 15 days prior to Substantial Completion. Draft copy shall be reviewed and returned after Substantial Completion, with Architect/Engineer comments. Revise content of document sets as required prior to final submission.
- D. Submit two sets of revised final volumes in final form prior to final inspection.

- E. Each Item of Equipment and Each System: Include description of unit or system, and component parts. Identify function, normal operating characteristics, and limiting conditions. Include performance curves, with engineering data and tests, and complete nomenclature and model number of replaceable parts.
- F. Panelboard Circuit Directories: Provide electrical service characteristics, controls, and communications; typed and/or by label machine.
- G. Include color coded wiring diagrams as installed.
- H. Operating Procedures: Include stall-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and special operating instructions.
- I. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and troubleshooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- J. Include servicing and lubrication schedule, and list of lubricants required.
- K. Include manufacturer's printed operation and maintenance instructions.
- L. Include sequence of operation by controls manufacturer.
- M. Include original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- N. Include control diagrams by controls manufacturer as installed.
- O. Include Contractor's coordination drawings, with color coded piping diagrams as installed.
- P. Include charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
- Q. Include list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
- R. Include test and balancing reports as specified in Section 01400.
- S. Additional Requirements: As specified in individual product specification sections.
- T. Include listing in Table of Contents for design data, with tabbed dividers and space for insertion of data.

11. SPARE PARTS AND MAINTENANCE PRODUCTS

- A. Furnish spare parts, maintenance, and extra products in quantities specified in individual specification sections.
- B. Deliver to Project site and place in location as directed by State; obtain receipt prior to final payment.

12. PRODUCT WARRANTIES AND PRODUCT BONDS

- A. Obtain warranties and bonds executed in duplicate by responsible subcontractors, suppliers, and manufacturers, within ten days after Substantial Completion. All warranties start dates shall be the Substantial Completion Date, if project is phased all warranties to start at the date of Substantial Completion of each phase.
- B. Execute and assemble transferable warranty documents and bonds from subcontractors, suppliers, and manufacturers.
- C. Verify documents are in proper form, contain full information, and are notarized.
- D. Co-execute submittals when required.
- E. Include Table of Contents and assemble in three D side ring binder with durable plastic cover.

F. Submit prior to final Application for Payment.

G. Time Of Submittals:

- i. For equipment or component parts of equipment put into service during construction with State's permission, submit documents within ten days after acceptance.
- ii. Make other submittals within ten days after Date of Substantial Completion, prior to final Application for Payment.
- iii. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within ten days after acceptance, listing date or acceptance as beginning or warranty or bond period.

13. CLEAN AIR CERTIFICATION

- A. The Contractor shall employ the services of a Certified Industrial Hygienist using a laboratory accredited by the American Industrial Hygiene Association to comply with RSA 10-B, ENV-A 2200 Clean Air in State Buildings Rules (New Hampshire Air Program Rules).
- B. Certification or properly collected and analyzed data that demonstrates compliance with said standards will be made by the Department of Environmental Services, Bureau of Environmental and Occupational Health, Radon Indoor Air Quality Program, 29 Hazen Drive, Concord, NH 03302-0095, telephone 603/271-3911) upon receipt of data submitted by the Certified Industrial Hygienist.
- C. In accordance with Env-A 2200 & Env-A 2205 Standards, the following must be addressed:
 - i. Ventilation.
 - ii. Noise.
 - iii. Radon.
 - iv. Carbon Dioxide.
 - v. Asbestos.
 - vi. Formaldehyde.
 - vii. Carbon Monoxide
- D. The Contractor shall furnish the Clean Air Certification to the Department prior to project Substantial Completion and before building occupancy.

14. MAINTENANCE SERVICE

- A. Furnish service and maintenance of components indicated in specification sections during warranty period.
- B. Examine system components at frequency consistent with reliable operation. Clean, adjust, and lubricate as required.
- C. Include systematic examination, adjustment, and lubrication of components. Repair or replace parts whenever required. Use parts produced by manufacturer of original component.
- D. Do not assign or transfer maintenance service to agent or Subcontractor without prior written consent of the Department.

15. GUARANTEE OF WORK

- A. Except as otherwise specified, all work shall be guaranteed by the Contractor against defects resulting from the use of inferior materials, equipment or workmanship for one (1) year from the Date of Substantial Completion of the work.
- B. If, within any guarantee period, repairs or changes are required in connection with guaranteed work, which in the opinion of the Department, is rendered necessary as a result of the use of materials, equipment or workmanship which are inferior, defective, or not in accordance with the terms of the Contract shall, promptly upon receipt of notice from the Department and at his own expense:
 - i. Place in satisfactory condition in every particular, all such guaranteed work, correct all defects therein.
 - ii. Make good all damage to the building or site, or equipment or contents thereof; which in the opinion of the Department is the result of the use of materials, equipment or workmanship which are inferior, defective, or not in accordance with the terms of the Contract.
 - iii. Make good any work or material, or the equipment and contents of said building or site disturbed in fulfilling any such guarantee.
- C. In any case, wherein fulfilling the requirements of the Contract or of any guarantee, embraced in or required thereby, the Contractor disturbs any work guaranteed under another contract, he shall restore such disturbed work to a condition satisfactory to the Department and guarantee such restored work to the same extent as it was guaranteed under such other contracts.
- D. If the Contractor, after notice, fails to proceed promptly to comply with the terms of the guarantee, the Department may have the defects corrected and the Contractor and his/her Surety shall be liable for all expense incurred.
- E. All special guarantees applicable to definite parts of the work that may be stipulated in the Specifications or other papers forming a part of the Contract shall be subject to the term of this paragraph during the first year of the life of such special guarantee.
- F. Failure to adhere to guarantee terms may result in suspension or barring from the prequalification list, or, alternatively, the requirement of a Letter of Credit or other guaranty equal to a percentage of the Contract amount.

END OF SECTION

CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

1. PLAN REQUIREMENTS

- A. Construction Waste Management Plan shall be developed with the following intent:**
 - i. Divert construction, demolition, and land clearing debris from landfill disposal.
 - ii. Redirect recyclable material back to manufacturing process.
- B. Develop and implement a Construction Waste Management plan to be reviewed by the Department for compliance with the following**
 - i. Divert 75 % of Project generated waste from landfills.
 - ii. Contractor to submit proposed alternate plan to the department for approval if the 75% goal is not feasible for the proposed project.

2. SUBMITTALS

- A. Construction Plan: Submit construction waste management plan describing methods and procedures for implementation and monitoring compliance including the following:**
 - i. Project specific analysis of the projected jobsite waste to be generated. Include materials and estimated quantities (weight/volume) of projected waste.
 - ii. Construction waste materials anticipated for recycling and adaptive reuse.
 - iii. On site sorting and site storage methods.
 - iv. Name and location of landfills to be used.
 - v. Certification from the landfill of ability to receive the types of waste to be generated and of sufficient capacity to accept the waste.
 - vi. Transportation Company hauling construction waste to waste processing facilities.
 - vii. Recycling and adaptive reuse processing facilities and waste type each facility will accept.
- B. Waste Management Interval Report: Submit documentation with each application for payment substantiating that the construction waste management plan goals are being achieved. Include the following information:**
 - i. Material category
 - ii. Trash: Quantity by weight deposited in landfills.
 - iii. Salvaged, recovered and recycled material: Quantity by weight with destination for each type of material salvaged or recovered for resale, recycling, or adaptive reuse.
- C. Waste Management Final Report: Prior to Completion, submit a written Waste Management Final report summarizing the types and quantities of materials**

recycled and disposed of under the Waste Management Plan. Include the name and location of disposal facilities. Include the following:

- i. Material category.
- ii. Total quantity of waste, by weight.
- iii. Quantity of waste salvaged, both estimated and actual, by weight.
- iv. Quantity of waste recycled, both estimated and actual, by weight.
- v. Total quantity of waste recovered (salvaged plus recycled) as a percentage of total waste. (Compare to minimum requirement of 75% by weight of waste.)

3. CONSTRUCTION WASTE MANAGEMENT PLAN

- A. Construction Waste Landfill Diversion: Minimum 75 percent by weight of construction waste materials for duration of Project through resale; recycling, or adaptive reuse.
- B. Implement construction waste management plan at start of construction.
- C. Review construction waste management plan at pre-construction meeting and progress meetings.
- D. Distribute the Construction Waste Management Plan to subcontractors and others affected by Plan Requirements.
- E. Oversee plan implementation, instruct construction personnel for plan compliance, and document plan results.
- F. The Contractor shall designate on-site personnel responsible for instructing workers and overseeing and documenting results of the Waste Management Plan for the Project.

4. CONSTRUCTION WASTE RECYCLING

- A. Use source separation method or co-mingling method suitable to sorting and processing method of selected recycling center.
- B. Source Separation Method: Recyclable materials separated from trash and sorted into separate bins or containers, identified by waste type, prior to transportation to recycling center.
- C. Co-Mingling Method: Recyclable materials separated from trash and placed in unsorted bins or container for sorting at recycling center,
- D. Materials recommended for recycling include:
 - i. Packing materials including paper, cardboard, foam plastic, and sheeting,
 - ii. Recyclable plastics,
 - iii. Organic plant debris,
 - iv. Earth materials,
 - v. Native stone and granular fill,
 - vi. Concrete and Asphalt paving,
 - vii. Wood with and without embedded nails and staples,
 - viii. Glass, clear and colored types,
 - ix. Metals,
 - x. Gypsum products,
 - xi. Acoustical ceiling tile,

- xii. Carpeting,
- xiii. Equipment oil.

5. CONSTRUCTION WASTE ADAPTIVE RE-USE

- A. Arrange with processing facility for salvage of construction material and processing for reuse. Do not reuse construction materials on site except as identified in the Contract Documents.
- B. Materials recommended for adaptive reuse include:
 - i. Concrete and crushed concrete,
 - ii. Masonry units,
 - iii. Lumber suitable for re-sawing or refinishing,
 - iv. Casework and millwork,
 - v. Doors and door frames,
 - vi. Windows,
 - vii. Window glass and insulating glass units,
 - viii. Hardware,
 - ix. Acoustical ceiling tile,
 - x. Equipment and appliances,
 - xi. Fluorescent light fixtures and lamps.

6. CONSTRUCTION WASTE COLLECTION

- A. Collect construction waste materials in containers identified for specific waste materials and arrange for transportation to recycling centers or adaptive salvage and reuse processing facilities.
- B. Maintain recycling and adaptive reuse storage and collection area in orderly arrangement with materials separated to eliminate co-mingling of materials required to be delivered separately to waste processing facility.
- C. Store construction waste materials to prevent environmental pollution, fire hazards, hazards to persons and property, and contamination of stored materials.
- D. Cover construction waste materials subject to disintegration, evaporation, settling, or run off to prevent polluting air, water, and soil when not in use.
- E. Recycling and waste bin areas are to be kept neat and clean and clearly marked in order to avoid contamination of materials. Location shall be acceptable to the Department.

7. CONSTRUCTION WASTE DISPOSAL

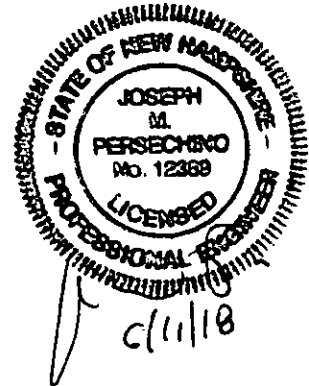
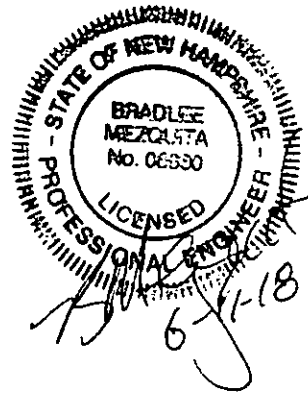
- A. Deliver construction waste to waste processing facilities. Obtain receipt for deliveries.
- B. Dispose of construction waste, not capable of being recycled or adaptively reused, by delivery to landfill, incinerator, or other legal disposal facility. Obtain receipt for deliveries.

END OF SECTION

Plymouth POV Improvements Army National Guard State of New Hampshire

Army National Guard
Adjutant General's Department

June 2018



**Plymouth POV Improvements
Specifications
Army National Guard
Adjutant General's Department
State of New Hampshire**

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SECTION 02000

INTRODUCTION TO SITEWORK

PART 1 GENERAL

1.1 SUMMARY

A. Standard Specifications

1. All sitework included or ordered under this Contract shall be done in conformity with the applicable provisions of the State of New Hampshire Department of Transportation's "Standard Specifications for Road and Bridge Construction" including all the latest revisions, Addenda, and supplements, henceforth referred to as "Standard Specifications"; rules, regulations, codes, ordinances and specifications of the town/city in which the project is located and utility company's specifications.
2. Division 100 of the Standard Specifications will not apply to this Project except as follows:
 - a. When any of the technical specifications of Division 200 through 700 of the "Standard Specifications for Road and Bridge Construction" reference Division 100.
 - 1) Definition: Wherever the word "Engineer" is referred to in the Standard Specifications, it shall mean the site design engineering firm and its authorized representatives.

1.2 SUMMARY OF SITEWORK

- A. The entire Work called for on the Drawings and Specifications including, but not limited to layout, demolition, erosion and sediment control, earthwork, landscaping, loaming and seeding, grading, pavement and aggregate base courses, pavement markings, offsite roadway improvements, coordination with existing businesses, traffic control, construction permits and fees, cleanup, and general conditions necessary to complete sitework construction for the project.
- B. The following list is provided to generally describe the sitework and is not intended to be a full and definitive Project description. The Work is more fully described in the Drawings and Specifications.
 1. Layout/As-Built
 - a. Layout all lines and grades (Owner to provide benchmark, edge of pavement and radii coordinates, traverse coordinates, and coordinates for two (2) corners of building.
 - b. Provide As-builts in .pdf and CAD formats of all completed sitework.
 2. Demolition
 - a. Sawcut and remove existing pavement one foot off proposed edge of pavement in all areas where new curb or pavement abuts existing pavement or concrete to remain.

- b. Remove and provide for off-site disposal of construction debris piles.
3. Erosion Control
- a. Furnish and install silt fence inlet protection barriers and other erosion control measures where shown.
 - b. Inspect and maintain erosion control devices at least once each week and following any storm event of 0.25 inch or greater.
 - c. Provide water truck for dust control and use other dust control agents where applicable.
 - d. Furnish and install stabilized construction entrances prior to any excavation activities.
 - e. Provide for street sweeping of offsite roadways during heavy haul periods.
 - f. Provide temporary stabilization of disturbed areas left inactive for more than twenty-one (21) days.
 - g. Provide for inspection reports of erosion control items.
4. Earthwork
- a. Strip and stockpile topsoil to be reused on Site. All excess topsoil stripped from the Site shall become property of the Contractor, and shall be legally disposed of offsite by the Contractor.
 - b. Complete earthwork to subgrade for remaining Site. All excess material shall become property of the Contractor, and shall be legally disposed of offsite by the Contractor.
 - c. Dewatering, including removal of unstable natural subgrade soils and replacement with crushed stone if necessary
 - d. Prepare subgrade, backfill or import fill as required by Drawings and Specifications.
5. Drainage
- a. Set all structures to finish grade.
 - b. Construct temporary sedimentation basins, temporary standpipes and temporary piping as required.
6. Landscaping
- a. Furnish and install screened loam on-site as indicated on the Drawings.
 - b. Fertilize and seed lawn areas and mulch other areas.
 - c. Maintain lawn areas until healthy turf is established and accepted by the Owner's representative.

7. Pavement
 - a. Reclaim existing pavement as shown on drawings.
 - b. Compact and fine grade granular base and subbase.
 - c. Sawcut all edges of pavement where new pavement abuts existing.
 - d. Provide and place pavement binder and wearing courses per pavement sections.
 - e. Provide wearing course pavement immediately prior to construction completion opening and coordinate final pavement schedule with building schedule.
8. Site Appurtenances
 - a. Furnish and install pavement markings for all parking stalls, accessible spaces, etc. as indicated on the Drawings.
 - b. Furnish and install parking lot signs.
9. Traffic Control
 - a. Provide temporary barriers, signs, illumination devices, flag personnel and uniformed officers as necessary for traffic control.
10. Permits
 - a. Obtain all utility installation licenses and permits, roadway trenching permits, miscellaneous construction permits, etc
 - b. Coordinate inspection with local authorities and utilities.
11. Final Cleanup
 - a. Clean all manholes, catch basins and drain lines (existing)
 - b. Remove all litter and trash immediately prior to construction completion.
 - c. Sweep parking lot immediately prior to construction completion.
12. General Conditions
 - a. Provide full-time on-site Superintendent.
 - b. Coordinate Work and cooperate with abutters.

1.3 PRICE AND PAYMENT PROCEDURES

- A. Measurement and payment sections, price adjustments, etc. of the Standard Specifications are not applicable, because all Work is to be completed on a lump sum basis.

B. UNIT PRICE WORK

1. The following items cannot be quantified and consequently will be paid for on a unit price basis. This Work includes open rock excavation, rock structure excavation and removal of material with an unsuitable bearing capacity. These items will be classified and paid for as follows:

Item	Payment Basis
Open Rock Excavation	CY (In-Place Volume)
Rock Structure Excavation	CY (In-Place Volume)
Unsuitable Excavation	CY (In-Place Volume)
Unsuitable Structure Excavation	CY (In-Place Volume)

2. Open Rock Excavation
 - a. Open rock shall consist of any solid rock, which cannot be removed without blasting. Boulders greater than two (2) cubic yards, which cannot be incorporated into Work, will be paid for as open rock excavation. Weathered ledge material, which can be ripped by an excavator shall not be measured or paid for as extra Work.
 - b. The volume of rock material shall be computed based upon an in-place volume measured by the average end area method. The payment template for the upper limit of removal shall be the ledge surface measured in the field. The payment template for the lower level of rock removal shall be the finish subgrade limits shown on the Drawings and (Insert Depth from Geotech Report) below the building finish floor grade within the building pad limits. Payment for open rock excavation shall include all labor material and equipment necessary for drilling, blasting, excavation, transportation, disposal off-site, and replacement with compacted common fill.
3. Rock Structure Excavation
 - a. Rock structure excavation shall consist of all solid rock, which cannot be removed without blasting for pipes, conduits, catch basins, manholes, utility structures, light bases and other structures. The vertical limit of rock structure excavation shall be the top of rock measured in the field to one (1) foot outside of the base of the structure (in the event of pipe, one (1) foot outside of pipe). The horizontal limits shall be one (1) foot from the outside walls of the structure, parallel and concentric thereto, but shall not be less than thirty-six (36) inches. Where the payment limits for open rock and structure rock conflict, payment shall be made under open rock. Payment for rock structure excavation shall include all materials, equipment and labor necessary for drilling, blasting, excavation, transportation, off-site disposal and replacement with compacted common fill.

