

SPECIFICATIONS

For the

Exeter 40436/X-A004(406) Kingston Road TAP Project

Transportation Alternatives Program (TAP)

**Rockingham County
TOWN of Exeter, New Hampshire
April 2023**

**Prepared For:
Town of Exeter
Public Works Department
13 Newfields Road
Exeter, New Hampshire 03833**



Prepared By:



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Exeter 40436 / X-A004 (406)
Kingston Road TAP Project
Transportation Alternatives Program (TAP)

CONTRACT DOCUMENTS AND TECHNICAL SPECIFICATIONS

April 2023

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Section A
SPECIAL CONDITIONS

Prosecution of Work
Traffic Control Plan

PROSECUTION OF WORK

A. DESCRIPTION OF WORK

This Federally funded Transportation Alternative Program (TAP) project involves installing shoulders along both sides of Kingston Road between the Little River Bridge and Pickpocket Road (approximately 1 mile), will include improvements at Brickyard Park driveway/gravel shoulder, and enhance pedestrian crossings. Shoulder widening will involve removal of existing features and installation of sub-base, pavement, and side slopes, as well as modifying/replacing existing drainage pipes and structures, reconstructing driveways, clearing trees and vegetation (where they conflict with proposed work or restrict sight distances), erecting signage, and modifying utilities, as may be required. A 5 ft bituminous sidewalk will be installed along the southern side of Kingston Road from Tamarind Lane to the bridge over the Little River (approximately 3,000 ft). The sidewalk will be separated from the road by a 5 ft grass panel, with some panels containing a Bio Retention Swale.

B. CONTRACT TIME / CONSTRUCTION PHASING

The CONTRACTOR shall be prepared to commence work no later than the date on the Notice to Proceed.

All work must be substantially completed within 90 calendar days of active construction from the start date of the Notice to Proceed. The active construction is anticipated to run between June 2023 and August 2023.

If the CONTRACTOR feels that improvements can be made to expedite or streamline operations for this project, a written proposal with any necessary plans shall be submitted for consideration and approval.

C. SURVEY LAYOUT & CONTROL

Benchmarks and horizontal control points were established during the survey and have been shown on the project plans. The CONTRACTOR is to use this information for their lay out of the work.

The CONTRACTOR shall be responsible for the preservation of all bench marks and control points. If any of the control points are disturbed by the CONTRACTOR during the construction, the CONTRACTOR shall replace them at no expense to the OWNER. Damaged or destroyed points, bench marks or stakes, or any reference points damaged or made inaccessible by the progress of the construction shall be replaced or transferred by the CONTRACTOR, subject to verification by the ENGINEER. Replacement of any layout points shall be performed by or under the direction of a NH Licensed Land Surveyor.

The CONTRACTOR shall perform all necessary layout work in order to construct all elements of the Project as shown on the Plans and specified in the Contract. This work shall include, but shall not be limited to, stakeout necessary to establish lines and grades as earthwork operations progress; stakeout, layout, and elevations as required for installing all items included in the work.

The CONTRACTOR shall perform all required layout work with competent, qualified personnel in a manner consistent with the current survey/layout practices and acceptable to the ENGINEER. Any error, apparent discrepancy, or absence of data in the initial layout shall be referred to the ENGINEER in writing for correction or interpretation. The CONTRACTOR is solely responsible for the accuracy of the Work.

The ENGINEER may check all or any portion of the layout and stake-out made by the CONTRACTOR. Any necessary correction to the Work shall be made immediately by the CONTRACTOR. Such checking by the ENGINEER will not relieve the CONTRACTOR of any responsibilities for the accuracy or completeness of the work.

No claim will be considered because of alleged inaccuracies unless the CONTRACTOR notifies the ENGINEER thereof in writing immediately upon discovery of the alleged inaccuracies and affords the ENGINEER a reasonable opportunity to check or verify the control in question.

D. UTILITIES

1. General

There are utilities in the project area belonging to, but not limited to, those indicated below.

Company: **Town of Exeter**
Address: 13 Newfields Road
Exeter, NH 03833
Contact: Nils Larson
Engineering Technician
Phone: (603) 772-1345
Email: nlarsonp@exeternh.gov

Company: **Consolidated Communications**
Address: 1575 Greenland Road
Greenland, NH 03840
Contact: Joseph Considine
OSP Engineer III
Phone: (603) 427-5525
Email: joseph.considine@consolidated.com

Company: **Unitil (Electric)**
Address: 30 Energy Way
Exeter, NH 03833
Contact: Patrick Aquilina
Manager, Electric Operations
Mobile: (603) 777-5546
Email: aquilina@unitil.com

Company: **Unitil (Gas)**
Address: 325 West Road
Portsmouth, NH 03801
Contact: Michael Dunn
Gas Engineer
Mobile: (603) 973-1080
Email: pattersont@unitil.com

Company: **Comcast (Cable)**
Address: 334B Calef Highway
Epping, NH 03042
Contact: Mike Collins
Specialist Construction
Phone: (603) 679-5695 x1037
Email: mke_collins@cable.comcast.com

Company: **Exeter Fire Department**
Address: 20 Court Street
Exeter, NH 03833
Contact: Eric Wilking
Fire Chief
Phone: (603) 773-6131
Email: ewilking@exeternh.gov

Company: **Granite State Gas Transmission**
Address: 6 Liberty Lane
West Hampton, NH 03842
Contact: Brian Chaput
Supervisor
Phone: (603) 812-5982

Company: **Maritimes & Northeast Pipeline**
Address: 890 Winter Street
Suite 300
Waltham, MA 02451
Phone: (617) 254-4050

2. Coordination with Utilities

Utility facilities and appurtenances within the construction limits are shown on the Plans. Facilities which are required to be relocated shall be relocated or adjusted by the utility, unless otherwise specified. The locations of these utilities shown on the Plans may not be exact, particularly with regard to underground installations. The CONTRACTOR'S work procedures are to account for the inaccuracy inherent in the representation of their location. Attention is directed to the possible existence of underground facilities that are unknown.

New Hampshire State Law, RSA 374:48-56, requires that anyone who excavates in a public way or utility easement must notify the utility damage prevention system, DIG-SAFE, at least 72 hours prior to starting work.

The CONTRACTOR shall be responsible to notify the DIG-SAFE Call Center (tel. no. 811) at least 72 hours in advance of starting any excavation or erecting permanent construction signing. Saturdays, Sundays, and legal holidays are not to be included in the computation of the required 72 hour notice.

Notice of intent to excavate cannot be made more than 30 days prior to actual work. All utility facilities within the proposed Work, including advance construction sign locations, should be identified and marked prior to construction. Suspension of the Work for more than 30 days at any time will require re-notification of the DIG-SAFE Center to ensure validity of markings and to protect interim utility construction.

The CONTRACTOR shall also notify municipal and privately owned utilities to identify, locate, and mark their facilities separately from those to be located through the DIG-SAFE system. Once located and marked, the CONTRACTOR shall maintain all utility markings and provide access to any and all installations to permit repairs and maintenance of service as needed.

The CONTRACTOR shall cooperate with utility owners in the removal and rearrangement of underground or overhead utility facilities to minimize interruption to utility services and duplication of work by the utility owners.

Facilities or appurtenances that are to remain in place during construction shall be accounted for and protected by the CONTRACTOR'S work procedures. The fact that any underground facility is not shown upon the plans shall not relieve the CONTRACTOR of its responsibility under this Section.

In the event utility services are interrupted as a result of damage within the Limits of Construction, the CONTRACTOR shall notify the appropriate utility authorities and cooperate with them until service has been restored. Work shall not commence around fire hydrants until provisions for continued service have been made and approved by the local fire authority.

Repairs to damaged utilities caused by the CONTRACTOR shall be corrected at the CONTRACTOR'S expense. The damaged facilities shall be restored to a serviceable condition similar or equal to that existing before the damage occurred.

3. Prosecution and Progress

Unless otherwise addressed in these Contract Documents, there will be no additional compensation or claims of delay granted by the OWNER for complications or conflicts that may arise between the CONTRACTOR and utility companies during construction. The CONTRACTOR shall plan and coordinate his work accordingly so as to avoid/minimize any potential scope or scheduling conflicts.

E. UTILITY RELOCATIONS

Unitil (Electric), Consolidated Communications, and Comcast have existing aerial facilities in the project area. Pole relocations (by others) on Kingston Road are at approximately:

- Sta 109+19.6 RT
- Sta. 110+80.9 RT
- Sta. 112+40.7 LT
- Sta. 112+42.6 RT
- Sta. 115+88.9 RT
- Sta. 115+90.0 LT
- Sta. 127+01.8 LT
- Sta. 130+29.0 RT
- Sta. 132+03.4 RT
- Sta. 138+54.9 LT
- Sta. 142+01.6 RT
- Sta. 146+05.7 LT
- Sta. 149+19.5 LT
- Sta. 152+52.2 LT

Guy wire relocations/sidewalk bracket installations at approximately Sta. 138+76 RT, Sta. 140+31 RT, and Sta. 142+01.6 RT (multiple), along with a pedestal being removed and replaced with a pull box at approximately Sta. 130+30 RT, are planned as part of this project.

Unitil,(Gas) has existing underground gas facilities in the project area. Gas main relocations (by others) on Kingston Road are at approximately:

- Sta. 127+85 RT to Sta. 129+95 RT
- Sta. 134+20 RT to Sta. 136+65 RT
- Sta. 148+00 Rt to Sta. 151+50 RT
- Sta. 153+25 RT to Sta. 154+65 RT
- Sta. 155+50 RT to Sta. 156+30 RT

Adjustments to manhole covers and frames, catch basin grates and frames, and curb boxes are anticipated. There are two gas transmission lines within the project with no impacts anticipated, but contractor will need to coordinate when work is in proximity of them. The Town of Exeter has a waterline and sewer lines that run parallel along Kingston Road, but no impacts are anticipated.

F. RIGHT-OF-WAY/STAGING AREAS

The CONTRACTOR shall provide a staging area in the vicinity of the Project for sanitary facilities, bulletin board, staging, processing, and stockpile area. The CONTRACTOR shall make all arrangements with landowners for such staging areas, and secure any required Federal, State, and/or Town permits, prepare the area as necessary, and install all erosion control devices to meet NHDES standards. The CONTRACTOR shall stockpile, handle, and transport materials to preserve their quality and fitness for the Work. Materials shall also be stored to facilitate inspection and may be subject to inspection and retesting before incorporation in the Work.

Private property shall not be used for storage purposes without written permission of the property owner. If requested, copies of such written permission shall be furnished to the OWNER and ENGINEER. After completion of construction, CONTRACTOR shall return the staging area to pre-existing conditions to the satisfaction of the property owner, the OWNER, and the ENGINEER.

The OWNER has secured temporary easement rights for work on abutting properties as shown. Where work does not show on abutting properties, no rights have been acquired and CONTRACTOR shall limit all work to the existing right-of-way and not enter the private property.

G. HAULING

The CONTRACTOR is advised that all roads and bridges within or adjacent to the project shall be subject to legal load limits and vehicle restrictions and is further advised that no agreements have been made by the Town with surrounding municipalities to relieve the CONTRACTOR of liability for damage to local roads and bridges caused by the CONTRACTOR'S operations. The CONTRACTOR shall contact appropriate officials of the surrounding cities/towns concerning damage from hauling over town roads and bridges. Town of Exeter contact is Nils Larson, Engineer Technician (Tel. 603-772-1345).

H. PERMITS/ENVIRONMENTAL COMMITMENTS

The Town has received the necessary permits to accomplish the work shown on the plans. The CONTRACTOR shall conduct the construction operations so as to be in conformance with the permit conditions and within the specific impact areas identified within the proposal.

I. TOWN OF EXETER RULES AND REGULATIONS

The CONTRACTOR must adhere to all Town Ordinances, Rules, and Regulations.

J. TEMPORARY EROSION AND SEDIMENT CONTROL

The CONTRACTOR'S attention is directed to the provisions of the Standard Specification Section 699 (as amended) concerning Water Pollution and Erosion Control. Best Management Practices and proper erosion control measures are to be employed, monitored, and maintained to prevent sediment from entering any drainage system, water course, or stream. The proposed project is not anticipated to have a long-term impact on the water quality of any nearby streams rivers or ponds.

All conditions stated in the permits for this project and any pertinent Federal, State, or local permits, variance, or approvals must be followed at all times. Failure to do so may result in the immediate closure of this project and open the project CONTRACTOR and any pertinent subcontractors to financial or legal damages. If the project impacts are proposed to expand beyond those previously permitted or reviewed for this project, the CONTRACTOR will be solely responsible for coordinating with and obtaining approvals from any relevant Federal, State, or local natural, cultural, or social resource agency.

K. WORK HOURS

It is the intent to limit all construction activities to a time frame that provides for the safe, uncompromised passage of the public through the project area. Work scheduled before or after normal working hours (7:00 AM to 5:00 PM) or on weekends may be allowed, but shall require the OWNER'S approval 48 hours in advance.

All daily work shall be completed no later than 15 minutes after sunset unless specifically authorized by the ENGINEER and sufficient auxiliary lighting is provided to ensure a safe

work environment to all those entering the work zone. Any work involving machinery or any other work which results in a noise nuisance in abutting areas shall not be started prior to 7:00 AM or continue past 5:00 PM.

L. STORAGE OF EQUIPMENT AND MATERIALS

The CONTRACTOR shall not store equipment, construction vehicles, or materials within 20 feet of the traveled way. Location of storage areas within the right-of-way will be subject to the approval of the ENGINEER. The CONTRACTOR shall maintain a clear travelway for emergency vehicles and general access to abutting properties at all times.

No operation (including loading and unloading vehicles) shall be conducted on or near the traveled lanes or roadway shoulders without first erecting required warning signs, lights, and barricades, or prior to approval of the ENGINEER. If such operations result in traffic backups, the operations shall be immediately discontinued.

M. ACCESS TO PROPERTIES

The CONTRACTOR shall maintain vehicular and pedestrian access, including emergency vehicle access to abutting properties during the course of the work. Temporary disruptions of access necessary for roadway, driveway, and utility construction shall be coordinated/noticed in advance with the affected property owners and tenants.

N. PROTECTION OF PROPERTY

The CONTRACTOR shall note that the project is within a residential area. The CONTRACTOR shall take the necessary precautions to avoid any damage to existing trees, shrubs, lawns, plantings, mail boxes, utility poles, fences, and private property. Should any damage occur, the CONTRACTOR shall be responsible to repair/replace the damaged items to the satisfaction of the Town of Exeter and the property owner.

O. QUALITY CONTROL TESTING

Material sampling and testing is to be in accordance with NHDOT procedures for progress and performance as defined in Appendix A – Quality Assurance Program for Municipally Managed NHDOT projects. All materials testing is to be provided by the OWNER or their authorized representative. The schedule of testing is to be established and coordinated by the CONTRACTOR in accordance with NHDOT Standard Specifications for the respective items.

In the event that any quality control testing, inspection, or observation results in any indication that any material or portion of the work does not meet Contract requirements, the CONTRACTOR shall, at their sole expense, undertake remedial work and/or repeat testing to the satisfaction of the ENGINEER. Any additional testing costs that are incurred as the result of CONTRACTOR delays or scheduling will be backcharged to the CONTRACTOR.

P. EXCAVATIONS

Excavations adjacent to the traveled way or shoulders shall not remain open through non-work hours unless adequately protected by temporary traffic control barrier (at the CONTRACTOR'S expense and specifically authorized by the ENGINEER).

Q. BOUNDS

The CONTRACTOR shall exercise due care when working around all property bounds and other survey monuments that are to remain. Should any damage to a monument result from the actions of the CONTRACTOR, it shall be replaced and/or realigned by the CONTRACTOR as directed by the ENGINEER. No further compensation will be due the CONTRACTOR for materials, labor, and licensed surveyor costs required to re-establish the monument in its proper orientation.

R. FIELD OFFICE AND TEMPORARY UTILITIES

1. The CONTRACTOR shall provide all temporary sheds, field offices, telephone, power, water, and temporary sanitation facilities necessary for his/her own needs and those of any subcontractors. All costs for such facilities shall be considered incidental.
2. All temporary facilities shall comply with the requirements of Federal, State and local laws, regulations and standards, and shall be removed upon completion of the work with the premises left in a clean and orderly condition. The drinking water and sanitary facilities shall be open to the OWNER, ENGINEER, and all contractors, subcontractors, and their employees involved in the work.

S. CONTRACTOR'S EMERGENCY SERVICE

The CONTRACTOR must make satisfactory arrangements with the OWNER to service emergencies or complaints which may occur at night, over the weekend, or when the job is shut down. If the CONTRACTOR does not, the OWNER may make arrangements and the cost will be charged to the CONTRACTOR.

T. REGULAR PROJECT MEETINGS

The ENGINEER will conduct regular Project Meetings with the CONTRACTOR throughout the construction period to enable orderly review of the progress of the Work and provide for a systematic discussion of issues or problems.

The persons designated by the CONTRACTOR to participate in these meetings shall have the authority required to commit the CONTRACTOR to solutions agreed upon at Project Meetings.

U. SUBSTANTIAL COMPLETION

At a minimum, the following items must be completed prior to the issuance of a Certificate of Substantial Completion:

Completion of sidewalk construction and shoulder widening, including installation of curbing, select material, binder and wearing course pavement, fine grading, drainage, guardrail, temporary or permanent erosion controls, temporary or permanent pavement markings, all disturbed areas loamed and seeded, signs relocated and/or installed and RRFBs installed and operational.

V. DISPOSAL OF SURPLUS EXCAVATED MATERIALS

1. Surplus excess material not required for use on the project shall be legally disposed of by the CONTRACTOR at their discretion in conformance with Town requirements and permit conditions outside of and away from the limits of the project, without additional compensation.
2. All unsuitable materials shall be removed from the site and disposed of properly by the CONTRACTOR.

W. LIMITED REUSE SOILS (LRS)

Limited Reuse Soils (LRS) are transportation corridor soils that commonly contain metals at concentrations above naturally occurring background conditions, and Polycyclic Aromatic Hydrocarbons (PAHs) exceeding acceptable reuse concentrations. Soils currently managed as LRS by the Department include all topsoil within the limits of the existing right-of-way (ROW), regardless of its depth. In those instances, where there is no measurable topsoil, LRS is measured from the top of the ground to a depth of six (6) inches. In addition, as any ground or pulverized asphaltic materials, as well as street wastes (material generated through street sweeping, catch basin clean outs and ditching) are LRS. For this project, LRS is anticipated to be limited to topsoil and not considered to be hazardous. LRS removal limits are anticipated to be from the existing edge of pavement to the edge of ROW or slope limit, whichever is encountered first, and to the depths as described above. LRS generated for this project should be handled as follows:

1. The Engineer will coordinate the necessary testing on the LRS materials, which will be performed by a qualified Environmental Consultant. Contractor to coordinate with the Engineer prior to excavating LRS materials.
2. All LRS will be sampled and analyzed for disposal characterization. Disposal characterization will follow NHDES regulations (i.e., Env-Or 600 and Env-Sw 903), and the requirements of the proposed receiving facility.
3. If the quantity of LRS is less than 50 tons, sampling and analysis will not be completed, except as required by the receiving facility, in accordance with Env-Or 611.04 (c).

4. If the quantity of LRS is greater than 50 tons, sampling and analysis will, at a minimum, be based on the requirements of Env-Or-611.04. One composite soil sample will be collected per 200 tons of excavated material up to 2,000 tons, and then one composite soil sample for every additional 500 tons. Samples collected for VOC analysis will be collected as individual methanol-preserved soil samples for the laboratory to composite the individual samples (instead of compositing the soils in the field).
5. The soil samples will be submitted for disposal characterization parameters consistent with the requirements of the proposed receiving facility, which may include the following, or a subset thereof, and not be limited to: VOCs, TPH, total RCRA-8 metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver), SVOCs or PAHs, pesticides, herbicides, PCBs, ignitability/flashpoint, corrosivity/pH, reactive sulfide, and reactive cyanide.
6. LRS transported off-site shall be loaded into properly licensed and permitted vehicles, and transported directly to selected disposal or recycling facilities.
7. LRS will be disposed of at an authorized treatment or disposal facility holding appropriate federal, state, or local permits, licenses, or approvals (in accordance with Env-Sw 903). LRS will be disposed at the Turnkey Landfill, 176 Rochester Neck Road, Rochester, NH 03839
8. Documentation related to off-site transport and disposal of LRS, including but not limited to, bills-of-lading/manifests, weigh tickets, analytical reports and waste profiles, shall be provided by the Contractor to the Engineer within five (5) business days of receipt.
9. Contractor shall complete the Special Waste Characterization Form for LRS disposal at Turnkey Landfill.
10. LRS materials excavated by the Contractor shall be loaded directly into their dump trucks, hauled to and immediately dispose at Turnkey Landfill at their discretion. No stockpiling or reuse of LRS materials is allowed. Off-site transportation and disposal of LRS will be provided by the Contractor. Materials specifically excluded from being loaded into these trucks include non-LRS materials such as asphalt pieces, concrete, steel, stumps, and materials larger than 6" diameter.
11. All costs incurred due to excavating, handling, transport and disposal of LRS soils encountered on the project site will be paid for under Item 203.11 – Common Excavation – LRS.
12. Tipping fees shall be paid for under Item 1008 – Alterations and Additions as Needed – LRS Disposal

The Contractor shall follow the steps above to ensure that LRS soils are properly managed for this project. *No excavation of LRS may take place until approval has been granted from the receiving facility (Turnkey Landfill).*

X. UNIFORMED OFFICERS WITH VEHICLES AND FLAGGERS

Uniformed Officers and Flaggers shall be obtained and paid for by the CONTRACTOR.

Uniformed Officers shall only be used following a 1-week advanced request and approval by the ENGINEER.

Two flaggers are required at all times that work is occurring within roadway rights-of-way. Flagging to be paid under item 618.7. Additional flaggers shall only be used following a 1-week advanced request and approval by the ENGINEER.

Uniformed officers and flaggers shall have certificates of appropriate training.

Y. TOWN OF EXETER FIRE AND POLICE DEPARTMENT PHONE NUMBERS

* DIAL 911 FOR EMERGENCIES *

Town of Exeter Fire Department: (603) 773-6131

Town of Exeter Police Department: (603) 772-1212

Z. MATERIALS CERTIFICATIONS

The CONTRACTOR shall submit material test reports, product specifications, or shop drawings for all materials which are used on the project. The CONTRACTOR shall provide a Certificate of Compliance for all materials that are to be permanently incorporated into the Work for which there is no prescribed schedule of acceptance testing by the Engineer. The Certificate of compliance shall be in a form acceptable to the Engineer, NHDOT form Section 106.04 – Certificate of Compliance, is acceptable. The CONTRACTOR shall include three (3) sets with each hardcopy submittal, one (1) for the ENGINEER, one (1) for the OWNER, and one (1) for approval and return to the CONTRACTOR. Electronic submittals will be acceptable in lieu of hardcopy submittals.

AA. ORDER OF WORK

A detailed construction schedule showing the sequence and duration of the components of work and expected payment schedule shall be submitted by the CONTRACTOR prior to start of work. The schedule shall identify the work items on the critical path and shall demonstrate how substantial completion will be reached within the specified contract time. The CONTRACTOR shall provide an updated schedule showing the progress of the work related to the original schedule with each monthly payment application or upon the request of the ENGINEER.

The construction schedule will show submittal dates for required shop drawings, product data and samples, and product delivery dates. The Construction Schedule shall include reasonable time for the ENGINEER to review the required submittals, review survey information, confirm final elevations, and complete the quality assurance specified in the Contract. Once reviewed by the ENGINEER, the construction schedule shall be followed; permission for deviations from the schedule shall be requested in writing.

Review by the ENGINEER of this schedule shall have no effect on the CONTRACTOR'S responsibility to perform the work within the contract time. No permission for deviation granted shall allow the delay of Substantial Completion, unless specifically addressed by Change Order.

BB. COMPLETION DATE(S)

Completion times for the project will be calculated as calendar days from the date specified in the "Notice to Proceed" as follows:

- 90 calendar days to Substantial Completion.
- 30 calendar days to Final Completion.

CC. INSURANCE REQUIREMENTS

Insurance limits shall be provided by the CONTRACTOR and its subcontractors as defined in the Supplementary Conditions Section SC 5.16.

The certificate holder (Town of Exeter, 10 Front Street, Exeter, NH 03833), ENGINEER, and ENGINEER'S materials testing subconsultant shall be named as additional insured. Should any of the policies described above be canceled before the expiration date of the policy, the issuing company shall give the certificate holder 30 days written notice via certified mail. The expiration date of the policy shall be after the completion date of the project.

The CONTRACTOR shall provide Certificates of Insurance for all subcontractors to the OWNER prior to the subcontractor beginning work. The limits of liability insurance for subcontractors shall be the same as for the CONTRACTOR.

DD. PRECONSTRUCTION PHOTOGRAPHS

Preconstruction digital photographs or video of the entire construction site including all areas within the scope of work, DigSafe utility mark out, proposed detour routes, and access roads leading to construction areas, shall be completed or recorded and provided by the CONTRACTOR to the ENGINEER one week prior to start of work. Photographs or video shall be provided digital format as approved by ENGINEER. Three copies of the digital photo log or video shall be prepared and provided one each to the OWNER, ENGINEER and CONTRACTOR.

EE. RECORD PLANS

The CONTRACTOR shall submit record plan markups, on a full copy of the project plans, to the ENGINEER upon completion of the project.

FF. PAVEMENT MARKINGS

Document the location of the existing pavement markings as described in NHDOT Standard Specifications Section 632 - 632.3.1.1.2. Provide a copy of this documentation to the Engineer prior to obscuring any pavement markings. The proposed pavement marking layout shall conform to the current edition of the MUTCD and NHDOT Standard Plans, unless noted otherwise.

Contact the NHDOT Bureau of Traffic (Julie Matthews, 603-271-8011) at least one week in advance of final pavement marking operations in order to review the Contractor's layout.

Pavement markings shall extend beyond project paving limits as directed to overlap existing markings disturbed by construction.

END OF SECTION

TRAFFIC CONTROL PLAN

The following standards and specifications are to be considered part of the Traffic Control Plan.

1. Section 618 and 619 of the NHDOT Standard Specifications, latest edition, with all current updates and official interpretations.
2. Work Zone Traffic Control Standard Plans.
3. Manual on Uniform Traffic Control Devices, (MUTCD), latest edition, with all current updates and official interpretations.
4. State of New Hampshire Flagger Handbook.