4. Unsuitable Excavation
 - a. Material below subgrade that is determined by the Owner's representative to have an unsatisfactory bearing capacity shall be directed to be removed. Remove the material to the limits directed by the Owner's representative. The Work shall include excavation, dewatering, off-site disposal and replacement with compacted common fill. The quantity of material will be measured by its in-place volume.
5. Unsuitable Structure Excavation
 - a. Material below subgrade which is determined by the Owner's representative to have an unsatisfactory bearing capacity for pipes, conduits, catch basins, manholes, utility structures, light bases and other structures shall be directed to be removed. Remove the material to the limits directed by the Owner's representative. Where the payment limits for unsuitable excavation and unsuitable structure excavation conflict, payment shall be made under unsuitable excavation. The Work shall include excavation, dewatering, off-site disposal and replacement with compacted common fill. The quantity of material shall be measured by its in-place volume.

C. ALTERNATE BID PRICES

1. Provide all labor, materials, equipment and services, etc., necessary for the proper and complete execution of accepted Alternates. Amount of Alternate prices to be added to the Base Bid shall be stated on the Proposal Form and shall include cost of any and all modifications made necessary by Owner's acceptance of Alternates.
2. NOTE: Alternates will be carefully considered in the Owner's selection of a Contractor.
3. If the Owner elects to proceed on the basis of one or more of the described Alternates, make all modifications to the Work required in order to furnish and install the selected Alternate or Alternates to the approval of the Engineer and at no additional cost to the Owner, other than as proposed on the Proposal Form.
4. Immediately after award of the Contract, or as soon thereafter as the Owner has made a decision on which, if any, Alternates will be selected, thoroughly and clearly advise all necessary personnel and Suppliers as to the nature and extent of Alternates selected by the Owner. Use all means necessary to alert those personnel and Suppliers involved as to all changes in the Work caused by the Owner's selection or rejection of Alternates.
5. It shall be the responsibility of the Contractor to properly coordinate Work related to Alternates with all other Work of this Contract in order to ensure that a complete and proper job is provided.

1.4 REFERENCES

- A. In addition to the "Standard Specifications" the Work shall be completed in conformance with the Supplemental Specifications consisting of sections:
1. Section 02000 - Introduction to Sitework
 2. Section 02121 - Environmental Protection
 3. Section 02200 - Site Preparation
 4. Section 02220 - Demolition
 5. Section 02300 - Earthwork
 6. Section 02315 - Excavation, Backfill, Compaction and Dewatering
 7. Section 02370 - Erosion Control
 8. Section 02700 - Paving Curbs and Walks
 9. Section 02760 - Pavement Markings
 10. Section 02920 - Lawns and Grasses
 11. Appendix A - Subsurface Exploration Logs
- B. If conflicts arise between any of these specifications, the most stringent specifications shall govern.
- C. Latest revision of federal, state and ASTM Specifications shall be used where only the specification number without date or revision number is given in the specification.
- D. The omissions from the Drawings and/or Specifications of express reference to any labor or materials reasonably to be inferred therefrom and necessary for the proper execution of the Work shall not relieve the Contractor or Subcontractor from furnishing them of a kind in keeping with the general character of the Work.
- E. The Owner's representative shall decide all questions which may arise as to the quality, quantity, acceptability, fitness and rate of progress of the several kinds of Work and materials to be performed and furnished under the Contract, and shall decide all questions which may arise as to the fulfillment of the Contract on the part of the Sitework Contractor. The Owner's representative's determination and decision shall be final and conclusive.

1.5 PROJECT/SITE CONDITIONS

- A. It was not possible for the Owner, and/or Engineer to observe all existing conditions in the completion of these documents. Unforeseen conditions are expected to be discovered. The accuracy of the existing conditions data is not guaranteed to the Contractor. During the execution of the Work it shall be the Contractor's responsibility to discover, identify, and observe existing conditions not anticipated by the Construction Documents, and promptly notify the Owner's representative of

such conditions and proposed solutions at no additional cost. The Contractor's Bid shall anticipate delays associated with conflicts with existing utilities.

B. Permits

1. The Contractor shall prepare the Stormwater Pollution Prevention Plan (SWPPP) for the Federal NPDES (National Pollutant Elimination System) Permit obtain the information for completing the Notice of Intent from the Owner. The Contractor shall be responsible for implementing the plan and signing and filing the Notice of Intent with the U.S. Environmental Protection Agency.
2. The Owner shall be listed as Co-operator on the SWPPP.
3. The Contractor is responsible for obtaining all construction related permits from both State and local entities.
4. The Contractor shall arrange for necessary inspections and approvals from authorities having jurisdiction.
5. The Contractor shall coordinate work with municipal DPW that may interfere with public road operations.

C. Utilities

1. The Contractor shall send proper notices, make all necessary arrangements and perform all other services required for the removal or the care, protection and maintenance of all utilities, including, but not limited to: water, sewer, electric, gas, alarm, television, telephone, and telegraph poles and wires, and all other items of this character above or below the ground, on and around the Site, assuming all responsibility and paying all costs related thereto. Related services to any existing facilities shall not be disrupted without the prior approval of the Owner, and then only to the minimum extent required. The Contractor shall call Dig Safe at least 72 working day hours in advance of excavating near or around any underground utility installations.

D. Job Site Layout, Conditions and Measurements

1. Contractor shall employ a licensed engineer/surveyor to determine all lines and grades and to field verify existing job conditions and measurements shown on the Drawings. All discrepancies shall be reported to the Owner's representative for clarification. The contractor shall carefully examine the Site and Contract Documents prior to proceeding with the Work and satisfy himself as to the conditions under which he must perform the Work. No additional compensation will be made to the Contractor for any error or negligence on his part, nor for discrepancies between actual conditions found at the buildings and Sites and as indicated in the Contract Documents after the Work has commenced.
2. The Owner will provide traverse coordinate information and benchmarks prior to start of construction. It is the Contractor's responsibility to protect, maintain, transfer and offset the baselines and benchmarks as required throughout the construction period. Should the baselines and/or benchmarks

be lost or destroyed the Owner will provide additional layout at a cost to the Contractor.

3. Provide all field engineering services required for the Project including:
 - a. Survey work required to layout the Project from control points.
 - b. Civil, structural or other professional engineering services specified, or required to execute Contractor's construction methods.
4. Surveyor: Submit to the Engineer the name of the surveyor proposed to be employed for the Project survey work. Survey work shall only be carried out by a registered land surveyor, distinct from the superintendent and acceptable to the Owner.
5. Survey Reference Points: The Owner shall provide permanent control points and benchmarks. The Contractor shall protect control points prior to starting the Work, and preserve all permanent reference points during construction.
 - a. Make no changes or relocations without prior written notice to Engineer.
 - b. Report to Engineer when any reference point is lost or destroyed.
 - c. Contractor's surveyor to replace Project control points, which may be lost or destroyed. Establish replacements based on original survey control.
6. Project Bench Marks: Maintain a minimum of two (2) permanent benchmarks on the Site, referenced to data established by survey control points. Record locations, with horizontal and vertical data, on Project Record Documents.
7. Field Measurements: Continually check and compare dimensions at the Site with those shown on the Drawings. Immediately bring discrepancies to the attention of the Engineer in writing. Mark on Shop Drawings prior to submission to the Engineer, relevant field dimensions and note any conflicts with the submitted material.

1.6 ADMINISTRATIVE REQUIREMENTS

A. Coordination

1. The Contractor shall be fully responsible for coordinating all construction activities, verifying dimensions and existing field conditions, establishing on-site lines of authority and communication, monitoring schedules and progress, monitoring quality, maintaining records and reports and in general assuring the proper administration of the Work. The Contractor shall cooperate with the Owner to the greatest extent possible.
2. The Contractor's cooperative efforts shall include, but shall not necessarily be limited to:
 - a. Storing on-site materials at locations acceptable to the Owner and governing authorities.

- b. Controlling construction parking and traffic and limiting it to areas acceptable to the Owner and governing authorities.
- c. Providing access for and cooperating with other Contractors to be employed by the Owner.
- d. Accommodating the existing NHARNG facility and other ongoing activities within and about the Project until the end of construction. Such accommodations shall include, but shall not necessarily be limited to:
 - 1) All Work shall be completed in such a manner so as to maintain an open and clear entrance and egress at all times.
 - 2) Maintaining electrical power, fire alarm system, telephone services, water, sewer, gas and other services required for operation of the businesses and surrounding properties.
 - 3) Maintaining access acceptable to governing authorities at all times.
 - 4) Providing adequate dirt, dust, fume, vapor and noise control.
- e. Protecting existing building construction, Site utilities, Site improvements and features and all other improvements within and about the Project area until the Project has been completed.

B. Safety

- 1. The Contractor shall assume full responsibility for all means, methods, procedures, sequences and techniques of construction employed and shall take all measures required to ensure the public's safety. The Contractor shall take into full consideration and assure himself that all necessary barricades and fencing are provided and that they comply with applicable regulations and standards of good practice. The public shall be guarded from all construction hazards and/or attractive nuisances. The Contractor shall pay all costs necessary for temporary partitioning, barricading, fencing, security and safety devices required for the maintenance of a clean and safe construction Site.

C. Superintendent - Supervision

- 1. The Contractor shall place and maintain a competent, experienced construction superintendent in charge of the Work, on the job Site at all times while Work is in progress, including overtime operations by the Contractor's forces or by Subcontractors. No changes in this position shall be made without the Owner's prior approval. The Owner shall have the right to review the qualifications of the proposed superintendent and ask for a replacement if in his opinion the person does not meet the qualifications, which the Project will demand.
- 2. The superintendent shall be responsible to make satisfactory arrangements with the Owner to service emergencies or complaints, which may occur at

night, over the weekend, holidays or when the job is shut down. Contractor to provide 24-hour emergency call list to the Owner.

D. Vandalism/Accidents

1. The Contractor shall take all reasonable precautions necessary to prevent loss or damage caused by vandalism, theft, burglary, pilferage, or unexplained disappearance of property of the Owner, whether or not forming part of the Work, located within those areas of the Project to which the Contractor has access until the Work has been substantially completed and accepted by the Engineer.
2. The Contractor shall be responsible for all costs required to repair or replace all losses from vandalism or accidents including resetting of damaged curb and repair of lawn areas at no additional cost to the Owner until the Project is substantially complete.

1.7 SUBMITTALS

A. Sitework Record Drawings

1. Keep on file at job Site one (1) complete set of up-to-date Contract Documents, including Drawings and Specifications, Addenda, Shop Drawings and product data, testing data, Change Orders, Field Orders and other modifications. Store reference documents neatly and securely, in files or on racks, clearly indexed. Do not use record documents for construction purposes.
2. At a minimum, record the following information:
 - a. Drawings: Locations of underground utilities, field changes of dimensions and details, changes resulting from Change Order or Field Order, and details not on original Drawings.
 - b. Shop Drawings and manufacturer's literature.
3. Keep marked up set up to date. At weekly progress meetings, review Work completed in the preceding week and demonstrate that record drawings are up to date. Inadequate record drawings shall be cause for Owner to withhold a portion of progress payments.

1.8 CLOSEOUT SUBMITTALS

A. Final Documents:

- a. Contractor shall submit As-Built Drawings of all sitework improvements and utilities, structure rim and invert elevations, two (2) foot contours and spot grades at all sidewalks, crosswalks, handicap parking areas and ramps sufficient to demonstrate that design grading requirements have been met and at all locations shown on Construction Drawings. As-Built Drawings shall be provided on paper, and digital PDF & DWG format to the Owner and Engineer upon Project completion and prior to final payment. As-Built Drawings shall be prepared and certified correct by a New Hampshire Licensed Land Surveyor or Professional Engineer.

1.9 QUALITY ASSURANCE

A. Geotechnical Testing

1. The Contractor shall provide the services of a geotechnical testing firm for inspection of all Work. The Contractor shall be responsible for coordinating and scheduling the daily needs for the geotechnical testing firm. If the geotechnical testing firm is scheduled by the Contractor to be on-site and no testing is required, the Contractor agrees to pay for the services of the testing firm for that day.

1.10 WARRANTY

A. Guarantee

1. The Contractor shall guarantee the entire Work to be free from defective or improper Work or materials, and shall make good any damage due to such Work or materials for a term of one (1) year from the date of the satisfactory completion and acceptance of the Work. In general, the commencement date for warranties and guarantees shall be the date of Substantial Completion. Under no circumstances shall any warranties or guarantees for any individual or collective materials or items of equipment commence prior to the date of Substantial Completion. Additionally, the dates of commencement for all materials and equipment, which have not been made satisfactorily operational upon or prior to the date of Substantial Completion, shall be the first day of continuous satisfactory performance of said materials or equipment. Extended guarantees or warranties shall be provided as specified elsewhere.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.1 PREPARATION

A. Protection of In-Place Conditions

1. Traffic Regulations and Parking
 - a. Contractor shall provide adequate personnel, flagmen, sign, barricades and equipment to properly regulate traffic at times when the Work interferes with the normal flow of traffic both on and off the Site. Parking for workmen and construction vehicles shall be limited to areas designated by the Owner. Parking areas and roadways outside the limits of the Contract shall be kept free of debris resulting from construction related traffic. If at any time the Owner's representative, Engineer, New Hampshire Department of Transportation or the local municipality determines that additional traffic control personnel are required to execute the Work, Contractor shall provide additional personnel at no additional cost.

2. Roads and Access to the Site
 - a. Access to the Site for workmen and the delivery or removal of construction materials and/or equipment shall be made only from locations approved by the Owner. Existing roads, lanes and other required fire access shall remain accessible to fire vehicles at all times. Hauling permits and route approvals shall be obtained from governing authorities as applicable.
3. Dust Control
 - a. Contractor shall continuously implement a dust control program to minimize dust until the Project is complete. The Contractor shall have a water truck on Site at all times. The water truck shall be used daily on all access roads and internal haul roads. The Contractor shall limit the maximum area of disturbance to minimize dust.
 - b. Areas to be left undisturbed for more than 21 days shall be temporarily seeded by the fourteenth day after construction activity has permanently or temporarily ceased in that area.
 - c. Any complaints from abutting properties or the local municipality due to damage from dust shall be immediately acted upon by the Contractor. The Contractor shall provide cleaning services or other restoration at no additional expense to the Owner for any valid Claim.
4. Dewatering
 - a. The Contractor shall protect the Work, including but not limited to all excavations, trenches, buildings and materials from storm water, ground water, back-up or leakage of sewers, drains or other piping, and from water of any other origin and shall control, collect and dispose of any accumulation of such water. Dewatering operations shall include, but not be limited to:
 - 1) Furnishing, operating, and maintaining all pumps, piping, drains and other equipment, including spare units available for immediate use in the event of equipment breakdowns.
 - 2) Designing, constructing, maintaining and removing cofferdams, temporary underdrains, wellpoints and all other systems necessary for dewatering.
 - 3) Disposing of all water in a safe and proper manner, acceptable to governing authorities.
 - b. The Contractor shall pay all costs related to dewatering including any required permits. All damage resulting from dewatering operations, or the failure of the Contractor to maintain the Work in a suitable dry condition, shall be promptly repaired by the Contractor at no additional cost to the Owner.

5. Protection of Adjoining Property

- a. The Contractor shall provide all shoring, fencing, and other Work necessary to support, protect and keep unharmed all walls, buildings, walks, roadways and all other parts of any existing buildings, facilities, Site improvements, land forms, trees and plant materials, etc. The Contractor shall hold the Owner harmless from any such damage due to any operations under this Contract. Any existing Work or property damaged or disrupted as a result of this Contract shall be replaced or repaired to match original existing conditions at no additional cost to the Owner.

B. Demolition/Removal

1. Existing Materials and Equipment

- a. All materials scheduled to be removed shall become the property of the Contractor unless otherwise specified. The Contractor shall dispose of all material off-site in accordance with all federal, state and local regulations, ordinances, and codes.

3.2 CLOSEOUT ACTIVITIES

A. Final Cleanup

1. As part of the base Bid, the Contractor's price includes removal of all rubbish on-site as part of final cleanup immediately prior to the completion of construction. This includes all rubbish, litter, debris, etc. originating from his operations or not. This also includes a final sweeping of the parking lots. The base Bid shall include cleaning all new and existing manholes, catch basins and drain lines within the Work limits as part of the final cleanup regardless of whether the structure was impacted from construction or not.

END OF SECTION

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SECTION 02121

ENVIRONMENTAL PROTECTION

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Minimize the potential adverse environmental impacts associated with construction activity.

B. Related Requirements:

1. Section 02200 - Site Preparation
2. Section 02370 - Erosion Control

1.2 REFERENCES

A. Definitions

1. Critical Environmental Areas: Those areas, conditions, or features which, when disturbed by construction activities, create an adverse environmental impact. Such areas include, but are not necessarily limited to, densely wooded areas, wetland areas, stream crossings, and steep slopes.

1.3 ACCIDENT PREVENTION MEASURES

- A. Preventative measures shall be taken to avoid spillage of Petroleum products and other pollutants. The Contractor shall maintain contingency action plans for prompt remedial action in the event such spillage should occur.
- B. Every reasonable precaution shall be taken to prevent the possibility of accidentally starting fires. Construction programs shall include fire prevention planning, training of personnel in fire fighting, and a fire prevention inspection program.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Materials used for maintenance and protection of the environment shall conform to the material requirements set forth in the relevant sections of the Specifications (i.e., riprap, topsoil, seeding, etc.). Unspecified materials shall be provided as selected by the Contractor, subject to the approval of the Owner's representative.

PART 3 EXECUTION

3.1 PREPARATION

A. Protection of In-Place Conditions

1. The Contractor shall implement all reasonable measures, including but not limited to, details outlined herein or shown on the Drawings, to ensure minimum damage to the environment during construction and for the long term.

2. Vegetation adjacent to or outside of access roads, rights-of-way, or cleared construction shall not be damaged.
3. The Contractor shall be required to protect and preserve existing trees and shrubs in areas designated on the Drawings or as otherwise directed by the Owner's representative. Should any replacement of trees or shrubs be deemed necessary by the Owner's representative, their number and type shall be shown by the Contractor on a Record Drawing.
4. All materials to be removed from the Site shall be disposed of legally and properly, off-site. Disposal of spoil material shall not be in any flood plain, wetland, or sensitive environmental area.
5. Temporary structures and storage areas shall not be located in critical environmental areas. Where areas must be cleared for storage of materials or temporary structures, provisions shall be made for regulating drainage and controlling erosion.

B. Demolition/Removal

1. All abandoned or useless objects including buildings, equipment, supplies, personal property, rubbish, (including those present prior to construction activities) shall be removed from the Site in the manner described in the relevant sections of the Specifications.

3.2 CLEARING

- A. Clearing, or any construction activity not specifically authorized and permitted within 100 feet of a stream or other body of water shall be prohibited.
- B. Tree trunks and roots, vegetation, and debris shall not be disposed of on-Site.

3.3 EROSION AND SEDIMENTATION CONTROL

- A. The Contractor shall implement all reasonable measures to minimize erosion, particularly on steep slopes.
- B. Cuts, fills, and other disturbed areas shall be seeded or sodded as soon as possible to prevent erosion. If such seeding fails to provide adequate cover, the area shall be promptly reseeded.
- C. Water, resulting from dewatering operations, that might reduce the quality of the water in streams, or any other bodies of water, shall not be directly discharged into such bodies.

END OF SECTION

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SECTION 02200

SITE PREPARATION

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes
 - 1. Grading
 - 2. Stripping and stockpiling of soil and sod

1.2 SUBMITTALS

- A. Submit construction methods and equipment that will be utilized for the clearing, grubbing, and waste material disposal specified within this Section.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.1 DISPOSAL OF MATERIALS

- A. Remove all tree trunks, limbs, roots, stumps, brush, foliage, other vegetation, and objectionable material from the site and dispose of in a legal manner.
- B. Burning or direct burial of cleared and grubbed materials on-site will not be permitted.

3.2 GRADING

- A. In preparation for placing loam, paved drives, and appurtenances, perform grading to the lines, grades, and elevations shown on the Drawings, and otherwise directed by the Engineer and perform in such a manner that the requirements for formation of embankments can be followed. All material encountered, regardless of its nature, within the limits indicated, shall be removed and disposed of as directed. During the process of grading, maintain the subgrade in such condition that it will be well drained at all times. Install temporary drains and drainage ditches to intercept or divert surface water that may affect the work when necessary.
- B. If at the time of grading it is not possible to place material in its final location, stockpile material in approved areas for later use. No extra payment will be made for the stockpiling or double handling of excavated material.
- C. The right is reserved to make minor adjustments or revisions in lines or grades if found necessary as the work progresses.
- D. Stones or rock fragments larger than 4 inches in their greatest dimensions will not be permitted in the top 12 inches of the finished subgrade of all fills or embankments except along the access roadways and rip-rap where shown on the Drawings.
- E. In cuts, loose or protruding rocks on the excavated slopes shall be barred loose or otherwise removed to line or finished grade of slope. Cut and fill slopes shall be

uniformly dressed to the slope, cross-section, and alignment shown on the Drawings
or as directed by the Engineer.

END OF SECTION

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SECTION 02220

DEMOLITION

PART 1 GENERAL

1.1 SUMMARY

A. Scope of Work

1. The Contractor shall furnish all labor, materials, tools, equipment, and apparatus necessary and shall do all work required to complete the demolition, removal, and alterations of existing facilities as indicated on the Drawings, as herein specified, and/or as directed by the Engineer. The work in general includes the demolition and legal disposal of materials shown to be removed on the drawings and as required for new construction. Note that this site was previously developed and occupied by other structures and that subsurface elements from previous construction may exist.
2. All equipment, piping, and other materials that are not to be relocated or to be returned to the Owner shall become the property of the Contractor and shall be disposed of by him, away from the site of the work and at his own expense.
3. All demolition or removal of existing structures, utilities, equipment, and appurtenances shall be accomplished without damaging the integrity of existing structures, equipment, and appurtenances to remain, to be salvaged for relocation or stored for future use.
4. Such items that are damaged shall be either repaired or replaced at the Contractor's expense to a condition at least equal to that which existed prior to the start of work.

B. Related Sections

1. Section 02200 – Site Preparation
2. Section 02300 – Earthwork

1.2 JOB CONDITIONS

A. Condition of Structures:

1. The contractor shall inspect the premises prior to submittal of his proposal for verification of existing conditions which will affect his work.
2. The owner assumes no responsibility for the actual condition of structures to be demolished or abandoned.
3. Conditions existing at the time of inspection for bidding purposes will be maintained by the Owner as far as practicable.

1.3 UTILITIES

A. Utility Locations:

1. Utility locations shown on the plans are approximate only, based on information supplied by the utility companies.

B. Coordination with Utilities:

1. The Contractor shall make all necessary arrangements and perform any necessary work to the satisfaction of affected utility companies and government divisions involved with the discontinuance or interruption of affected public utilities and services.

1.4 SUBMITTALS

A. Schedule – Demolition:

1. Submit two (2) copies of proposed methods and operations of demolition to the Engineer for review prior to the start of work. Include in the schedule the coordination for shut-off, capping, and continuation of utility services as required.
2. Provide a detailed sequence of demolition and removal work to ensure the uninterrupted progress of the Owner's operations or operation of the adjacent facilities.

1.5 PROTECTIONS

- A. Ensure the safe passage of persons around the area of demolition. Conduct operations to prevent injury to adjacent buildings, structures, other facilities, and persons. Erect temporary, covered passageways as required by authorities having jurisdiction.
- B. Provide interior and exterior shoring, bracing, or support to prevent movement, settlement, or collapse of structures to be demolished and adjacent facilities to remain.

1.6 DAMAGES

- A. The Contractor shall promptly repair damages caused by demolition operations to adjacent facilities at no cost to the Owner.

1.7 PERMITS

- A. The contractor shall obtain all permits required by local, state, and federal governing authorities for removal and disposal of all demolition materials.

PART 2 PRODUCTS

NOT APPLICABLE.

PART 3 EXECUTION

3.1 PERFORMANCE

- A. Remove and dispose of non-salvageable material in accordance with all applicable local and state laws, ordinances, and code requirements.
- B. Dispose of material daily as it accumulates. Any demolition materials that are temporarily stored on site will not be stored in piles on the ground. These materials will be temporarily stored in dumpsters provided by the contractor while awaiting offsite disposal.
- C. Carefully remove, store, and protect from damage all materials to be salvaged.

- D. Burning of materials will not be permitted on the site.
- E. Buildings and Adjacent Property:
 - 1. Protect all buildings and property adjacent to equipment to be removed from damage by erecting suitable barriers or by other suitable means.
 - 2. Leave such buildings in a permanently safe and satisfactory condition.
- F. Maintaining Traffic:
 - 1. Ensure minimum interference with roads, streets, driveways, sidewalks, and adjacent facilities.
 - 2. Do not close or obstruct street, sidewalks, alleys, or passageways without permission from authorities having jurisdiction.

3.2 POLLUTION CONTROL

- A. Use water, sprinklering, temporary enclosures, and other suitable methods to limit dust and rising and scattering in air to the lowest level possible. Comply with governing regulations pertaining to environmental protection.

END OF SECTION

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SECTION 02300

EARTHWORK

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes

1. All labor, materials, equipment, and services, etc. and perform all operations necessary for earthwork required for the execution of all construction as indicated on the Drawings, specified herein, or otherwise required for a complete and proper job.
2. Without limiting the generality thereof, the scope of Work under this Section shall include, but shall not necessarily be limited to, the following items:
 - a. Excavation and stockpiling of materials suitable for reuse in an on-site location approved by the Owner.
 - b. Removing existing material including ledge and unsuitable materials and replacing that material in a suitable manner in accordance with the requirements of the Drawings and these Specifications.
 - c. Removal and off-site disposal of existing pavements, and utilities, which may be encountered, and backfilling to the grades shown on the plans.
 - d. Excavation, fill, refill, backfill, subgrade preparation, and compaction as indicated or required, including, but not necessarily limited to, all Work related to utilities, walks, pavements, yards, fields, as well as general earthwork.
 - e. Excavation and disposal (off-site) of unsuitable or excess materials. Excavation of all traces of rock, loam, peat, or other unsuitable materials to depths necessary to provide suitable bearing, including granular refill and compaction.
 - f. Proofrolling subgrade for all construction areas.
 - g. Trench and pit excavations, beddings, fills, and backfills, including compaction.
 - h. Base and sub-base course material under walks and pavements including compaction.
 - i. Rough and finish grading. (NOTE: The Owner's Representatives authorization shall be required prior to proceeding with finish grading.)
 - j. Dewatering and control of water for all construction operations.
 - k. Protection of existing trees, pavements, walks, utilities, buildings, landscaping, etc. to remain.
 - l. Dust, erosion, siltation, and environmental controls.

- m. Sheeting, shoring, and bracing of all excavations and as otherwise required.
- n. Protection of excavated subgrade areas including diverting surface runoff from excavations. Note subgrade soils which become wet or unstable after excavation shall be replaced with crushed stone underlain with a woven geotextile. This Work is considered subsidiary and will not be paid for as extra Work.
- o. Removal and disposal of building debris and fire debris at a facility properly permitted to accept this debris and provide documentation of disposal to Owner.

1.2 PRICE AND PAYMENT PROCEDURES

- A. The Contract Drawings indicate limits of construction for this Project. These Specifications specify material and Work requirements for this Project. Both are complementary to each other, and both shall be followed to properly complete the Work. Note: All materials encountered on this Project shall be unclassified and no additional payment shall be made for removal of ledge, unsuitable materials, etc.

1.3 SUBMITTALS

- A. All fill material shall be subject to the review of the Owner's Representative. Qualified materials shall not change in source or character unless requalified. The Owner's Representative's review of a material shall not in any way diminish the Contractor's responsibility to fulfill all requirements of the Specifications.
- B. For approval of fill materials, the Contractor shall:
 - a. Notify the Owner's Representative at least four (4) working days in advance of intention to import material.
 - b. Provide sample to Geotechnical Engineer for the examination and certification of the material.
 - c. Sources shall be accessible to the Owner, or the Owner's Representative, for inspection or additional sampling.

1.4 QUALITY ASSURANCE

- A. All Work shall be accomplished in accordance with Laws and Regulations of local, county, and state agencies and national or local utility company standards as they apply.

1.5 SITE CONDITIONS

- A. The Contractor acknowledges that they have satisfied themselves as to the nature and location of the Work; the general and local conditions, particularly those bearing upon transportation, disposal, handling, and storage of materials; availability of labor, water, electric power, roads, and uncertainties of weather, ground water table or similar physical conditions at the Site. The Contractor shall have confirmation of subsurface materials to be encountered, the character of equipment and facilities needed prior to and during the prosecution of the Work, and all other matters which can in any way affect the Work or the cost thereof

under this contract. Any failure by the Contractor to acquaint themselves with all information concerning these conditions will not relieve them from responsibility for estimating properly the difficulty or cost of successfully performing the Work.

PART 2 PRODUCTS

2.1 IMPORTED FILL MATERIAL

A. Gravel

1. The material shall consist of hard durable fragments of stone or gravel and sand, and shall be free of organic, frozen, or other deleterious materials and shall conform to the following gradation and comply with NHDOT 304.2:

Sieve Size	Percentage by Weight Passing
6 inch	100
No. 4	25 - 70
No. 200	0 - 12

B. Crushed Gravel

1. The material shall consist of gravel, crushed gravel, crushed stone, air-cooled blast furnace slag, or crushed hydraulic-cement concrete free from clay, loam, or organic matter and shall conform to the following gradation and comply with NHDOT 304.3:

Sieve Size	Percentage by Weight Passing
3 inch	100
2 inch	95 - 100
1 inch	55 - 85
No. 4	27 - 52
No. 200	0 - 12

C. Crushed Stone

1. The material shall consist of gravel, crushed gravel, crushed stone, air-cooled blast furnace slag, or crushed hydraulic-cement concrete free from clay, loam, or organic matter and shall conform to the following gradation:

Sieve Size	Percentage by Weight Passing
1 inch	100
¾ inch	90 - 100
3/8 inch	20 - 55
No. 4	0 - 10
No. 8	0 - 5

D. Sand Blanket (Pipe Backfill)

1. The material shall consist of clean sand free of organic, frozen, or other deleterious materials and shall conform to the following gradation:

Sieve Size	Percentage by Weight Passing
½ inch	90 - 100
No. 200	0 - 15

E. Common Fill

1. Common fill shall consist of inert, hard durable sand and gravel free from organic matter, clay, surface coatings, and deleterious materials and shall meet the requirements specified in the Geotechnical Report.

F. On-Site Material/Compacted Subgrade

1. In general, on-site material suitable for reuse shall be a soil or soil-rock mixture which is free from organic matter, frost, and other deleterious substances, meeting the minimum requirements of common fill as specified herein. The use of on-site fill material shall be strictly subject to the prior approval of the Geotechnical Engineer. If on-site fills are found to be suitable and approved by the Geotechnical Engineer they may be substituted for common fill at approved locations.

2.2 USE OF MATERIAL

A. Gravel

1. Material meeting at least the minimum requirements of gravel specified herein shall be used as a sub-base course below pavement.

B. Crushed Gravel

1. Material meeting at least the minimum requirements of crushed gravel base specified herein shall be used as a base course below pavement.

C. Crushed Stone

1. Material meeting at least the minimum requirements of crushed stone specified herein shall be used as a stabilizing layer for excavations under the pavement areas, for utility trenches, saturated areas at or below the water table, and as bedding material for utility pipelines and structures.

D. Sand Blanket

1. Material meeting the requirements of sand blanket specified herein shall be used as bedding and backfill material for utility pipelines as indicated on the Drawings.

E. Common Fill

1. Except as otherwise specified, all fills, refills, and backfills within the raise in grade for paved, grassed, or landscaped areas shall be made with material meeting the minimum requirements of common fill specified herein.

F. On-Site Material

1. If on-site fills or glacial till are found to be suitable and approved by the Geotechnical Engineer, they may be substituted for common fill at approved fill locations. The use of on-site fill material shall be strictly subject to the prior approval of the Geotechnical Engineer.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verification of Conditions

1. Prior to all Work of this section, the Contractor shall become thoroughly familiar with the Site, the building and Site conditions, and all portions of the Work covered by this section. The Contractor shall satisfy himself, by actual examination of the Site of the Work, as to the existing conditions, contours, and the elevations and the amount of Work required under this section.
2. Material encountered in the excavation may include pipe, storm drains, or other utility services, lumber, masonry, and other materials from previous constructions. Material may also include loam, or other unsuitable organics. The Contractor shall make their own investigations to determine the presence of such materials.

3.2 PREPARATION

A. Dust Control

1. Use all means necessary to control dust on and near the Work and on and near all off-site borrow areas if such dust is caused by the Contractor's operations during performance of the Work or if resulting from the condition in which the Contractor leaves the Site. Thoroughly moisten all surfaces as required to prevent dust from being a nuisance to the public, neighbors, and concurrent performance of other Work on the Site.

B. Protection

1. Use all means necessary to protect all materials of this section before, during, and after installation and to protect all objects designated to remain. In the event of damage, immediately make all repairs and replacements necessary to the approval of the Owner's Representative and at no additional cost to the Owner.

C. Bracing

1. Properly support all trenches and all other excavations in strict accordance with all pertinent rules and Laws and Regulations. Brace, sheet, and support trench walls and other excavations in such a manner that they will be safe and that the ground alongside the excavation will not slide or settle, and that all existing improvements of every kind, whether on public or private property,

will be fully protected from damage. In the event of damage to such improvements, immediately make all repairs and replacements necessary to the approval of the Owner's Representative and at no additional cost to the Owner.

3.3 STRIPPING UNSUITABLE OR EXCESS MATERIALS

- A. All unsuitable or excess materials shall be stripped to their entire depths from areas of new construction or regrading. Materials suitable for use shall be stored in designated locations that will not interfere with building or utility operations. Topsoil shall be stripped and stored before any underlying excavating is begun. Stripped topsoil approved by the Owner's Representative to be reused shall be free from clay, stones larger than 1" diameter, and debris. Excess materials and all materials not suitable for reuse shall be legally disposed of off-site. All excavations shall be performed in a manner to minimize the disturbance of underlying natural ground to remain and existing structures to remain.
- B. The Contractor shall excavate all unsuitable material to specified grade or to suitable subgrade soils in building, structure, and pavement areas in the manner specified below and as directed by the Owner's Representative.
- C. Unsuitable materials are defined as topsoils, existing soils containing decomposable material, or any material not meeting the gradation requirements or having unsuitable bearing capacity for uses specified herein that are below subgrade limits. Over excavation and removal of unsuitable materials is considered subsidiary and will not be paid for as Extra Work.
- D. The Contractor shall follow a construction procedure which permits visual identification of subgrade soils. In the event that groundwater is encountered, the size of the open excavation shall be limited to that which can be handled by the Contractor's chosen method of dewatering and allow visual observation of the bottom and placement of crushed stone and backfill in the dry.
- E. The Contractor shall avoid trafficking the Site with heavy equipment when the Site soils are wet. If subgrade soils become loose and saturated, the Contractor shall be required to remove the soils and replace with crushed stone. Stabilization of areas which become disturbed due to construction traffic, surface runoff, subsurface seepage pressures, etc. is considered subsidiary and will not be paid for as Extra Work.
- F. Over Excavation Correction
 - 1. Excavation beyond indicated or authorized limits shall be refilled with structural fill or other approved suitable granular soil material. Refills shall be compacted to 95 percent (Modified Proctor) of the maximum dry density at optimum moisture content. Refills shall be provided as required by the Owner's Representative and at no additional cost to the Owner.
 - 2. Overblasted bedrock shall be removed and recompacted to a dense state prior to placing common fill. The Owner's Representative shall observe bedrock subgrade areas prior to placing new common fill.

3.4 GRADES AND ELEVATIONS

- A. The Drawings indicate, in general, the alignment and finished grade elevations of Site structures. The Owner's Representative; however, may make such adjustments in grades and alignment as are found necessary in order to avoid interferences and other special conditions encountered. Grading between indicated final grades shall provide smooth, even surfaces, except as otherwise required.