In addition to the above Standards and Specifications, the specific provisions for this project are also set forth in this section.

TRAFFIC CONTROL REQUIREMENTS/CONSTRUCTION SEQUENCING

Unimpeded and safe passage of emergency vehicles and pedestrians through the work area shall be provided at all times throughout the life of the project.

Prior to commencing any construction activity or at the change of major construction phases, the CONTRACTOR shall notify the Town of Exeter Fire and Police Departments and provide information regarding traffic control operations, especially in those instances when equipment may block the roadway and the flow of traffic through the work zone may be temporarily interrupted.

In all cases, the CONTRACTOR shall not leave open excavated areas adjacent to traffic during non-working hours unless authorized by the ENGINEER.

1. Roadway

Traffic control is anticipated to be alternating one-way (as needed) during daytime work hours for approximately 3 months of active construction for Kingston Road. Traffic will revert to two-way traffic on nights and weekends. CONTRACTOR shall provide a written plan indicating day and expected duration of the closure that identifies any temporary detour routes and type and location of temporary sign packages. Such plans shall be reviewed and approved by the OWNER and ENGINEER prior to implementation by the CONTRACTOR. Affected residents are to be notified at least 2-days prior to any closures that may affect access/egress to their property.

In no case will lane or road closures be allowed to remain in-place during non-working hours or weekends.

TRAFFIC CONTROL REQUIREMENTS (GENERAL)

The CONTRACTOR shall meet the following requirements:

1. The CONTRACTOR shall not impede traffic and pedestrians within the project area on federally recognized holidays or the days immediately before and after holidays.
2. All construction signing shall be supplied, erected, maintained, and removed by the CONTRACTOR. Contractor shall submit a permanent construction sign layout to Engineer for review and approval prior to installation.
3. Access to all existing drives and mail boxes shall be maintained at all times. In the event that major work must be done at drives that preclude full access, the CONTRACTOR is to coordinate the work with the OWNER to minimize inconveniences.
4. All work shall be prosecuted in a manner to permit unimpeded traffic and pedestrian flow whenever possible. The interruption of traffic and pedestrian flow will not be permitted unless specifically allowed by the ENGINEER. Workday operations shall be scheduled to minimize disruption to peak commuter traffic.
5. 619.1 – Maintenance of traffic shall be considered just compensation for all signage, labor, equipment, and items specified above for the duration of the project.

Payment for flaggers and uniformed officers shall be made under the appropriate contract items.

VARIATION FROM THE TRAFFIC CONTROL PLAN

If the CONTRACTOR feels improvements can be made to the Traffic Control Plan for this project, he/she shall submit a written proposal with any necessary plans for consideration and approval.

END OF SECTION

STATE OF NEW HAMPSHIRE

INTER-DEPARTMENT COMMUNICATION

DATE: January 12, 2018

FROM: Robert Hudson, PE
RE: Exeter 40436

AT OFFICE: Bureau of Planning &
Community Assistance

SUBJECT: Kingston Road TAP Project

TO: William J. Oldenburg, P.E.
Assistant Director of Project Development

MEMORANDUM

The following information is in accordance with the Guidelines for Implementation of the Work Zone Safety and Mobility Policy to the Traffic Control Committee (TCC) for determination of the project's significance.

Consistent with the memo dated April 16, 2015 regarding the need for Traffic Control Committee reviews, this project is:

- ☒ Exempt from Presentation-Reason for Exempt Status (Tier 3-5, 2-ln. <10,000 VPD)
☐ Requires Presentation

The purpose of this project is:

To add/improve upon existing conditions by providing paved shoulders and sidewalks to enhance the safety of, and encourage increased pedestrian/bicycle travel. The project will involve construction of a new 5-foot wide (minimum) shoulder between approximately the bridge over the Little River and Pickpocket Road, and extending the sidewalk westerly from the bridge to Tamarind Lane on the south side of the road

The project will be completed:

The project is anticipated to begin in spring 2018 and be completed by summer 2018.

Traffic impacts are expected to be:

Traffic control is anticipated to be alternating one-way (as needed) during daytime work hours for approximately 2 months of active construction for Kingston Road when needed. Traffic will revert to two-way traffic on nights and weekends.

- An evaluation of the criteria for determination of a significant project is provided in the table shown below.

FHWA Requirement	Specific Project Response
<ul style="list-style-type: none"> Will the Project be located within TMA (See page 6 of Work Zone Safety and Mobility Policy – Guidelines) and include Lane Closures 3 days or more 	No
NHDOT – Primary Level of Criteria	“Does the Project meet ALL of the following requirements?”
<ul style="list-style-type: none"> Estimated Construction Cost > \$15 M 	No, Const. Cost \$ 885,000
<ul style="list-style-type: none"> Within or affecting Communities > 35,000 residents 	No, Exeter 14,483 2015 Census *
<ul style="list-style-type: none"> On the Interstate or NHS 	No
<ul style="list-style-type: none"> Anticipated to create sustained WZ impacts, separately or in combination with another project 	No

*List Community Name, Census Year, Population

NHDOT Secondary Level of Criteria	Do any of the following items, individually or collectively, in the opinion of the TCC, require the project to be Significant?
<ul style="list-style-type: none"> Time and Duration 	No
<ul style="list-style-type: none"> Nature of Work 	No
<ul style="list-style-type: none"> Traffic Volume 	No Kingston Road ADT: 4,700 %T 1.0%
<ul style="list-style-type: none"> Regional Significance 	No
<ul style="list-style-type: none"> Sustained WZ Impacts, separately or in combination with another 	No

TRAFFIC CONTROL COMMITTEE SUPPLEMENTAL INFORMATION:

Project Name: Exeter Project Number: 40436

Concerns		Responses				
Detours or Diversions	No	Describe: Duration: Remarks:	N/A Day/Night N/A	Detour Map Attached N/A	Maintenance Patrol? N/A	
Intersection Impacts?	Yes	Describe: Flagger / Uniformed Officer	Duration:	Non-Winter Day/Night Daytime Only		
Lane Closures?	Yes	Which Operations? Sidewalk installation and intersection crossing improvements	Time of Day Allowed: Daytime Only	Duration: 2 Months		
Lane Width Restrictions?	No	NETC Rte.? N/A	Which Operation(s)?	Duration:	Days	
Speed Reduction During Construction? (Coordinate w/ Traffic prior to TCC mtg.)	No	<input type="checkbox"/> Long Term <input type="checkbox"/> Work Hours Only	From mph To mph	Time of day: N/A	Restore Speed in Winter: N/A	
Night Work?	No	Which Operation(s)?	Remarks:	Duration:	Hours	
Holidays During Project Timeframe?	Yes	Impacts: None	Remarks: No impacts the day before, after, or on holiday			
Special Events?	NA	Contract Restrictions during Spec. Events?				
Schools, Hospitals, etc.?	No	Contract Provisions: N/A	Additional Provisions: None			
Are Other State Involved?	No	If Yes, Has Coordination Occurred: N/A	Remarks:			
Special Traffic Control?	No	Type: N/A	Remarks:			
Emergency / Evacuation Routes?	No	Reason	Contract Requirements:	Describe: N/A		
Pedestrian facilities or sidewalks on the project?	Yes	Coordinated w/ orgs? N/A	If Yes, are ped facilities be perpetuated?: Yes (MUTCD Section 6D.01 requires accommodations if they exist prior to project). How are they being accommodated?	Project Duration: 2 Months		
ITS Request for Permanent Installations	Submitted to TSMO? No	Provide Alternate Location	Remarks:			
Work Zone ITS Needs	Submitted to TSMO? No	Any requirements or recommended permanent ITS infrastructure? No	If yes, describe:			
Assessments (Temp. Installs During Const.)	Submitted to TSMO? No	Any requirements or recommended SWZ or other elements? No	If yes, describe:			

Based on the evaluation of the criteria presented above, I recommend that the TCC classify this project as:

- Significant Level 1 ☐
- Significant Level 2 ☐
- Non-Significant ☒

A Level I classification requires the development of a separate Traffic Management Plan (TMP) document (narrative) that includes detailed discussion of Public Outreach (PO), Traffic Control Plans (TCP) and Transportation Operations (TO). For example, I-93 expansion, Newington-Dover and the Bow-Concord Capital corridor improvements have been identified as Level I Significance.

A Level II classification requires the development of a memorandum that includes discussion of the three components (TCP, TO, PO).

Both the Level I and II documents must be presented to the committee for review and approval.

This Section for use by TCC Only:

Designation (Circle One): Significant: Level I Level II ~~Non-Significant~~

Additional Guidance and Direction: _____

1. Design needs to accommodate pedestrian when the SW is closed
 existing

Signature: W. J. M.
Chairperson, TCC

2/15/15
Date

cc: Project File

Notes for Figure 6H-10—Typical Application 10 Lane Closure on a Two-Lane Road Using Flaggers

Option:

1. For low-volume situations with short work zones on straight roadways where the flagger is visible to road users approaching from both directions, a single flagger, positioned to be visible to road users approaching from both directions, may be used (see Chapter 6E).
2. The ROAD WORK AHEAD and the END ROAD WORK signs may be omitted for short-duration operations.
3. Flashing warning lights and/or flags may be used to call attention to the advance warning signs. A BE PREPARED TO STOP sign may be added to the sign series.

Guidance:

4. *The buffer space should be extended so that the two-way traffic taper is placed before a horizontal (or crest vertical) curve to provide adequate sight distance for the flagger and a queue of stopped vehicles.*

Standard:

5. **At night, flagger stations shall be illuminated, except in emergencies.**

Guidance:

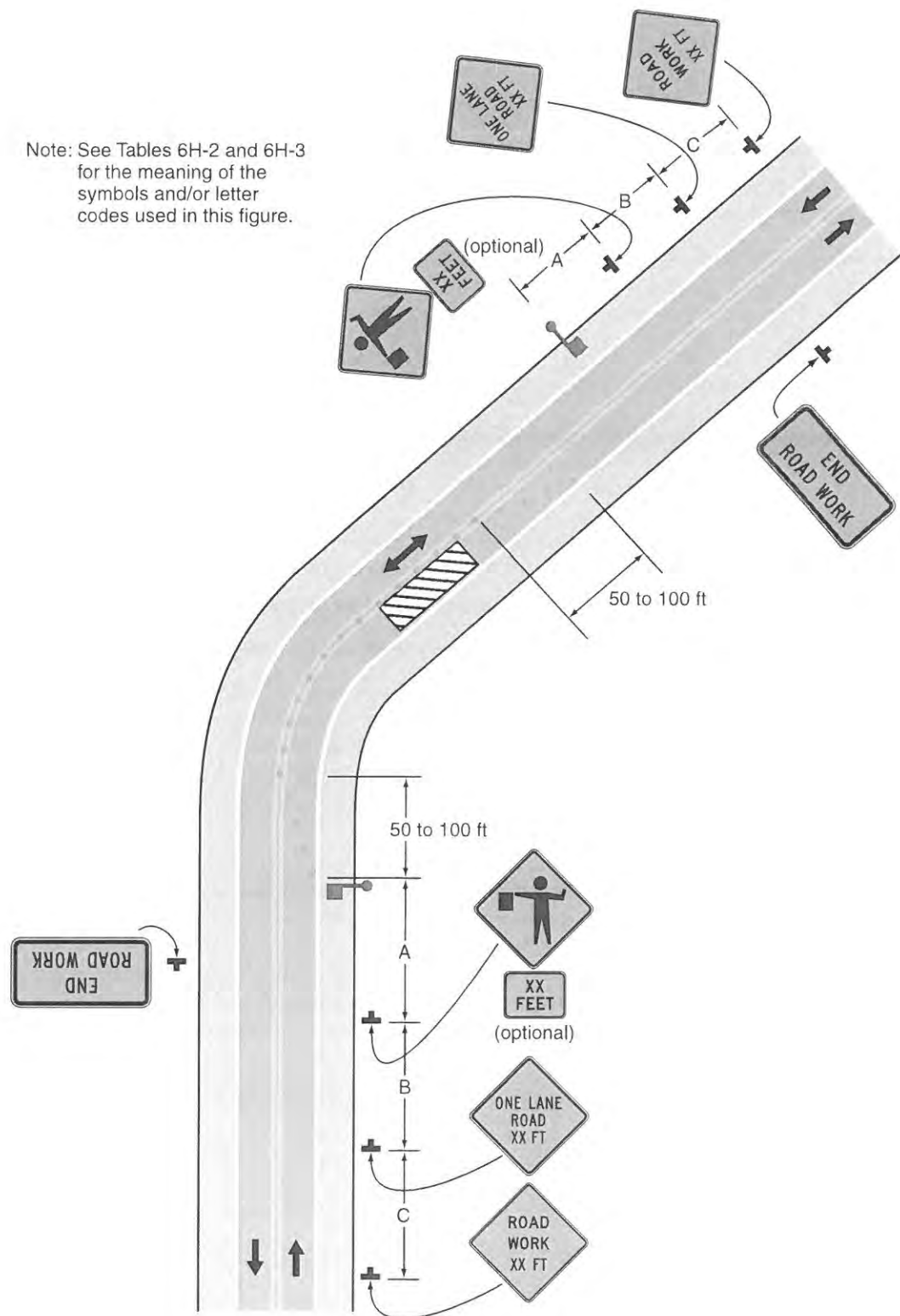
6. *When used, the BE PREPARED TO STOP sign should be located between the Flagger sign and the ONE LANE ROAD sign.*
7. *When a grade crossing exists within or upstream of the transition area and it is anticipated that queues resulting from the lane closure might extend through the grade crossing, the TTC zone should be extended so that the transition area precedes the grade crossing.*
8. *When a grade crossing equipped with active warning devices exists within the activity area, provisions should be made for keeping flaggers informed as to the activation status of these warning devices.*
9. *When a grade crossing exists within the activity area, drivers operating on the left-hand side of the normal center line should be provided with comparable warning devices as for drivers operating on the right-hand side of the normal center line.*
10. *Early coordination with the railroad company or light rail transit agency should occur before work starts.*

Option:

11. A flagger or a uniformed law enforcement officer may be used at the grade crossing to minimize the probability that vehicles are stopped within 15 feet of the grade crossing, measured from both sides of the outside rails.

Figure 6H-10. Lane Closure on a Two-Lane Road Using Flaggers (TA-10)

Note: See Tables 6H-2 and 6H-3 for the meaning of the symbols and/or letter codes used in this figure.

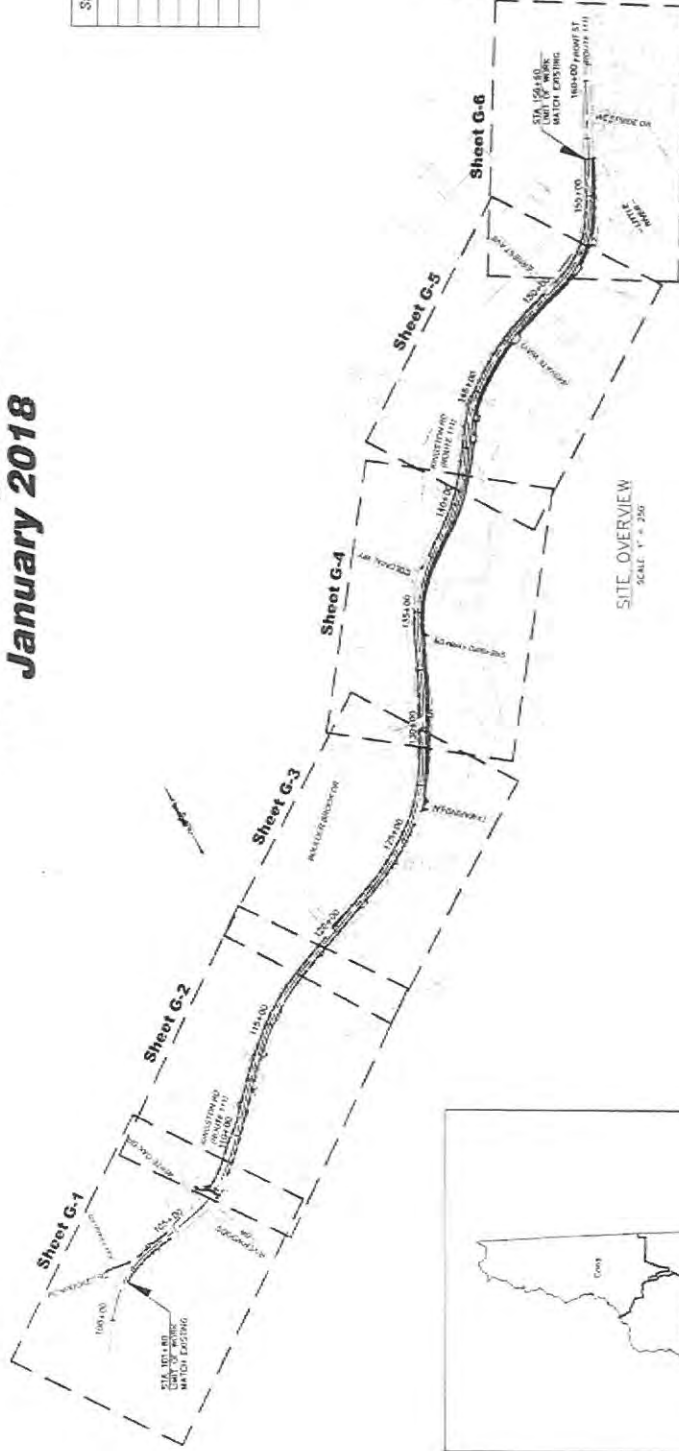


Typical Application 10

Town Of Exeter, New Hampshire Kingston Road TAP Project Exeter 40436, X-A004(406)

**Preliminary Plans
January 2018**

Sheet Number	Sheet Title
1	Cover
2	General Notes
3-4	Typical Section
5-8	Details
9-10	Sign Text Layout
11-16	Existing Conditions Plans
17-22	General Plans
23-42	Cross Sections



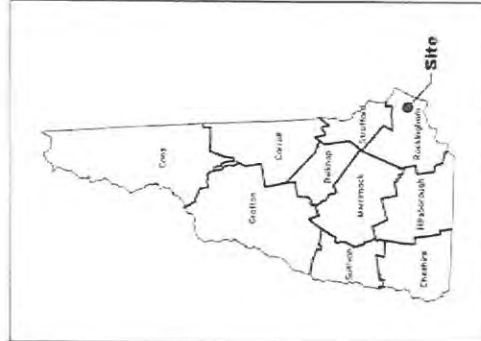
SITE OVERVIEW
SCALE: 1" = 200'

Prepared For
Town of Exeter
Public Works Department
13 Newfields Road
Exeter, NH 03833
Prepared By

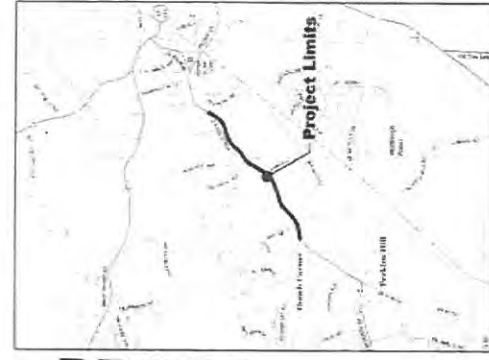
CMA
ENGINEERS

Chief Professional Engineer
Professional No. New Hampshire: 038341-4233
Professional No. New Hampshire: 038341-4233
C M A E N G I N E E R S , P C A

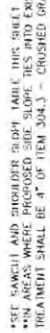
PRELIMINARY
PLANS
NOT FOR
CONSTRUCTION



Locus Plan



Project Locations



Section B

BID DOCUMENTS

Invitation to Bid
Instructions to Bidders
Bid Proposal
Bid Bond
DBE Commitment Form
DBE Letter of Interest

INVITATION TO BID
Exeter 40436 / X-A004(406)
Kingston Road TAP Project
Transportation Alternative Program (TAP)

Sealed proposals for the Exeter 40436, Kingston Road TAP Project will be received at the Town of Exeter, ("The OWNER"), Public Works Department, 13 Newfields Road, Exeter, NH 03833 until 2:00 p.m. (local time), May 1, 2023. Bids will be opened and read aloud at the Board of Selectmen's meeting at 7 pm, in the Nowak Room, Town Office. Bids received after the specified time will not be accepted.

This Federally funded Transportation Alternative Program (TAP) project involves installing shoulders along both sides of Kingston Road between the Little River Bridge and Pickpocket Road (approximately 1 mile), will include improvements at Brickyard Park driveway/gravel shoulder, and enhance pedestrian crossings. Shoulder widening will involve removal of existing features and installation of sub-base, pavement, and side slopes, as well as modifying/replacing existing drainage pipes and structures, reconstructing driveways, clearing trees and vegetation (where they conflict with proposed work or restrict sight distances), erecting signage, and modifying utilities, as may be required. A 5 ft bituminous sidewalk will be installed along the southern side of Kingston Road from Tamarind Lane to the bridge over the Little River (approximately 3,000 ft). The sidewalk will be separated from the road by a 5 ft grass panel, with some panels containing a Bio Retention Swale.

Plans and specifications may be viewed at the offices of:

- (1) Town of Exeter, Public Works Department, 13 Newfields Road, Exeter, NH 03833
- (2) Construction Summary of New Hampshire, 734 Chestnut St, Manchester, NH 03104
- (3) Associated General Contractors of NH, 48 Grandview Rd, Bow, NH 03304

Electronic PDF copies of the Contract Documents may be obtained from the Town of Exeter's website: <https://www.exeternh.gov/rfps>

There will be a non-mandatory pre-bid meeting held on **April 19, 2023 at 1:00 pm** (local time) at the Public Works Department, 13 Newfields Road, Exeter, NH 03833. Representatives of the Owner will be present to discuss the project. Addenda, as considered necessary by the Owner, will be transmitted in response to questions arising at the pre-bid conference. Oral statements made at the pre-bid conference may not be relied on and will not be binding or legally effective.

All questions about the meaning or intent of the Bidding Documents are to be directed in writing or by fax or email to the ENGINEER:

CMA Engineers, Inc.
1 Sundial Avenue
Suite 510N
Manchester, NH 03103
Fax No. (603) 627-0746
Attention: Jason Beaudet, P.E.
Email: jbeaudet@cmaengineers.com

Interpretations or clarifications considered necessary by the ENGINEER in response to such questions will be issued by Addenda delivered to all parties recorded by CMA Engineers, Inc. as having received the Bidding Documents. **Questions received less than five days prior to the date for opening of Bids may not be answered.** Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

Disadvantaged Business Enterprises will be afforded full opportunity to submit bids in response to this advertisement. No contractor will be discriminated against on grounds of race, sex, religion, color, or national origin.

Bidders will be required to furnish a bid bond in the amount of 5% of the total bid, and the successful bidder will be required to furnish a Performance Bond and a Payment Bond each in the amount of 100% of the Contract Price.

All individuals, firms, partnerships, or corporations intending to bid must be **prequalified with the New Hampshire Department of Transportation for Road Construction or Site Work.** Prequalification must be established no less than three days prior to the bid date.

INSTRUCTIONS TO BIDDERS

1. BID SUBMITTAL for this project is scheduled for at 2:00 pm, May 1, 2023 at the Town of Exeter Public Works Department, 13 Newfields Road, Exeter, NH 03833. Bids will be opened and read aloud at the Board of Selectmen's meeting at 7 pm, in the Nowak Room, Town Office. All work must be substantially completed within 90 calendar days from the start date of the Notice to Proceed. The active construction is anticipated to run between June and August 2023. Bidders should note that the prices contained in the proposal will be considered valid for the duration of the construction project.

A non-mandatory pre-bid meeting will be held on April 19, 2023 at 1:00 pm at the Town of Exeter Public Works Department, 13 Newfields Road, Exeter, NH 03833.

2. ESTIMATES OF QUANTITIES: The quantities listed herein for unit price items shall be considered as approximate. The bidders are encouraged to make their own quantity estimates in bid preparation. The bid items are based on the Plans and Specifications as presented herein and are irrespective of quantities of work.

Unit prices in the Bid Proposal shall not be unbalanced. Unbalanced bids may be cause for rejection.

3. CONTRACT DOCUMENTS AND SITE OF WORK: Before submitting a proposal, the bidder shall examine carefully the Contract Documents and the site of the proposed work. He shall satisfy himself as to the character, quality and quantities of work to be performed and materials to be furnished. The submission of a proposal by a bidder shall be conclusive evidence that he has complied with these requirements. Claims for additional compensation due to variation between conditions actually encountered in construction and as indicated by the plans will not be allowed.
4. PREPARATION OF PROPOSAL: The bidder must submit his proposal on the Bid Proposal form included herein. The blank spaces for each item in the proposal forms shall be correctly filled in, by writing in words and numerals, in ink. The bidder must submit a price for each item in the proposal. In case of conflict between words and numerals, **the words shall govern**. The proposal shall be executed with ink in the complete and correct name of the individual, firm or corporation making the proposal and signed by the person or persons authorized to bind the individual, firm or corporation.

The bidder shall properly acknowledge all addenda in the spaces provided therefore on the proposal form and acknowledge submission of all required bid documents as shown on the proposal form.

5. ADDENDA: Bidders desiring further information, or interpretation of the plans, specifications or other Contract Documents, must make a request for such information in writing to the ENGINEER, no later than one hundred twenty (120) hours before the bid opening. Answers to such requests will be given in writing to all bidders, in addendum form, and all addenda will be bound with, and made a part of the Contract Documents. No other explanation or interpretation will be considered official or binding. The ENGINEER

will not be responsible for any other interpretations of the plans, specifications or Contract Documents. Should a bidder find discrepancies in, or omissions from, the plans, specifications or other Contract Documents, or should he be in doubt as to their meaning, he should at once notify the Purchasing Agent who will in turn notify the ENGINEER in order that a written addendum may be sent to all bidders. Any addenda issued prior to forty eight (48) hours of the opening of bids will be delivered via e-mail or fax to each pre-qualified CONTRACTOR contemplating the submission of a proposal on this work. The proposal as submitted by the CONTRACTOR will be so constructed as to include any addenda, if such are issued by the ENGINEER prior to forty eight (48) hours of the opening of bids.

The OWNER reserves the right to postpone the bid opening date or time, without prior notice, as it deems to be in its best interests.