3.5 SITE EXCAVATION, FILL AND BACKFILL

A. Pavement Subgrade Preparation

1. All topsoil, organic material, existing pavement, and uncontrolled fill shall be removed from proposed pavement areas. Remove all material to finish subgrade lines shown on the Drawings. Bedrock shall be removed to 24-inches below pavement subgrade. Remove any material below the subgrade levels not meeting the requirements of common fill specified herein. The resulting subgrade shall be compacted with minimum ten (10) ton vibratory equipment providing at least four (4) passes. During the proofrolling process, the subgrade shall be observed by the Geotechnical Engineer. Unstable areas and exposed silt layers shall be over excavated 12-inches and replaced with common fill. All excess excavated material shall be legally disposed of off-site.
2. Once proofrolling is finished, subgrade fills, where required, may be placed in loose lifts not exceeding 8 inch thickness and compacted to at least 92 percent of the maximum dry density as determined by ASTM D-1557. Pavement subgrade fill may consist of compacted common fill.
3. The groundwater table shall be maintained at least three (3) feet below finish pavement grade.

B. Unpaved and Landscaped Area Preparation

1. Surficial topsoil and fill may be left in place in landscape and unpaved areas. Common fill, where required, may be placed in eight (8) inch thick lifts and compacted to at least 90 percent of the maximum dry density as determined by ASTM D-1557.

3.6 SITE DEWATERING

- A. The Contractor shall be required to maintain a dewatered and stable subgrade during construction. Surface water should be diverted away from the excavation. Subgrade soils that remain unstable shall be replaced with crushed stone underlain with a geotextile fabric.
- B. The Contractor shall provide, at their own expense, adequate pumping equipment (including standby) and drainage facilities to keep the excavated Site areas sufficiently dry from groundwater and/or surface runoff so as not to adversely affect Site construction procedures or cause excessive disturbance of underlying natural ground. The drainage of all water resulting from pumping shall be discharged into existing drainage system or courses so as not to cause damages to

adjacent property. If existing drainage systems are not available, the discharge shall be containerized and transported to where it can be disposed of without causing damage to adjacent property.

- C. The Contractor shall secure all necessary permits, and satisfy all local, state and federal environmental conservation and water control requirements for discharge of groundwater to surface waters.

3.7 SHEETING, SHORING AND BRACING

- A. Provide shoring, sheeting, and/or bracing of excavations as required to assure complete safety against collapse of earth at side of excavations. Alternatively, lay back excavations to a stable slope.
- B. Excavations shall be adequately sheeted, shored and braced as necessary to permit proper execution of the Work and to protect all slopes and earth banks until new structures are cured and acceptable for backfill. Sheet piling shall be installed if required to prevent cave-ins or settlement and to protect workmen and utilities. Shoring and bracing may be removed as the backfilling progresses, but only when banks are safe against caving, taking all necessary precautions to prevent collapse of excavation sides.
 - 1. The Owner's Representative may direct that sheeting, shoring, and bracing be left in place at any time during the progress of the Work and direct that timber used for sheeting and bracing, authorized to be left in place, but cut off at a specified elevation. In removing sheeting or bracing, all necessary precautions shall be taken to prevent voids and collapse of excavation sides. Voids, if formed, shall immediately be filled with structural fill and then compacted.
 - 2. The installation of sheeting, shoring, and bracing shall comply with the safety precautions as outlined in the Associated General Contractors of America "Manual of Accident Prevention in Construction," and all local and state Laws and Regulations. Dewatering shall be performed as required or as directed by the Geotechnical Engineer for all excavations below ground water level.
- C. The Contractor should be aware that slope height, slope inclination, or excavation depths (including utility trench excavations) should in no case exceed those specified in local, state, or federal safety Laws and Regulations (i.e., OSHA Health and Safety Standards for Excavations, 29 CFS Part 1926, or successor Laws and Regulations). Such Laws and Regulations are strictly enforced and, if they are not followed, the Owner, Contractor, and/or earthwork and utility Subcontractors could be liable for substantial penalties.
- D. As a safety measure, it is recommended that all vehicles and spoil piles be kept a minimum lateral distance from the top of excavations equal to no less than 100 percent of the slope height. Exposed slope faces should be protected against the elements.

3.8 PLACING SITE FILL

- A. Base courses for Site structures, pavements, and sidewalks shall be made with materials indicated on the Drawings, and specified herein.
- B. Frost
 - 1. Do not excavate to full indicated depth when freezing temperatures may be expected, unless fill material or structures can be constructed immediately after the excavation has been completed. Protect the excavation from frost if placing of fill or structure is delayed.
 - 2. Fill shall not be placed over frozen soil. Soil that is frozen shall be removed prior to placement of compacted fill. Remove all frozen uncompacted soil prior to placing additional fill for compaction.
- C. Protect fill area by grading to drain and providing a smooth surface which will readily shed water. Grade the surface of the areas in such a manner as to prevent ponding of surface runoff water in areas to receive compacted fill.
- D. To the extent that it is practicable, each layer of fill shall be compacted to the specified density the same day it is placed.
- E. Fill that is too wet for proper compaction shall be diced, harrowed, or otherwise dried to the proper moisture content for compaction to the required density. If the fill material cannot be dried within 48 hours of placement, it shall be removed and replaced with drier fill.
- F. Fill that is too dry for proper compaction shall receive water uniformly applied over the surface of the loose layer. Sufficient water shall be added to allow compaction to the required density.
- G. Fill shall be placed in horizontal layers not to exceed thicknesses previously specified. Where the horizontal layer meets a natural rising slope, the layer shall be keyed into the slope by cutting a bench.
- H. The subgrade areas to be fine graded for loaming and seeding, mulching and landscaping shall be raked to remove all stones larger than 1" diameter and other unsatisfactory material and shall then be rolled. Any depressions, which may occur during the rolling, shall be filled with additional suitable material and the surface regraded and rerolled until true to the lines and grades required. Care shall be taken not to affect the line or grade of walls and footings during grading and rolling operations.
- I. All fill materials shall be spread uniformly by acceptable methods over the areas required to be covered so that the required thickness after compaction shall be obtained. The material shall be thoroughly consolidated by vibratory tampers, hand tamping or other approved means, to the final compacted grades as required. In no case shall the fill materials be placed in excess of 12 inches for each lift before compaction.

3.9 COMPACTION

A. Fills, refills, and backfills within the new building and pavement areas, beneath all Site structures and slabs, and the various areas listed below shall be compacted to not less than the following specified maximum dry densities as determined by ASTM D-1557. Allow the Geotechnical Engineer sufficient time to make necessary observations and density testing.

B. Compaction Requirements

Areas	Minimum Degree of Compaction
Below Pavement	95%
Trench Bedding Material and Sand Blanket Backfill	95%
Wall Backfill	95%
Below Grassed or Landscaped Areas	90%

C. Methods: The compaction guidelines given are stated to provide minimum compaction standards only and in no way relieves the Contractor of their obligation to achieve the above specified degree of compaction by whatever additional effort is necessary.

D. Compaction requirements specified herein for all soils shall be in accordance with ASTM maximum dry densities as determined by ASTM D-1557 for soils that exhibit a well drained moisture density relationship and in accordance with ASTM D-2049 for soils which do not exhibit a well drained moisture density relationship.

E. The in-place soil density shall be determined in accordance with ASTM Standard Method of Density of Soil and Soil Aggregate in Place by Nuclear Methods (shallow depth), Designation D-2922.

F. Minimum compaction testing shall not be less than one (1) compaction test for every 2,500 square foot per lift in building areas and no fewer than the greater of four (4) tests or one compaction test for every 10,000 square foot of disturbed Site area per lift. Locations to be approved by Owner prior to testing.

G. Test Prior to Placement

1. All soil Samples proposed to be used for fills, refills, and backfills shall be sampled by the Geotechnical Engineer.

H. Tests After Field Compaction

1. Compaction tests shall be performed following field compaction. These field density tests shall be made by the Contractor's Testing Agency to determine the actual in-place densities being attained.

I. Correction of Improper Compaction

1. If any of the field density test results fail to meet the density as specified herein for the earthwork involved, then the Contractor shall remove all of the earthwork in that portion of the Work involved as determined by the Owner's Representative, and shall replace it in accordance with these Specifications to the required density. After the Work is replaced additional field density tests shall be made by the Contractor's Testing Agency and the Contractor shall be responsible for all costs for such additional testing.
- J. No rolling equipment shall be used to compact materials within four (4) feet of the vertical faces of any concrete walls or utility pipes or within the height of the wall for walls, which retain soil. Plate vibratory tampers shall be used in these restricted areas and in other areas too confined to satisfactorily use rolling equipment.

3.10 GRADING

A. General

1. Perform all rough and finish grading required to attain the elevations shown on the Drawings, or as otherwise directed by the Owner's Representative or required for a complete and proper job.

B. Rough Grading

1. Proper allowances shall be made for paving, or other finish surfaces. Rough grading shall be reasonably even and free from irregularities, and shall provide positive drainage away from structures without ditching or pooling.

C. Fine Grading

1. Any depressions, which may occur, shall then be filled with additional suitable materials and the surface then regraded until true to the lines and grade required. Areas to be fine graded for loaming and seeding shall be raked to remove all stones and other unsatisfactory materials and shall be suitably compacted.

D. Treatment After Completion of Grading

1. After grading is completed, permit no further excavating, filling, or grading. Use all means necessary to prevent erosion of freshly graded areas during construction and until such time as permanent drainage and erosion control measures have been installed.

3.11 EARTHWORK IN WET ENVIRONMENTS

- A. During wet environment, the underlying soils may be unsuitable for reuse or may require stabilization methods on subgrades as recommended herein.

3.12 SITE QUALITY CONTROL

A. Site Tests and Inspection

1. Do not allow or cause any of the Work performed or installed to be covered up or enclosed by Work of this section prior to all required inspections, tests, and approvals. Should any of the Work be so enclosed or covered up before it has been approved, uncover all such Work at no additional cost. After the

Work has been completely tested, inspected and approved, make all repairs and replacements necessary to restore the Work to the condition in which it was found at the time of uncovering, all at no additional cost to the Owner.

B. Soils Observation

1. A Contractor's Testing Agency will perform on-site observations during this phase of the construction operations. The services of the Contractor's Testing Agency will include, but not be limited to, the following:
2. Observations during excavation and dewatering within new building and controlled fill areas.
3. Observations during backfilling and compacting operations within that area defined as the new building area and other areas as appropriate.
4. The field observations performed by the Contractor's Testing Agency and his presence does not include supervision or direction of the actual Work by the Contractor, his employees, or agents. Neither the presence of the Contractor's Testing Agency nor any observations performed by him shall excuse the Contractor from meeting the soils and compaction requirements as specified or correcting any defects in his Work.
5. The Contractor shall cooperate fully in obtaining the information desired and shall allow the Contractor's Testing Agency sufficient time to make necessary tests and observations.
6. Payment for testing shall be made by the Contractor. If test results indicate inadequate compaction or fill materials not meeting the Specifications, all costs associated with correcting the deficiencies and retesting to the satisfaction of the Contractor's Testing Agency and Owner shall be borne by the Contractor.

3.13 PROTECTION

- A. The Contractor shall protect existing utilities, the location of which may be shown approximately on the Drawings, or which are located in the field by the Contractor or others. Utilities whose location is not known shall be protected insofar as possible. All costs for repair of utilities broken or damaged by the Contractor or his Subcontractor shall be the responsibility of the Contractor.
- B. **Dust, Erosion, and Environmental Controls**
 1. Dust control shall be maintained constantly throughout the construction period and shall be accomplished by the uniform application of calcium chloride at the rate of 1 1/2 pounds per square yard by means of a lime spreader or other approved method. Water may also be used for dust control and applied by sprinkling with water trucks with distributors for that purpose as required or directed by the Owner's Representative to maintain dust control.
 2. The Contractor shall be responsible for exercising every precaution to prevent erosion and siltation of lower elevations and existing drainage systems and water courses throughout the construction period. All damage caused by inadequate erosion control measures shall be repaired at the Contractor's

expense. Erosion control and siltation of lower elevations and existing drainage systems shall be effectively controlled by the construction and continual use of baled hay or straw, or filter fabric barriers as shown on drawings and as directed by the Owner's Representative.

3. All environmental controls shall be performed in accordance with all applicable rules and Laws and Regulations of local, county and state agencies having jurisdiction.

END OF SECTION

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SECTION 02315

EXCAVATION, BACKFILL, COMPACTION AND DEWATERING

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes
 - 1. Removal, handling and disposal of rock
 - 2. Temporary dewatering systems
- B. Related Sections
 - 1. Section 02210 - Subsurface Investigations
 - 2. Section 02300 - Earthwork
 - 3. Section 02700 - Paving, Curbs and Walks

1.2 REFERENCES

- A. ASTM D1557-07 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³ (2,700 kN-m/m³))
- B. ASTM D1556-07 - Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method
- C. ASTM D2487-06e1 - Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)
- D. ASTM D6938-08a - Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)
- E. 29 CFR Part 1926 Subpart P - OSHA Excavation Regulations 1926.650 through 1926.652 including Appendices A through F
- F. RSA 236:9 Highway Regulation, Protection and Control Regulations - Excavations And Driveways
- G. Refer to other divisions of these specifications, other sections in this division, and drawings for related work, which may affect the work of this section.
- H. The Contract Drawings indicate limits of construction for this project. These specifications specify material and work requirements for this project. Both are complementary to each other, and both shall be followed to properly complete the work.

1.3 DEFINITIONS

- A. Benching - A method of protecting employees from cave-ins by excavating the sides of an excavation to form one or a series of horizontal levels or steps, usually with vertical or near-vertical surfaces between levels.

- B. Earth Retention Systems - Any structural system, such as sheeting and bracing or cofferdams, designed to retain in-situ soils in place and prevent the collapse of the sides of an excavation in order to protect employees and adjacent structures.
- C. Excavation - Any man-made cut, cavity, trench, or depression in an earth surface, formed by earth removal.
- D. Protective System - A method of protecting workers from cave-ins, material that could fall or roll from an excavation face or into an excavation, or the collapse of adjacent structures. Protective systems include earth retention systems, sloping and benching systems, shield systems, and other systems that provide the necessary protection.
- E. Registered Professional Engineer - A person who is registered as a professional engineer in the state where the work is to be performed. However, a professional engineer, registered in any state is deemed to be a "registered professional engineer" within the meaning of this standard when approving designs for "manufactured protective systems" or "tabulated data" to be used in interstate commerce.
- F. Shield System - A structure that is designed to withstand the forces imposed on it by a cave-in and thereby protects workers within the structure. Shields can be permanent structures or can be designed to be portable and moved along as work progresses. Additionally, shields can be either pre-manufactured or job-built in accordance with 29 CFR 1926.652(c)(3) or (c)(4). Shields used in trenches are usually referred to as "trench boxes" or "trench shields."
- G. Sloping - A method of protecting workers from cave-ins by excavating to form sides of an excavation that are inclined away from the excavation so as to prevent cave-ins. The angle of incline required to prevent a cave-in varies with differences in such factors as the soil type, environmental conditions of exposure, and application of surcharge loads.
- H. Temporary Dewatering System - A system to lower and control water to maintain stable, undisturbed subgrades at the lowest excavation levels. Dewatering shall be provided for all pipelines, structures and for all other miscellaneous excavations.
- I. Trench - A narrow excavation (in relation to its length) made below the surface of the ground, of at least three feet in depth. In general, the depth is greater than the width, but the width of a trench (measured at the bottom) is not greater than 15 feet (4.6 m).

1.4 SUBMITTALS

- A. Drawings and calculations for each Earth Retention System required in the Work. The submittal shall be in sufficient detail to disclose the method of operation for each of the various stages of construction required for the completion of the Earth Retention Systems.
 - 1. Submit calculations and drawings for Earth Retention Systems prepared, signed and stamped by a Professional Engineer registered in the state where the work is performed.

- B. Performance data for the compaction equipment to be utilized
- C. Construction methods that will be utilized for the removal of rock
- D. Dewatering plan for the excavation locations.

1.5 QUALITY ASSURANCE

- A. All Excavation, Trenching, and related Earth Retention Systems shall comply with the requirements of OSHA excavation safety standards, RSA 236:9 and other State and local requirements. Where conflict between OSHA and State regulations exists, the more stringent requirements shall apply.
- B. The following test procedures will be performed by the Owner's inspection agency. Results will be submitted to the Owner's Representative for review.
 - 1. Compaction test results (i.e. ASTM D6938 or ASTM D1556) at a frequency of one test for every 100 cubic yards of material backfilled. The Owner's Representative will determine the locations and lifts to be tested.
 - a. Field density tests may be ordered by the Owner's Representative for each foot of depth of backfill at 50 foot intervals along the trench.
 - b. The Contractor shall plan their operations to allow adequate time for laboratory tests and to permit taking of field density tests during compaction.
 - c. Any costs of retesting required as a result of failure to meet compaction requirements shall be borne by the Contractor.
- C. Employ the services of a dewatering specialist or firm when well points, deep wells, recharge systems, or equal systems are required. Specialist shall have completed at least 5 successful dewatering projects of equal or greater size and complexity and with equal or more complex systems.

1.6 PROJECT CONDITIONS

- A. Notify Dig Safe and obtain Dig Safe identification numbers.
- B. Notify utility owners in reasonable advance of the work and request the utility owner to stake out on the ground surface the underground facilities and structures. Notify the Owner's Representative in writing of any refusal or failure to stake out such underground utilities after reasonable notice.
- C. Make explorations and Excavations to determine the location of existing underground structures, pipes, house connection services, and other underground facilities in accordance with Paragraph 3.2.D of this Section.
- D. In accordance with RSA 236:9, It shall be unlawful to excavate or disturb the shoulders, ditches, embankments or the surface improved for travel of any class I or class III highway or state-maintained portion of any class II highway for any purpose whatever without written permission from the commissioner of transportation or his district engineer, or any other highway without written permission from the selectmen or highway agent of the town, or the mayor and aldermen or street commissioner of the city; provided that in cases of emergency

where the public health or safety is endangered such immediate action as may be necessary may be taken without such permission, but in such cases the person directing or taking such action shall at once notify the official empowered to give written permission.

PART 2 PRODUCTS

2.1 SOIL MATERIALS

- A. Suitable backfill material as specified in Section 02300 – Earthwork.
- B. Pipe bedding materials shall be as specified in Section 02300 – Earthwork.
- C. Common fill material is subject to the approval of the Geotechnical Engineer and may be either material removed from excavations or borrow from off site. Common fill material, whether from the excavations or from borrow, shall be of such nature that after it has been placed and properly compacted, it will make a dense, stable fill.
- D. Satisfactory fill materials shall include materials classified by ASTM D 2487 as GW, GP, GM, GP-GM, GW-GM, GC, GP-GC, SW, and SP.
- E. Satisfactory fill materials shall not contain trash, refuse, vegetation, masses of roots, individual roots more than 18 inches long or more than 1/2 inch in diameter, or stones over 6 inches in diameter in their largest dimension. Unless otherwise stated in the Contract Documents, organic matter shall not exceed minor quantities and shall be well distributed.
- F. Satisfactory fill materials shall not contain frozen materials nor shall backfill be placed on frozen material.
- G. Excavated surface and/or pavement materials such as gravel or trap rock that are salvaged may be used as a sub-grade material, if processed to the required gradation and compacted to the required degree of compaction. In no case shall salvaged materials be substituted for the required gravel base.

2.2 DEWATERING MATERIALS

- A. Provide haybales and silt fence in accordance with NH Stormwater Manual: Volume 3.
- B. Provide silt filter bags (Dandy Dewatering Bag, Dirtbag, JMP Environ-Protection Filter Bag, or equal) of adequate size to match flow rate.

PART 3 EXECUTION

3.1 PREPARATION

- A. Public Safety and Convenience
 - 1. Adhere to the requirements of RSA 236:9 for all excavation work.
 - 2. Take precautions for preventing injuries to persons or damage to property in or about the Work.

3. Provide safe access for the Owner and Owner's Representative at site during construction.
4. Do not obstruct site drainage, natural watercourses or other provisions made for drainage.

3.2 CONSTRUCTION

A. Excavation

1. Perform excavation to the lines and grades indicated on the Drawings. Backfill unauthorized over-excavation in accordance with the provisions of this Section.
2. Excavate with equipment selected to minimize damage to existing utilities or other facilities. Hand excavate as necessary to locate utilities or avoid damage.
3. Sawcut the existing pavement in the vicinity of the excavation prior to the start of excavation in paved areas, so as to prevent damage to the paving outside the requirements of construction.
4. During excavation, material satisfactory for backfill shall be stockpiled in an orderly manner at a distance from the sides of the excavation equal to at least one half the depth of the excavation, but in no case closer than 2 feet.
 - a. Excavated material not required or not suitable for backfill shall be removed from the site.
 - b. Perform grading to prevent surface water from flowing into the excavation.
 - c. Pile excavated material in a manner that will endanger neither the safety of personnel in the excavation nor the Work itself. Avoid obstructing sidewalks and driveways.
 - d. Hydrants under pressure, valve pit covers, valve boxes, manholes, curb stop boxes, fire and police call boxes, or other utility controls shall be left unobstructed and accessible until the Work is completed.
5. Grade or create berms or swales to direct surface water from excavations to appropriate structures designed to accommodate storm water. If no structures exist, direct water to areas that minimize impacts to adjacent structures and properties.
6. Make pipe trenches as narrow as practicable and keep the sides of the trenches undisturbed until backfilling has been completed. Provide a clear distance of a minimum of 12 inches on each side of the pipe.
7. Perform the excavation in such a manner as to prevent disturbance of the final subgrade. If excessive subgrade disturbance is occurring, as judged by the Owner or Owner's Representative, then the final 6 inches of the excavation must be performed by hand.

- a. Grade the trench bottom to provide uniform bearing and support for the bottom quadrant of each section of pipe.
 - b. Excavate bell holes at each joint to eliminate point bearing.
 - c. Remove stones greater than 6 inches in any dimension from the bottom of the trench to avoid point bearing.
8. If satisfactory materials are not encountered at the design subgrade level, excavate unsatisfactory materials to the depth directed by the Owner's Representative and properly dispose of the material. Backfill the resulting extra depth of excavation with satisfactory fill materials and compact in accordance with the provisions of this Section.

B. Backfill and Compaction

1. Unless otherwise specified or indicated on the Drawings, use satisfactory material removed during excavation for backfilling trenches. The Owner's Representative may require stockpiling, drying, blending and reuse of materials from sources on the Project.
2. Spread and compact the material promptly after it has been deposited. When, in the Owner's Representative's judgment, equipment is inadequate to spread and compact the material properly, reduce the rate of placing of the fill or employ additional equipment.
3. When excavated material is specified for backfill and there is an insufficient amount of this material at a particular location on the Project due to rejection of a portion thereof, consideration will be given to the use of excess material from one portion of the Project to make up the deficiency existing on other portions of the Project.
 - a. Use borrow material if there is no excess of excavated material available at other portions of the Project.
4. Backfilling and compaction methods shall attain the specified percentage of maximum dry density at optimum moisture content as determined in accordance with ASTM D1557 and specified in Section 02300.
5. Do not place stone or rock fragment larger than six inches in greatest dimension in the backfill.
6. Maximum loose lift height for backfilling existing or borrow common fill shall be 12 inches, unless satisfactory compaction is demonstrated otherwise to the Owner's Representative through field-testing. In no case shall loose lift height for backfilling exceed 3 feet.
7. Do not drop large masses of backfill material into the trench endangering the pipe or adjacent utilities.
8. Install pipe in rock excavated trenches on a dense sand blanket bedding with a minimum depth of 6 inches. Shape the sand bedding at the pipe bells to provide uniform support. Encase the pipe in the dense sand bedding to a

minimum grade 6 inches over the top of the pipe and a minimum of 12 inches on each side of the pipe.

9. Backfill from the bottom of the trench to the centerline of the pipe with the specified material. This initial backfill is to be placed in layers of no more than 6 inches and thoroughly tamped under and around the pipe. This initial backfilling shall be deposited in the trench for its full width on both sides of the pipe, fittings and appurtenances simultaneously.
10. Electrical conduit not encased in concrete, shall be backfilled with sand blanket conforming to the requirements of Section 02300. The backfill shall be placed in the trench for its full width and shall extend to 12 inches over the pipe.
11. Where excavation is made through permanent pavements, curbs, paved driveways or paved sidewalks, or where such structures are undercut by the excavation, place the entire backfill to sub-grade with granular materials and compact in 6 inch layers. Use approved mechanical tampers for the full depth of the trench. If required, sprinkle the backfill material with water before tamping so as to improve compaction. Any trenches improperly backfilled, or where settlement occurs, shall be reopened to the depth required to correct the problem, and shall then be refilled and properly compacted with the surface restored to required grade at no additional expense.
12. The Contractor shall not place backfill against or on structures until they have attained sufficient strengths to support the loads to which they will be subjected, without distortion, cracking, or other damage. As soon as possible after the structures are adequate, they shall be backfilled with suitable backfill material.
13. Place and compact backfill around manholes, vaults, pumping stations, gate boxes or other structures in six inch layers, from a point 1 foot over the pipe. Exercise care to protect and prevent damage to the structures.
14. Install impervious trench dams where sand blanket is used for pipe bedding to prevent groundwater from following along the stone bedding. Install dams every 100 feet.

C. Dewatering

1. Obtain the following construction dewatering permits, as required:
 - a. US EPA Dewatering General Permit
2. Provide, operate and maintain adequate pumping, diversion and drainage facilities in accordance with the approved dewatering plan to maintain the excavated area sufficiently dry from groundwater and/or surface runoff so as not to adversely affect construction procedures nor cause excessive disturbance of underlying natural ground. Locate dewatering system components so that they do not interfere with construction under this or other contracts.

3. Conduct operations so as to prevent at all times the accumulation of water, ice and snow in excavations or in the vicinity of excavated areas so as to prevent water from interfering with the progress or quality of the work.
4. Take actions necessary to ensure that dewatering discharges comply with permits applicable to the Project. Dispose of water from the trenches and excavations in such a manner as to avoid public nuisance, injury to public health or the environment, damage to public or private property, or damage to the work completed or in progress.
5. Repair any damage resulting from the failure of the dewatering operations and any damage resulting from the failure to maintain all the areas of work in a suitable dry condition.
6. Exercise care to ensure that water does not collect in the bell or collar holes to sufficient depth to wet the bell or collar of pipes waiting to be jointed.
7. Take precautions to protect new work from flooding during storms or from other causes. Control the grading in the areas surrounding all excavations so that the surface of the ground will be properly sloped to prevent water from running into the excavated area. Where required, provide temporary ditches for drainage. Upon completion of the work, all areas shall be restored to original condition.
8. Brace or otherwise protect pipelines and structures not stable against uplift during construction.
9. Do not excavate until the dewatering system is operational and the excavation may proceed without disturbance to the final subgrade.
10. Unless otherwise specified, continue dewatering uninterrupted until the structures, pipes, and appurtenances to be installed have been completed such that they will not float or be otherwise damaged by an increase in groundwater elevation.
11. If open pumping from sumps and ditches results in "boils", loss of fines, or softening of the ground, submit a modified dewatering plan to the Owner's Representative within 48 hours. Upon plan approval, implement the modified plan and repair any damage incurred.
12. Where subgrade materials are unable to meet the subgrade density requirements due to improper dewatering techniques, remove and replace the materials in accordance with Section 02300.
13. Notify the Owner's Representative immediately if any settlement or movement is detected of survey points adjacent to excavations being dewatered. If settlement is deemed by the Owner's Representative to be related to the dewatering, submit a modified dewatering plan to the Owner's Representative within 24 hours. Upon plan approval, implement the modified plan and repair any damage incurred to the adjacent structure.
14. Dewatering discharge:

- a. Install sand and gravel, or crushed stone, filters in conjunction with sumps, well points, and/or deep wells to prevent the migration of fines from the existing soil during the dewatering operation.
 - b. Transport pumped or drained water without interference to other work, damage to pavement, other surfaces, or property. Pump water through a silt filter bag prior to discharge to grade of drainage system.
 - c. Do not discharge water into any sanitary sewer system.
 - d. Provide separately controllable pumping lines.
 - e. The Owner's Representative reserves the right to sample discharge water at any time.
15. Install erosion/sedimentation controls for velocity dissipation at point discharges onto non-paved surfaces.
16. Removal
- a. Do not remove dewatering system without written approval from the Owner's Representative.
 - b. Backfill and compact sumps or ditches with crushed gravel or common fill in accordance with Section 02300.
 - c. Remove well points and deep wells. Backfill abandoned well holes with cement grout having a water cement ratio of 1 to 1 by volume.

3.3 PROTECTION

A. Protection of Existing Structures

1. All existing foundations, conduits, wall, pipes, wires, poles, fences, property line markers and other items which the Owner's Representative decides must be preserved in place without being temporarily or permanently relocated, shall be carefully supported and protected from injury by the Contractor. Should such items be injured, they shall be restored by the Contractor to at least as good condition as that in which they were found immediately before the work began.

B. Accommodation of Traffic

1. Streets and drives shall not be unnecessarily obstructed. The Contractor shall take such measures at his own expense to keep the street or road open and safe for two-way traffic.
2. The Contractor shall construct and maintain such adequate and proper bridges over excavations as may be necessary or as directed for the safe accommodation of pedestrians and vehicles. The Contractor shall provide, without cost to the Owner, substantial barricades at crossings of trenches, or along the trench to protect the traveling public.
3. Where deemed necessary, such additional passageways as may be directed shall be maintained free of such obstructions. All material piles, open

excavations, equipment, and pipe which may serve as obstructions to traffic shall be protected by proper lights, signage, or guards as necessary.

4. All traffic controls shall be in accordance with the Manual on Uniform Traffic Control Devices for Streets and Highways, latest edition.

C. Erosion and Sedimentation Control

1. Take all necessary steps to prevent soil erosion.
2. Plan the sequence of construction so that only the smallest practical area of land is exposed at any one time during construction.
3. Temporary vegetation and/or mulching shall be used to protect critical areas exposed during construction as judged by the Owner's Representative.
4. All temporary erosion and sedimentation control work shall be included in the cost of installing the pipe and shall conform to Section 02370.

END OF SECTION

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SECTION 02370

EROSION CONTROL

PART 1 GENERAL

1.1 SUMMARY

A. Standard Specifications

1. All Work shall be in compliance with the most current edition of the "Standard Specifications".
2. All Work shall be in compliance with the "New Hampshire Stormwater Management: Volume 3 Construction Phase Erosion and Sediment Controls" prepared by NHDES dated December 2008.

B. Scope of Work

1. Provide such erosion control measures as may be necessary to correct conditions that develop prior to the completion of permanent erosion control devices or as required to control erosion that occurs during normal construction operations.
2. Construction operations shall comply with all federal, state and local Regulations pertaining to erosion control.
3. Prior to commencement of construction activities, meet with the Engineer and approval agency to discuss erosion control requirements and develop a mutual understanding relative to details of erosion control.

C. Related Sections

1. Section 02300 – Earthwork

PART 2 PRODUCTS

2.1 MATERIALS

- A. Silt Sock: Siltation control devices shall be Silt Soxx by Filtrexx or approved equal.
- B. Silt Sack: Sediment trapping devices shall be Siltsack[®], Dandy Bag II[®], or equal.
- C. Baled Hay: 20" X 20" X 30" - 40 lbs/bale minimum. Bales shall be free from weed seeds and rough or woody materials.
- D. Sand Bags: Heavy cloth bags of approximately one cubic foot capacity filled with sand or gravel.
- E. Mulches: Compost, manure, corn stalks, gravel, crushed stone, loose hay, straw, peat moss, pine straw or needles, sawdust, wood chips, wood excelsior, or wood fiber cellulose.
- F. Mats and Nettings
 1. Jute matting shall be of open weave, single jute yarn averaging 130 pounds per spindle of 14,400 yards. The yarn shall be of loosely twisted

construction, not varying the thickness by more than 1/2 its normal diameter. The woven material shall be 48 inches wide, plus or minus one 1 inch, and with approximately 78 warp ends per width of cloth and 41 weft ends per linear yard. The woven material shall weigh 1.22 pounds per linear yard with a tolerance of plus or minus 5 percent.

2. Excelsior matting shall be wood excelsior, at least 35 inches in width, weighing 0.8 pounds per square yard plus or minus 5 percent. The excelsior material shall be covered with a netting on one side to facilitate handling and to increase strength.
3. Staples shall be number 11 (or heavier) plain iron wire, made from lengths of at least 12 inches each.

G. Seed

1. Standard conservation mix of 100% annual Ryegrass.
2. Equivalent seed mixture may be used as approved by the Owner's Representative based on its suitability for use in controlling erosion of the various soil types and slopes.
3. If the seeding fails to grow, it shall be re-established as required to provide adequate erosion control.

H. Sod

1. Grown from certified seed of adapted varieties to produce high quality sod free of any serious thatch, weeds, insects, diseases and other pest problems.

PART 3 EXECUTION

3.1 MULCH

- A. Mulching shall be done immediately after each area has been properly prepared. When seed for erosion control is sown prior to placing the mulch, the mulch shall be placed on the seeded areas within 24 hours after seeding. Hay that has been thoroughly fluffed shall be applied at approximately, three (3) tons per acre unless ordered. Blowing chopped mulch will be permitted when authorized. Authorization will be given when it can be determined that the mulch fibers will be of such length and applied in such a manner that there will be a minimum amount of matting that would retard the growth of plants. Hay mulch should cover the ground enough to shade it, but the mulch should not be so thick that a person standing cannot see ground through the mulch. Matted mulch or bunches shall be removed or otherwise taken care of.
- B. In order to prevent its being blown away, after the mulch has been spread to the required depth, a light covering of loose branches, a system of pegs and strings, or other approved anchoring method shall be employed. Unless otherwise ordered, such means of control shall be removed prior to the acceptance of the Project.
- C. All baling wire or rope, such as that used in the shipment of mulch shall be disposed of outside the limits of the Project in approved areas.

3.2 MATTING

- A. Surfaces of ditches and slopes to receive matting shall conform to the grades and cross sections shown on the plans and shall be finished to a smooth and even condition with all debris, roots, stones, and lumps raked out and removed. The soil surface shall be sufficiently loose to permit bedding of the matting. Unless otherwise directed, seed ordered shall be applied prior to placement of the matting.
- B. Jute
 - 1. Strips of jute matting shall be placed lengthwise in the direction of the flow of water. Where strips are laid parallel or meet as in a tee, they shall overlap at least four (4) inches. Ends shall overlap at least six (6) inches, shingle fashion. In addition, the upslope end of each strip of the matting shall be turned down and buried to a depth of not less than six (6) inches with the soil firmly tamped against it. The Owner's Representative may require that any other edge exposed to more than normal flow of water be buried in a similar manner.
- C. Check slots, built at right angles to the direction of the flow of water, shall be placed so that one check slot or one end occurs within each 50 feet of length of slope. Check slots shall be constructed by placing a tight fold of the matting at least six (6) inches vertically into the ground. These shall be tamped the same as the upslope ends.

3.3 EXCELSIOR

- A. When excelsior matting is being laid, the material shall be unrolled in the direction of the flow of water.
- B. Where strips of excelsior matting are laid end to end, the adjoining ends shall be butted.
- C. When adjoining rolls of excelsior matting are laid parallel to one another, the matting shall be butted snugly.
- D. Except where jute matting is turned down, all matting shall be spread evenly and smoothly so that it is in close contact with the ground. Bulging seams in either matting material shall be cut out and joints formed as described above. When ordered, additional seed shall be spread over jute matting, particularly at those locations disturbed by building the slots. Jute matting shall then be pressed onto the ground with a light lawn roller or by other satisfactory means.
- E. Matting shall be held tightly to the soil by staples driven approximately vertically onto the ground flush with the surface of the matting. On slopes flatter than 4:1, staples shall be spaced not more than three (3) feet apart in three rows for each strip, with one row along each edge and one row, alternately spaced, down the center. On grades 4:1 or steeper, staples shall be placed in the same three rows, but spaced 2 feet apart. On all overlapping or butting edges, the number of staples shall be doubled, with the spacing halved; all ends of the matting and all required check slots shall likewise have staples spaced every 12" and matting placed adjacent to boulders or other obstructions shall be stapled with no spaces between the staples, to eliminate any loose edges of matting.

- F. The above specified spacing of staples may be changed as ordered, depending upon varying factors such as the season the year or the amount of water encountered or anticipated.
- G. In driving the staples, care shall be taken so as not to form depressions or bulges in the surface of the matting.
- H. Other Matting. Approved, alternate matting shall be applied in accordance with the recommendations of the manufacturer and as directed.

3.4 SEED FOR EROSION CONTROL

- A. Seeding, when required, shall be performed as ordered and in accordance with references and standards listed in Section 1.1 References (above).
- B. Areas to be left temporarily and which will be re-graded or otherwise disturbed later during construction may be ordered to be seeded to obtain temporary control. The seed shall be sown at the rate indicated on the Drawings.

3.5 MAINTENANCE

- A. If any staples become loosened or raised, or if any matting becomes loose, torn, or undermined, satisfactory repairs shall be made immediately.
- B. Hay mulch that blows or washes away shall be replaced immediately.