6. REJECTION OF PROPOSALS: Proposals containing any omission, alteration of form, additions or conditions not called for, incomplete bids or proposals otherwise regular which are not accompanied by acceptable proposal guaranty will be considered irregular and may be rejected. In case of any ambiguity or lack of clarity in stating the prices in the proposal, the OWNER reserves the right to consider the most advantageous construction thereof, or to reject the proposal. Unreasonable or unbalanced bid prices may be cause to reject any proposal.
7. PROPOSAL GUARANTY: Each proposal must be accompanied by a Cashier's or Certified Check, payable to the OWNER or an acceptable bid bond in the amount of not less than five percent (5%) of the total bid, payable to the OWNER as a guaranty that bidder will enter into a contract and furnish bonds on the forms provided within seven (7) days after Notice of Award of Contract to him.
8. DELIVERY OF PROPOSAL: Each completed proposal shall be placed together with the proposal guaranty, in an envelope sealed and clearly identified on the outside as a proposal to the OWNER and including the project title and name and address of the bidder. When sent by mail, the sealed proposal, marked as indicated above, should be enclosed in an additional envelope. Proposals will not be considered unless received at the place and on or before the time designated in the Invitation to Bid.
9. WITHDRAWAL OF PROPOSALS: Any bidder, upon his written request, will be given permission to withdraw his proposal no later than the time set for the opening thereof.
10. QUALIFICATION OF BIDDER: Bidders for the project shall be on the NHDOT's prequalified contractors list for road construction. Qualifications are to be established no later than 3 days prior to the Bid opening for this project. The qualifications, experience, and demonstrated ability to complete the work on time and as specified are of importance to the OWNER and will be given significant consideration in the selection of a bidder. Before being awarded the contract, the bidder may be required to submit such evidence as the OWNER may require to establish his financial responsibility, experience, and possession of such equipment as may be needed to prosecute the work in an expeditious, safe, and satisfactory manner.

11. **DISQUALIFICATION OF BIDDERS:** The following are some of the causes which may be considered as sufficient for the disqualification of a bidder and the rejection of his proposal:

- More than one proposal for the same work from an individual, firm, partnership or corporation.
- Evidence of collusion among bidders.
- Poor performance in the execution of work under previous contracts.
- For being in arrears on existing contracts, or having defaulted on a previous contract.

12. **CONSIDERATION OF PROPOSALS:** For the purpose of award, after the proposals are opened and read, the summation of the products of the approximate quantities shown in the proposal by the lump sum or unit bid prices will be considered the amount of the bid.

13. **SUBMISSION OF POST BID INFORMATION:** Upon request by the ENGINEER, selected bidders shall within two (2) calendar days thereafter submit the following:

- (1) A designation of the work to be performed by the bidder with his own forces.
- (2) A list of the names of the subcontractors or other persons or organizations (including those who are to furnish materials or equipment fabricated to a special design) proposed for such portions of the work. The bidder will be required to establish to the satisfaction of the OWNER the reliability and responsibility of the proposed subcontractors to furnish and perform such portions of the work.

Prior to the award of the Contract, the OWNER will notify the bidder in writing if the OWNER, after due investigation, has reasonable and substantial objection to any person or organization on such list. If the OWNER has a reasonable and substantial objection to any person or organization on such list, and refuses in writing to accept such person or organization, the bidder may, at his option, withdraw his bid without forfeiture of bid security, notwithstanding anything to the contrary contained herein. If the bidder submits an acceptable substitute with an increase in his bid price to cover the difference in cost occasioned by such substitution, the OWNER may, at its discretion, accept the increased bid price or may disqualify the bidder. Subcontractors and other persons and organizations proposed by the bidder and accepted by the OWNER must be used on the work for which they were proposed and accepted and shall not be changed except with the written approval of the ENGINEER.

- (3) A proposed work schedule demonstrating the Bidder's plan to complete the work in the required time frame.

14. **AWARD OF CONTRACT:** Only one Contract will be awarded for the work called for in the plans and specifications. The OWNER may choose to add any combination of Add-Alternates to the Base Bid for the purpose of awarding a contract as may be in the best interest of the OWNER. The basis of the award will be the total of items as enumerated on the Bid Form.

15. RETURN OF PROPOSAL GUARANTY: The proposal guaranty accompanying the proposal, may be retained until the Contract is awarded and the successful bidder executes the Contract and furnishes the required bonds, after which all proposal guaranties will be returned to the bidders.
16. EXECUTION OF CONTRACT AND BONDS: The Contract will include all Contract Documents. Within seven (7) days after award of the Contract, the successful bidder shall execute three (3) copies of the Contract, and furnish the OWNER with Performance and Payment Bonds each in the full amount of the Contract price executed by a surety company acceptable to the OWNER. The Bonds are to be furnished as a guaranty of the faithful performance of the work and for protection of the claimants for labor and materials.
17. FAILURE TO EXECUTE CONTRACT AND BONDS: Should the bidder to whom the Contract is awarded refuse or neglect to execute the Contract and furnish the required bonds within seven (7) days after notice of award of the Contract, at the option of the OWNER, the bidder's proposal shall be treated as withdrawn; and at the option of the OWNER the proposal guaranty shall become the property of the OWNER, not as a penalty, but as liquidated damages, or the OWNER may pursue any other action allowed by law.
18. Prices in Bid Proposals shall remain valid for 90 days after bids are submitted.

END OF SECTION

EXHIBIT A

BID PROPOSAL

Bidder: _____

Project: Exeter 40436/X-A004(406)
Kingston Road TAP Project

OWNER: Town of Exeter, New Hampshire

The undersigned, hereafter referred to as the BIDDER, has examined the Contract Documents prepared in connection herewith by CMA Engineers, Inc., the ENGINEER. In addition, he has examined the site and is familiar with all the conditions surrounding the Work contemplated.

BIDDER agrees to perform all the work described in the CONTRACT DOCUMENTS for the following unit prices or lump sums:

BID SCHEDULE

ITEM NO.	BID ITEM DESCRIPTION AND UNIT PRICE IN WORDS	UNITS	EST. QTY.	UNIT PRICE (FIGURES)	EXTENDED TOTAL (FIGURES)
201.1	CLEARING AND GRUBBING (F) _____ Dollars and _____ Cents	A	0.3	\$ _____	\$ _____
201.21	REMOVING SMALL TREES _____ Dollars and _____ Cents	EA	3	\$ _____	\$ _____
202.41	REMOVAL OF EXISTING PIPE 0-24" DIAMETER _____ Dollars and _____ Cents	LF	25	\$ _____	\$ _____
202.45	REMOVAL OF DRAINAGE PIPE SEDIMENT _____ Dollars and _____ Cents	LF	460	\$ _____	\$ _____

BID SCHEDULE

ITEM NO.	BID ITEM DESCRIPTION AND UNIT PRICE IN WORDS	UNITS	EST. QTY.	UNIT PRICE (FIGURES)	EXTENDED TOTAL (FIGURES)
202.55	REMOVAL OF DRAINAGE STRUCTURE SEDIMENT _____ Dollars and _____ Cents	CY	5	\$ _____	\$ _____
202.7	REMOVAL OF GUARDRAIL _____ Dollars and _____ Cents	LF	5	\$ _____	\$ _____
202.851	REMOVAL OF FLASHING BEACON _____ Dollars and _____ Cents	U	1	\$ _____	\$ _____
203.11	COMMON EXCAVATION - LRS _____ Dollars and _____ Cents	CY	1,335	\$ _____	\$ _____
203.15	COMMON EXCAVATION (F) _____ Dollars and _____ Cents	CY	4,550	\$ _____	\$ _____
203.2	ROCK EXCAVATION _____ Dollars and _____ Cents	CY	10	\$ _____	\$ _____
203.4	MUCK EXCAVATION _____ Dollars and _____ Cents	CY	10	\$ _____	\$ _____
203.6	EMBANKMENT-IN-PLACE (F) _____ Dollars and _____ Cents	CY	300	\$ _____	\$ _____
206.19	COMMON STRUCTURE EXCAVATION EXPLORATORY _____ Dollars and _____ Cents	CY	50	\$ _____	\$ _____

BID SCHEDULE

ITEM NO.	BID ITEM DESCRIPTION AND UNIT PRICE IN WORDS	UNITS	EST. QTY.	UNIT PRICE (FIGURES)	EXTENDED TOTAL (FIGURES)
206.2	ROCK STRUCTURE EXCAVATION _____ Dollars and _____ Cents	CY	5	\$ _____	\$ _____
214	FINE GRADING _____ Dollars and _____ Cents	U	1	\$ _____	\$ _____
304.101	SAND _____ Dollars and _____ Cents	CY	10	\$ _____	\$ _____
304.2	GRAVEL (F) _____ Dollars and _____ Cents	CY	1,250	\$ _____	\$ _____
304.3	CRUSHED GRAVEL (F) _____ Dollars and _____ Cents	CY	2,150	\$ _____	\$ _____
304.32	CRUSHED GRAVEL FOR SHOULDER LEVELING _____ Dollars and _____ Cents	TON	10	\$ _____	\$ _____
304.35	CRUSHED GRAVEL FOR DRIVES _____ Dollars and _____ Cents	CY	190	\$ _____	\$ _____
403.11023	HBP-3/4" BINDER MIX, MACHINE METHOD _____ Dollars and _____ Cents	TON	870	\$ _____	\$ _____
403.11043	HBP-1/2" SURFACE MIX, MACHINE METHOD _____ Dollars and _____ Cents	TON	625	\$ _____	\$ _____

BID SCHEDULE

ITEM NO.	BID ITEM DESCRIPTION AND UNIT PRICE IN WORDS	UNITS	EST. QTY.	UNIT PRICE (FIGURES)	EXTENDED TOTAL (FIGURES)
403.12	HBP-HAND METHOD _____ Dollars and _____ Cents	TON	95	\$ _____	\$ _____
403.16	PAVEMENT JOINT ADHESIVE _____ Dollars and _____ Cents	LF	20,100	\$ _____	\$ _____
403.19	HBP-TEMPORARY _____ Dollars and _____ Cents	TON	10	\$ _____	\$ _____
417	COLD PLANING BITUMINOUS SURFACES _____ Dollars and _____ Cents	SY	1,100	\$ _____	\$ _____
585.3	STONE FILL, CLASS C _____ Dollars and _____ Cents	CY	60	\$ _____	\$ _____
593.323	GEOTEXTILE; STABILIZATION CL.2, SLIT FILAMENT, WOVEN _____ Dollars and _____ Cents	SY	500	\$ _____	\$ _____
593.411	GEOTEXTILE; PERM CONTROL CL.1, NON- WOVEN _____ Dollars and _____ Cents	SY	130	\$ _____	\$ _____
593.421	GEOTEXTILE; PERM CONTROL CL.2, NON- WOVEN _____ Dollars and _____ Cents	SY	110	\$ _____	\$ _____
603.00221	21" R.C. PIPE, 2000D _____ Dollars and _____ Cents	LF	5	\$ _____	\$ _____

BID SCHEDULE

ITEM NO.	BID ITEM DESCRIPTION AND UNIT PRICE IN WORDS	UNITS	EST. QTY.	UNIT PRICE (FIGURES)	EXTENDED TOTAL (FIGURES)
603.30121	21" R.C. END SECTIONS _____ Dollars and _____ Cents	EA	1	\$ _____	\$ _____
603.33212	12" CORR. POLYETHYLENE END SECTION _____ Dollars and _____ Cents	EA	2	\$ _____	\$ _____
603.80208	8" PLASTIC PIPE (SMOOTH INTERIOR) _____ Dollars and _____ Cents	LF	55	\$ _____	\$ _____
603.80212	12" PLASTIC PIPE (SMOOTH INTERIOR) _____ Dollars and _____ Cents	LF	210	\$ _____	\$ _____
604.0007	POLYETHYLENE LINER _____ Dollars and _____ Cents	EA	10	\$ _____	\$ _____
604.124	CATCH BASINS TYPE B, 4-FOOT DIAMETER _____ Dollars and _____ Cents	U	5	\$ _____	\$ _____
604.242	DROP INLETS TYPE D-B _____ Dollars and _____ Cents	U	2	\$ _____	\$ _____
604.51	RECONSTRUCTING/ADJUSTING SEWER MANHOLES _____ Dollars and _____ Cents	LF	10	\$ _____	\$ _____
604.615	SEWER MANHOLE COVERS AND FRAMES (WATER TIGHT) _____ Dollars and _____ Cents	EA	1	\$ _____	\$ _____

BID SCHEDULE

ITEM NO.	BID ITEM DESCRIPTION AND UNIT PRICE IN WORDS	UNITS	EST. QTY.	UNIT PRICE (FIGURES)	EXTENDED TOTAL (FIGURES)
604.72	GRATES & FRAMES, TYPE B _____ Dollars and _____ Cents	EA	3	\$ _____	\$ _____
606.18001	31" W-BEAM GUARDRAIL WITH 8" OFFSET BLOCK (STEEL POST) _____ Dollars and _____ Cents	LF	200	\$ _____	\$ _____
606.91	RESETTING OR SETTING GUARDRAIL _____ Dollars and _____ Cents	LF	75	\$ _____	\$ _____
606.914	RESETTING TERMINAL UNIT _____ Dollars and _____ Cents	U	1	\$ _____	\$ _____
608.13	3" BITUMINOUS SIDEWALK (F) _____ Dollars and _____ Cents	SY	1,550	\$ _____	\$ _____
608.36	6" REINFORCED CONCRETE SIDEWALK (F) _____ Dollars and _____ Cents	SY	55	\$ _____	\$ _____
608.54	DETECTABLE WARNING DEVICES, CAST IRON _____ Dollars and _____ Cents	SY	11	\$ _____	\$ _____
609.01	STRAIGHT GRANITE CURB _____ Dollars and _____ Cents	LF	480	\$ _____	\$ _____
614.522	MOLDED PULL BOX 13"X24" _____ Dollars and _____ Cents	EA	1	\$ _____	\$ _____

BID SCHEDULE

ITEM NO.	BID ITEM DESCRIPTION AND UNIT PRICE IN WORDS	UNITS	EST. QTY.	UNIT PRICE (FIGURES)	EXTENDED TOTAL (FIGURES)
615.0301	TRAFFIC SIGN TYPE C _____ Dollars and _____ Cents	SF	120	\$ _____	\$ _____
615.034	RELOCATING TRAFFIC SIGN, TYPE C _____ Dollars and _____ Cents	U	18	\$ _____	\$ _____
615.0601	TRAFFIC SIGN TYPE CC _____ Dollars and _____ Cents	SF	10	\$ _____	\$ _____
615.064	RELOCATING TRAFFIC SIGN TYPE CC _____ Dollars and _____ Cents	U	7	\$ _____	\$ _____
616.261	RECTANGULAR RAPID FLASHING BEACON ASSEMBLY (KINGSTON ROAD) _____ Dollars and _____ Cents	U	1	\$ _____	\$ _____
618.61	UNIFORMED OFFICERS WITH VEHICLE Six Thousand Three Hundred _____ Dollars and _____ No _____ Cents	\$	6,300	<u>\$1.00</u>	<u>\$6,300.00</u>
618.7	FLAGGERS _____ Dollars and _____ Cents	HR	1,300	\$ _____	\$ _____
619.1	MAINTENANCE OF TRAFFIC _____ Dollars and _____ Cents	U	1	\$ _____	\$ _____
619.253	PORTABLE CHANGEABLE MESSAGE SIGN (UNIT WEEK) _____ Dollars and _____ Cents	UWK	26	\$ _____	\$ _____

BID SCHEDULE

ITEM NO.	BID ITEM DESCRIPTION AND UNIT PRICE IN WORDS	UNITS	EST. QTY.	UNIT PRICE (FIGURES)	EXTENDED TOTAL (FIGURES)
621.31	SINGLE DELINEATOR WITH POST _____ Dollars and _____ Cents	EA	70	\$ _____	\$ _____
622.1	STEEL WITNESS MARKERS _____ Dollars and _____ Cents	EA	20	\$ _____	\$ _____
628.2	SAWED BITUMINOUS PAVEMENT _____ Dollars and _____ Cents	LF	10,300	\$ _____	\$ _____
632.0104	RETROREFLECTIVE PAINT PAVE. MARKING, 4" LINE _____ Dollars and _____ Cents	LF	9,850	\$ _____	\$ _____
632.3106	RETROREFLECT. THERMOPLAS. PAVE. MARKING, 6" LINE _____ Dollars and _____ Cents	LF	200	\$ _____	\$ _____
632.3112	RETROREFLECT. THERMOPLAS. PAVE. MARKING, 12" LINE _____ Dollars and _____ Cents	LF	110	\$ _____	\$ _____
632.3118	RETROREFLECT. THERMOPLAS. PAVE. MARKING, 18" LINE _____ Dollars and _____ Cents	LF	40	\$ _____	\$ _____
632.32	RETROREFLECT. THERMOPLAS. PAVEMENT MARKING, SYMBOL OR WORD _____ Dollars and _____ Cents	SF	60	\$ _____	\$ _____
645.51	HAY BALES FOR TEMPORARY EROSION CONTROL _____ Dollars and _____ Cents	EA	100	\$ _____	\$ _____

BID SCHEDULE

ITEM NO.	BID ITEM DESCRIPTION AND UNIT PRICE IN WORDS	UNITS	EST. QTY.	UNIT PRICE (FIGURES)	EXTENDED TOTAL (FIGURES)
645.54	PERIMETER EROSION CONTROL _____ Dollars and _____ Cents	LF	9,200	\$ _____	\$ _____
645.7	STORM WATER POLLUTION PREVENTION PLAN _____ Dollars and _____ Cents	U	1	\$ _____	\$ _____
645.71	MONITORING SWPPP AND EROSION AND SEDIMENT CONTROLS _____ Dollars and _____ Cents	HR	110	\$ _____	\$ _____
645.99	BIORETENTION SWALE _____ Dollars and _____ Cents	LF	750	\$ _____	\$ _____
646.51	TURF ESTABLISHMENT WITH MULCH, TACKIFIERS AND LOAM _____ Dollars and _____ Cents	SY	2,450	\$ _____	\$ _____
650.2	LANDSCAPING Two Thousand Five Hundred _____ Dollars and _____ No _____ Cents	\$	2,500	<u>\$1.00</u>	<u>\$2,500.00</u>
665.21	STREET LIGHTS (KINGSTON ROAD) Two Thousand Five Hundred _____ Dollars and _____ No _____ Cents	U	1	\$ _____	\$ _____
692	MOBILIZATION _____ Dollars and _____ Cents	U	1	\$ _____	\$ _____
699	MISCELLANEOUS TEMPORARY EROSION AND SEDIMENT CONTROL Two Thousand Five Hundred _____ Dollars and _____ No _____ Cents	\$	2,500	<u>\$1.00</u>	<u>\$2,500.00</u>

BID SCHEDULE

ITEM NO.	BID ITEM DESCRIPTION AND UNIT PRICE IN WORDS	UNITS	EST. QTY.	UNIT PRICE (FIGURES)	EXTENDED TOTAL (FIGURES)
1008.53	ALTERATIONS AND ADDITIONS AS NEEDED - LRS DISPOSAL One Hundred and One Thousand _____ ars and _____ No _____ Cents	\$	101,000	<u>\$1.00</u>	<u>\$101,000.00</u>

Total Bid:

(Figures) _____

(Written) _____ dollars and _____ cents

The undersigned, as Contractor herein referred to as singular and masculine declares as follows:

- (1) The only parties interested in the BID as Principals are named herein;
- (2) This BID is made without collusion with any other person, firm, or corporation;
- (3) He has carefully examined the site of the proposed work and is fully informed and has satisfied himself as to the conditions there existing, the character and requirements of the proposed Work, the difficulties attendant upon its execution. He has carefully read and examined the Drawings, the proposed AGREEMENT and the Specifications and other Contract Documents therein referred to and knows and understands the terms and provisions thereof;
- (4) He understands the information relative to subsurface and other conditions, natural phenomena, existing pipes and other structures (surface and/or subsurface) has been furnished only for his information and convenience without any warranty or guarantee, expressed or implied, that the subsurface and/or other conditions, natural phenomena, existing pipes and other structures (surface or subsurface) actually encountered will be the same as those shown on the Drawings or in any other Contract Documents and he agrees that he shall not use or be entitled to use such information made available to him through the Contract Documents or otherwise obtained by him in his own examination of the site, as a basis of or ground for any claim against the Owner or Engineer arising from or by reasons of any variance which may exist between the aforesaid information made available to, or otherwise obtained by, him and the subsurface and/or other conditions, natural phenomena, existing pipes and other structures (surface and/or subsurface) actually encountered during the construction work, and he has made due allowance therefore in the BID;
- (5) He understands that all reports of investigations and tests of subsurface physical conditions at the site and other information affecting the performance of the Work which have been relied upon by the Engineer in preparation of the Drawings and Specifications are not guaranteed as to accuracy or completeness and are not part of the Contract Drawings.
- (6) And he understands that the quantities of work tabulated in this Proposal and indicated on the Drawings and in the Specifications and other Contract Documents are approximate and are subject to increase or decrease as deemed necessary by the Engineer, and as allowed for under the Contract Documents.

The undersigned agrees that for extra work, if any, authorized in writing by the Engineer to be performed by him in accordance with the terms and provisions of the Agreement, he will accept compensation as stipulated in the Contract Documents in full payment for such extra work, and agrees that for reductions in work as directed by the Engineer, he will accept reduced compensation as stipulated in the Contract Documents.

If this Bid Proposal is accepted by the Owner, the undersigned agrees to substantially complete the work provided to be done under the Contract within specified number of calendar days as defined in the Agreement from the date of start of the Contract (as defined in the Notice to Proceed), and accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete work on time, except as otherwise expressly provided in the Agreement.

The Bidder hereby agrees that, once opened, he will not withdraw this Bid within 90 days of Bid opening, and that if the Owner shall accept this Bid, the Bidder will duly execute the Contract and provide BONDS as provided in the Instructions to Bidders.

Additional Bid Representations

Unit prices include overhead and profit, in accordance with the General Conditions

The OWNER reserves the right to add or delete any of the above work items.

The BIDDER agrees that the Work will be completed in accordance with the General Conditions within the specified contract time.

The Bidder accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete work within the times specified in the Agreement.

The following documents are attached to and made a condition of this Bid:

- A. Required Bid security
- B. Affidavit of Non-Collusion

Communications concerning this Bid shall be addressed to (the address of Bidder indicated below):

Terms used in this Bid which are defined in the General Conditions or Instructions to Bidders will have the meanings indicated in the General Conditions or Instructions to Bidders.

Construction Proposal

It is proposed:

To execute the Contract and begin work within 10 days from the date specified in the “Notice to Proceed” and to prosecute said work so as to complete the Exeter 40436/X-A004(406), Kingston Road TAP Project and its appurtenances on or before the dates or contract duration specified in The Contract Agreement.

To furnish a Contract Bond in the amount of 100 percent of the Contract award, as security for the construction and completion of the Exeter 40436/X-A004(406), Kingston Road TAP Project and its appurtenances in accordance with the Plans, Specifications and Contract. The Contractor’s attention is called to Section 103.05 of the NHDOT Standard Specifications for road and bridge construction which provides the following guidance: unless specifically waived in the Proposal, upon execution of the Contract, the successful Bidder shall furnish the OWNER a surety bond or bonds equal to the sum of the Contract amount. The form of the bond(s) shall be acceptable to the OWNER and the bonding Company issuing the bond(s) shall be licensed to transact business in the State of New Hampshire.

To certify that the Bidder, in accordance with the requirements of 103.06 and 108.01, intends to sublet, assign, sell, transfer or otherwise dispose of one or more portions of the work and (1) has contacted the appropriate listed disadvantaged businesses and afforded such disadvantaged businesses equal consideration with non-disadvantaged businesses for all work the Bidder currently proposes to sublet, assign, sell, transfer or otherwise dispose of, (2) may contact additional appropriate disadvantaged businesses and will afford such businesses equal consideration with non-disadvantaged businesses for all the work the Bidder in the future proposes to sublet, assign, sell, transfer or otherwise dispose of, and (3) will complete enclosed "DISADVANTAGED BUSINESS ENTERPRISE COMMITMENT FORM" and Letters of Intent for each disadvantaged business. The name of the person in the Bidder's organization who has been designated as the liaison officer to administer the disadvantaged business enterprise program is:

(To be completed by the Bidder)

To guarantee all of the work performed under this Contract to be done in accordance with the Specifications and in good and workmanlike manner, and to renew or repair any work which may be rejected, due to defective materials or workmanship, prior to final completion and acceptance of the project.

Enclosed herewith find certified check or bid bond in the amount of _____

_____ dollars and _____ cents (\$ _____),
made payable to the OWNER as a proposal guarantee which it is understood will be forfeited in the event the Contract is not executed, if awarded by the OWNER to the undersigned.

Certification Regarding Debarment, Suspension, and Other Responsibility Matters – Primary Covered Transactions.

(1). The prospective primary participant certifies to the best of its knowledge and belief, that it and all its principals: (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency; (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or Local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property; (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or Local) with commission of any of the offenses enumerated in Paragraph (1) (b) of this certification and (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or Local) terminated for cause of default. (2). Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Contract Affidavit

I/We declare under penalty of perjury under the laws of the United States and the State of New Hampshire that, in accordance with the provisions of Title 23 USC, Section 112(c), have not either directly or indirectly entered into any agreement, participated in any collusion or otherwise taken any action in restraint or free competitive bidding in connection with this proposal.

Dated: _____

(If a firm or individual)

Signature of Bidder _____

By _____

Address of Bidder _____

Name and address of Members of the Firm:

(If a Partnership)

By _____
(SEAL) (Firm Name)

(General Partner)

doing business as _____

Business address _____

Phone No.: _____

(If a Corporation)

Signature of Bidder _____

Title _____

By _____

Business Address _____

Incorporated under the laws of the State of _____

Names of Officers:

President _____
Name Address

Secretary _____
Name Address

Treasurer _____
Name Address

ADDENDA

The BIDDER acknowledges receipt of the following Addenda*

No. _____ Dated _____

No. _____ Dated _____

No. _____ Dated _____

No. _____ Dated _____

No. _____ Dated _____

No. _____ Dated _____

** to be filled in as appropriate*

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned, as Principal, and _____ as Surety, are Hereby held and firmly bound unto Town of Exeter, New Hampshire as OWNER in the penal sum of 5% of Bid for the Exeter 40436/X-A004(406), Kingston Road TAP Project, for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, successors and assigns.

Signed, this _____ day of _____, 20____.

The Condition of the above obligation is such that whereas the Principal has submitted to _____ a certain BID, attached hereto and hereby made a part hereof to enter into a contract in writing, for the

NOW, THEREFORE,

- (a) If said BID shall be rejected, or
- (b) If said BID shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract attached hereto (Properly completed in accordance with said BID) and shall furnish a BOND for his faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said BID, then this obligation shall be void, otherwise, the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its BOND shall be in no way impaired or affected by any extension of the time within which the OWNER may accept such BID; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

_____(L.S.)
Principal

Surety

By:

IMPORTANT - Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state of New Hampshire.

**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
DISADVANTAGED BUSINESS ENTERPRISE PROGRAM**

COMMITMENT FORM

This is to certify that (THE CONTRACTOR) _____ in accordance with the terms of Section 103.06, Standard Specifications for Road and Bridge Construction has contacted the below listed appropriate disadvantaged business enterprises (DBE) taken from the current DBE Directory; with negotiations leading to compliance of the established goal. The Contractor proposes to utilize the following DBEs as subcontractors, suppliers, manufacturers or regular dealers on this project. Each item involved should be identified.

Low Bidder must submit Commitment Form to NHDOT Office of Federal Compliance within 3 working days of bid opening
Bid opening date: ____/____/____ Dollar amount of apparent low bid \$ _____

Name and Address of DBE	Item number(s)	Description of work to be completed by DBE's	Estimated dollar value of DBE participation
TOTAL DBE \$			

Percentage of Disadvantaged Business Enterprise (DBE) Participation _____

The undersigned hereby certifies that he or she has read the terms of this commitment and is authorized to bind the bidder to the commitment herein after set forth.

The signing of the commitment form and letter(s) of intent by the Contractor and approval by NHDOT Office of Federal Compliance does not constitute formal subcontractor approval. Such subcontractor approval must be attained.

Project Name

Name of Authorized Officer

X-A004(406) Exeter 40436
Federal Number State Number

Signature of Authorized Officer/Date

Approved: _____ **Date:** _____
Labor Compliance Office

The complete DBE Directory can be viewed online at: <http://www.nh.gov/dot/business/contractors.htm>

LETTER OF INTENT

Section C

CONTRACT DOCUMENTS

Agreement
Construction Performance Bond
Construction Payment Bond
Notice of Award
Notice to Proceed
Application for Payment
Waiver of Liens
Change Order
Certificate of Substantial Completion
Consent of Surety to Final Payment
Contractors Final Lien Waiver
Certificate of Final Completion
Contractor's Affidavit
Contractor's Release

**AGREEMENT
BETWEEN OWNER AND CONTRACTOR
ON THE BASIS OF A STIPULATED PRICE**

THIS AGREEMENT is dated as of the _____ day of _____ in the year 20__ by and between Town of Exeter, New Hampshire (hereinafter called OWNER) and _____ (hereinafter called CONTRACTOR).

OWNER and CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agree as follows:

Article 1. WORK

CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

Exeter 40436/X-A004(406), Kingston Road TAP Project

The Project for which the Work under the Contract Documents may be the whole or only a part is generally described as follows:

This Federally funded Transportation Alternative Program (TAP) project involves installing shoulders along both sides of Kingston Road between the Little River Bridge and Pickpocket Road (approximately 1 mile), will include improvements at Brickyard Park driveway/gravel shoulder, and enhance pedestrian crossings. Shoulder widening will involve removal of existing features and installation of sub-base, pavement, and side slopes, as well as modifying/replacing existing drainage pipes and structures, reconstructing driveways, clearing trees and vegetation (where they conflict with proposed work or restrict sight distances), erecting signage, and modifying utilities, as may be required. A 5 ft bituminous sidewalk will be installed along the southern side of Kingston Road from Tamarind Lane to the bridge over the Little River (approximately 3,000 ft). The sidewalk will be separated from the road by a 5 ft grass panel, with some panels containing a Bio Retention Swale.

Article 2. ENGINEER

The Project has been designed by CMA Engineers, Inc.
1 Sundial Avenue
Suite 510N
Manchester, NH 03103

who is hereinafter called ENGINEER and who is to act as OWNER'S representative, assume all duties and responsibilities and have the rights and authority assigned to ENGINEER in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

Article 3. CONTRACT TIMES

3.1 The Work will be substantially completed within 90 calendar days of the Notice to Proceed and completed and ready for final completion in accordance with paragraph 14.13 of the General Conditions within an additional 30 calendar days. The active construction is anticipated to run between June and August 2023.

3.2 *Liquidated Damages.* OWNER and CONTRACTOR recognize that time is of the essence of this Agreement and that OWNER will suffer financial loss if the Work is not completed within the times specified in paragraph 3.1 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. They also recognize the delays, expense and difficulties involved in proving the actual loss suffered by OWNER if the Work is not completed on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty) CONTRACTOR shall pay OWNER One Thousand Two Hundred Eighty dollars (\$1,280.00) for each calendar day that expires after the time specified in paragraph 3.1 for completion and readiness for final payment or any proper extension thereof granted by OWNER.

3.3 Liquidated damages includes the cost of engineering and resident project representative for each day that expires after the time specified for substantial completion or final completion.

Article 4. CONTRACT PRICE

OWNER shall pay CONTRACTOR for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to paragraphs 4.1 below:

4.1 SEE ATTACHED BID PROPOSAL (Exhibit A)

TOTAL OF ALL LUMP SUM AND UNIT PRICES:

(use words)

\$ _____ (dollars)

As provided in paragraph 11.9 of the General Conditions estimated quantities are not guaranteed, and determinations of actual quantities and classification are to be made by ENGINEER as provided in paragraph 9.10 of the General Conditions. Unit prices have been computed as provided in paragraph 11.9.2 of the General Conditions.

Article 5. PAYMENT PROCEDURES

CONTRACTOR shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by ENGINEER as provided in the General Conditions.

5.1 *Progress Payments.* OWNER shall make progress payments on account of the Contract Price on the basis of CONTRACTOR's Applications for Payment as recommended by ENGINEER, each month during construction less the aggregate of payments previously made and less such amounts as ENGINEER shall determine, or OWNER may withhold, in accordance with paragraph 14.7 of the General Conditions. All such payments will be measured by the schedule of values established in paragraph 2.9 of the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no schedule of values, as provided in the General Requirements.

5.2 *Final Payment.* Upon acceptance of the Work in accordance with paragraph 14.13 of the General Conditions. Owner shall pay the remainder of the Contract Price as recommended by ENGINEER as provided in said paragraph 14.13.

5.3 A one-year correction period shall begin on the date of Substantial Completion during which the OWNER may request repairs by the CONTRACTOR at no additional cost.

Article 6. INTEREST

All moneys not paid when due, as provided in Article 14 of the Modified Standard General Conditions, shall accrue interest at the maximum rate allowed by law at the place of the project. Interest shall only accrue on uncontested portions of moneys not paid in accordance with Article 14 and shall not accrue on contested portions of moneys not paid.

Article 7. CONTRACTOR'S REPRESENTATIONS

In order to induce OWNER to enter into this Agreement CONTRACTOR makes the following representations:

7.1. CONTRACTOR has examined and carefully studied the Contract Documents (including the Addenda listed in paragraph 8) and the other related data identified in the Bidding Documents including "technical data".

7.2 CONTRACTOR has visited the site and become familiar with and is satisfied as to the general, local, and site conditions that may affect cost, progress, performance or furnishing of the Work.

7.3 CONTRACTOR is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress, performance and furnishing of the Work.

7.4 CONTRACTOR has carefully studied all reports of explorations and tests of subsurface conditions at or contiguous to the site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site (except Underground Facilities) which have been identified in the Supplementary Conditions as provided in paragraph 4.2.1 of the General Conditions. CONTRACTOR accepts the determination set forth in paragraph SC-4.2 of the Supplementary Conditions of the extent of the "technical data" contained in such reports and drawings upon which CONTRACTOR is entitled to rely as provided in paragraph 4.2

of the General Conditions. CONTRACTOR acknowledges that such reports and drawings are not Contract Documents and may not be complete for CONTRACTOR's purposes. CONTRACTOR acknowledges that OWNER and ENGINEER do not assume responsibility for the accuracy or completeness of information and data shown or indicated in the Contract Documents with respect to Underground Facilities at or contiguous to the site. CONTRACTOR has obtained and carefully studied (or assumes responsibility for having done so) all such additional supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface and Underground Facilities) at or contiguous to the site or otherwise which may affect, cost, progress, performance or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences and procedures of construction to be employed by CONTRACTOR and safety precautions and programs incident thereto. CONTRACTOR does not consider that any additional examinations, investigations, explorations, tests, studies or data are necessary for the performance and furnishing of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.

7.5. CONTRACTOR is aware of the general nature of work to be performed by OWNER and others at the site that relates to the Work as indicated in the Contract Documents.

7.6. CONTRACTOR has correlated the information known to CONTRACTOR, information and observations obtained from visits to the site, reports and drawings identified in the Contract Documents, and all additional examinations, investigations, explorations, tests, studies and data with the Contract Documents.

7.7 CONTRACTOR has given ENGINEER written notice of all conflicts, errors, ambiguities or discrepancies that CONTRACTOR has discovered in the Contract Documents and the written resolution thereof by ENGINEER is acceptable to CONTRACTOR, and the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

Article 8. CONTRACT DOCUMENTS

The Contract documents which comprise the entire agreement between OWNER and CONTRACTOR concerning the Work consist of the following:

- 8.1. This Agreement (pages 1 to 7, inclusive).
- 8.2. Bid Proposal as Exhibit A
- 8.3. Performance and Payment Bonds identified as Exhibits B and C.
- 8.4. Notice of Award
- 8.5. Notice to Proceed.
- 8.6. General Conditions (pages 1 to 45, inclusive).
- 8.7. Supplementary Conditions (pages 1 to 18, inclusive).

8.8. Drawings consisting of a cover sheet and sheets numbered 1 through 42, inclusive with each sheet bearing the following general title: Exeter 40436/X-A004(406), Kingston Road TAP Project

8.9. Addenda numbers ____ to ____, inclusive.

8.10. Documentation submitted by CONTRACTOR prior to Notice of Award.

8.11. Technical Specifications.

8.12. Special Conditions.

8.13. Standard Specifications for Road and Bridge Construction of the New Hampshire Department of Transportation, latest edition.

8.14. The following which may be delivered or issued after the Effective Date of the Agreement and are not attached hereto: All Written Amendments and other documents amending, modifying or supplementing the contract Documents pursuant to paragraphs 3.5 and 3.6 of the General Conditions.

The documents listed in paragraphs 8.2 et seq. above are attached to this Agreement (except as expressly noted otherwise above).

There are not Contract Documents other than those listed above in this Article. The Contract Documents may only be amended, modified or supplemented as provided in paragraphs 3.5 and 3.6 of the General Conditions.

Article 9. MISCELLANEOUS

9.1. Terms used in this Agreement which are defined in Article 1 of the General Conditions will have the meanings indicated in the General Conditions.

9.2. No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

9.3 OWNER and CONTRACTOR each binds itself, its partners, successors, assigns and legal representatives to the other party hereto, its partners, successors, assigns and legal representatives in respect to all covenants, agreements and obligations contained in the Contract Documents.

9.4 Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon OWNER and CONTRACTOR, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

9.5 OTHER PROVISIONS

IN WITNESS WHEREOF, OWNER and CONTRACTOR have signed this Agreement in triplicate. One counterpart each has been delivered to OWNER, CONTRACTOR and ENGINEER. All portions of the Contract Documents have been signed, initialed or identified by OWNER and CONTRACTOR or identified by ENGINEER on their behalf.

This Agreement will be effective on _____, 20__ (which is the Effective Date of the Agreement).

OWNER Town of Exeter, New Hampshire

By: _____

Attest _____

Address for giving notices:

(If OWNER is a public body, attach evidence of authority to sign and resolution or other document authorizing execution of Agreement.

CONTRACTOR_____

By: _____

Attest _____

Address for giving notices:

[CORPORATE SEAL]

(If CONTRACTOR is a corporation, attach evidence of authority to sign).

Construction Performance Bond

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

CONTRACTOR (Name and Address):

SURETY (Name and Principal Place of Business):

OWNER (Name and Address):

CONSTRUCTION CONTRACT

Date:

Amount:

Description (Name and Location):

BOND

Date (Not earlier than Construction Contract Date):

Amount:

Modifications to this Bond Form:

CONTRACTOR AS PRINCIPAL

Company: (Corp. Seal)

Signature:

Name and Title:

SURETY

Company: (Corp. Seal)

Signature:

Name and Title:

CONTRACTOR AS PRINCIPAL

Company: (Corp. Seal)

SURETY

Company: (Corp. Seal)

1. The Contractor and the 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 to participate in conferences as provided in Subparagraph 3.1.

3. If there is no Owner Default, the Surety's obligation under this Bond shall arise after:

3.1. The Owner has notified the Contractor and the Surety at its address described in Paragraph 10 below, that the Owner is considering declaring a Contractor Default and has requested and attempted to arrange a conference with the Contractor and the Surety to be held not later than fifteen days after receipt of such notice to discuss methods of performing the Construction Contract. 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; and

3.2. The Owner has declared a Contractor Default and formally terminated the Contractor's right to complete the contract. Such Contractor Default shall not be declared earlier than twenty days after the Contractor and the Surety have received notice as provided in Subparagraph 3.1; and

3.3. The Owner has agreed to pay the Balance of the Contract Price to the Surety in accordance with the terms of the Construction Contract or to a contractor selected to perform the Construction Contract in accordance with the terms of the contract with the Owner.

4. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

4.1. Arrange for the Contractor, with consent of the Owner, to perform and complete the Construction Contract, or

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

4.3. 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 the 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 Paragraph 6 in excess of the Balance of the Contract Price incurred by the owner resulting from the Contractor's default; or

4.4. 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, tender payment therefor to the Owner; or

2. Deny liability in whole or in part and notify the Owner citing reasons therefor.

5. If the Surety does not proceed as provided in Paragraph 4 with reasonable promptness, the Surety shall be deemed to be in default on this Bond fifteen 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 Subparagraph 4.4, and the Owner refuses the payment tendered 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.

6. After the Owner has terminated the Contractor's right to complete Construction Contract, and if the Surety elects to act under

Subparagraph 4.1., 4.2., or 4.3 above, 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. To limit of the amount of this Bond, but subject to commitment by the Owner of the Balance of the Contract Price to mitigation of costs and damages on the Construction Contract, the Surety is obligated without duplicate for:

6.1. The responsibilities of the Contractor for correction of defect work and completion of the Construction Contract;

6.2. Additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions failure to act of the Surety under Paragraph 4; and

6.3. Liquidated damages, or if no liquidated damages are specified, the Construction Contract, actual damages caused by delay performance or non-performance of the Contractor.

7. The Surety shall not be liable to the Owner or others for obligation the Contractor that are unrelated to the Construction Contract, and 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 Bond to any person or entity other than the Owner or its heirs, executed administrators, or successors, or assigns.

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

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

10. Notice to the Surety, the Owner or the Contractor shall be made delivered to the address shown on the signature page.

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

12. Definitions.

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

12.2. Construction Contract: The agreement between the Owner, the Contractor identified on the signature page, including Contract Documents and changes thereto.

12.3. Contractor Default: Failure of the Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Construction Contract.

12.4. Owner Default: Failure of the Owner, which has neither remedied nor waived, to pay the Contractor as required by Construction Contract or to perform and complete or comply with the other terms thereof, in any material respect.

13. Any Contractor selected to perform the obligations of the Contractor under the construction contract must be approved, in advance, by the Owner, which approval shall not be unreasonably withheld.

*Including, without limitations, the one year correction period under Paragraph 13.12 of the Standard General Conditions.
(FOR INFORMATION ONLY-Name, Address and Telephone)
AGENT or BROKER: OWNER'S REPRESENTATIVE (Architect, Engineer or other party).

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

CONTRACTOR (Name and Address):

SURETY (Name and Principal Place of
Business):

OWNER (Name and Address):

CONSTRUCTION CONTRACT

Date:

Amount:

Description (Name and Location):

BOND

Date (Not earlier than Construction Contract Date):

Amount:

Modifications to this Bond Form:

CONTRACTOR AS PRINCIPAL

SURETY

Company: (Corp. Seal)

Company: (Corp. Seal)

Signature:

Signature:

Name and Title:

Name and Title:

CONTRACTOR AS PRINCIPAL

SURETY

Company: (Corp. Seal)

Company: (Corp. Seal)

1. The Contractor and the 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.*
2. With respect to the Owner, this obligation shall be null and void if the Contractor:
 - 2.1 Promptly makes payment directly or indirectly, for all sums due Claimants, and
 - 2.2 Defends, indemnifies and holds harmless the Owner from all claims, demands, liens or suits by any person or entity who furnished labor, materials or equipment for use in the performance of the Construction Contract, provided the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 12) of any claims, demands, liens or suits and tendered defense of such claims, demands, liens or suits to the Contractor and the Surety, and provided there is no Owner Default.
3. With respect to Claimants, this obligation shall be null and void if the Contractor promptly makes payment, directly or indirectly, for all sums due.
4. The Surety shall have no obligation to Claimants under this Bond until:
 - 4.1 Claimants who are employed by or have a direct contract with the Contractor have given notice to the Surety (at the address described in Paragraph 12) and sent a copy, or notice thereof, to the Owner, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.
 - 4.2 Claimants who do not have a direct contract with the Contractor:
 - Have furnished written notice to the Contractor and sent a copy, or notice thereof, to the Owner, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials were furnished or supplied or for whom the labor was done or performed; and
 - Have either received an injection in whole or in part from the Contractor, or not received within 30 days of furnishing the above notice any communication from the Contractor by which the Contractor has indicated the claim will be paid directly or indirectly; and
 - Not having been paid within the above 30 days, have sent a written notice to the Surety (at the address described in Paragraph 12) and sent a copy, or notice thereof, to the Owner, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to the Contractor.
5. If a notice required by Paragraph 4 is given by the Owner to the Contractor or to the Surety, that is sufficient compliance.
6. When the Claimant has satisfied the conditions of Paragraph 4, the Surety shall promptly and at the Surety=s expense take the following actions:
 - 6.1 Send an answer to the Claimant, with a copy to the Owner, within 45 days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.
 - 6.2 Pay or arrange for payment of any undisputed amounts.
7. The Surety=s total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.
8. 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 Construction Contract are dedicated to satisfy obligations of the Contractor and the Surety under this Bond, subject to the Owner=s priority to use the funds for the completion of the work.
9. The Surety shall not be liable to the Owner, Claimants or others obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.
10. The Surety hereby waives notice of any change, including change time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.
11. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which work or part of the work is located or after the expiration of one year, from the date (1) on which the claimant gave the notice required Subparagraph 4.1 or Clause 4.2 (iii), or (2) on which the last labor service was performed by anyone of the last materials or equipment work furnished by anyone under the Construction Contract, whichever of (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 debt in the jurisdiction of the suit shall be applicable.
12. Notice to the Surety, the Owner or the Contractor shall be mailed, delivered to the address shown on the signature page. Actual receipt notice by Surety, the Owner or the Contractor, however accomplished shall be sufficient compliance as of the date received at the address shown on the signature page.
13. When this Bond has been furnished to comply with a statutory, other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or other legal requirement shall be deemed incorporated herein. The intent is, that this Bond shall be construed statutory bond and not as a common law bond.
14. Upon request by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor shall promptly furnish a copy of this Bond or shall permit a copy to the made.
15. DEFINITIONS
 - 15.1 Claimant: An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor labor, materials or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms Labor, materials or equipment@ that 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 work of the Contractor and the Contractor=s subcontractors, and all other items for which a mechanic=s lien may be asserted; the jurisdiction where the labor, materials or equipment furnished.
 - 15.2 Construction Contract: The agreement between the Owner and the Contractor identified on the signature page, including Contract Documents and changes thereto.
 - 15.3 Owner Default: Failure of the Owner, which has neither remedied nor waived, to pay the Contractor as required by Construction Contract or to perform and complete or comply with the other items thereof, in any material respect.

*including without limitations the one year correction period under Paragraph 13.12 of the Standard General Conditions.

(FOR INFORMATION ONLY-Name, Address and Telephone)

AGENT or BROKER:

OWNER'S REPRESENTATIVE (Architect, Engineer or other party)

NOTICE OF AWARD

Dated: _____

TO:	
ADDRESS:	
OWNER'S CONTRACT NO.:	40436 Exeter 40436/X-A004(406)
CONTRACT FOR:	Kingston Road TAP Project

You are notified that your Bid dated _____ for the above Contract has been considered. You are the apparent Successful Bidder and have been awarded a contract for _____

The Contract Price of your contract is: \$_____.

Three (3) copies of each of the proposed Contract Documents and Drawings will be delivered separately or otherwise made available to you immediately.

You must comply with the following conditions within seven (7) days of the date of this Notice of Award, that is by (_____).

1. You must deliver to the OWNER three (3) fully executed counterparts of the Agreement including all the Contract Documents. This includes the three sets of Drawings. Each of the Contract Documents must bear your signature on the cover.
2. You must deliver with the executed Agreement, the Contract Security (Bonds) as specified in the Instructions to Bidders, General Conditions, and Supplementary Conditions.

Failure to comply with these conditions within the time specified will entitle OWNER to consider your bid in default, to annul this Notice of Award and to declare your Bid Security forfeited.

Within seven (7) days after you comply with the above conditions, OWNER will return to you one fully signed counterpart of the Agreement with the Contract Documents attached.

Town of Exeter, New Hampshire

(OWNER)

By:

(AUTHORIZED SIGNATURE)

(TITLE)

NOTICE TO PROCEED

Dated: _____

TO: _____
(Contractor)

ADDRESS: _____

PROJECT: Kingston Road TAP Project

OWNER'S CONTRACT NO.: 40436

CONTRACT FOR: Exeter 40436/X-004(406), Kingston Road TAP Project

You are notified that the Contract Time under the above contract will commence to run on _____. By that date, you are to start performing your obligations under the Contract Documents. In accordance with Article 3 of the Agreement, the dates of Substantial Completion and Final Completion are 90 and 30, respectively.

Before you may start any Work at the site, paragraph 2.7 of the General Conditions provides that you and OWNER must each deliver to the other (with copies to ENGINEER and other identified additional insured) certificates of insurance which each is required to purchase and maintain in accordance with the Contract Documents.

Also before you may start any Work at the site, you must:

Town of Exeter, New Hampshire

(Owner)

By _____

(Authorized Representative)

(Title)

Copy to ENGINEER

(Use certified mail, return receipt requested)

APPLICATION FOR PAYMENT NO.

To: _____ (OWNER)

Contract for: _____

OWNER's Contract No. _____ ENGINEER's Project No. _____

For Work accomplished through the date of:

ITEM	CONTRACTOR's Schedule of Values			Work Completed	
	Unit Price	Quantity	Amount	Quantity	Amount
	\$		\$		\$
Total (Orig. Contract) C.O. No. 1 C.O. No. 2			\$		\$

Accompanying Documentation:	GROSS AMOUNT DUE	\$
	LESS <u>0</u> % RETAINAGE	\$ N/A
	AMOUNT DUE TO DATE	\$
	LESS PREVIOUS PAYMENTS	\$
	AMOUNT DUE THIS APPLICATION	\$

CONTRACTOR'S Certification:

The undersigned CONTRACTOR certifies that: (1) all previous progress payments received from OWNER on account of Work done under the Contract referred to above have been applied to discharge in full all obligations of CONTRACTOR incurred in connection with Work covered by prior Applications for Payment numbered I through inclusive; (2) title to all Work, materials and equipment incorporated in said Work or otherwise listed in or covered by this Application for Payment will pass to OWNER at time of payment free and clear of all liens, claims, security interest and encumbrances (except such as are covered by Bond acceptable to OWNER indemnifying OWNER against any such lien, claim, security interest or encumbrance); and (3) all Work covered by this Application for Payment is in accordance with the Contract Documents and not *defective* as that term is defined in the Contract Documents.

Dated _____, 20__ _____

CONTRACTOR

By: _____

(Authorized Signature)

Payment of the above AMOUNT DUE THIS APPLICATION is recommended.

Dated _____, 20__ _____

ENGINEER

By: _____

(Authorized Signature)

EJCDC No. 1910-8-E (I 990 Edition)

Prepared by the Engineers Joint Contract Documents Committee and endorsed by The Associated General Contractors of America

WAIVER OF LIENS

The Contractor shall provide the attached Waiver of Liens form for all subcontractors or material suppliers associated with this project. The Waiver of Liens form shall be provided with each monthly payment application.

WAIVER OF LIENS

SUBCONTRACTORS AND ALL MATERIAL SUPPLIERS

To All Whom It May Concern:

Whereas the undersigned _____
has been engaged as a Subcontractor or as Material Supplier by _____,
The General Contractor for _____, located
in _____, New Hampshire, to furnish work, labor or materials for
said Project for _____ Owner.

The undersigned has received payments in the amount of \$ _____ for
deliveries of materials to and/or work performed in said construction of the project, as of
the _____ day of _____, 20__.

Now, therefore, the undersigned, upon receipt of the balance due us of
\$ _____ waive and release any and all lien of claim of or right to lien under the
Statutes of the State of New Hampshire relating to mechanic's liens, with respect to and on
said above described premises, and the improvements thereon, and on the material, fixtures,
apparatus or machinery furnished and on the money funds, or other considerations due or
to become due, the Subcontractor or Supplier from the General Contractor and/or the
Owner of said premises, on account of labor, services, material, fixtures, or machinery
heretofore furnished, or which may be furnished at any time hereafter by the undersigned,
to or on account of the said General Contractor and/or said Owner for the above described
premises.

Given under the hand and seal of the undersigned, this _____ day
of _____, 20__.