3.6 HAY BALES AND SILT FENCE FOR EROSION CONTROL

- A. Hay bales and silt fence shall be placed to provide for temporary control of erosion or pollution or both. They shall be staked with the required stakes. Upon acceptance of the Work, the bales shall be removed unless otherwise ordered by the Engineer.

END OF SECTION

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SECTION 02700

PAVING, CURBS AND WALKS

PART 1 GENERAL

1.1 REFERENCES

- A. Refer to other divisions of these specifications, other sections in this division, and drawings for related work, which may affect the work of this section.
- B. The Contract Drawings indicate limits of construction for this project. These specifications specify material and work requirements for this project. Both are complementary to each other, and both shall be followed to properly complete the work.

1.2 SCOPE OF WORK

- A. Without limiting the generality thereof, the work under this section consists of furnishing all labor, equipment, supplies and materials and performing all operations in connection with the placing and compacting of gravel subbase and base, bituminous concrete base and wearing courses, cleaning and sweeping areas within the work under this contract and all other operations and incidental work pertaining thereto; all to be in accordance with these specifications and drawings.
- B. The Contractor shall schedule a pre installation meeting with the Owner prior to the installation of pavement, curbs, and walks.

1.3 RELATED WORK IN OTHER SECTIONS

- A. Following is a list of related work items performed or furnished under other sections.
 - 1. Section 02200 - Site Preparation
 - 2. Section 02300 - Earthwork

1.4 GRADES AND ELEVATIONS

- A. The drawings indicate, in general, the alignment and finish grade elevations. The Owner's Representative, however, may make such adjustment in finish grades alignment as is found necessary.

PART 2 PRODUCTS**2.1 PRODUCTS****A. Base Courses**

1. Aggregate subbase and base courses shall be in accordance with the applicable paragraphs of the Standard Specifications and as shown on the Drawings.

B. Bituminous Concrete Pavement

1. Bituminous concrete pavement shall be in accordance with the applicable paragraphs of the Standard Specifications and as shown on the Drawings. Bituminous concrete pavement shall be supplied from only NHDOT approved asphalt mix plants.

PART 3 EXECUTION**3.1 PREPARATION****A. Subgrades**

1. Do all necessary regrading and fine grading to bring subgrades to the required grades and section, including compaction of the subgrade surface prior to placing the gravel base courses.
2. Compact the existing subgrade as specified in Section 02300 – Earthwork.

B. Adjustment of Existing Castings to Remain

1. All cast iron manhole frames and covers, catchbasin frames/grates, valve boxes, and all other castings located within the areas of new pavements and replacement areas shall be adjusted to the new pavement surface prior to commencing paving.

3.2 CONSTRUCTION**A. Gravel Subbase and Base Courses**

1. Place and compact the gravel subbase and crushed gravel base courses in accordance with the applicable paragraphs of the Section 02300.
2. The base courses shall be compacted as specified in Section 02300 - Earthwork.
3. It is the intent of these compaction requirements that the minimum in-place dry density of the compacted materials resulting from passes of the compaction equipment will be equal to or greater than the minimum percentages specified herein. Additional passes of the specified equipment will be required if the minimum percentages of ASTM in-place dry densities as specified are not obtained. Moisture conditioning by wetting or drying shall be used as required or directed to obtain the required compaction results.

B. Pavement Binder and Wearing Courses

1. Paving shall consist of a bituminous concrete base course pavement and wearing course as shown on the drawings and details. Paving shall be constructed in accordance with the applicable paragraphs of the Standard Specifications.

END OF SECTION

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SECTION 02760

PAVEMENT MARKINGS

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes

1. All labor, materials, accessories, service and equipment necessary to furnish and apply all pavement striping, parking stalls, and traffic markings as indicated on the Drawings and as specified herein.
 - a. New painted pavement markings
 - b. Replacement of pavement markings disturbed as part of construction activities
 - c. Replacement of pavement markings in permanent pavement repair areas

B. Related Sections

1. Section 02700 – Paving, Curbs and Walks

1.2 REFERENCES

- A. AASHTO Standard Specifications for Transportation Materials and Methods of Sampling and Testing, 1986 Edition, as amended.
- B. NHDOT "Standard Specifications for Road and Bridge Construction", 2010 Edition, as amended.

1.3 SUBMITTALS

- A. Submit manufacturers literature and material specifications for all materials furnished under this Section including, but not limited to, the following:
 1. Pavement marking paint
- B. Submit affidavit stating submitted materials comply with the above-noted Standards.

1.4 WARRANTY

- A. Provide a written one-year unconditional guarantee against fading, chipping, peeling, wearing, or any other undesirable damage.

PART 2 PRODUCTS

2.1 MATERIALS

A. Waterborne Pavement Marking Paint

1. All paint for parking stall and traffic markings shall be fast drying white or yellow traffic paint complying with the applicable paragraphs of the Standard Specifications. The paint shall be capable of being applied to bituminous and

portland cement concrete pavements with striping equipment that does not require heating above ambient temperatures.

2. The following additional pavement marking paint requirements shall be met:
 - a. The total nonvolatile content shall not be less than 70% by weight.
 - b. Pigment shall be 45-55% by weight.
 - c. Weight per gallon shall not be less than 12.5 pounds.
 - d. Drying time to no pickup shall be 15 minutes.
3. The material shall not lift from the pavement in the freezing weather, and shall not smear or spread under normal traffic conditions or at temperature below 120 degrees F.
4. The paint shall not deteriorate by contact with sand, sodium, chloride, calcium chloride or other chemicals used against the formation of ice on the pavement, because of the oil content of pavement materials, or from gasoline, grease and oil drippings from vehicles.

PART 3 EXECUTION

3.1 PREPARATION

- A. Protect the building, walks, pavement, curbing, trees, shrubs, mulch, etc. from over-spray of paint and damage.
- B. Clean and sweep all areas to be striped or re-striped of all sand, dirt, grease, oil, etc. Large areas of tar, grease or foreign materials may require sand blasting, steam cleaning or power brooming to accomplish complete removal.
- C. Application of markings shall not proceed until authorization is received from Owner's Representative.
- D. Bituminous concrete pavements shall have been in place for at least 7 days prior to the application of pavement markings.

3.2 INSTALLATION

- A. Installation shall be by skilled workers who are experienced and normally employed in the Work of installing pavement markings.
- B. All permanent pavement repair areas shall be repainted to match the original pavement markings.
- C. New pavement markings shall be as shown on the Drawings and as specified herein.
- D. Painting shall be in accordance with the NHDOT "Standard Specifications for Road and Bridge Construction", 2010 Edition, as amended.
- E. Stripe all stalls as shown on the Drawings, accurately and paint all parking stall striping in white four (4) inch wide single stripes. Striping, symbols, and arrows shall be painted to the size, length, and spacing as specified and indicated on the Drawings.

- F. All stripes shall be applied one coat with brush, spray or marking machine over dry clean pavement only.
- G. All paint shall be installed at a rate of not more than 300 linear feet of 4- inch wide lines per gallon of paint (approximately 0.016 inch dry film thickness).
- H. If material is applied to the pavement by an extrusion method, one side of the shaping die shall be the pavement and the other three sides are contained by, or are part of, suitable equipment for controlling the flow of paint.
- I. All stalls shown on the plan are to be "single stripe," and shall be spaced equally, each stall being separated from the next by a single line marking the stall width. The line indicated on the Drawings is on the center line of the stall striping. The line between rows of stalls shall be a single line.
- J. Where entire areas are to be cross-hatched as directed by the Drawings, the 4-inch-wide straight white parallel stripes 36 inches on center shall be laid out and painted in solid lines.
- K. After application and proper drying time, the material shall show no appreciable deformation or discoloration under traffic conditions and in air and/or road temperature ranging from 0 - 120 degrees F.
- L. The stripe shall maintain its original dimensions and placement. The exposed surface shall be free from tack. Cold ductility of the material shall permit normal movement with the pavement surface without chipping or cracking.
- M. No paint or pavement marking material shall be heated above the temperature allowed per manufacturer's instructions.
- N. All painting shall be performed in a neat and workmanlike manner.
- O. Lines shall sharp and clear with no feathered edging or fogging.
- P. If, for any reason, material is spilled or tracked on the pavement or any markings applied by Contractor, in Owner's Representative's judgment, are not acceptable, then the Contractor shall remove such material by a method that shall not damage the roadway surface and is acceptable to the Owner's Representative, clean and prepare the surface for a reapplication of markings, and reapply the markings as directed.
- Q. Application Requirements
 - 1. Marking paint shall be applied at a rate of 100 to 115 square feet per gallon.
 - 2. Material application temperature shall be from 40°F to 120°F.
 - 3. No thinners shall be used for the above listed pavement marking applications except in accordance with the manufacturer's specifications and at the direction of the Owner's Representative.
 - 4. Minimum finished paint thickness shall be 15 mils.

3.3 PROTECTION

- A. Markings shall remain protected until sufficiently dry to bear traffic on roadways that are open to traffic.
- B. Precautions shall be taken to prevent tracking by tires of the striping equipment.
- C. Traffic cones used for protection of markings shall be not less than 28 inches in height.

END OF SECTION

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SECTION 02920

LAWNS AND GRASSES

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes

1. Restoration of all vegetated areas disturbed during construction including:
 - a. Lawn areas
 - b. Grass surfaces
2. New loam and seed areas
3. Loam, starter fertilizer, lime, and lawn seed.
4. Temporary Plantings

1.2 SUBMITTALS

- A. Lawn seed mixture including percent by weight of each seed type, and manufacturer/Supplier name.
- B. Suitable laboratory analysis of the topsoil to determine the quantity of fertilizer and lime to be applied.
- C. Lime and starter fertilizer application rates based on laboratory soil tests.
- D. A sworn certificate indicating each variety of seed, weed content, germination of seed, net weight, date of shipment and manufacturer's name shall accompany each seed shipment.

1.3 QUALITY ASSURANCE

- A. Place seed only between the periods from April 15th to June 1st, and from August 15th to October 1st, unless otherwise approved by the Owner's Representative.

PART 2 PRODUCTS

2.1 MATERIALS

A. Loam

1. Loam from offsite, as required for Work, shall be taken from a well-drained, arable site, and shall be free of subsoil, large stones, earth clods, sticks, stumps, clay lumps, roots or other objectionable, extraneous matter or debris. Loam shall also be free of quack-grass rhizomes, Agropyron Repens, and the nut-like tubers of nutgrass, Cyperus Esculentus, and all other primary noxious weeds. Loam shall not be delivered or used for planting while in a frozen or muddy condition. Topsoil as delivered to the Site or stockpiled shall have pH between 6.0 and 7.0 and shall contain not less than 5 percent or more than 8 percent organic matter as determined by loss of ignition of moisture-free Samples dried at 100 degrees Celsius.

2. Onsite loam may be available from stripping of onsite topsoil. Onsite topsoil shall be tested as specified below and shall be amended as necessary to meet Specification requirements for loam.
3. Soil Analysis: The Contractor shall submit representative Samples of loam, which he intends to bring onto the Site, and Samples of loam from onsite sources, to a Soil and Plant Testing Laboratory acceptable to the Owner's Representative. All reports shall be sent to the Owner's Representative for approval. Samples of loam to be brought to the Site must be approved prior to delivery of soil. Deficiencies in the loam shall be corrected by the Contractor, as directed by the Owner's Representative after review of the testing agency report by a soils consultant. Testing reports shall include the following tests and recommendations.
 - a. Mechanical gradation (sieve analysis) shall be performed and compared to the USDA Soil Classification System.
 - b. The silt clay content shall be determined by a Hydrometer Test.
 - c. Percent of organics shall be determined by an Ash Burn Test or Walkley/Black Test.
 - d. Chemical analysis shall be undertaken for Nitrate Nitrogen, Ammonium Nitrogen, Phosphorus, Potassium, Calcium, Aluminum, Soluble Salts, and acidity (pH).
 - e. Soil analysis tests shall show recommendations for soil additives to correct soils deficiencies as necessary, and for additives necessary to accomplish particular lawn and planting objectives noted.
 - f. All tests shall be performed in accordance with the current standards of the Association of Official Agriculture Chemists.
4. Loam for General Lawn and Site Restoration Areas: Loam shall conform to the following grain size distribution for material passing the #10 sieve:

U.S. Sieve Size Number	Percent Passing	
	Minimum	Maximum
10	100	----
18	84	100
35	63	72
140	26	40
270	22	34
0.002 mm	2	5

¹The ratio of the particle size for 80% passing (D_{80}) to the particle size for 30% passing (D_{30}) shall be 6 or less ($D_{80}/D_{30} < 6$).

²Maximum size shall be one-inch largest dimension. The maximum retained on the #10 sieve shall be 20% by weight of the total sample.

³Tests shall be by combined hydrometer and wet sieving in compliance with ASTM D422 after destruction of organic matter by ignition.

⁴The organic content shall be between 4.0 and 6.0 percent.

B. Typical Sand Amendment

1. Sand to be mixed with topsoil shall meet the following requirements. The material shall be uniformly graded coarse sand consisting of clean, inert, rounded grains of quartz or other durable rock and free from loam or clay, surface coatings, mica, other deleterious materials with the following gradation.

U.S. Sieve Size Number	Percent Passing	
	Minimum	Maximum
10	100	---
18	60	80
35	35	55
60	8	20
140	0	8
270	0	3
0.002 mm	0	0.3

¹Maximum size shall be one-inch largest dimension. The maximum retained on the #10 sieve shall be 10% by weight of the total sample.

²The ratio of the particle size for 70% passing (D_{70}) to the particle size for 20% passing (D_{20}) shall be 3.0 or less ($D_{70}/D_{20} < 3.0$).

³Tests shall be combined hydrometer and wet sieving in compliance with ASTM D422 after destruction of organic matter by ignition.

C. Starter Fertilizer

1. Starter fertilizer shall bear the manufacturer's name and guaranteed statement of analysis, and shall be applied in accordance with the manufacturer's directions.
2. Starter fertilizer shall be Scott's Starter Fertilizer, or equal, with timed nitrogen release to prevent burning.

D. Lime

1. Lime shall be applied at the rates recommended in the soil analysis.

E. Seed

1. Seed shall be of the previous year's crop.
2. Required properties:
 - a. Purity > 90%

- b. Germination > 80%
 - c. Crop < 0.5%
 - d. Weed < 0.3%
 - e. Noxious Weed - 0%
 - f. Inert < 8%
3. Grass seed shall conform to the following mixture in proportion by weight and weed content and shall pass the minimum percentages of purity and germination as indicated for same.

Open Field Mix	% Weight
Red Fescue (Creeping)	60%
Red Top	10%
Crown Vetch	30%

4. All seed shall comply with State and Federal seed Laws and Regulations.

F. Mulch

1. Shall be a specially processed 100 percent Virgin wood fiber mulch containing no growth or germination-inhibiting factors. Wood fiber mulch shall be Second Nature Regenerated wood fiber as by Central Fiber Corporation, Wellsville, KS or equal. It shall be manufactured in such a manner that after addition and agitation in slurry tanks with water, the fibers in the material become uniformly suspended to form a homogenous slurry. When sprayed on the ground, the material shall allow absorption and percolation of moisture. Each package of the wood fiber shall be marked by the manufacturer to show the air dry weight content and not contain in excess of 10 percent moisture.

PART 3 EXECUTION

3.1 RESTORATION

- A. In locations where the Work passes through existing grass, weed brush or tree-surfaced areas that are not covered by a specific lawn repair item, surface restoration shall be as follows:
- 1. After completion of backfilling, the existing loam and organic ground cover materials that were salvaged during excavation shall be returned to the top of the trench.
 - 2. After natural settlement and compaction has taken place, the trench surface shall be harrowed, dragged and raked as necessary to produce a smooth and level surface.
 - 3. The area is then to be sowed with "orchard grass" or "rye grass" or other such materials to hold the soil and produce a growth similar to that existing prior to construction.

3.2 PREPARATION

- A. After rough grading of the subgrade has been completed and approved, the subgrade surface shall be scarified to a depth of four (4) inches. Then furnish and install a layer of loam providing a rolled four (4) inch thickness. Any depressions which may occur during rolling shall be filled with additional loam, regraded and rerolled until the surface is true to the finished lines and grades. All loam necessary to complete the Work under this section shall be supplied by the Contractor.
- B. The ground surface shall be fine graded and raked to prepare the surface of the loam for lime, fertilizer and seed.
- C. The loam shall be prepared to receive seed by removing stones and grading to eliminate water pockets and irregularities prior to placing seed. Finish grading shall result in straight uniform grades and smooth, even surfaces without irregularities to low points.
- D. All stones over one-half (½) inch in diameter remaining on the surface after raking shall be removed.
- E. Shape the areas to the lines and grades required. The Contractor's attention is directed to the scheduling of Loaming and Seeding of graded areas to permit sufficient time for the stabilization of these areas.
- F. All areas disturbed by construction within the property lines and not covered by structures, pavement, or bark mulch shall be loamed and seeded.
- G. Limestone shall be thoroughly incorporated into the loam layer at a minimum rate of 3 ton per acre or more as recommended by the loam analysis in order to provide a pH value of 5.5 to 6.5.
- H. Fertilizer shall be spread on the top layer of loam at the minimum rate of 500 pounds per acre or more as recommended by the loam analysis and worked into the surface

3.3 LOAM AND SEED AREAS

- A. For temporary protection of disturbed areas, seed shall be applied at the following rates:

Winter Rye (fall seeding)	2.5 pounds per 1,000 square feet
Oats (spring seeding)	2.5 pounds per 1,000 square feet
Mulch	1.5 tons per acre
- B. The seed mixtures shall be applied at a minimum rate of 200 pounds per acre, or 4.5 pounds per 1,000 square feet.
- C. Seed shall be sown at the rates indicated above by rotary or drop spreader. Sowing shall be done on a calm, dry day. Immediately before seeding, the soil shall be lightly raked. One half the seed shall be sown in one direction and the other half at right angles to the original direction. It shall be lightly raked into the soil to a depth not over 1/4 inch and rolled with a hand roller weighing not over 100 pounds per linear foot of width.

1. Straw mulch shall be applied immediately after seeding at a rate of 1.5 to 2 tons per acre. Mulch that blows or washes away shall be replaced immediately and anchored using appropriate techniques.
 2. The surface shall be watered and kept moist with a fine spray as required, without eroding the soil, until the grass is well established. Any areas, which are not satisfactorily covered with grass, shall be reseeded, and all noxious weeds shall be removed.
- D. Unless otherwise approved, seeding shall be done during the approximate periods of early Spring to May 20, and August 10 to September 15, when soil conditions and weather are suitable for such Work.