BY _____

NOTARIZATION _____

CHANGE ORDER

No. _____

PROJECT: Exeter 40436/X-A004-(406), Kingston Road TAP Project	
DATE OF ISSUANCE:	
OWNER: Town of Exeter, New Hampshire	CONTRACTOR:
	ENGINEER: CMA ENGINEERS, INC.
<i>You are directed to make the following changes in the Contract Documents.</i>	
DESCRIPTION:	
REASON FOR CHANGE ORDER:	
ATTACHMENTS:	

CHANGE IN CONTRACT PRICE	CHANGE IN CONTRACT TIME:
Original Contract Price: \$	Original Contract Times: Substantial Completion: Final Completion:
Net Changes from Previous Change Orders No. _____ to No. _____ \$	Net Change from previous Change Orders No. _____ to No. _____
Contract Price prior to this Change Order \$	Contract Time Prior to this Change Order Substantial Completion: Final Completion:
Net Increase or Decrease of this Change Order \$	Net Increase or Decrease of this Change Order (days)
Contract Price with all approved Change Orders \$	Contract Times with all approved Change Orders Substantial Completion: Final Completion:

RECOMMENDED:	APPROVED:	APPROVED:
By: _____	By: _____	By: _____
Date: _____	Date: _____	Date: _____
Engineer: _____	Owner: Town of Exeter, NH	Contractor: _____

CERTIFICATE OF SUBSTANTIAL COMPLETION

OWNER's Project No. 40436 ENGINEER's Project No. _____

Project: Exeter 40436/X-A004(406), Kingston Road TAP Project

CONTRACTOR _____

Contract For _____

Contract Date _____

This Certificate of Substantial Completion applies to all Work under the Contract Documents or to the following specified parts thereof:

Completion of sidewalk construction and shoulder widening, including installation of curbing, select material, binder and wearing course pavement, fine grading, temporary or permanent erosion controls, temporary or permanent pavement markings, all disturbed areas loamed and seeded, signs relocated and/or installed and RRFBs installed and operational.

To _____
OWNER

And To _____
CONTRACTOR

The Work to which this Certificate applies has been inspected by authorized representatives of OWNER, CONTRACTOR and ENGINEER, and that Work is hereby declared to be substantially complete in accordance with the Contract Documents on

DATE OF SUBSTANTIAL COMPLETION

A tentative list of items to be completed or corrected is attached hereto. This list may not be all-inclusive, and the failure to include an item in it does not alter the responsibility of CONTRACTOR to complete all the Work in accordance with the Contract Documents. The items in the tentative list shall be completed or corrected by CONTRACTOR within 30 calendar days of the above date of Substantial Completion.

The responsibilities between OWNER and CONTRACTOR for security, operation, safety, maintenance, heat, utilities, insurance and warranties shall be as follows:

RESPONSIBILITIES:

OWNER: _____

CONTRACTOR: _____

The following documents are attached to and made a part of this Certificate:

Punch List (dated _____)

This certificate does not constitute an acceptance of Work not in accordance with the Contract Documents nor is it a release of CONTRACTOR's obligation to complete the Work in accordance with the Contract Documents.

Executed by ENGINEER on _____, 20__

ENGINEER

By _____ CONTRACTOR accepts this

Certificate of Substantial Completion on _____, 20__

CONTRACTOR

By _____ OWNER accepts this

Certificate of Substantial Completion on _____, 20__

Town of Exeter, New Hampshire
OWNER

By _____

**CONSENT OF SURETY COMPANY
TO
FINAL PAYMENT**

OWNER'S CONTRACT NO.: 40436 ENGINEER' PROJECT NO.: _____
AGREEMENT DATE: _____
BOND NUMBER: _____

CONTRACT TITLE: _____

To: Town of Exeter (Owner)
10 Front Street
Exeter, NH 03833

From: _____ (Contractor)

In accordance with the provisions of the Contract between the Owner and the Contractor as indicated above, the _____ (Surety) on the bond of _____ (Contractor) hereby approves of the final payment to the Contractor, and agrees that final payment to the Contractor shall not relieve the Surety Company of any of its obligations to the _____ (Owner) as set forth in the said Surety Company's Bond.

IN WITNESS WHEREOF, the Surety Company has hereunto set its hand this _____ day of _____, 20__.

Surety Company

Signature of Authorized Representative

Attest: (Seal)

Name & Title

Note: Power of Attorney should be attached in instances where same applies.

CONTRACTOR'S FINAL LIEN WAIVER

(page 1 of 2)

OWNER'S CONTRACT NO.: 40436 ENGINEER' PROJECT NO.: _____
AGREEMENT DATE: _____

CONTRACT TITLE: Exeter 40436/X-A004(406), Kingston Road TAP Project

To: Town of Exeter (Owner)
10 Front Street
Exeter, NH 03833

APPLICATION FOR FINAL PAYMENT

The undersigned hereby certifies that the amount owed set forth below constitutes the entire value of all work performed and services rendered by, through or under the undersigned with respect to the project not heretofore paid for up to and including the period covered by the above Application for Final Payment; that all work covered by such Application has been incorporated into the project and title thereto has passed to the Owner free and clear of all liens, claims, security, interests or encumbrances; and that no work covered by such Application has been acquired subject to an agreement under which any interest therein or an encumbrance thereon is retained by the seller or any other person. In consideration of payment of the requisition, the undersigned hereby releases the Owner from all claims of lien which the undersigned has regarding the Project.

The undersigned, in order to induce the Owner to pay the requisition, hereby represents that it has paid or will pay from the proceeds of the requisition all sums due to those parties who have performed work or provided materials to the undersigned in connection with the Project, and that it will on request of the Owner provide written evidence of the discharge by the undersigned of its obligations to such parties.

Executed under seal as of this _____ day of _____, 20____.

Amount Owed to Contractor by Owner as Final Payment:

\$ _____ (total value of project including change orders)

Amount Unpaid From Previous Application for Payment:

\$ _____

CONTRACTOR'S FINAL LIEN WAIVER

(page 2 of 2)

From: _____ (Contractor)

Authorized Representative Signature

Name and Title (printed)

NOTARY:

Then personally appeared the above named _____ and
acknowledged the foregoing to be the free act and deed of the above-named Contractor, before
me.

Subscribed and sworn to on the _____ day of _____, 20____.

Notary Public: _____

My Commission Expires: _____

CERTIFICATE OF FINAL COMPLETION OF WORK

(page 1 of 2)

OWNER'S CONTRACT NO.: 40436 ENGINEER' PROJECT NO.: _____
AGREEMENT DATE: _____

CONTRACT TITLE: Exeter 40436/X-A004(406), Kingston Road TAP Project

FINAL COMPLETION DATE PER AGREEMENT AND CHANGE ORDERS: _____
ACTUAL DATE OF FINAL COMPLETION: _____

FINAL CERTIFICATION OF CONTRACTOR

I hereby certify that the Work as identified in the Final Payment Request dated _____
for the above-noted construction Contract represents full compensation for the actual value of work
completed. Additionally, all work completed conforms to the terms of the Agreement and
authorized changes.

CONTRACTOR

Date

Authorized Representative's Signature

Name & Title

FINAL CERTIFICATION OF ENGINEER

I have reviewed the Contractor's Final Payment Request dated _____ and hereby
certify that to the best of my knowledge, the cost of the work identified on the Final Payment
Request represents full compensation for the actual value of work completed and that the work has
been completed in accordance with the terms of the Agreement and authorized changes.

ENGINEER

Date

Authorized Representative's Signature

Name & Title

CERTIFICATE OF FINAL COMPLETION OF WORK

(page 2 of 2)

FINAL ACCEPTANCE OF OWNER

I, as representative of the Owner, accept the above Final Certifications and authorize Final Payment in the amount of \$_____ and direct the Contractor's attention to the General Conditions. The guaranty for all Work completed subsequent to the date of Substantial Completion, expires _____ year from the date of this Final Acceptance.

At a meeting of the _____ (Town Council/Selectmen/Alderman), the Owner, _____ (Name of the community) has accepted the constructed project.

Town of Exeter, New Hampshire
OWNER

Date

Authorized Representative's Signature

Name & Title

END OF SECTION

CONTRACTOR'S AFFIDAVIT

STATE OF _____

COUNTY OF _____

Before me, the undersigned, a _____ in and for said County and
(Notary Public, Justice of Peace, Alderman)

State personally appeared, _____ who being duly
(Individual, Partner or duly authorized representative of corporate contractor)

sworn a according to law deposes and says that the cost of all the Work, and outstanding claims
and indebtedness of whatever nature arising out of the performance of the contract between

Town of Exeter, New Hampshire and _____
(Owner) (Contractor)

of _____ dated _____ for the
construction of the Exeter 40436/X-A004(406), Kingston Road TAP Project and necessary
appurtenant

installation have been paid in full.

(Individual, Partner or duly authorized representative of corporate contractor)

(Title)

Sworn to and subscribed before me this _____ day of _____, 20__.

(Notary Public)

CONTRACTOR'S RELEASE

To Whom It May Concern:

Whereas, the undersigned has been employed by _____
to furnish labor and materials for _____
work, under a contract _____
for the improvement of the property described as Exeter 40436/X-A004(406), Kingston Road
TAP Project
in the Town of Exeter
County of Rockingham, State of New Hampshire
of which the town of Exeter is the OWNER.

NOW, THEREFORE, the said _____
(Contractor)

(for myself, my heirs, executors and administrators)(for itself, its successors and assigns) do/does
by these presents remise, release, quit-claim and forever discharge Town of Exeter, NH (OWNER),
its successors and assigns of and from all claims and demands, arising from or in connection with
the said Contract dated _____, and of and from all, and all manner of action and actions,
cause and causes of action and actions, suits, debts, dues, duties, sum and sums of money, accounts,
reckonings, bonds, bills, specialties, covenants, contracts, agreements, promises, variances,
damages, judgments, extents, executions, claims and demand, whatsoever in law or equity, or
otherwise, against Town of Exeter, New Hampshire, its successors and assigns, which (I, my
heirs, executors, or administrators)(its successors and assigns) hereafter can, shall or may have,
for, upon or by reason of any matter, cause, or thing whatsoever; from the beginning of recorded
time to the date of these presents.

IN WITNESS WHEREOF, _____
(Contractor)

has caused these presents to be duly executed this _____ day
of _____, 20____.

Signed, sealed and delivered in the presence of:

(Individual - Contractor) (Seal)

(Partnership - Contractor) (Seal)

By: _____ (Seal)
(Partner)

Attested:

(Corporation) (Seal)

(Secretary) By: _____ (Seal)
(President or Vice President)

(Corporate Seal)

Section D
GENERAL CONDITIONS

Modified Standard General Conditions
Supplementary Conditions

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

**MODIFIED
STANDARD
GENERAL CONDITIONS
OF THE
CONSTRUCTION CONTRACT**

Prepared by
Engineers Joint Contract Documents Committee
and
Issued and Published Jointly By



PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE
A practice division of the
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

AMERICAN CONSULTING ENGINEERS COUNCIL

AMERICAN SOCIETY OF CIVIL ENGINEERS

CONSTRUCTION SPECIFICATIONS INSTITUTE

This document has been approved and endorsed by

The Associated General  Contractors of America

These General Conditions have been prepared for use with the Owner-Contractor Agreements (No. 1910-A-1 or 1910-8-A-2) (1990 Editions). Their provisions are interrelated and a change in one may necessitate a change in the others. Comments concerning their usage are contained in the Commentary on Agreements for Engineering Services and Contract Documents (No. 1910-9) (1986 Edition). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (No. 1910-17) (1990 Edition). When bidding is involved, the Standard Form of Instructions to Bidders (No. 1910-12) (1990 Edition) may be used

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GENERAL CONDITIONS

ARTICLE I—DEFINITIONS

Wherever used in these General Conditions or in the other Contract Documents the following terms have the meanings indicated which are applicable to both the singular and plural thereof:

1.1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct or change the Bidding Requirements or the Contract Documents.

1.2. *Agreement*—The written contract between OWNER and CONTRACTOR covering the Work to be performed; other Contract Documents are attached to the Agreement and made a part thereof as provided therein.

1.3. *Application for Payment*—The form accepted by ENGINEER which is to be used by CONTRACTOR in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

1.4. *Asbestos*—Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.

1.5. *Bid*—The offer or proposal of the bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

1.6. *Bidding Documents*—The advertisement or invitation to Bid, instructions to bidders, the Bid form, and the proposed Contract Documents (including all Addenda issued prior to receipt of Bids).

1.7. *Bidding Requirements*—The advertisement or invitation to Bid, instructions to bidders, and the Bid form.

1.8. *Bonds*—Performance and Payment bonds and other instruments of security.

1.9. *Change Order*—A document recommended by ENGINEER, which is signed by CONTRACTOR and OWNER and authorizes an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.

1.10. *Contract Documents*—The Agreement, Addenda (which pertain to the Contract Documents), CONTRACTOR's Bid (including documentation accompanying the Bid and any post Bid documentation submitted prior to the Notice of Award) when attached as an exhibit to the Agreement, the Notice to Proceed, the Bonds, these General Conditions, the Supplementary Conditions, the Specifications and the Drawings as the same are more specifically identified in the Agree-

ment, together with all Written Amendments, Change Orders, Work Change Directives, Field Orders and ENGINEER's written interpretations and clarifications issued pursuant to paragraphs 3.5, 3.6.1, and 3.6.3 on or after the Effective Date of the Agreement. Shop Drawing submittals approved pursuant to paragraphs 6.26 and 6.27 and the reports and drawings referred to in paragraphs 4.2.1.1 and 4.2.2.2 are not Contract Documents.

1.11. *Contract Price*—The moneys payable by OWNER to CONTRACTOR for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of paragraph 11.9.1 in the case of Unit Price Work). * See SC 1.11 in Supplementary Conditions

1.12. *Contract Times*—The numbers of days or the dates stated in the Agreement: (i) to achieve Substantial Completion, and (ii) to complete the Work so that it is ready for final payment as evidenced by ENGINEER's written recommendation of final payment in accordance with paragraph 14.13. * See SC 1.12 in Supplementary Conditions

1.13. *CONTRACTOR*—The person, firm or corporation with whom OWNER has entered into the Agreement.

1.14. *defective*—An adjective which when modifying the word Work refers to Work that is unsatisfactory, faulty or deficient, in that it does not conform to the Contract Documents, or does not meet the requirements of any inspection, reference standard, test or approval referred to in the Contract Documents, or has been damaged prior to ENGINEER's recommendation of final payment (unless responsibility for the protection thereof has been assumed by OWNER at Substantial Completion in accordance with paragraph 14.8 or 14.10). * See SC 1.14 in Supplementary Conditions

1.15. *Drawings*—The drawings which show the scope, extent and character of the Work to be furnished and performed by CONTRACTOR and which have been prepared or approved by ENGINEER and are referred to in the Contract Documents. Shop drawings are not Drawings as so defined.*

1.16. *Effective Date of the Agreement*—The date indicated in the Agreement on which it becomes effective, but if no such date is indicated it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

1.17. *ENGINEER*—The person, firm or corporation named as such in the Agreement. * See SC 1.17 in Supplementary Conditions

1.18. *ENGINEER's Consultant*—A person, firm or corporation having a contract with ENGINEER to furnish services as ENGINEER's independent professional associate or consultant with respect to the Project and who is identified as such in the Supplementary Conditions.

1.19. *Field Order*—A written order issued by ENGINEER which orders minor changes in the Work in accordance with paragraph 9.5 but which does not involve a change in the Contract Price or the Contract Times.

1.20. *General Requirements*—Sections of Division 1 of the Specifications.

1.21. *Hazardous Waste*—The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.

1.22. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, rules, regulations, ordinances, codes and orders of any and all governmental bodies, agencies, authorities and courts having jurisdiction. *
See SC 1.22 in Supplementary Conditions

1.23. *Liens*—Liens, charges, security interests or encumbrances upon real property or personal property.

1.24. *Milestone*—A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

1.25. *Notice of Award*—The written notice by OWNER to the apparent successful bidder stating that upon compliance by the apparent successful bidder with the conditions precedent enumerated therein, within the time specified, OWNER will sign and deliver the Agreement.

1.26. *Notice to Proceed*—A written notice given by OWNER to CONTRACTOR (with a copy to ENGINEER) fixing the date on which the Contract Times will commence to run and on which CONTRACTOR shall start to perform CONTRACTOR's obligations under the Contract Documents.

1.27. *OWNER*—The public body or authority, corporation, association, firm or person with whom CONTRACTOR has entered into the Agreement and for whom the Work is to be provided.

1.28. *Partial Utilization*—Use by OWNER of a substantially completed part of the Work for the purpose for which it is intended (or a related purpose) prior to Substantial Completion of all the Work.

1.29. *PCBs*—Polychlorinated biphenyls.

1.30. *Petroleum*—Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Wastes and crude oils.

1.31. *Project*—The total construction of which the Work to be provided under the Contract Documents may be the whole, or a part as indicated elsewhere in the Contract Documents.

1.32. *Radioactive Material*—Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.

1.33. *Resident Project Representative*—The authorized representative of ENGINEER who may be assigned to the site or any part thereof.

1.34. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.

1.35. *Shop Drawings*—All drawings, diagrams, illustrations, schedules and other data or information which are specifically prepared or assembled by or for CONTRACTOR and submitted by CONTRACTOR to illustrate some portion of the Work.

1.36. *Specifications*—Those portions of the Contract Documents consisting of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the Work and certain administrative details applicable thereto.

1.37. *Subcontractor*—An individual, firm or corporation having a direct contract with CONTRACTOR or with any other Subcontractor for the performance of a part of the Work at the site.

1.38. *Substantial Completion*—The Work (or a specified part thereof) has progressed to the point where, in the opinion of ENGINEER as evidenced by ENGINEER's definitive certificate of Substantial Completion, it is sufficiently complete, in accordance with the Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it is intended; or if no such certificate is issued, when the Work is complete and ready for final payment as evidenced by ENGINEER's written recommendation of final payment in accordance with paragraph 14.13. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

1.39. *Supplementary Conditions*—The part of the Contract Documents which amends or supplements these General Conditions.

1.40. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman or vendor having a direct contract with CONTRACTOR or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by CONTRACTOR or any Subcontractor.

1.41. *Underground Facilities*—All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments, and any encasements containing such facilities which have been installed underground to furnish any of the following services or materials: electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems or water.

1.42. *Unit Price Work*—Work to be paid for on the basis of unit prices.

1.43. *Work*—The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work includes and is the result of performing or furnishing labor and furnishing and incorporating materials and equipment into the construction, and performing or furnishing services and furnishing documents, all as required by the Contract Documents. *

See SC 1.43 in Supplementary Conditions

1.44. *Work Change Directive*—A written directive to CONTRACTOR, issued on or after the Effective Date of the Agreement and signed by OWNER and recommended by ENGINEER, ordering an addition, deletion or revision in the Work, or responding to differing or unforeseen physical conditions under which the Work is to be performed as provided in paragraph 4.2 or 4.3 or to emergencies under paragraph 6.23. A Work Change Directive will not change the Contract Price or the Contract Times, but is evidence that the parties expect that the change directed or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times as provided in paragraph 10.2.

1.45. *Written Amendment*—A written amendment of the Contract Documents, signed by OWNER and CONTRACTOR on or after the Effective Date of the Agreement and normally dealing with the nonengineering or nontechnical rather than strictly construction-related aspects of the Contract Documents.

ARTICLE 2—PRELIMINARY MATTERS

Delivery of Bonds:

2.1. When CONTRACTOR delivers the executed Agreements to OWNER, CONTRACTOR shall also deliver to OWNER such Bonds as CONTRACTOR may be required to furnish in accordance with paragraph 5.1.

Copies of Documents:

2.2. OWNER shall furnish to CONTRACTOR up to ⁽³⁾ ~~ten~~ ^{three} copies (unless otherwise specified in the Supplementary Conditions) of the Contract Documents as are reasonably necessary for the execution of the Work. Additional copies will be furnished, upon request, at the cost of reproduction. *

See SC 2.2 in Supplementary Conditions

Commencement of Contract Times; Notice to Proceed:

2.3. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement, or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within thirty days after the Effective Date of the Agreement. In no event will the

Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.

Starting the Work:

2.4. CONTRACTOR shall start to perform the Work on the date when the Contract Times commence to run, but no Work shall be done at the site prior to the date on which the Contract Times commence to run.

Before Starting Construction:

2.5. Before undertaking each part of the Work, CONTRACTOR shall carefully study and compare the Contract Documents and check and verify pertinent figures shown thereon and all applicable field measurements. CONTRACTOR shall promptly report in writing to ENGINEER any conflict, error, ambiguity or discrepancy which CONTRACTOR may discover and shall obtain a written interpretation or clarification from ENGINEER before proceeding with any Work affected thereby; however, CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any conflict, error, ambiguity or discrepancy in the Contract Documents, unless CONTRACTOR knew or reasonably should have known thereof.

2.6. Within ten days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), CONTRACTOR shall submit to ENGINEER for review:

2.6.1. a preliminary progress schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;

2.6.2. a preliminary schedule of Shop Drawing and Sample submittals which will list each required submittal and the times for submitting, reviewing and processing such submittal;

2.6.3. a preliminary schedule of values for all of the Work which will include quantities and prices of items aggregating the Contract Price and will subdivide the Work into component parts in sufficient detail to serve as the basis for progress payments during construction. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.7. Before any Work at the site is started, CONTRACTOR and OWNER shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which CONTRACTOR and OWNER respectively are required to purchase and maintain in accordance with paragraphs 5.4, 5.6 and 5.7.

Preconstruction Conference:

2.8. Within twenty days after the Contract Times start to run, but before any Work at the site is started, a conference

attended by CONTRACTOR, ENGINEER and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in paragraph 2.6, procedures for handling Shop Drawings and other submittals, processing Applications for Payment and maintaining required records.

Initially Acceptable Schedules:

2.9. Unless otherwise provided in the Contract Documents, at least ten days before submission of the first Application for Payment a conference attended by CONTRACTOR, ENGINEER and others as appropriate will be held to review for acceptability to ENGINEER as provided below the schedules submitted in accordance with paragraph 2.6. CONTRACTOR shall have an additional ten days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to CONTRACTOR until the schedules are submitted to and acceptable to ENGINEER as provided below. The progress schedule will be acceptable to ENGINEER as providing an orderly progression of the Work to completion within any specified Milestones and the Contract Times, but such acceptance will neither impose on ENGINEER responsibility for the sequencing, scheduling or progress of the Work nor interfere with or relieve CONTRACTOR from CONTRACTOR's full responsibility therefor. CONTRACTOR's schedule of Shop Drawing and Sample submissions will be acceptable to ENGINEER as providing a workable arrangement for reviewing and processing the required submittals. CONTRACTOR's schedule of values will be acceptable to ENGINEER as to form and substance.

* See SC 2.10 in
Supplementary Conditions
ARTICLE 3—CONTRACT DOCUMENTS: INTENT,
AMENDING, REUSE

Intent:

3.1. The Contract Documents comprise the entire agreement between OWNER and CONTRACTOR concerning the Work. The Contract Documents are complementary; what is called for by one is as binding as if called for by all. The Contract Documents will be construed in accordance with the law of the place of the Project. * See SC 3.1 in
Supplementary Conditions

3.2. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any Work, materials or equipment that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result will be furnished and performed whether or not specifically called for. When words or phrases which have a well-known technical or construction industry or trade meaning are used to describe Work, materials or equipment, such words or phrases shall be interpreted in accordance with that meaning. Clarification

* See SC 3.2 in Supplementary Conditions

cations and interpretations of the Contract Documents shall be issued by ENGINEER as provided in paragraph 9.4.

3.3. Reference to Standards and Specifications of Technical Societies; Reporting and Resolving Discrepancies:

3.3.1. Reference to standards, specifications, manuals or codes of any technical society, organization or association, or to the Laws or Regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard, specification, manual, code or Laws or Regulations in effect at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

3.3.2. If, during the performance of the Work, CONTRACTOR discovers any conflict, error, ambiguity or discrepancy within the Contract Documents or between the Contract Documents and any provision of any such Law or Regulation applicable to the performance of the Work or of any such standard, specification, manual or code or of any instruction of any Supplier referred to in paragraph 6.5, CONTRACTOR shall report it to ENGINEER in writing at once, and, CONTRACTOR shall not proceed with the Work affected thereby (except in an emergency as authorized by paragraph 6.23) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in paragraph 3.5 or 3.6; provided, however, that CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any such conflict, error, ambiguity or discrepancy unless CONTRACTOR knew or reasonably should have known thereof.

3.3.3. Except as otherwise specifically stated in the Contract Documents or as may be provided by amendment or supplement thereto issued by one of the methods indicated in paragraph 3.5 or 3.6, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity or discrepancy between the provisions of the Contract Documents and:

3.3.3.1. the provisions of any such standard, specification, manual, code or instruction (whether or not specifically incorporated by reference in the Contract Documents); or

3.3.3.2. the provisions of any such Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

No provision of any such standard, specification, manual, code or instruction shall be effective to change the duties and responsibilities of OWNER, CONTRACTOR or ENGINEER, or any of their subcontractors, consultants, agents, or employees from those set forth in the Contract Documents, nor shall it be effective to assign to OWNER, ENGINEER or any of ENGINEER's Consultants, agents or employees any duty or authority to supervise or direct the furnishing or

performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of paragraph 9.13 or any other provision of the Contract Documents. * See SC 3.3 in Supplementary Conditions

3.4. Whenever in the Contract Documents the terms "as ordered," "as directed," "as required," "as allowed," "as approved" or terms of like effect or import are used, or the adjectives "reasonable," "suitable," "acceptable," "proper" or "satisfactory" or adjectives of like effect or import are used to describe a requirement, direction, review or judgment of ENGINEER as to the Work, it is intended that such requirement, direction, review or judgment will be solely to evaluate, in general, the completed Work for compliance with the requirements of and information in the Contract Documents and conformance with the design concept of the completed Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective shall not be effective to assign to ENGINEER any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 9.13 or any other provision of the Contract Documents.

Amending and Supplementing Contract Documents:

3.5. The Contract Documents may be amended to provide for additions, deletions and revisions in the Work or to modify the terms and conditions thereof in one or more of the following ways:

3.5.1. a formal Written Amendment,

3.5.2. a Change Order (pursuant to paragraph 10.4), or

3.5.3. a Work Change Directive (pursuant to paragraph 10.1).

3.6. In addition, the requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, in one or more of the following ways:

3.6.1. a Field Order (pursuant to paragraph 9.5),

3.6.2. ENGINEER's approval of a Shop Drawing or Sample (pursuant to paragraphs 6.26 and 6.27), or

3.6.3. ENGINEER's written interpretation or clarification (pursuant to paragraph 9.4).

Reuse of Documents:

3.7. CONTRACTOR, and any Subcontractor or Supplier or other person or organization performing or furnishing any of the Work under a direct or indirect contract with OWNER (i) shall not have or acquire any title to or ownership rights in any

of the Drawings, Specifications or other documents (or copies of any thereof) prepared by or bearing the seal of ENGINEER or ENGINEER's Consultant, and (ii) shall not reuse any of such Drawings, Specifications, other documents or copies on extensions of the Project or any other project without written consent of OWNER and ENGINEER and specific written verification or adaption by ENGINEER.

ARTICLE 4—AVAILABILITY OF LANDS: SUBSURFACE AND PHYSICAL CONDITIONS; REFERENCE POINTS

Availability of Lands:

4.1. OWNER shall furnish, as indicated in the Contract Documents, the lands upon which the Work is to be performed, rights-of-way and easements for access thereto, and such other lands which are designated for the use of CONTRACTOR. ~~Upon reasonable written request, OWNER shall furnish CONTRACTOR with a correct statement of record legal title and legal description of the lands upon which the Work is to be performed and OWNER's interest therein as necessary for giving notice of or filing a mechanic's lien against such lands in accordance with applicable Laws and Regulations. OWNER shall identify any encumbrances or restrictions not of general application but specifically related to use of lands so furnished with which CONTRACTOR will have to comply in performing the Work.~~ Easements for permanent structures or permanent changes in existing facilities will be obtained and paid for by OWNER, unless otherwise provided in the Contract Documents. If CONTRACTOR and OWNER are unable to agree on entitlement to or the amount or extent of any adjustments in the Contract Price or the Contract Times as a result of any delay in OWNER's furnishing these lands, rights-of-way or easements, CONTRACTOR may make a claim therefor as provided in Articles 11 and 12. CONTRACTOR shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

* See SC 4.1 in Supplementary Conditions
* See SC 4.1.1. in Supplementary Conditions

4.2. Subsurface and Physical Conditions:

4.2.1. *Reports and Drawings:* Reference is made to the Supplementary Conditions for identification of:

4.2.1.1. *Subsurface Conditions:* Those reports of explorations and tests of subsurface conditions at or contiguous to the site that have been utilized by ENGINEER in preparing the Contract Documents; and

4.2.1.2. *Physical Conditions:* Those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site (except Underground Facilities) that have been utilized by ENGINEER in preparing the Contract Documents.

4.2.2. *Limited Reliance by CONTRACTOR Authorized: Technical Data:* CONTRACTOR may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," CONTRACTOR may not rely upon or make any claim against OWNER, ENGINEER or any of ENGINEER's Consultants with respect to:

4.2.2.1. the completeness of such reports and drawings for CONTRACTOR's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by CONTRACTOR and safety precautions and programs incident thereto, or

4.2.2.2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings, or

4.2.2.3. any CONTRACTOR interpretation of or conclusion drawn from any "technical data" or any such data, interpretations, opinions or information.

* See SC 4.2.2 in Supplementary Conditions

4.2.3. *Notice of Differing Subsurface or Physical Conditions:* If CONTRACTOR believes that any subsurface or physical condition at or contiguous to the site that is uncovered or revealed either:

4.2.3.1. is of such a nature as to establish that any "technical data" on which CONTRACTOR is entitled to rely as provided in paragraphs 4.2.1 and 4.2.2 is materially inaccurate, or

4.2.3.2. is of such a nature as to require a change in the Contract Documents, or

4.2.3.3. differs materially from that shown or indicated in the Contract Documents, or

4.2.3.4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents; then

CONTRACTOR shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as permitted by paragraph 6.23), notify OWNER and ENGINEER in writing about such condition. CONTRACTOR shall not further disturb such conditions or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

4.2.4. *ENGINEER's Review:* ENGINEER will promptly review the pertinent conditions, determine the necessity of OWNER's obtaining additional exploration or tests with respect thereto and advise OWNER in writing (with a copy to CONTRACTOR) of ENGINEER's findings and conclusions.

4.2.5. *Possible Contract Documents Change:* If ENGINEER concludes that a change in the Contract Documents is required as a result of a condition that meets one or more of the categories in paragraph 4.2.3., a Work Change Directive or a Change Order will be issued as provided in Article 10 to reflect and document the consequences of such change.

4.2.6. *Possible Price and Times Adjustments:* An equitable adjustment in the Contract Price or in the Contract Times, or both, will be allowed to the extent that the existence of such uncovered or revealed condition causes an increase or decrease in CONTRACTOR's cost of, or time required for performance of, the Work; subject, however, to the following:

4.2.6.1. such condition must meet any one or more of the categories described in paragraphs 4.2.3.1 through 4.2.3.4, inclusive;

4.2.6.2. a change in the Contract Documents pursuant to paragraph 4.2.5 will not be an automatic authorization of nor a condition precedent to entitlement to any such adjustment;

4.2.6.3. with respect to Work that is paid for on a Unit Price Basis, any adjustment in Contract Price will be subject to the provisions of paragraphs 9.10 and 11.9; and

4.2.6.4. CONTRACTOR shall not be entitled to any adjustment in the Contract Price or Times if;

4.2.6.4.1. CONTRACTOR knew of the existence of such conditions at the time CONTRACTOR made a final commitment to OWNER in respect of Contract Price and Contract Times by the submission of a bid or becoming bound under a negotiated contract; or

4.2.6.4.2. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test or study of the site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for CONTRACTOR prior to CONTRACTOR's making such final commitment; or

4.2.6.4.3. CONTRACTOR failed to give the written notice within the time and as required by paragraph 4.2.3.

If OWNER and CONTRACTOR are unable to agree on entitlement to or as to the amount or length of any such equitable adjustment in the Contract Price or Contract Times, a claim may be made therefor as provided in Articles 11 and 12. However, OWNER, ENGINEER and ENGINEER's Consultants shall not be liable to CONTRACTOR for any claims, costs, losses or damages sustained by CONTRACTOR on or in connection with any other project or anticipated project.

4.3. *Physical Conditions—Underground Facilities:*

4.3.1. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the site is based on

information and data furnished to OWNER or ENGINEER by the owners of such Underground Facilities or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

4.3.1.1. OWNER and ENGINEER shall not be responsible for the accuracy or completeness of any such information or data; and

4.3.1.2. The cost of all of the following will be included in the Contract Price and CONTRACTOR shall have full responsibility for: (i) reviewing and checking all such information and data, (ii) locating all Underground Facilities shown or indicated in the Contract Documents, (iii) coordination of the Work with the owners of such Underground Facilities during construction, and (iv) the safety and protection of all such Underground Facilities as provided in paragraph 6.20 and repairing any damage thereto resulting from the Work.

4.3.2. *Not Shown or Indicated:* If an Underground Facility is uncovered or revealed at or contiguous to the site which was not shown or indicated in the Contract Documents, CONTRACTOR shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by paragraph 6.23), identify the owner of such Underground Facility and give written notice to that owner and to OWNER and ENGINEER. ENGINEER will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence of the Underground Facility. If ENGINEER concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued as provided in Article 10 to reflect and document such consequences. During such time, CONTRACTOR shall be responsible for the safety and protection of such Underground Facility as provided in paragraph 6.20. CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, to the extent that they are attributable to the existence of any Underground Facility that was not shown or indicated in the Contract Documents and that CONTRACTOR did not know of and could not reasonably have been expected to be aware of or to have anticipated. If OWNER and CONTRACTOR are unable to agree on entitlement to or the amount or length of any such adjustment in Contract Price or Contract Times, CONTRACTOR may make a claim therefor as provided in Articles 11 and 12. However, OWNER, ENGINEER and ENGINEER's Consultants shall not be liable to CONTRACTOR for any claims, costs, losses or damages incurred or sustained by CONTRACTOR on or in connection with any other project or anticipated project.

Reference Points:

4.4. OWNER shall provide engineering surveys to establish reference points for construction which in ENGINEER's judgment are necessary to enable CONTRACTOR to proceed with the Work. CONTRACTOR shall be responsible for laying out the Work, shall protect and preserve the established reference points and shall make no changes or relocations

without the prior written approval of OWNER. CONTRACTOR shall report to ENGINEER whenever any reference point is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points by professionally qualified personnel.

4.5. Asbestos, PCBs, Petroleum, Hazardous Waste or Radioactive Material:

4.5.1. OWNER shall be responsible for any Asbestos, PCBs, Petroleum, Hazardous Waste or Radioactive Material uncovered or revealed at the site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work and which may present a substantial danger to persons or property exposed thereto in connection with the Work at the site. OWNER shall not be responsible for any such materials brought to the site by CONTRACTOR, Subcontractor, Suppliers or anyone else for whom CONTRACTOR is responsible.

~~4.5.2. CONTRACTOR shall immediately: (i) stop all Work in connection with such hazardous condition and in any area affected thereby (except in an emergency as required by paragraph 6.23), and (ii) notify OWNER and ENGINEER (and thereafter confirm such notice in writing). OWNER shall promptly consult with ENGINEER concerning the necessity for OWNER to retain a qualified expert to evaluate such hazardous condition or take corrective action, if any. CONTRACTOR shall not be required to resume Work in connection with such hazardous condition or in any such affected area until after OWNER has obtained any required permits related thereto and delivered to CONTRACTOR special written notice: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (ii) specifying any special conditions under which such Work may be resumed safely. If OWNER and CONTRACTOR cannot agree as to entitlement to or the amount or extent of an adjustment, if any, in Contract Price or Contract Times as a result of such Work stoppage or such special conditions under which Work is agreed by CONTRACTOR to be resumed, either party may make a claim therefor as provided in Articles 11 and 12.~~ *

See SC 4.5.2 in Supplementary Conditions

~~4.5.3. If after receipt of such special written notice CONTRACTOR does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then OWNER may order such portion of the Work that is in connection with such hazardous condition or in such affected area to be deleted from the Work. If OWNER and CONTRACTOR cannot agree as to entitlement to or the amount or extent of an adjustment, if any, in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a claim therefor as provided in Articles 11 and 12. OWNER may have such deleted portion of the Work performed by OWNER's own forces or others in accordance with Article 7.~~ *

See SC 4.5.3 in Supplementary Conditions

~~4.5.4. To the fullest extent permitted by Laws and Regulations, OWNER shall indemnify and hold harmless CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's~~ *

19 See SC 4.5.4 in Supplementary Conditions

* ~~Consultants and the officers, directors, employees, agents, other consultants and subcontractors of each and any of them from and against all claims, costs, losses and damages arising out of or resulting from such hazardous condition, provided that: (i) any such claim, cost, loss or damage is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, and (ii) nothing in this subparagraph 4.5.4 shall obligate OWNER to indemnify any person or entity from and against the consequences of that person's or entity's own negligence.~~

4.5.5. The provisions of paragraphs 4.2 and 4.3 are not intended to apply to Asbestos, PCBs, Petroleum, Hazardous Waste or Radioactive Material uncovered or revealed at the site.

ARTICLE 5—BONDS AND INSURANCE

Performance, Payment and Other Bonds:

5.1. CONTRACTOR shall furnish Performance and Payment Bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all CONTRACTOR's obligations under the Contract Documents. These Bonds shall remain in effect at least until one year after the date when final payment becomes due, except as provided otherwise by Laws or Regulations or by the Contract Documents. CONTRACTOR shall also furnish such other Bonds as are required by the Supplementary Conditions. All Bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Audit Staff, Bureau of Government Financial Operations, U.S. Treasury Department. All Bonds signed by an agent must be accompanied by a certified copy of such agent's authority to act.*

See SC 5.1 in Supplementary Conditions

5.2. If the surety on any Bond furnished by CONTRACTOR is declared a bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of paragraph 5.1, CONTRACTOR shall within ten days thereafter substitute another Bond and surety, both of which must be acceptable to OWNER.

5.3. Licensed Sureties and Insurers; Certificates of Insurance:

5.3.1. All Bonds and insurance required by the Contract Documents to be purchased and maintained by OWNER or CONTRACTOR shall be obtained from surety or insurance

companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue Bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

5.3.2. CONTRACTOR shall deliver to OWNER, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by OWNER or any other additional insured) which CONTRACTOR is required to purchase and maintain in accordance with paragraph 5.4. OWNER shall deliver to CONTRACTOR, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by CONTRACTOR or any other additional insured) which OWNER is required to purchase and maintain in accordance with paragraphs 5.6 and 5.7 hereof.

* *see SC 5.3.2 in Supplementary Conditions*

CONTRACTOR's Liability Insurance:

See SC 5.4 in Supplementary Conditions

5.4. CONTRACTOR shall purchase and maintain such liability and other insurance as is appropriate for the Work ~~being performed and furnished and as will provide protection~~ * from claims set forth below which may arise out of or result from CONTRACTOR's performance and furnishing of the Work and CONTRACTOR's other obligations under the Contract Documents, whether it is to be performed or furnished by CONTRACTOR, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform or furnish any of the Work, or by anyone for whose acts any of them may be liable:

5.4.1. claims under workers' compensation, disability benefits and other similar employee benefit acts;

5.4.2. claims for damages because of bodily injury, occupational sickness or disease, or death of CONTRACTOR's employees;

5.4.3. claims for damages because of bodily injury, sickness or disease, or death of any person other than CONTRACTOR's employees;

5.4.4. claims for damages insured by customary personal injury liability coverage which are sustained: (i) by any person as a result of an offense directly or indirectly related to the employment of such person by CONTRACTOR, or (ii) by any other person for any other reason;

5.4.5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom: and

5.4.6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

The policies of insurance so required by this paragraph 5.4 to be purchased and maintained shall:

5.4.7. with respect to insurance required by paragraphs 5.4.3 through 5.4.6 inclusive, include as additional insureds (subject to any customary exclusion in respect of professional liability) OWNER, ENGINEER, ENGINEER's Consultants and any other persons or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers and employees of all such additional insureds;

5.4.8. include the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;

5.4.9. include completed operations insurance;

5.4.10. include contractual liability insurance covering CONTRACTOR's indemnity obligations under paragraphs 6.12, 6.16 and 6.31 through 6.33;

5.4.11. contain a provision or endorsement that the coverage afforded will not be cancelled, materially changed or renewal refused until at least thirty days prior written notice has been given to OWNER and CONTRACTOR and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the CONTRACTOR pursuant to paragraph 5.3.2 will so provide);

5.4.12. remain in effect at least until final payment and at all times thereafter when CONTRACTOR may be correcting, removing or replacing defective Work in accordance with paragraph 13.12; and

5.4.13. with respect to completed operations insurance, and any insurance coverage written on a claims-made basis, remain in effect for at least two years after final payment (and CONTRACTOR shall furnish OWNER and each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued evidence satisfactory to OWNER and any such additional insured of continuation of such insurance at final payment and one year thereafter).

** See SC 5.4.14 in Supplementary Conditions*
OWNER's Liability Insurance:

5.5. In addition to the insurance required to be provided by CONTRACTOR under paragraph 5.4, OWNER, at OWNER's option, may purchase and maintain at OWNER's expense OWNER's own liability insurance as will protect OWNER against claims which may arise from operations under the Contract Documents. ** See SC 5.5 in Supplementary Conditions*

Property Insurance:

5.6. Unless otherwise provided in the Supplementary Conditions, OWNER shall purchase and maintain property insurance

** CONTRACTOR*

upon the Work at the site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:

5.6.1. include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants and any other persons or entities identified in the Supplementary Conditions, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured;

5.6.2. be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework and Work in transit and shall insure against at least the following perils fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage, and such other perils as may be specifically required by the Supplementary Conditions;

5.6.3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);

5.6.4. cover materials and equipment stored at the site or at another location that was agreed to in writing by OWNER prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by ENGINEER; and
See SC 5.6.4 in Supplementary Conditions

5.6.5. be maintained in effect until final payment is made unless otherwise agreed to in writing by OWNER, CONTRACTOR and ENGINEER with thirty days written notice to each other additional insured to whom a certificate of insurance has been issued.

5.7. ~~OWNER~~ shall purchase and maintain such boiler and machinery insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants and any other persons or entities identified in the Supplementary Conditions, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured.

5.8. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained by ~~OWNER~~ in accordance with paragraphs 5.6 and 5.7 will contain a provision or endorsement that the coverage afforded will not be cancelled or materially changed or renewal refused until at least thirty days' prior written notice has been given to OWNER and CONTRACTOR and to each other additional insured to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with paragraph 5.11.

5.9. OWNER shall not be responsible for purchasing and maintaining any property insurance to protect the interests of CONTRACTOR, Subcontractors or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount, will be borne by CONTRACTOR, Subcontractor or others suffering any such loss and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

5.10. If ~~CONTRACTOR~~ ^{***} requests in writing that other special insurance be included in the property insurance policies provided under paragraphs 5.6 or 5.7, ~~OWNER~~ ^{***} shall, if possible, include such insurance ^{***} and the cost thereof will be charged to ~~CONTRACTOR~~ ^{***} by appropriate Change Order or Written Amendment. Prior to commencement of the Work at the site, ~~OWNER~~ ^{***} shall in writing advise ~~CONTRACTOR~~ ^{***} whether or not such other insurance has been procured by ~~OWNER~~ ^{***}.

5.11. Waiver of Rights:

5.11.1. ~~OWNER and CONTRACTOR intend that all policies purchased in accordance with paragraphs 5.6 and 5.7 will protect OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants and all other persons or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds in such policies and will provide primary coverage for all losses and damages caused by the perils covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or additional insureds thereunder. OWNER and CONTRACTOR waive all rights against each other and their respective officers, directors, employees and agents for all losses and damages caused by, arising out of or resulting from any of the perils covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors, ENGINEER, ENGINEER's Consultants and all other persons or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by OWNER as trustee or otherwise payable under any policy so issued.~~

See SC 5.11.1 in Supplementary Conditions

5.11.2. ~~In addition, OWNER waives all rights against CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants and the officers, directors, employees and agents of any of them, for:~~

~~5.11.2.1. loss due to business interruption, loss of use or other consequential loss extending beyond direct physical loss or damage to OWNER's property or the Work caused by, arising out of or resulting from fire or other peril, whether or not insured by OWNER; and~~

~~5.11.2.2. loss or damage to the completed Project or part thereof caused by, arising out of or resulting from fire or other insured peril covered by any property insurance maintained on the completed Project or part thereof by OWNER during partial utilization pursuant to paragraph 14.10, after substantial completion pursuant to paragraph 14.8 or after final payment pursuant to paragraph 14.13.~~

Any insurance policy maintained by OWNER covering any loss, damage or consequential loss referred to in this paragraph 5.11.2 shall contain provisions to the effect that in the event of payment of any such loss, damage or consequential loss the insurers will have no rights of recovery against any of CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants and the officers, directors, employees and agents of any of them.

See SC 5.11.2 in Supplementary Conditions
Receipt and Application of Insurance Proceeds

5.12. Any insured loss under the policies of insurance required by paragraphs 5.6 and 5.7 will be adjusted with OWNER and made payable to OWNER as fiduciary for the insureds, as their interests may appear, subject to the requirements of any applicable mortgage clause and of paragraph 5.13. OWNER shall deposit in a separate account any money so received, and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof and the Work and the cost thereof covered by an appropriate Change Order or Written Amendment.

5.13. OWNER as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within fifteen days after the occurrence of loss to OWNER's exercise of this power. If such objection be made, OWNER as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. ~~If no such agreement among the parties in interest is reached, OWNER as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, OWNER as fiduciary shall give bond for the proper performance of such duties.~~

See SC 5.13 in Supplementary Conditions
Acceptance of Bonds and Insurance; Option to Replace:

5.14. If either party (OWNER or CONTRACTOR) has any objection to the coverage afforded by or other provisions of the Bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within ten days after receipt of the certificates (or other evidence requested) required by paragraph 2.7. OWNER and CONTRACTOR shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the Bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent Bonds or insurance to protect such other party's interests at the expense of the party who was

required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

Partial Utilization—Property Insurance:

5.15. If OWNER finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, such use or occupancy may be accomplished in accordance with paragraph 14.10; provided that no such use or occupancy shall commence before the insurers providing the property insurance have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be cancelled or permitted to lapse on account of any such partial use or occupancy.

* See SC 5.16 in Supplementary Conditions

ARTICLE 6—CONTRACTOR'S RESPONSIBILITIES

Supervision and Superintendence:

6.1. CONTRACTOR shall supervise, inspect and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. ~~CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences and procedures of construction, but CONTRACTOR shall not be responsible for the negligence of others in the design or specification of a specific means, method, technique, sequence or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.~~ CONTRACTOR shall be responsible to see that the completed Work complies accurately with the Contract Documents.

See SC 6.1 in Supplementary Conditions

6.2. CONTRACTOR shall keep on the Work at all times during its progress a competent resident superintendent, who shall not be replaced without written notice to OWNER and ENGINEER except under extraordinary circumstances. The superintendent will be CONTRACTOR's representative at the site and shall have authority to act on behalf of CONTRACTOR. All communications to the superintendent shall be as binding as if given to CONTRACTOR.

Labor, Materials and Equipment:

6.3. CONTRACTOR shall provide competent, suitably qualified personnel to survey, lay out and construct the Work as required by the Contract Documents. CONTRACTOR shall at all times maintain good discipline and order at the site. Except as otherwise required for the safety or protection of persons or the Work or property at the site or adjacent thereto, and except as otherwise indicated in the Contract Documents, all Work at the site shall be performed during regular working hours and

CONTRACTOR will not permit overtime work or the performance of Work on Saturday, Sunday or any legal holiday without OWNER's written consent given after prior written notice to ENGINEER.

6.4. Unless otherwise specified in the General Requirements, CONTRACTOR shall furnish and assume full responsibility for all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up and completion of the Work. * See SC 6.4 in Supplementary Conditions

6.5. All materials and equipment shall be of good quality and new, except as otherwise provided in the Contract Documents. All warranties and guarantees specifically called for by the Specifications shall expressly run to the benefit of OWNER. If required by ENGINEER, CONTRACTOR shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with instructions of the applicable Supplier, except as otherwise provided in the Contract Documents.

Progress Schedule:

6.6. CONTRACTOR shall adhere to the progress schedule established in accordance with paragraph 2.9 as it may be adjusted from time to time as provided below:

6.6.1. CONTRACTOR shall submit to ENGINEER for acceptance (to the extent indicated in paragraph 2.9) proposed adjustments in the progress schedule that will not change the Contract Times (or Milestones). Such adjustments will conform generally to the progress schedule then in effect and additionally will comply with any provisions of the General Requirements applicable thereto.

6.6.2. Proposed adjustments in the progress schedule that will change the Contract Times (or Milestones) shall be submitted in accordance with the requirements of paragraph 12.1. Such adjustments may only be made by a Change Order or Written Amendment in accordance with Article 12.

6.7. Substitutes and "Or-Equal" Items:

6.7.1. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be accepted by ENGINEER under the following circumstances:

6.7.1.1. "Or-Equal": If in ENGINEER's sole discretion an item of material or equipment proposed by CONTRACTOR is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by ENGINEER as an "or-equal" item, in which case review and approval of the proposed item may, in ENGINEER's sole discretion, be accomplished without compliance with some or all of the requirements for acceptance of proposed substitute items.

6.7.1.2. *Substitute Items*: If in ENGINEER's sole discretion an item of material or equipment proposed by CONTRACTOR does not qualify as an "or-equal" item under subparagraph 6.7.1.1, it will be considered a proposed substitute item. CONTRACTOR shall submit sufficient information as provided below to allow ENGINEER to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. The procedure for review by the ENGINEER will include the following as supplemented in the General Requirements and as ENGINEER may decide is appropriate under the circumstances. Requests for review of proposed substitute items of material or equipment will not be accepted by ENGINEER from anyone other than CONTRACTOR. If CONTRACTOR wishes to furnish or use a substitute item of material or equipment, CONTRACTOR shall first make written application to ENGINEER for acceptance thereof, certifying that the proposed substitute will perform adequately the functions and achieve the results called for by the general design, be similar in substance to that specified and be suited to the same use as that specified. The application will state the extent, if any, to which the evaluation and acceptance of the proposed substitute will prejudice CONTRACTOR's achievement of Substantial Completion on time, whether or not acceptance of the substitute for use in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) to adapt the design to the proposed substitute and whether or not incorporation or use of the substitute in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed substitute from that specified will be identified in the application and available maintenance, repair and replacement service will be indicated. The application will also contain an itemized estimate of all costs or credits that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other contractors affected by the resulting change, all of which will be considered by ENGINEER in evaluating the proposed substitute. ENGINEER may require CONTRACTOR to furnish additional data about the proposed substitute.

6.7.1.3. *CONTRACTOR's Expense*: All data to be provided by CONTRACTOR in support of any proposed "or-equal" or substitute item will be at CONTRACTOR's expense.

6.7.2. *Substitute Construction Methods or Procedures*: If a specific means, method, technique, sequence or procedure of

construction is shown or indicated in and expressly required by the Contract Documents, CONTRACTOR may furnish or utilize a substitute means, method, technique, sequence or procedure of construction acceptable to ENGINEER. CONTRACTOR shall submit sufficient information to allow ENGINEER, in ENGINEER's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The procedure for review by ENGINEER will be similar to that provided in subparagraph 6.7.1.2.

6.7.3. *Engineer's Evaluation*: ENGINEER will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to paragraphs 6.7.1.2 and 6.7.2. ENGINEER will be the sole judge of acceptability. No "or-equal" or substitute will be ordered, installed or utilized without ENGINEER's prior written acceptance which will be evidenced by either a Change Order or an approved Shop Drawing. OWNER may require CONTRACTOR to furnish at CONTRACTOR's expense a special performance guarantee or other surety with respect to any "or-equal" or substitute. ENGINEER will record time required by ENGINEER and ENGINEER's Consultants in evaluating substitutes proposed or submitted by CONTRACTOR pursuant to paragraphs 6.7.1.2 and 6.7.2 and in making changes in the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) occasioned thereby. Whether or not ENGINEER accepts a substitute item so proposed or submitted by CONTRACTOR, CONTRACTOR shall reimburse OWNER for the charges of ENGINEER and ENGINEER's Consultants for evaluating each such proposed substitute item.

Concerning Subcontractors, Suppliers and Others:

6.8.1. CONTRACTOR shall not employ any Subcontractor, Supplier or other person or organization (including those acceptable to OWNER and ENGINEER as indicated in paragraph 6.8.2), whether initially or as a substitute, against whom OWNER or ENGINEER may have reasonable objection. CONTRACTOR shall not be required to employ any Subcontractor, Supplier or other person or organization to furnish or perform any of the Work against whom CONTRACTOR has reasonable objection. *

See SC 6.8.1 in Supplementary Conditions

6.8.2. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers or other persons or organizations (including those who are to furnish the principal items of materials or equipment) to be submitted to OWNER in advance of the specified date prior to the Effective Date of the Agreement for acceptance by OWNER and ENGINEER, and if CONTRACTOR has submitted a list thereof in accordance with the Supplementary Conditions, OWNER's or ENGINEER's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the bidding documents or the Contract Documents) of any such Subcontractor, Supplier or other person or organization so identified may be revoked on the basis of reasonable objection after due investigation, in which case CONTRACTOR shall submit an acceptable substitute, the Contract Price will be adjusted by the difference in the cost occasioned by such

substitution and an appropriate Change Order will be issued or Written Amendment signed. ~~No acceptance by OWNER~~

ENGINEER of any such Subcontractor, Supplier or other person or organization shall constitute a waiver of any right of OWNER or ENGINEER to reject defective Work.