3.4 TEMPORARY PLANTINGS

- A. For temporary plantings after September to early Spring and for temporary protection of disturbed areas.
1. Fertilizer shall be spread and worked into the surface at a rate of 600 pounds per acre.
 2. Mulching shall be applied at the rate of three (3) tons/acre.
 3. Follow above seeding rates and procedures.

3.5 MAINTENANCE

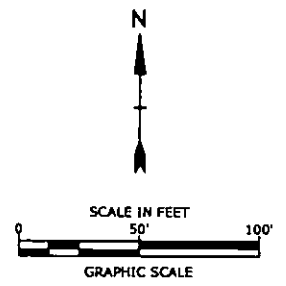
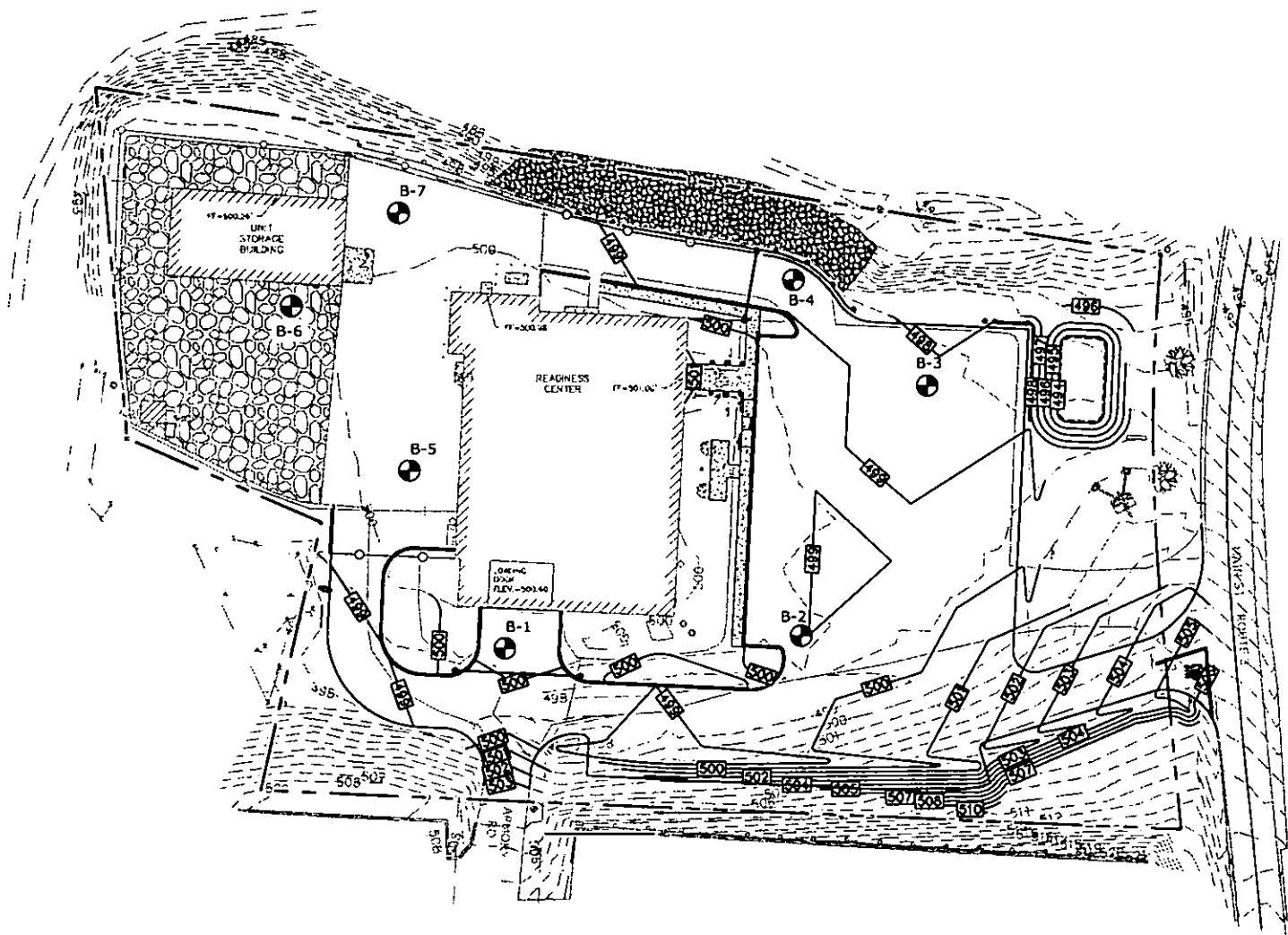
- A. Maintenance shall include watering, weeding, removal of stones and other foreign objects over one half (½) inch in diameter, cutting the grass until final acceptance. Mow at least weekly, removing no more than 30-40 percent of the leaf tissue using well sharpened blades. Mow grass between one (1) and two (2) inches high in the spring and fall. Mowing heights shall be an additional one-half to an inch in the summer to reduce temperature stress. Leave the clippings in place to help recycle essential plant nutrients needed for growth. All bare or dead spots which become apparent shall be properly prepared, re-loamed, limed, aerated, fertilized, and reseeded as many times as necessary to secure a good growth. The entire area shall be maintained, watered and cut until final acceptance of the lawn installation.
- B. The dressed and seeded areas shall be sprinkled with water as necessary from time to time. Signs and barricades should be placed to protect the seeded areas.
- C. To be acceptable, seeded areas shall consist of a uniform stand without bare or dead spots of at least 90 percent established permanent grass species, with uniform count of at least 200 plants per square foot.
- D. The Owner's Representative shall determine whether maintenance shall continue in any part.
- E. After all necessary corrective Work and clean-up has been completed, and maintenance instructions have been received by the Owner, the Owner's Representative will certify in writing the acceptance of the lawns.
- F. Substantial Completion will not be achieved until the seeded areas have demonstrated a satisfactory stand of growth as determined by the Owner's Representative. Seeded areas not demonstrating satisfactory stands as outlined

above, as determined by the Owner's Representative, shall be renovated, reseeded and maintained meeting all requirements as specified herein.

END OF SECTION

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LEGEND:
● B-1 APPROXIMATE LOCATION OF TEST BORING PERFORMED BY NEW ENGLAND BORING CONTRACTORS OF DERRY, NH ON APRIL 21, 2017

SUBSURFACE EXPLORATION LOCATION PLAN	
NEW HAMPSHIRE ARMY NATIONAL GUARD MAIN STREET/ROUTE 3 PLYMOUTH, NEW HAMPSHIRE	
DATE: 01/24/2018	Tighe & Bond Engineers Environmental Specialists
SCALE: AS SHOWN	
FIGURE: #1	

Tighe & Bond

Engineers | Environmental Specialists

Project: NHARNG Site Improvements
 Location: 19 Armory Road, Plymouth, NH
 Client: New Hampshire Army National Guard

Boring No. B-1
 Page 1 of 1
 File No. N-0967-028
 Checked by: D. Brogan

Drilling Co.: New England Boring Contractors

Foreman: B. Raiche Type
 T&B Rep.: J. Keefe I.D./O.D.
 Date Start: 04/21/17 End: 04/21/17 Hammer Wt.
 Location: See Exploration Location Plan Hammer Fall
 GS. Elev. ± 490' Datum: NAVD88 Other

Casing HSA Sampler Split Spoon
2.25"/6.25" 1-3/8"/2"
140#
30"
Donut Hammer

Groundwater Readings				
Date	Time	Depth	Casing	Sta. Time
NOT ENCOUNTERED				

Depth (ft.)	Casing Blows Per Ft.	Sample No. / Rec. (in)	Sample Depth (ft.)	Blows Per 6"	Sample Description	General Stratigraphy	Notes	Well Construction
5		S-1/11	0.5-2.5	8-8	2" of brown, fine to medium SAND and SILT, little Gravel, over 11" of medium dense, brown, fine SAND and SILT, trace Gravel 9" of medium dense, brown to light brown, fine SAND and SILT, over 10" of medium dense, light brown, fine SAND, trace Silt 6" of brown, fine SAND and SILT, over 10" of medium dense, red-brown, fine to medium SAND, trace Silt, trace Gravel Bottom of exploration at 6.5'	0.3' ASPHALT		No Well Installed
				9-8		SAND and SILT		
		S-2/19	2.5-4.5	9-14		3.3' SAND		
				14-17		4.5' SAND		
		S-3/16	4.5-6.5	15-15		5' SAND and SILT		
			15-18	SAND				
10								
15								
20								
25								
30								

Notes:

Proportions Used		Density/Consistency	
TRACE (TR.)	0 - <10%	VERY LOOSE	0-4 VERY SOFT <2
LITTLE (LI.)	10 - <20%	LOOSE	4-10 SOFT 2-4
SOME (SO.)	20 - <35%	MEDIUM DENSE	10-30 MEDIUM 4-8
AND	35 - <50%	DENSE	30-50 STIFF 8-15
		VERY DENSE	>50 VERY STIFF 15-30
			HARD >30

Tighe & Bond

Engineers | Environmental Specialists

Project: NHARNG Site Improvements
 Location: 19 Armory Road, Plymouth, NH
 Client: New Hampshire Army National Guard

Boring No. B-2

Page 1 of 1

File No. N-0967-028

Checked by: D. Brogan

Drilling Co.: New England Boring Contractors

Foreman: B. Raiche
 T&B Rep.: J. Keefe
 Date Start: 04/21/17 End: 04/21/17
 Location: See Exploration Location Plan
 GS. Elev. ± 499' Datum: NAVD88

Type: _____
 I.D./O.D. _____
 Hammer Wt. _____
 Hammer Fall _____
 Other _____

Casing: HSA
 Sampler: Split Spoon
2.25"/6.25"
1-3/8"/2"
140#
30"
Donut Hammer

Groundwater Readings				
Date	Time	Depth	Casing	Sta. Time
NOT ENCOUNTERED				

Depth (ft.)	Casing Blows Per Ft.	Sample No. / Rec. (in)	Sample Depth (ft.)	Blows Per 6"	Sample Description	General Stratigraphy	Notes	Well Construction
5		S-1/12	0.5-2.5	17-10	6" of dark brown, fine to coarse SAND, some Gravel, trace Silt, over 6" of medium dense, grey, fine SAND and SILT	0.3' ASPHALT 1' SAND		No Well Installed
				10-11				
		S-2/11	2.5-4.5	8-9	Medium dense, grey-brown, fine SAND and SILT, trace Gravel	SAND and SILT		
				8-20				
		S-3/13	4.5-6.5	10-13	Medium dense, red-brown, fine SAND and SILT			
			16-14					
10					Bottom of exploration at 6.5'			
15								
20								
25								
30								

Notes:

Proportions Used	
TRACE (TR.)	0 - <10%
LITTLE (LI.)	10 - <20%
SOME (SO.)	20 - <35%
AND	35 - <50%

Density/Consistency		
VERY LOOSE	0-4	VERY SOFT <2
LOOSE	4-10	SOFT 2-4
MEDIUM DENSE	10-30	MEDIUM 4-8
DENSE	30-50	STIFF 8-15
VERY DENSE	>50	VERY STIFF 15-30
		HARD >30

Project: NHARNG Site Improvements
 Location: 19 Armory Road, Plymouth, NH
 Client: New Hampshire Army National Guard

Boring No. B-3

Page 1 of 1

File No. N-0967-028

Checked by: D. Brogan

Drilling Co.: New England Boring Contractors

Foreman: B. Raiche

T&B Rep.: J. Keefe

Date Start: 04/21/17 End: 04/21/17

Location: See Exploration Location Plan

GS. Elev. ± 498' Datum: NAVD88

Type: _____
 I.D./O.D. _____
 Hammer Wt. _____
 Hammer Fall _____
 Other _____

Casing: HSA
2.25" / 6.25"

Sampler: Split Spoon
1-3/8" / 2"
140#
30"
Donut Hammer

Groundwater Readings

Date	Time	Depth	Casing	Sta. Time
NOT ENCOUNTERED				

Depth (ft.)	Casing Blows Per Ft.	Sample No. / Rec. (in)	Sample Depth (ft.)	Blows Per 6"	Sample Description	General Stratigraphy	Notes	Well Construction
5		S-1/11	0.5-2.5	11-10	Medium dense, grey, fine SAND, some Silt, trace Gravel	0.2' ASPHALT		No Well Installed
				8-7		SAND		
		S-2/15	2.5-4.5	7-7	Medium dense, grey-brown, fine SAND and SILT, trace Gravel	2.5' SAND and SILT		
		S-3/11	4.5-6.5	14-14	Medium dense, light brown, fine to coarse SAND and GRAVEL, trace Silt	4.5' SAND and GRAVEL		
				13-10				
					Bottom of exploration at 6.5'			
10								
15								
20								
25								
30								

Notes:

Proportions Used		Density/Consistency	
TRACE (TR.)	0 - <10%	VERY LOOSE	0-4 VERY SOFT <2
LITTLE (L.)	10 - <20%	LOOSE	4-10 SOFT 2-4
SOME (SO.)	20 - <35%	MEDIUM DENSE	10-30 MEDIUM 4-8
AND	35 - <50%	DENSE	30-50 STIFF 8-15
		VERY DENSE	>50 VERY STIFF 15-30
			HARD >30

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Engineers | Environmental Specialists

Project: NHARNG Site Improvements
 Location: 19 Armory Road, Plymouth, NH
 Client: New Hampshire Army National Guard

Boring No. B-4

Page 1 of 1

File No. N-0967-028

Checked by: D. Brogan

Drilling Co.: New England Boring Contractors

Foreman: B. Raiche

T&B Rep.: J. Keefe

Date Start: 04/21/17 End: 04/21/17

Location: See Exploration Location Plan

GS. Elev. ± 498' Datum: NAVD88

Type	Casing	Sampler
I.D./O.D.	HSA	Split Spoon
Hammer Wt.	2.25"/6.25"	1-3/8"/2"
Hammer Fall		140#
Other		30"
		Donut Hammer

Groundwater Readings				
Date	Time	Depth	Casing	Sta. Time
NOT ENCOUNTERED				

Depth (ft.)	Casing Blows Per Ft.	Sample No. / Rec. (in)	Sample Depth (ft.)	Blows Per 6"	Sample Description	General Stratigraphy	Notes	Well Construction
5		S-1/13	0.5-2.5	16-32	6" of brown-grey, fine to coarse SAND and GRAVEL, some Silt, over 7" of very dense, brown-grey, fine to medium SAND and GRAVEL, little Silt	0.3' ASPHALT		No Well Installed
				41-25		SAND and GRAVEL		
		S-2/13	2.5-4.5	45-49	Very dense, brown-grey, fine to medium SAND, little Gravel, little Silt	2.5'		
				35-30		SAND		
		S-3/6	4.5-6.5	23-50/5"	Very dense, brown, fine to coarse, SAND, trace Gravel, trace Silt			
					Bottom of exploration at 5.4'			
10								
15								
20								
25								
30								

Notes:	Proportions Used		Density/Consistency				
	TRACE (TR.)	0 - <10%	VERY LOOSE	0-4	VERY SOFT	<2	
	LITTLE (LI.)	10 - <20%	LOOSE	4-10	SOFT	2-4	
	SOME (SO.)	20 - <35%	MEDIUM DENSE	10-30	MEDIUM	4-8	
	AND	35 - <50%	DENSE	30-50	STIFF	8-15	
				VERY DENSE	15-30	HARD	>30

Tighe & Bond

Engineers | Environmental Specialists

Project: NHARNG Site Improvements
 Location: 19 Armory Road, Plymouth, NH
 Client: New Hampshire Army National Guard

Boring No. B-5

Page 1 of 1

File No. N-0967-028

Checked by: D. Brogan

Drilling Co.: New England Boring Contractors

Foreman: B. Raiche

T&B Rep.: J. Keefe

Date Start: 04/21/17 End: 04/21/17

Location: See Exploration Location Plan

GS. Elev. ± 500' Datum: NAVD88

Type	Casing	Sampler
	HSA	Split Spoon
	2.25"/6.25"	1-3/8"/2"
		140#
		30"
		Donut Hammer

Groundwater Readings				
Date	Time	Depth	Casing	Sta. Time
NOT ENCOUNTERED				

Depth (ft.)	Casing Blows Per Ft.	Sample No. / Rec. (in)	Sample Depth (ft.)	Blows Per 6"	Sample Description	General Stratigraphy	N o t e s	Well Construction
5		S-1/10	0.5-2.5	12-10	Medium dense, brown-grey, fine to coarse SAND and GRAVEL, trace Silt	0.3' ASPHALT		No Well Installed
				12-17		SAND and GRAVEL		
		S-2/17	2.5-4.5	14-12	Medium dense, brown-grey, fine SAND and SILT	2.5'		
				12-14				
	S-3/15	4.5-6.5	8-14	Medium dense, brown-grey to red-brown, fine SAND and SILT	SAND and SILT			
			14-12					
					Bottom of exploration at 6.5'			
10								
15								
20								
25								
30								

Notes:

Proportions Used		Density/Consistency	
TRACE (TR.)	0 - <10%	VERY LOOSE	0-4 VERY SOFT <2
LITTLE (LI.)	10 - <20%	LOOSE	4-10 SOFT 2-4
SOME (SO.)	20 - <35%	MEDIUM DENSE	10-30 MEDIUM 4-8
AND	35 - <50%	DENSE	30-50 STIFF 8-15
		VERY DENSE	>50 VERY STIFF 15-30
			HARD >30

Tighe & Bond

Engineers | Environmental Specialists

Project: NHARNG Site Improvements
 Location: 19 Armory Road, Plymouth, NH
 Client: New Hampshire Army National Guard

Boring No. B-6

Page 1 of 1

File No. N-0967-028

Checked by: D. Brogan

Drilling Co.: New England Boring Contractors

Foreman: B. Raiche

T&B Rep.: J. Keefe

Date Start: 04/21/17 End: 04/21/17

Location: See Exploration Location Plan

GS. Elev. ± 500' Datum: NAVD88

Type: _____
 I.D./O.D. _____
 Hammer Wt. _____
 Hammer Fall _____
 Other _____

Casing: HSA
 Sampler: Split Spoon
2.25"/6.25" 1-3/8"/2"
140#
30"
Donut Hammer

Groundwater Readings

Date	Time	Depth	Casing	Sta. Time
NOT ENCOUNTERED				

Depth (ft.)	Casing Blows Per Ft.	Sample No.	Sample Depth (ft.)	Blows Per 6"	Sample Description	General Stratigraphy	N o t e s	Well Construction
		Rec. (in)						
5		S1/13	0-2	4-6	Medium dense, dark brown, fine SAND, some Silt	SAND		No Well Installed
				7-8				
		S2/16	2-4	9-12				
				11-11				
		S3/17	4-6	6-9	Medium dense, light brown, fine SAND, little Silt			
				6-7				
					Bottom of exploration at 6'			
10								
15								
20								
25								
30								

Notes:

Proportions Used

TRACE (TR.)	0 - <10%
LITTLE (LI.)	10 - <20%
SOME (SO.)	20 - <35%
AND	35 - <50%

Density/Consistency

VERY LOOSE	0-4	VERY SOFT	<2
LOOSE	4-10	SOFT	2-4
MEDIUM DENSE	10-30	MEDIUM	4-8
DENSE	30-50	STIFF	8-15
VERY DENSE	>50	VERY STIFF	15-30
		HARD	>30

Tighe & Bond

Engineers | Environmental Specialists

Project: NHARNG Site Improvements
 Location: 19 Armory Road, Plymouth, NH
 Client: New Hampshire Army National Guard

Boring No. B-7

Page 1 of 1

File No. N-0967-028

Checked by: D. Brogan

Drilling Co.: New England Boring Contractors

Foreman: B. Raiche

T&B Rep.: J. Keefe

Date Start: 04/21/17 End: 04/21/17

Location: See Exploration Location Plan

GS. Elev. ± 500' Datum: NAVD88

Casing		Sampler	
Type	HSA	Split Spoon	
I.D./O.D.	2.25"/6.25"	1-3/8"/2"	
Hammer Wt.		140#	
Hammer Fall		30"	
Other		Donut Hammer	

Groundwater Readings

Date	Time	Depth	Casing	Sta. Time
NOT ENCOUNTERED				

Depth (ft.)	Casing Blows Per Ft.	Sample No.	Sample Depth (ft.)	Blows Per 6"	Sample Description	General Stratigraphy	Notes	Well Construction
		Rec. (in)						
5		S1/7	0.5-2.5	9-10	Very dense, brown-grey, fine to coarse SAND and GRAVEL, trace Silt 4" of brown-grey, fine to coarse SAND and GRAVEL, trace Silt, over, 9" of medium dense, light brown, fine SAND, some Silt Medium dense, light brown, fine SAND, some Silt	0.3' ASPHALT		No Well Installed
				27-23		SAND and GRAVEL		
		S2/13	2.5-4.5	21-12		2.8'		
				14-12		SAND		
		S3/19	4.5-6.5	10-8				
				10-8				
					Bottom of exploration at 6.5'			
10								
15								
20								
25								
30								

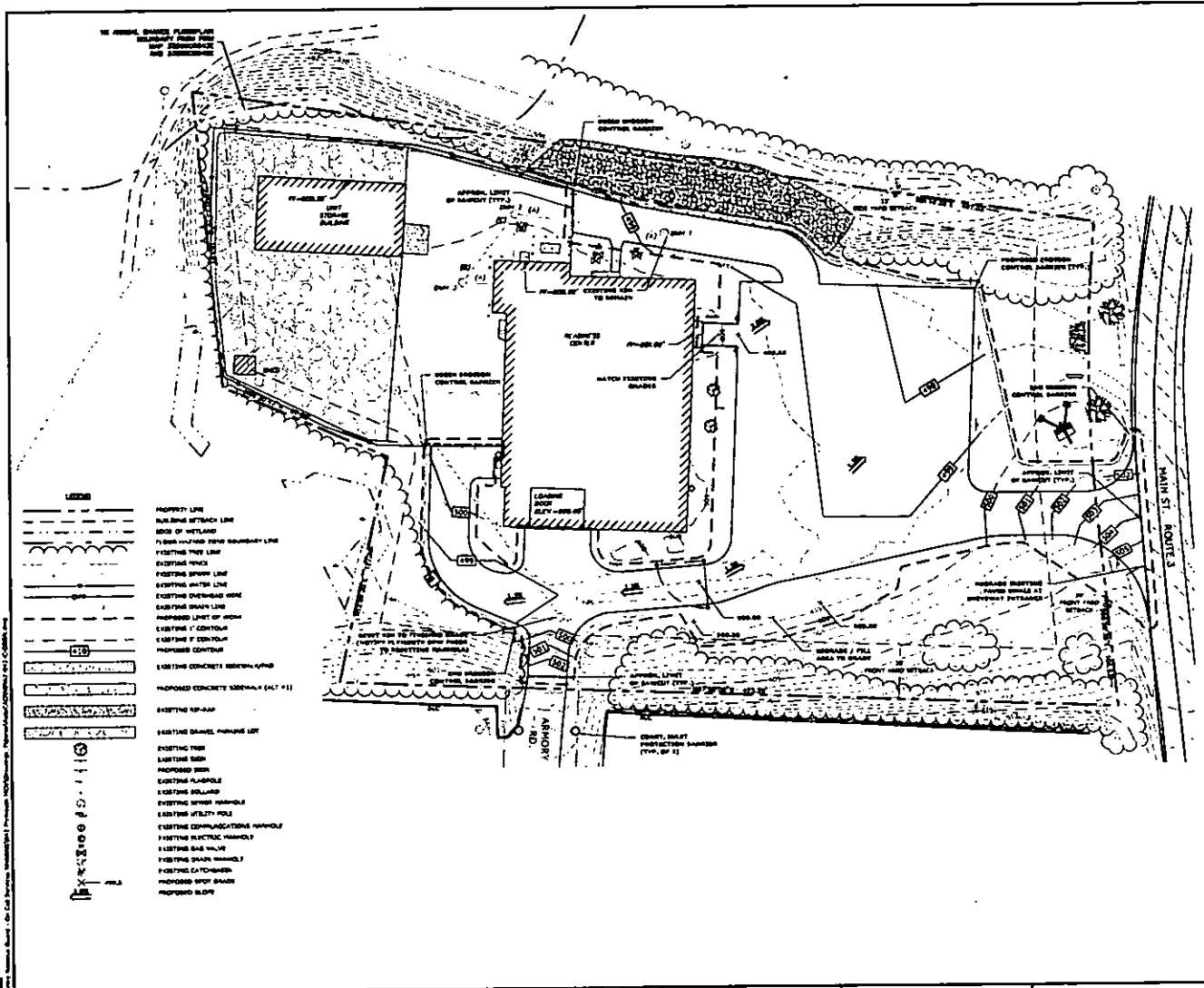
Notes:

Proportions Used

TRACE (TR.)	0 - <10%
LITTLE (LI.)	10 - <20%
SOME (SO.)	20 - <35%
AND	35 - <50%

Density/Consistency

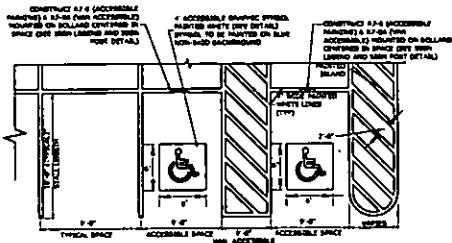
VERY LOOSE	0-4	VERY SOFT	<2
LOOSE	4-10	SOFT	2-4
MEDIUM DENSE	10-30	MEDIUM	4-8
DENSE	30-50	STIFF	8-15
VERY DENSE	>50	VERY STIFF	15-30
		HARD	>30



- SECTION 6. MATERIALS:**
- CONCRETE REQUIREMENTS:**
 - 6.01. BULK HEADS ON CONCRETE AREAS 90%
 - 6.02. FRENCH DRAINAGE PATTERNS AND SAND FILLABLE BLOCKS 90%
 - 6.03. BLOCK LEAF AND SPACERS 90%
 - ALL PERCENTAGES OF CONCRECTION SHALL BE OF THE HIGHEST QUALITY COMPLYING WITH THE REQUIREMENTS OF THE CONCRETE TESTING METHOD C-120, METHOD C-120.2 FIELD COMBUSTION TESTS SHALL BE MADE IN ACCORDANCE WITH METHOD C-120.2.1.2.
 - ALL FRESH DRAINAGE PIPES SHALL BE HIGH DENSITY POLYETHYLENE (HDPE) 40-60, SIZE 4-12 OR APPROVED EQUAL OR HIGHER CLASS IF, UNLESS OTHERWISE SPECIFIED.
 - SEE UTILITY PLAN FOR ALL UTILITY INFORMATION.
 - ADJUST ALL MANHOLES, CATCHBASINS, CURB BOWLS, ETC. TO FINISH GRADE.
 - CONTRACTOR SHALL PROVIDE A FINISH PAVED SURFACE AND LAWN AREAS FREE OF ANY SPOTS AND HOLES AREAS. CRACKS SHALL BE REPAIRED IMMEDIATELY. DIRT, SAND, AND LOOSE SOIL SHALL BE REMOVED FROM THE SURFACE.
 - CONTRACTOR SHALL THROUGHLY CLEAN ALL CATCHBASINS AND DRAIN LINES, WITHIN THE LIMITS OF WORK, AT THE TIME OF COMPLETION OF CONSTRUCTION.
 - ALL MATERIALS AND CONSTRUCTION SHALL COMPLY WITH APPLICABLE FEDERAL, STATE AND LOCAL CODES.
 - ALL STORM DRAIN CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION (DOT) STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, LATEST EDITION.
 - ALL MATERIALS AND CONSTRUCTION SHALL COMPLY WITH APPLICABLE FEDERAL, STATE AND LOCAL CODES OF A HEALTH DEPARTMENT OF PUBLIC WORKS AND CONSTRUCTION SPECIFICATIONS, LATEST REVISIONS.
- SECTION 7. EROSION CONTROL:**
- INITIAL EROSION CONTROL MEASURES AS SHOWN AS FIRST ORDER OF WORK.
 - SEE GENERAL EROSION CONTROL NOTES ON DETAIL SHEETS.
 - PROVIDE DIRT PROTECTION AROUND ALL EXISTING AND PROPOSED CATCHBASINS WITHIN THE WORK LIMITS. MAINTAIN FOR THE DURATION OF THE PROJECT UNTIL PAVEMENT HAS BEEN INSTALLED.
 - INITIAL STABILIZED CONSTRUCTION ENTRANCES AS SHOWN.
 - DIRT PROTECTION SHALL BE INSTALLED AND MAINTAINED AT ALL TIMES AND SHALL BE REPAIRED IMMEDIATELY. REPAIRS SHALL BE MADE AS NECESSARY TO MAINTAIN EFFECTIVENESS OF FILTERS. REPLACE ALL FILTERS WHEN SEDIMENT IS 1/2 THE FILTER HEIGHT.
 - ALL ENTRANCES SHALL BE TO BE MADE OF STABILIZED MATERIALS SHALL BE AT LEAST 4' HIGH, 10' WIDE, AND SHALL BE CONSTRUCTED TO WITHSTAND 4000 LB. OF WEIGHT.
 - PROVIDE 10' HIGH BARRIERS OR SOIL BERM BARRIERS AT ALL EXITS FROM THE PROPERTY, INCLUDING HOLES OF EARTH, THE BARRIERS SHALL BE INSTALLED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. BARRIERS SHALL BE INSTALLED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
 - CONTRACTOR SHALL REMOVE AND PROPERLY DEPOSE OF ALL TEMPORARY EROSION CONTROL DEVICES UPON COMPLETION OF CONSTRUCTION.
 - TEMPORARY SOIL STRUCTURES SHALL BE MAINTAINED BY SETTING AND SHALL BE STABILIZED BY TEMPORARY EROSION CONTROL DEVICES. STRUCTURES SHALL BE LOCATED AS FAR AS POSSIBLE FROM THE DELIMITED BOUNDARY OF WETLANDS.

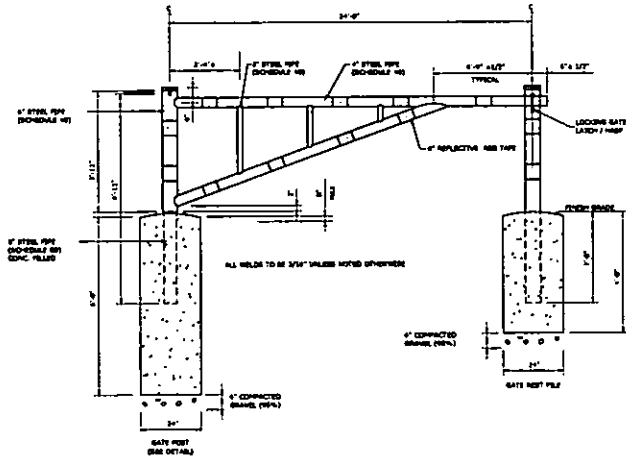
- LEGEND**
- HIGHWAY LINE
 - RAILROAD TRACK LINE
 - BOUNDARY OF WETLAND
 - PLUMB LINE FROM BOUNDARY LINE
 - EXISTING FENCE
 - EXISTING DRIVE LINE
 - EXISTING WATER LINE
 - EXISTING OVERHEAD WIRE
 - EXISTING SEWER LINE
 - PROPOSED LIMIT OF WORK
 - EXISTING 1" CONTOUR
 - EXISTING 2" CONTOUR
 - PROPOSED CONTOUR
 - EXISTING CONCRETE SIDEWALK
 - PROPOSED CONCRETE SIDEWALK (S1)
 - EXISTING ASPHALT
 - EXISTING BRICK PAVING
 - EXISTING TRAIL
 - EXISTING SIGN
 - PROPOSED SIGN
 - EXISTING PLUMBLINE
 - EXISTING BOLLARD
 - EXISTING SEWER MANHOLE
 - EXISTING UTILITY HOLE
 - EXISTING COMMUNICATIONS MANHOLE
 - EXISTING ELECTRIC MANHOLE
 - EXISTING GAS VALVE
 - EXISTING DRAIN MANHOLE
 - EXISTING CATCHBASIN
 - PROPOSED SPOT GRADE
 - PROPOSED SLOPE

		Tighe & Bond www.tigheandbond.com 177 Corporate Drive Portsmouth, NH 03801 (603) 433-8818	STATE OF NEW HAMPSHIRE ADJUTANT GENERAL'S DEPARTMENT - FM CONSTRUCTION MAIN OFFICE		REVISIONS NO. DESCRIPTION BY	PLYMOUTH POW SITE IMPROVEMENTS 19 ARMORY DRIVE PLYMOUTH, NH
			1 REVISIONARY WAY CONCORD, NEW HAMPSHIRE 60303-8443 (NH) 775-1388		SHEET NO. 10 TOTAL SHEETS 10	DATE 12/16/16

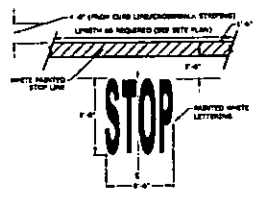


- NOTES:**
1. ALL HEIGHT SHALL BE MET DURING TRAFFIC PAINT, MEETING THE REQUIREMENTS OF ADA AND 108 TYPE 7. PAINT SHALL BE APPLIED AS SPECIFIED BY MANUFACTURER.
 2. STRIPES & WHEELCHAIR SYMBOLS SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT AND LOCAL, STATE REQUIREMENTS.
 3. TRAFFIC PAINT BACKED AT ALL ACCESSIBLE SPACES/STALLS AND PAINTED ACCESSIBLE MARKS SHALL NOT EXCEED 1% IN ANY DIRECTION.

STALL STRIPING SINGLE STRIPE
NO SCALE

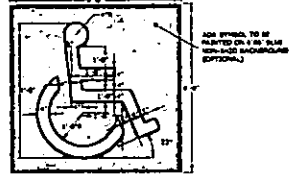


SWING GATE
NO SCALE



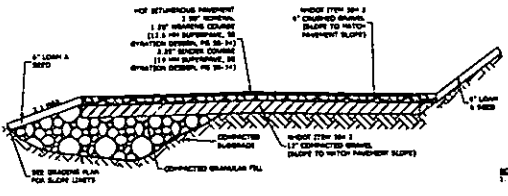
- NOTES:**
1. STOP BARS AND LEGENDS AS SHOWN ON SITE PLAN.
 2. STOP BARS AND LEGENDS SHALL BE CONSTRUCTED AS PER TRAFFIC PAINTING MEET, MEETING THE REQUIREMENTS OF ADA AND 108 TYPE 7. PAINT SHALL BE APPLIED AS SPECIFIED BY MANUFACTURER.

STOP BAR AND LEGEND
NO SCALE

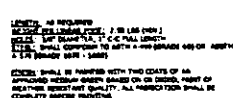
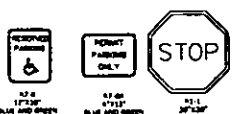
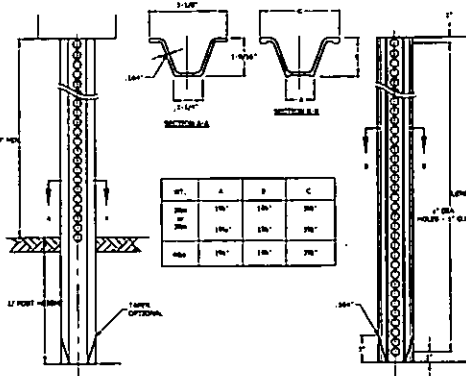


- NOTES:**
1. SYMBOL SHALL BE CONSTRUCTED IN ALL ACCESSIBLE SPACES MEETING THE REQUIREMENTS OF ADA AND 108 TYPE 7. PAINT SHALL BE APPLIED AS SPECIFIED BY MANUFACTURER.
 2. SYMBOL SHALL BE CONSTRUCTED TO THE LATEST ADA, STATE AND LOCAL REQUIREMENTS.

ACCESSIBLE PARKING SYMBOL
NO SCALE



FULL DEPTH BITUMINOUS PAVEMENT SECTION
NO SCALE



TYPICAL METAL SIGN POSTS & LEGEND
NO SCALE



Tight & Bond
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STATE OF NEW HAMPSHIRE
ADJUTANT GENERAL'S DEPARTMENT - FM
CONSTRUCTION MAIN OFFICE
1 HENRIETTA WAY
CONCORD, NEW HAMPSHIRE
03302-0462 (603) 729-1288

DATE	REVISIONS	BY

PLYMOUTH POV SITE IMPROVEMENTS
19 ARMORY DRIVE
PLYMOUTH, NH

DETAILS SHEET
DATE: 06/20/2018
BY: J. SMITH
C-502