** See SC 6.8.2 in Supplementary Conditions*

6.9.1. CONTRACTOR shall be fully responsible to OWNER and ENGINEER for all acts and omissions of the Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR just as CONTRACTOR is responsible for CONTRACTOR's own acts and omissions. Nothing in the Contract Documents shall create for the benefit of any such Subcontractor, Supplier or other person or organization any contractual relationship between OWNER or ENGINEER and any such Subcontractor, Supplier or other person or organization, nor shall it create any obligation on the part of OWNER or ENGINEER to pay or to see to the payment of any moneys due any such Subcontractor, Supplier or other person or organization except as may otherwise be required by Laws and Regulations.

6.9.2. CONTRACTOR shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR. CONTRACTOR shall require all Subcontractors, Suppliers and such other persons and organizations performing or furnishing any of the Work to communicate with the ENGINEER through CONTRACTOR.

6.10. The divisions and sections of the Specifications and the identifications of any Drawings shall not control CONTRACTOR in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

6.11. All Work performed for CONTRACTOR by a Subcontractor or Supplier will be pursuant to an appropriate agreement between CONTRACTOR and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of OWNER and ENGINEER. Whenever any such agreement is with a Subcontractor or Supplier who is listed as an additional insured on the property insurance provided in paragraph 5.6 or 5.7, the agreement between the CONTRACTOR and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against OWNER, CONTRACTOR, ENGINEER, ENGINEER's Consultants and all other additional insureds for all losses and damages caused by, arising out of or resulting from any of the perils covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, CONTRACTOR will obtain the same. ** See SC 6.11 in Supplementary Conditions*

Patent Fees and Royalties:

6.12. CONTRACTOR shall pay all license fees and royalties and assume all costs incident to the use in the performance

of the Work or the incorporation in the Work of any invention, design, process, product or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product or device is specified in the Contract Documents for use in the performance of the Work and if to the actual knowledge of OWNER or ENGINEER its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by OWNER in the Contract Documents. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultants and the officers, directors, employees, agents and other consultants of each and any of them from and against all claims, costs, losses and damages arising out of or resulting from any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product or device not specified in the Contract Documents. ***

See SC 6.12 in Supplementary Conditions

Permits:

6.13. Unless otherwise provided in the Supplementary Conditions, CONTRACTOR shall obtain and pay for all construction permits and licenses. OWNER shall assist CONTRACTOR, when necessary, in obtaining such permits and licenses. CONTRACTOR shall pay all governmental charges and inspection fees necessary for the prosecution of the Work, which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. CONTRACTOR shall pay all charges of utility owners for connections to the Work, and OWNER shall pay all charges of such utility owners for capital costs related thereto such as plant investment fees. ** See SC 6.13 in Supplementary Conditions*

Laws and Regulations:

6.14.1. CONTRACTOR shall give all notices and comply with all Laws and Regulations applicable to furnishing and performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither OWNER nor ENGINEER shall be responsible for monitoring CONTRACTOR's compliance with any Laws or Regulations.

6.14.2. If CONTRACTOR performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, CONTRACTOR shall bear all claims, costs, losses and damages caused by, arising out of or resulting therefrom; however, it shall not be CONTRACTOR's primary responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve CONTRACTOR of CONTRACTOR's obligations under paragraph 3.3.2.

Taxes:

6.15. CONTRACTOR shall pay all sales, consumer, use and other similar taxes required to be paid by CONTRACTOR in accordance with the Laws and Regulations of the place of

the Project which are applicable during the performance of the Work.

** See SC 6.15 in
Supplementary Conditions*

Use of Premises:

6.16. CONTRACTOR shall confine construction equipment, the storage of materials and equipment and the operations of workers to the site and land and areas identified in and permitted by the Contract Documents and other land and areas permitted by Laws and Regulations, rights-of-way, permits and easements, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment. CONTRACTOR shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof or of any adjacent land or areas, resulting from the performance of the Work. Should any claim be made by any such owner or occupant because of the performance of the Work, CONTRACTOR shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law. CONTRACTOR shall, to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultant and anyone directly or indirectly employed by any of them from and against all claims, costs, losses and damages arising out of or resulting from any claim or action, legal or equitable, brought by any such owner or occupant against OWNER, ENGINEER or any other party indemnified hereunder to the extent caused by or based upon CONTRACTOR's performance of the Work.

6.17. During the progress of the Work, CONTRACTOR shall keep the premises free from accumulations of waste materials, rubbish and other debris resulting from the Work. At the completion of the Work CONTRACTOR shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery and surplus materials. CONTRACTOR shall leave the site clean and ready for occupancy by OWNER at Substantial Completion of the Work. CONTRACTOR shall restore to original condition all property not designated for alteration by the Contract Documents.

6.18. CONTRACTOR shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall CONTRACTOR subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

Record Documents:

6.19. CONTRACTOR shall maintain in a safe place at the site one record copy of all Drawings, Specifications, Addenda, Written Amendments, Change Orders, Work Change Directives, Field Orders and written interpretations and clarifications (issued pursuant to paragraph 9.4) in good order and annotated to show all changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to ENGINEER for reference. Upon completion of

the Work, these record documents, Samples and Shop Drawings will be delivered to ENGINEER for OWNER.

Safety and Protection:

6.20. CONTRACTOR shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. CONTRACTOR shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

6.20.1. all persons on the Work site or who may be affected by the Work;

6.20.2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the site; and

6.20.3. other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and Underground Facilities not designated for removal, relocation or replacement in the course of construction.

** See SC 6.20.3 in
Supplementary Conditions*
CONTRACTOR shall comply with all applicable Laws and Regulations of any public body having jurisdiction for safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR shall notify owners of adjacent property and of Underground Facilities and utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation and replacement of their property. All damage, injury or loss to any property referred to in paragraph 6.20.2 or 6.20.3 caused, directly or indirectly, in whole or in part, by CONTRACTOR, any Subcontractor, Supplier or any other person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, shall be remedied by CONTRACTOR (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of OWNER or ENGINEER or ENGINEER's Consultant or anyone employed by any of them or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of CONTRACTOR or any Subcontractor, Supplier or other person or organization directly or indirectly employed by any of them). CONTRACTOR's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and ENGINEER has issued a notice to OWNER and CONTRACTOR in accordance with paragraph 14.13 that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

Safety Representative:

6.21. CONTRACTOR shall designate a qualified and experienced safety representative at the site whose duties and

responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

Hazard Communication Programs:

6.22. CONTRACTOR shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the site in accordance with Laws or Regulations.

Emergencies:

6.23. In emergencies affecting the safety or protection of persons or the Work or property at the site or adjacent thereto, CONTRACTOR, without special instruction or authorization from OWNER or ENGINEER, is obligated to act to prevent threatened damage, injury or loss. CONTRACTOR shall give ENGINEER prompt written notice if CONTRACTOR believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby. If ENGINEER determines that a change in the Contract Documents is required because of the action taken by CONTRACTOR in response to such an emergency, a Work Change Directive or Change Order will be issued to document the consequences of such action.

6.24. Shop Drawings and Samples:

6.24.1. CONTRACTOR shall submit Shop Drawings to ENGINEER for review and approval in accordance with the accepted schedule of Shop Drawings and Sample submittals (see paragraph 2.9). All submittals will be identified as ENGINEER may require and in the number of copies specified in the General Requirements. The data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials and similar data to show ENGINEER the materials and equipment CONTRACTOR proposes to provide and to enable ENGINEER to review the information for the limited purposes required by paragraph 6.26.

6.24.2. CONTRACTOR shall also submit Samples to ENGINEER for review and approval in accordance with said accepted schedule of Shop Drawings and Sample submittals. Each Sample will be identified clearly as to material, Supplier, pertinent data such as catalog numbers and the use for which intended and otherwise as ENGINEER may require to enable ENGINEER to review the submittal for the limited purposes required by paragraph 6.26. The numbers of each Sample to be submitted will be as specified in the Specifications.

6.25. Submittal Procedures:

6.25.1. Before submitting each Shop Drawing or Sample, CONTRACTOR shall have determined and verified:

6.25.1.1. all field measurements, quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers and similar information with respect thereto.

6.25.1.2. all materials with respect to intended use, fabrication, shipping, handling, storage, assembly and installation pertaining to the performance of the Work, and

6.25.1.2. all information relative to CONTRACTOR's sole responsibilities in respect of means, methods, techniques, sequences and procedures of construction and safety precautions and programs incident thereto.

CONTRACTOR shall also have reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings, and Samples and with the requirements of the Work and the Contract Documents.

6.25.2. Each submittal will bear a stamp or specific written indication that CONTRACTOR has satisfied CONTRACTOR's obligations under the Contract Documents with respect to CONTRACTOR'S review and approval of that submittal.

6.25.3. At the time of each submission, CONTRACTOR shall give ENGINEER specific written notice of such variations, if any, that the Shop Drawing or Sample submitted may have from the requirements of the Contract Documents, such notice to be in a written communication separate from the submittal; and, in addition, shall cause a specific notation to be made on each Shop Drawing and Sample submitted to ENGINEER for review and approval of each such variation.

6.26. ENGINEER will review and approve Shop Drawings and Samples in accordance with the schedule of Shop Drawings and Sample submittals accepted by ENGINEER as required by paragraph 2.9. ENGINEER's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. ENGINEER's review and approval will not extend to means, methods, techniques, sequences or procedures of construction (except where a particular means, method, technique, sequence or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions. CONTRACTOR shall make corrections required by ENGINEER, and shall return the required number of corrected copies of Shop Drawings and submit as required new Samples for review and approval. CONTRACTOR shall direct specific attention in writing to revisions other than the corrections called for by ENGINEER on previous submittals.

6.27. ENGINEER's review and approval of Shop Drawings or Samples shall not relieve CONTRACTOR from responsibility for any variation from the requirements of the Contract

Documents unless CONTRACTOR has in writing called ENGINEER's attention to each such variation at the time of submission as required by paragraph 6.25.3 and ENGINEER has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample approval; nor will any approval by ENGINEER relieve CONTRACTOR from responsibility for complying with the requirements of paragraph 6.25.1.

6.28. Where a Shop Drawing or Sample is required by the Contract Documents or the schedule of Shop Drawings and Sample submissions accepted by ENGINEER as required by paragraph 2.9, any related Work performed prior to ENGINEER's review and approval of the pertinent submittal will be at the sole expense and responsibility of CONTRACTOR.

Continuing the Work:

6.29. CONTRACTOR shall carry on the Work and adhere to the progress schedule during all disputes or disagreements with OWNER. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by paragraph 15.5 or as OWNER and CONTRACTOR may otherwise agree in writing.

6.30. CONTRACTOR's General Warranty and Guarantee:

6.30.1. CONTRACTOR warrants and guarantees to OWNER, ENGINEER and ENGINEER's Consultants that all Work will be in accordance with the Contract Documents and will not be *defective*. CONTRACTOR's warranty and guarantee hereunder excludes defects or damage caused by:

6.30.1.1. ~~abuse, modification or improper maintenance or operation by persons other than CONTRACTOR, Subcontractors or Suppliers; or~~

* See SC 6.30.1.1: in Supplementary Conditions

6.30.1.2. normal wear and tear under normal usage.

6.30.2. CONTRACTOR's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of CONTRACTOR's obligation to perform the Work in accordance with the Contract Documents:

6.30.2.1. observations by ENGINEER;

6.30.2.3. recommendation of any progress or final payment by ENGINEER;

6.30.2.3. the issuance of a certificate of Substantial Completion or any payment by OWNER to CONTRACTOR under the Contract Documents;

6.30.2.4. use or occupancy of the Work or any part thereof by OWNER;

6.30.2.5. any acceptance by OWNER or any failure to do so;

6.30.2.6. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by ENGINEER pursuant to paragraph 14.13;

6.30.2.7. any inspection, test or approval by others; or

6.30.2.8. any correction of *defective* Work by OWNER.

Indemnification:

6.31. ~~To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultants and the officers, directors, employees, agents and other consultants of each and any of them from and against all claims, costs, losses and damages (including but not limited to all fees and charges of engineers, architects, attorneys and other professionals and all court or arbitration or other dispute resolution costs) caused by, arising out of or resulting from the performance of the Work, provided that any such claim, cost, loss or damage: (i) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, and (ii) is caused in whole or in part by any negligent act or omission of CONTRACTOR, any Subcontractor, any Supplier, any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, regardless of whether or not caused in part by any negligence or omission of a person or entity indemnified hereunder or whether liability is imposed upon such indemnified party by Laws and Regulations regardless of the negligence of any such person or entity.~~

* See SC 6.31 in Supplementary Conditions

6.32. In any and all claims against OWNER or ENGINEER or any of their respective consultants, agents, officers, directors or employees by any employee (or the survivor or personal representative of such employee) of CONTRACTOR, any Subcontractor, any Supplier, any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under paragraph 6.31 shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for CONTRACTOR or any such Subcontractor, Supplier or other person or organization under workers' compensation acts, disability benefit acts or other employee benefit acts.

6.33. The indemnification obligations of CONTRACTOR under paragraph 6.31 shall not extend to the liability of ENGINEER and ENGINEER's Consultants, officers, directors, employees or agents caused by the professional negligence, errors or omissions of any of them.

Survival of Obligations:

6.34. All representations, indemnifications, warranties and guarantees made in, required by or given in accordance with

the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion and acceptance of the Work and termination or completion of the Agreement.

ARTICLE 7—OTHER WORK

Related Work at Site:

7.1. OWNER may perform other work related to the Project at the site by OWNER's own forces, or let other direct contracts therefor which shall contain General Conditions similar to these, or have other work performed by utility owners. If the fact that such other work is to be performed was not noted in the Contract Documents, then: (i) written notice thereof will be given to CONTRACTOR prior to starting any such other work, and (ii) ~~CONTRACTOR~~ may make a claim therefor as provided in Articles 11 and 12 if CONTRACTOR believes that such performance will involve additional expense to CONTRACTOR or requires additional time and the parties are unable to agree as to the amount or extent thereof.

*
See SC 7.1 in Supplementary Conditions

7.2. CONTRACTOR shall afford each other contractor who is a party to such a direct contract and each utility owner (and OWNER, if OWNER is performing the additional work with OWNER's employees) proper and safe access to the site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work and shall properly connect and coordinate the Work with theirs. Unless otherwise provided in the Contract Documents, CONTRACTOR shall do all cutting, fitting and patching of the Work that may be required to make its several parts come together properly and integrate with such other work. CONTRACTOR shall not endanger any work of others by cutting, excavating or otherwise altering their work and will only cut or alter their work with the written consent of ENGINEER and the others whose work will be affected. The duties and responsibilities of CONTRACTOR under this paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of CONTRACTOR in said direct contracts between OWNER and such utility owners and other contractors.

7.3. If the proper execution or results of any part of CONTRACTOR's Work depends upon work performed by others under this Article 7, CONTRACTOR shall inspect such other work and promptly report to ENGINEER in writing any delays, defects or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of CONTRACTOR's Work. CONTRACTOR's failure so to report will constitute an acceptance of such other work as fit and proper for integration with CONTRACTOR's Work except for latent or nonapparent defects and deficiencies in such other work.

Coordination:

7.4. If OWNER contracts with others for the performance of other work on the Project at the site, the following will be set forth in Supplementary Conditions:

7.4.1. the person, firm or corporation who will have authority and responsibility for coordination of the activities among the various prime contractors will be identified;

7.4.2. the specific matters to be covered by such authority and responsibility will be itemized; and

7.4.3. the extent of such authority and responsibilities will be provided.

Unless otherwise provided in the Supplementary Conditions, OWNER shall have sole authority and responsibility in respect of such coordination.

ARTICLE 8—OWNER'S RESPONSIBILITIES

8.1. Except as otherwise provided in these General Conditions, OWNER shall issue all communications to CONTRACTOR through ENGINEER.

8.2. ~~In case of termination of the employment of ENGINEER, OWNER shall appoint an engineer against whom CONTRACTOR makes no reasonable objection, whose status under the Contract Documents shall be that of the former ENGINEER.~~ See SC 8.2 in Supplementary Conditions *

8.3. OWNER shall furnish the data required of OWNER under the Contract Documents promptly and shall make payments to CONTRACTOR promptly when they are due as provided in paragraphs 14.4 and 14.13.

8.4. OWNER's duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in paragraphs 4.1 and 4.4. Paragraph 4.2 refers to OWNER's identifying and making available to CONTRACTOR copies of reports of explorations and tests of subsurface conditions at the site and drawings of physical conditions in existing structures at or contiguous to the site that have been utilized by ENGINEER in preparing the Contract Documents.

8.5. OWNER's responsibilities in respect of purchasing and maintaining liability and property insurance are set forth in paragraphs 5.5 through 5.10.

8.6. OWNER is obligated to execute Change Orders as indicated in paragraph 10.4.

8.7. OWNER's responsibility in respect of certain inspections, tests and approvals is set forth in paragraph 13.4.

8.8. In connection with OWNER's right to stop Work or suspend Work, see paragraphs 13.10 and 15.1. Paragraph 15.2 deals with OWNER's right to terminate services of CONTRACTOR under certain circumstances.

8.9. The OWNER shall not supervise, direct or have control or authority over, nor be responsible for, CONTRACTOR's means, methods, techniques, sequences or procedures of construction or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the furnishing or performance of the Work. OWNER will not be responsible for CONTRACTOR's failure to perform or furnish the Work in accordance with the Contract Documents. *

See SC 8.9 in Supplementary Conditions

8.10. OWNER'S responsibility in respect of undisclosed Asbestos, PCBs, Petroleum, Hazardous Waste or Radioactive Materials uncovered or revealed at the site is set forth in paragraph 4.5.

~~8.11. If and to the extent OWNER has agreed to furnish CONTRACTOR reasonable evidence that financial arrangements have been made to satisfy OWNER's obligations under the Contract Documents, OWNER's responsibility in respect thereof will be as set forth in the Supplementary Conditions.~~

See SC 8.11 in Supplementary Conditions

ARTICLE 9—ENGINEER'S STATUS DURING CONSTRUCTION

OWNER's Representative:

9.1. ENGINEER will be OWNER's representative during the construction period. The duties and responsibilities and the limitations of authority of ENGINEER as OWNER's representative during construction are set forth in the Contract Documents and shall not be extended without written consent of OWNER and ENGINEER.

Visits to Site:

9.2. ENGINEER will make visits to the site at intervals appropriate to the various stages of construction as ENGINEER deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of CONTRACTOR's executed Work. Based on information obtained during such visits and observations, ENGINEER will endeavor for the benefit of OWNER to determine, in general, if the Work is proceeding in accordance with the Contract Documents. ENGINEER will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. ENGINEER's efforts will be directed toward providing for OWNER a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and on-site observations, ENGINEER will keep OWNER informed of the progress of the Work and will endeavor to guard OWNER against defective Work. ENGINEER's visits and on-site observations are subject to all the limitations on ENGINEER's authority and responsibility set forth in paragraph 9.13, and particularly, but without limitation, during or as a result of ENGINEER's on-site visits or

observations of CONTRACTOR's Work ENGINEER will not supervise, direct, control or have authority over or be responsible for CONTRACTOR's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the furnishing or performance of the Work. *

See SC 9.2 in Supplementary Conditions

Project Representative:

9.3. If OWNER and ENGINEER agree, ENGINEER will furnish a Resident Project Representative to assist ENGINEER in providing more continuous observation of the Work. The responsibilities and authority and limitations thereon of any such Resident Project Representative and assistants will be as provided in paragraph 9.13 and in the Supplementary Conditions. If OWNER designates another representative or agent to represent OWNER at the site who is not ENGINEER's Consultant, agent or employee, the responsibilities and authority and limitations thereon of such other person will be as provided in the Supplementary Conditions.

** SC 9.3.1 in Supplementary Conditions*

Clarifications and Interpretations:

9.4. ENGINEER will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Contract Documents (in the form of Drawings or otherwise) as ENGINEER may determine necessary, which shall be consistent with the intent of and reasonably inferable from Contract Documents. Such written clarifications and interpretations will be binding on OWNER and CONTRACTOR. If OWNER or CONTRACTOR believes that a written clarification or interpretation justifies an adjustment in the Contract Price or the Contract Times and the parties are unable to agree to the amount or extent thereof, if any, OWNER or CONTRACTOR may make a written claim therefor as provided in Article 11 or Article 12.

Authorized Variations in Work:

9.5. ENGINEER may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on OWNER and also on CONTRACTOR who shall perform the Work involved promptly. If OWNER or CONTRACTOR believes that a Field Order justifies an adjustment in the Contract Price or the Contract Times and the parties are unable to agree as to the amount or extent thereof, OWNER or CONTRACTOR may make a written claim therefor as provided in Article 11 or 12.

Rejecting Defective Work:

9.6. ENGINEER will have authority to disapprove or reject Work which ENGINEER believes to be defective, or

that ENGINEER believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. ENGINEER will also have authority to require special inspection or testing of the Work as provided in paragraph 13.9, whether or not the Work is fabricated, installed or completed.

Shop Drawings, Change Orders and Payments:

9.7. In connection with ENGINEER's authority as to Shop Drawings and Samples, see paragraphs 6.24 through 6.28 inclusive.

9.8. In connection with ENGINEER's authority as to Change Orders, see Articles 10, 11, and 12.

9.9. In connection with ENGINEER's authority as to Applications for Payment, see Article 14.

Determinations for Unit Prices:

9.10. ENGINEER will determine the actual quantities and classifications of Unit Price Work performed by CONTRACTOR. ENGINEER will review with CONTRACTOR the ENGINEER's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). ENGINEER's written decision thereon will be final and binding upon OWNER and CONTRACTOR, unless, within ten days after the date of any such decision, either OWNER or CONTRACTOR delivers to the other and to ENGINEER written notice of intention to appeal from ENGINEER's decision and: (i) an appeal from ENGINEER's decision is taken within the time limits and in accordance with the procedures set forth in Exhibit GC-A, "Dispute Resolution Agreement," entered into between OWNER and CONTRACTOR pursuant to Article 16, or (ii) if no such Dispute Resolution Agreement has been entered into, a formal proceeding is instituted by the appealing party in a forum of competent jurisdiction to exercise such rights or remedies as the appealing party may have with respect to ENGINEER's decision, unless otherwise agreed in writing by OWNER and CONTRACTOR. Such appeal will not be subject to the procedures of paragraph 9.11.

Decisions on Disputes:

9.11. ENGINEER will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. Claims, disputes and other matters relating to the acceptability of the Work or the interpretation of the requirements of the Contract Documents pertaining to the performance and furnishing of the Work and Claims under Articles 11 and 12 in respect of changes in the Contract Price or Contract Times will be referred initially to ENGINEER in writing with a request for a formal decision in accordance with this paragraph. Written notice of each such claim, dispute or other matter will be delivered by the claimant

to ENGINEER and the other party to the Agreement promptly (but in no event later than thirty days) after the start of the occurrence or event giving rise thereto, and written supporting data will be submitted to ENGINEER and the other party within sixty days after the start of such occurrence or event unless ENGINEER allows an additional period of time for the submission of additional or more accurate data in support of such claim, dispute or other matter. The opposing party shall submit any response to ENGINEER and the claimant within thirty days after receipt of the claimant's last submittal (unless ENGINEER allows additional time). ENGINEER will render a formal decision in writing within thirty days after receipt of the opposing party's submittal, if any, in accordance with this paragraph. ENGINEER's written decision on such claim, dispute or other matter will be final and binding upon OWNER and CONTRACTOR unless: (i) an appeal from ENGINEER's decision is taken within the time limits and in accordance with the procedures set forth in EXHIBIT GC-A, "Dispute Resolution Agreement," entered into between OWNER and CONTRACTOR pursuant to Article 16, or (ii) if no such Dispute Resolution Agreement has been entered into, a written notice of intention to appeal from ENGINEER's written decision is delivered by OWNER or CONTRACTOR to the other and to ENGINEER within thirty days after the date of such decision and a formal proceeding is instituted by the appealing party in a forum of competent jurisdiction to exercise such rights or remedies as the appealing party may have with respect to such claim, dispute or other matter in accordance with applicable Laws and Regulations within sixty days of the date of such decision, unless otherwise agreed in writing by OWNER and CONTRACTOR.

9.12. When functioning as interpreter and judge under paragraphs 9.10 and 9.11, ENGINEER will not show partiality to OWNER or CONTRACTOR and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity. The rendering of a decision by ENGINEER pursuant to paragraphs 9.10 or 9.11 with respect to any such claim, dispute or other matter (except any which have been waived by the making or acceptance of final payment as provided in paragraph 14.16) will be a condition precedent to any exercise by OWNER or CONTRACTOR of such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any such claim, dispute or other matter pursuant to Article 16.

9.13. Limitations on ENGINEER's Authority and Responsibilities:

9.13.1. Neither ENGINEER's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by ENGINEER in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise or performance of any authority or responsibility by ENGINEER shall create, impose or give rise to any duty owed by ENGINEER to CONTRACTOR, any Subcontractor, any Supplier, any other person or organization, or to any surety for or employee or agent of any of them.

9.13.2. ENGINEER will not supervise, direct, control or have authority over or be responsible for CONTRACTOR's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the furnishing or performance of the Work. ENGINEER will not be responsible for CONTRACTOR's failure to perform or furnish the Work in accordance with the Contract Documents.

9.13.3. ENGINEER will not be responsible for the acts or omissions of CONTRACTOR or of any Subcontractor, any Supplier, or of any other person or organization performing or furnishing any of the Work.

9.13.4. ENGINEER's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds and certificates of inspection, tests and approvals and Other documentation required to be delivered by paragraph 14.12 will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests and approvals that the results certified indicate compliance with, the Contract Documents.

9.13.5. The limitations upon authority and responsibility set forth in this paragraph 9.13 shall also apply to ENGINEER's Consultants, Resident Project Representative and assistants.

ARTICLE 10—CHANGES IN THE WORK

* 10.1. ~~Without invalidating the Agreement and without notice to any surety, OWNER may, at any time or from time to time, order additions, deletions or revisions in the Work.~~ Such additions, deletions or revisions will be authorized by a Written Amendment, a Change Order, or a Work Change Directive. Upon receipt of any such document, CONTRACTOR shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided). *See SC 10.1 of Supplementary Conditions*

10.2. If OWNER and CONTRACTOR are unable to agree as to the extent, if any, of an adjustment in the Contract Price or an adjustment of the Contract Times that should be allowed as a result of a Work Change Directive, a claim may be made therefor as provided in Article 11 or Article 12.

10.3. CONTRACTOR shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any Work performed that is not required by the Contract Documents as amended, modified and supplemented as provided in paragraphs 3.5 and 3.6 except in the case of an emergency as provided in paragraph 6.23 or in the case of uncovering Work as provided in paragraph 13.9.

10.4. OWNER and CONTRACTOR shall execute appropriate Change Orders recommended by ENGINEER (or Written Amendments) covering:

10.4.1. changes in the Work which are (i) ordered by OWNER pursuant to paragraph 10.1, (ii) required because of acceptance of *defective* Work under paragraph 13.13 or correcting *defective* Work under paragraph 13.14, or (iii) agreed to by the parties;

10.4.2. changes in the Contract Price or Contract Times which are agreed to by the parties; and

10.4.3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by ENGINEER pursuant to paragraph 9.11;

provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, CONTRACTOR shall carry on the Work and adhere to the progress schedule as provided in paragraph 6.29.

10.5. If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times) is required by the provisions of any Bond to be given to a surety, the giving of any such notice will be CONTRACTOR's responsibility, and the amount of each applicable Bond will be adjusted accordingly.

ARTICLE 11—CHANGE OF CONTRACT PRICE

11.1. The Contract Price constitutes the total compensation (subject to authorized adjustments) payable to CONTRACTOR for performing the Work. All duties, responsibilities and obligations assigned to or undertaken by CONTRACTOR shall be at CONTRACTOR's expense without change in the Contract Price.

11.2. The Contract Price may only be changed by a Change Order or by a Written Amendment. Any claim for an adjustment in the Contract Price shall be based on written notice delivered by the party making the claim to the other party and to ENGINEER promptly (but in no event later than thirty days) after the start of the occurrence or event giving rise to the claim and stating the general nature of the claim. Notice of the amount of the claim with supporting data shall be delivered within sixty days after the start of such occurrence or event (unless ENGINEER allows additional time for claimant to submit additional or more accurate data in support of the claim) and shall be accompanied by claimant's written statement that the adjustment claimed covers all known amounts to which the claimant is entitled as a result of said occurrence or event. All claims for adjustment in the Contract Price shall be determined by ENGINEER in accordance with paragraph 9.11 if OWNER and CONTRACTOR cannot otherwise agree on the amount involved. No claim for an adjustment in the Contract Price will

be valid if not submitted in accordance with this paragraph 11.2.

11.3. The value of any Work covered by a Change Order or of any claim for an adjustment in the Contract Price will be determined as follows:

11.3.1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of paragraphs 11.9.1 through 11.9.3, inclusive);

11.3.2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with paragraph 11.6.2);

11.3.3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under paragraph 11.3.2, on the basis of the Cost of the Work (determined as provided in paragraphs 11.4 and 11.5) plus a CONTRACTOR's fee for overhead and profit (determined as provided in paragraph 11.6).

** See SC 11.3.4 of Supplementary Conditions*

Cost of the Work:

** 11.4. The term Cost of the Work means the sum of all costs necessarily incurred and paid by CONTRACTOR in the proper performance of the Work. Except as otherwise may be agreed to in writing by OWNER, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items and shall not include any of the costs itemized in paragraph 11.5:*

See SC 11.4 of Supplementary Conditions

11.4.1. Payroll costs for employees in the direct employ of CONTRACTOR in the performance of the Work under schedules of job classifications agreed upon by OWNER and CONTRACTOR. Such employees shall include without limitation superintendents, foremen and other personnel employed full-time at the site. Payroll costs for employees not employed full-time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits which shall include social security contributions, unemployment, excise and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work after regular working hours, on Saturday, Sunday or legal holidays, shall be included in the above to the extent authorized by OWNER.

11.4.2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to CONTRACTOR unless OWNER deposits funds with CONTRACTOR with which to make payments, in which case the

cash discounts shall accrue to OWNER. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to OWNER, and CONTRACTOR shall make provisions so that they may be obtained.

11.4.3. Payments made by CONTRACTOR to the Subcontractors for Work performed or furnished by Subcontractors. If required by OWNER, CONTRACTOR shall obtain competitive bids from subcontractors acceptable to OWNER and CONTRACTOR and shall deliver such bids to OWNER who will then determine, with the advice of ENGINEER, which bids, if any, will be accepted. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work Plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as CONTRACTOR's Cost of the Work and fee as provided in paragraphs 11.4, 11.5, 11.6 and 11.7. All subcontracts shall be subject to the other provisions of the Contract Documents insofar as applicable.

11.4.4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys and accountants) employed for services specifically related to the Work.

11.4.5. Supplemental costs including the following:

11.4.5.1. The proportion of necessary transportation, travel and subsistence expenses of CONTRACTOR's employees incurred in discharge of duties connected with the Work.

11.4.5.2. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office and temporary facilities at the site and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost less market value of such items used but not consumed which remain the property of CONTRACTOR.

11.4.5.3. Rentals of all construction equipment and machinery and the parts thereof whether rented from CONTRACTOR or others in accordance with rental agreements approved by OWNER with the advice of ENGINEER, and the costs of transportation, loading, unloading, installation, dismantling and removal thereof—all in accordance with the terms of said rental agreements. The rental of any such equipment, machinery or parts shall cease when the use thereof is no longer necessary for the Work.

11.4.5.4. Sales, consumer, use or similar taxes related to the Work, and for which CONTRACTOR is liable, imposed by Laws and Regulations.

11.4.5.5. Deposits lost for causes other than negligence of CONTRACTOR, any Subcontractor or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

* 11.4.5.6. ~~Losses and damages (and related expenses)~~ caused by damage to the Work, not compensated by insurance or otherwise, sustained by CONTRACTOR in connection with the performance and furnishing of the Work (except losses and damages within the deductible amounts of property insurance established by OWNER in accordance with paragraph 5.9), provided they have resulted from causes other than the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of OWNER. No such losses, damages and expenses shall be included in the Cost of the Work for the purpose of determining CONTRACTOR's fee. If, however, any such loss or damage requires reconstruction and CONTRACTOR is placed in charge thereof, CONTRACTOR shall be paid for services a fee proportionate to that stated in paragraph 11.6.2.

See SC 11.4.5.6 of Supplementary Conditions

11.4.5.7. The cost of utilities, fuel and sanitary facilities at the site.

11.4.5.8. Minor expenses such as telegrams, long distance telephone calls, telephone service at the site, expressage and similar petty cash items in connection with the Work.

11.4.5.9. Cost of premiums for additional Bonds and insurance required because of changes in the Work.

11.5. The term Cost of the Work shall not include any of the following:

11.5.1. Payroll costs and other compensation of CONTRACTOR's officers, executives, principals (of partnership and sole proprietorships), general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks and other personnel employed by CONTRACTOR whether at the site or in CONTRACTOR's principal or a branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in paragraph 11.4.1 or specifically covered by paragraph 11.4.4—all of which are to be considered administrative costs covered by the CONTRACTOR's fee.

11.5.2. Expenses of CONTRACTOR's principal and branch offices other than CONTRACTOR's office at the site.

11.5.3. Any part of CONTRACTOR's capital expenses, including interest on CONTRACTOR's capital employed for the Work and charges against CONTRACTOR for delinquent payments.

11.5.4. Cost of premiums for all Bonds and for all insurance whether or not CONTRACTOR is required by the Contract Documents to purchase and maintain the same (except for the cost of premiums covered by subparagraph 11.4.5.9 above).

11.5.5. Costs due to the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied and making good any damage to property.

Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in paragraph 11.4.

11.6. The CONTRACTOR's fee allowed to CONTRACTOR for overhead and profit shall be determined as follows:

11.6.1. a mutually acceptable fixed fee; or

11.6.2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:

11.6.2.1. ~~for costs incurred under paragraphs 11.4.1 and 11.4.2, the CONTRACTOR's fee shall be fifteen percent;~~ *

See SC 11.6.1.2 of Supplementary Conditions

11.6.2.2. for costs incurred under paragraph 11.4.3, the CONTRACTOR's fee shall be five percent;

11.6.2.3. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of paragraphs 11.4.1, 11.4.2, 11.4.3 and 11.6.2 is that the Subcontractor who actually performs or furnishes the Work, at whatever tier, will be paid a fee of fifteen percent of the costs incurred by such Subcontractor under paragraphs 11.4.1 and 11.4.2 and that any higher tier Subcontractor and CONTRACTOR will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;

11.6.2.4. no fee shall be payable on the basis of costs itemized under paragraphs 11.4.4, 11.4.5 and 11.5;

11.6.2.5. ~~the amount of credit to be allowed by CONTRACTOR to OWNER for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in CONTRACTOR's fee by an amount equal to five percent of such net decrease;~~ *

and See SC 11.6.2.5 of Supplementary Conditions

~~11.6.2.5.~~ when both additions and credits are involved in any one change, the adjustment in CONTRACTOR's fee shall be computed on the basis of the net change in accordance with paragraphs 11.6.2.1 through 11.6.2.5, inclusive. See SC 11.6.2.6 of Supplementary Conditions *

11.7. Whenever the cost of any Work is to be determined pursuant to paragraphs 11.4 and 11.5, CONTRACTOR will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in form acceptable to ENGINEER an itemized cost breakdown together with supporting data.

Cash Allowances:

11.8. It is understood that CONTRACTOR has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be furnished and performed for such sums as may be acceptable to OWNER and ENGINEER. CONTRACTOR agrees that:

11.8.1. the allowances include the cost to CONTRACTOR (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the site, and all applicable taxes; and

11.8.2. CONTRACTOR's costs for unloading and handling on the site, labor, installation costs, overhead, profit and other expenses contemplated for the allowances have been included in the Contract Price and not in the allowances and no demand for additional payment on account of any of the foregoing will be valid.

Prior to final payment, an appropriate Change Order will be issued as recommended by ENGINEER to reflect actual amounts due CONTRACTOR on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.9. Unit Price Work:

11.9.1. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the established unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by CONTRACTOR will be made by ENGINEER in accordance with paragraph 9.10.

11.9.2. Each unit price will be deemed to include an amount considered by CONTRACTOR to be adequate to cover CONTRACTOR's overhead and profit for each separately identified item.

~~11.9.3. OWNER or CONTRACTOR may make a claim for an adjustment in the Contract Price in accordance with Article 11 if:~~

~~11.9.3.1. the quantity of any item of Unit Price Work performed by CONTRACTOR differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and~~

~~11.9.3.2. there is no corresponding adjustment with respect to any other item of Work; and~~

~~11.9.3.3. if CONTRACTOR believes that CONTRACTOR is entitled to an increase in Contract Price as a result~~

~~of having incurred additional expense or OWNER believes that OWNER is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.~~

See SC 11.9.3 of Supplementary Conditions

ARTICLE 12—CHANGE OF CONTRACT TIMES

~~12.1. The Contract Times (or Milestones) may only be changed by a Change Order or a Written Amendment. Any claim for an adjustment of the Contract Times (or Milestones) shall be based on written notice delivered by the party making the claim to the other party and to ENGINEER promptly (but in no event later than thirty days) after the occurrence of the event giving rise to the claim and stating the general nature of the claim. Notice of the extent of the claim with supporting data shall be delivered within sixty days after such occurrence (unless ENGINEER allows an additional period of time to ascertain more accurate data in support of the claim) and shall be accompanied by the claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant has reason to believe it is entitled as a result of the occurrence of said event. All claims for adjustment in the Contract Times (or Milestones) shall be determined by ENGINEER in accordance with paragraph 9.11 if OWNER and CONTRACTOR cannot otherwise agree. No claim for an adjustment in the Contract Times (or Milestones) will be valid if not submitted in accordance with the requirements of this paragraph 12.1.~~

See SC 12.1 of Supplementary Conditions

12.2. All time limits stated in the Contract Documents are of the essence of the Agreement.

~~12.3. Where CONTRACTOR is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of CONTRACTOR, the Contract Times (or Milestones) will be extended in an amount equal to the time lost due to such delay if a claim is made therefor as provided in paragraph 12.1. Delays beyond the control of CONTRACTOR shall include, but not be limited to, acts or neglect by OWNER, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions or acts of God. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of CONTRACTOR.~~

See SC 12.3 of Supplementary Conditions

~~12.4. Where CONTRACTOR is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of both OWNER and CONTRACTOR, an extension of the Contract Times (or Milestones) in an amount equal to the time lost due to such delay shall be CONTRACTOR's sole and exclusive remedy for such delay. In no event shall OWNER be liable to CONTRACTOR, any Subcontractor, any Supplier, any other person or organization, or to any surety for or employee or agent of any of them, for damages arising out of or resulting from (i) delays caused by or within the control of CONTRACTOR, or (ii)~~

~~delays beyond the control of both parties including but not limited to fires, floods, epidemics, abnormal weather conditions, acts of God or acts or neglect by utility owners or other contractors performing other work as contemplated by Article 7.~~

See SC 12.4 of Supplementary Conditions

ARTICLE 13—TESTS AND INSPECTIONS;
CORRECTION, REMOVAL OR
ACCEPTANCE OF DEFECTIVE WORK

13.1. *Notice of Defects:* Prompt notice of all *defective* Work of which OWNER or ENGINEER have actual knowledge will be given to CONTRACTOR. All *defective* Work may be rejected, corrected or accepted as provided in this Article 13.

Access to Work:

13.2. OWNER, ENGINEER, ENGINEER's Consultants, other representatives and personnel of OWNER, independent testing laboratories and governmental agencies with jurisdictional interests will have access to the Work at reasonable times for their observation, inspecting and testing. CONTRACTOR shall provide them proper and safe conditions for such access and advise them of CONTRACTOR's site safety procedures and programs so that they may comply therewith as applicable.

Tests and Inspections:

13.3. CONTRACTOR shall give ENGINEER timely notice of readiness of the Work for all required inspections, tests or approvals, and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.

13.4. OWNER shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:

13.4.1. for inspections, tests or approvals covered by paragraph 13.5 below;

13.4.2. that costs incurred in connection with tests or inspections conducted pursuant to paragraph 13.9 below shall be paid as provided in said paragraph 13.9; and

13.4.3. as otherwise specifically provided in the Contract Documents.

13.5. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested or approved by an employee or other representative of such public body, CONTRACTOR shall assume full responsibility for arranging and obtaining such inspections, tests or approvals, pay all costs in connection therewith, and furnish ENGINEER the required certificates of inspection, or

approval. CONTRACTOR shall also be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests or approvals required for OWNER's and ENGINEER's acceptance of materials or equipment to be incorporated in the Work, or of materials, mix designs, or equipment submitted for approval prior to CONTRACTOR's purchase thereof for incorporation in the Work.

13.6. If any Work (or the work of others) that is to be inspected, tested or approved is covered by CONTRACTOR without written concurrence of ENGINEER, it must, if requested by ENGINEER, be uncovered for observation.

13.7. Uncovering Work as provided in paragraph 13.6 shall be at CONTRACTOR's expense unless CONTRACTOR has given ENGINEER timely notice of CONTRACTOR's intention to cover the same and ENGINEER has not acted with reasonable promptness in response to such notice.

Uncovering Work:

13.8. If any Work is covered contrary to the written request of ENGINEER, it must, if requested by ENGINEER, be uncovered for ENGINEER's observation and replaced at CONTRACTOR's expense.

13.9. If ENGINEER considers it necessary or advisable that covered Work be observed by ENGINEER or inspected or tested by others, CONTRACTOR, at ENGINEER's request, shall uncover, expose or otherwise make available for observation, inspection or testing as ENGINEER may require, that portion of the Work in question, furnishing all necessary labor, material and equipment. If it is found that such Work is *defective*, CONTRACTOR shall pay all claims, costs, losses and damages caused by, arising out of or resulting from such uncovering, exposure, observation, inspection and testing and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and OWNER shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, may make a claim therefor as provided in Article 11. If, however, such Work is not found to be *defective*, CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Times (or Milestones), or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement and reconstruction; and, if the parties are unable to agree as to the amount or extent thereof, CONTRACTOR may make a claim therefor as provided in Articles 11 and 12.

OWNER May Stop the Work:

13.10. If the Work is *defective*, or CONTRACTOR fails to supply sufficient skilled workers or suitable materials or equipment, or fails to furnish or perform the Work in such a way that the completed Work will conform to the Contract Documents, OWNER may order CONTRACTOR to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of OWNER to stop the Work

shall not give rise to any duty on the part of OWNER to exercise this right for the benefit of CONTRACTOR or any surety or other party. *

See SC 13.10 of Supplementary Conditions
Correction or Removal of Defective Work:

13.11. If required by ENGINEER, CONTRACTOR shall promptly, as directed, either correct all defective Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by ENGINEER, remove it from the site and replace it with Work that is not defective. CONTRACTOR shall pay all claims, costs, losses and damages caused by or resulting from such correction or removal (including but not limited to all costs of repair or replacement of work of others).

13.12. Correction Period:

13.12.1. If within one year after the date of Substantial Completion or such longer period of time as may be prescribed by Laws or Regulations or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, any Work is found to be defective, CONTRACTOR shall promptly, without cost to OWNER and in accordance with OWNER's written instructions: (i) correct such defective Work, or, if it has been rejected by OWNER, remove it from the site and replace it with Work that is not defective, and (ii) satisfactorily correct or remove and replace any damage to other Work or the work of others resulting therefrom. If CONTRACTOR does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, OWNER may have the defective Work corrected or the rejected Work removed and replaced, and all claims, costs, losses and damages caused by or resulting from such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by CONTRACTOR.

13.12.2. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications or by Written Amendment.

13.12.3. Where defective Work (and damage to other Work resulting therefrom) has been corrected, removed or replaced under this paragraph 13.12, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

Acceptance of Defective Work:

13.13. If, instead of requiring correction or removal and replacement of defective Work, OWNER (and, prior to ENGINEER's recommendation of final payment, also ENGINEER) prefers to accept it, OWNER may do so. CONTRACTOR shall

pay all claims, costs, losses and damages attributable to OWNER's evaluation of and determination to accept such defective Work (such costs to be approved by ENGINEER as to reasonableness). If any such acceptance occurs prior to ENGINEER's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and OWNER shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, OWNER may make a claim therefor as provided in Article 11. If the acceptance occurs after such recommendation, an appropriate amount will be paid by CONTRACTOR to OWNER.

OWNER May Correct Defective Work:

13.14. ~~If CONTRACTOR fails within a reasonable time after written notice from ENGINEER to correct defective Work or to remove and replace rejected Work as required by ENGINEER in accordance with paragraph 13.11, or if CONTRACTOR fails to perform the Work in accordance with the Contract Documents, or if CONTRACTOR fails to comply with any other provision of the Contract Documents, OWNER may, after seven days' written notice to CONTRACTOR, correct and remedy any such deficiency.~~ In exercising the rights and remedies under this paragraph OWNER shall proceed expeditiously. In connection with such corrective and remedial action, OWNER may exclude CONTRACTOR from all or part of the site, take possession of all or part of the Work, and suspend CONTRACTOR's services related thereto, take possession of CONTRACTOR's tools, appliances, construction equipment and machinery at the site and incorporate in the Work all materials and equipment stored at the site or for which OWNER has paid CONTRACTOR but which are stored elsewhere. CONTRACTOR shall allow OWNER, OWNER's representatives, agents and employees, OWNER's other contractors and ENGINEER and ENGINEER's Consultants access to the site to enable OWNER to exercise the rights and remedies under this paragraph. All claims, costs, losses and damages incurred or sustained by OWNER in exercising such rights and remedies will be charged against CONTRACTOR and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and OWNER shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, OWNER may make a claim therefor as provided in Article 11. Such claims, costs, losses and damages will include but not be limited to all costs of repair or replacement of work of others destroyed or damaged by correction, removal or replacement of CONTRACTOR's defective Work. ~~CONTRACTOR shall not be allowed an extension of the Contract Times (or Milestones) because of any delay in the performance of the Work attributable to the exercise by OWNER of OWNER's rights and remedies hereunder.~~ *

See SC 13.14A and 13.14B of Supplementary Conditions
ARTICLE 14—PAYMENTS TO CONTRACTOR AND COMPLETION

Schedule of Values:

14.1. The schedule of values established as provided in paragraph 2.9 will serve as the basis for progress payments and

will be incorporated into a form of Application for Payment acceptable to ENGINEER. Progress payments on account of Unit Price Work will be based on the number of units completed.

Application for Progress Payment:

14.2. At least twenty days before the date established for each progress payment (but not more often than once a month), CONTRACTOR shall submit to ENGINEER for review an Application for Payment filled out and signed by CONTRACTOR covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice or other documentation warranting that OWNER has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect OWNER's interest therein, all of which will be satisfactory to OWNER. ~~The amount of retainage with respect to progress payments will be as stipulated in the Agreement.~~

CONTRACTOR's Warranty of Title:

14.3. CONTRACTOR warrants and guarantees that title to all Work, materials and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to OWNER no later than the time of payment free and clear of all Liens.

Review of Applications for Progress Payment:

14.4. ENGINEER will, within ten days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to OWNER, or return the Application to CONTRACTOR indicating in writing ENGINEER's reasons for refusing to recommend payment. In the latter case, CONTRACTOR may make the necessary corrections and resubmit the Application. Ten days after presentation of the Application for Payment to OWNER with ENGINEER's recommendation, the amount recommended will (subject to the provisions of the last sentence of paragraph 14.7) become due and when due will be paid by OWNER to CONTRACTOR.

14.5. ENGINEER's recommendation of any payment requested in an Application for Payment will constitute a representation by ENGINEER to OWNER, based on ENGINEER's on-site observations of the executed Work as an experienced and qualified design professional and on ENGINEER's review of the Application for Payment and the accompanying data and schedules, that to the best of ENGINEER's knowledge, information and belief:

- 14.5.1. the Work has progressed to the point indicated, *See SC 14.5.1 of Supplementary Conditions **
14.5.2. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for Unit Price Work under paragraph 9.10, and to any other qualifications stated in the recommendation), and
14.5.3. the conditions precedent to CONTRACTOR's being entitled to such payment appear to have been fulfilled in so far as it is ENGINEER's responsibility to observe the Work.

However, by recommending any such payment ENGINEER will not thereby be deemed to have represented that: (i) exhaustive or continuous on-site inspections have been made to check the quality or the quantity of the Work beyond the responsibilities specifically assigned to ENGINEER in the Contract Documents or (ii) that there may not be other matters or issues between the parties that might entitle CONTRACTOR to be paid additionally by OWNER or entitle OWNER to withhold payment to CONTRACTOR.

14.6. ENGINEER's recommendation of any payment, including final payment, shall not mean that ENGINEER is responsible for CONTRACTOR's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the furnishing or performance of Work, or for any failure of CONTRACTOR to perform or furnish Work in accordance with the Contract Documents.

14.7. ENGINEER may refuse to recommend the whole or any part of any payment if, in ENGINEER's opinion, it would be incorrect to make the representations to OWNER referred to in paragraph 14.5. ENGINEER may also refuse to recommend any such payment, or, because of subsequently discovered evidence or the results of subsequent inspections or tests, nullify any such payment previously recommended, to such extent as may be necessary in ENGINEER's opinion to protect OWNER from loss because:

14.7.1. the Work is defective, or completed Work has been damaged requiring correction or replacement,

14.7.2. the Contract Price has been reduced by Written Amendment or Change Order,

14.7.3. OWNER has been required to correct defective Work or complete Work in accordance with paragraph 13.14, or

14.7.4. ENGINEER has actual knowledge of the occurrence of any of the events enumerated in paragraphs 15.2.1 through 15.2.4 inclusive,

OWNER may refuse to make payment of the full amount recommended by ENGINEER because:

14.7.5. claims have been made against OWNER on account of CONTRACTOR's performance or furnishing of the Work,

14.7.6. Liens have been filed in connection with the Work, except where CONTRACTOR has delivered a specific Bond satisfactory to OWNER to secure the satisfaction and discharge of such Liens.

14.7.7. there are other items entitling OWNER to a set-off against the amount recommended, or

* 14.7.8. ~~OWNER has actual knowledge of the occurrence of any of the events enumerated in paragraphs 14.7.1 through 14.7.3 or paragraphs 15.2.1 through 15.2.4 inclusive;~~

See SC 14.7.8 of Supplementary Conditions

but OWNER must give CONTRACTOR immediate written notice (with a copy to ENGINEER) stating the reasons for such action and promptly pay CONTRACTOR the amount so withheld, or any adjustment thereto agreed to by OWNER and CONTRACTOR, when CONTRACTOR corrects to OWNER's satisfaction the reasons for such action.

Substantial Completion:

* 14.8. ~~When CONTRACTOR considers the entire Work ready for its intended use CONTRACTOR shall notify OWNER and ENGINEER in writing that the entire Work is substantially complete (except for items specifically listed by CONTRACTOR as incomplete) and request that ENGINEER issue a certificate of Substantial Completion. Within a reasonable time thereafter, OWNER, CONTRACTOR and ENGINEER shall make an inspection of the Work to determine the status of completion. If ENGINEER does not consider the Work substantially complete, ENGINEER will notify CONTRACTOR in writing giving the reasons therefor. If ENGINEER considers the Work substantially complete, ENGINEER will prepare and deliver to OWNER a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. OWNER shall have seven days after receipt of the tentative certificate during which to make written objection to ENGINEER as to any provisions of the certificate or attached list. If, after considering such objections, ENGINEER concludes that the Work is not substantially complete, ENGINEER will within fourteen days after submission of the tentative certificate to OWNER notify CONTRACTOR in writing, stating the reasons therefor. If, after consideration of OWNER's objections, ENGINEER considers the Work substantially complete, ENGINEER will within said fourteen days execute and deliver to OWNER and CONTRACTOR a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as ENGINEER believes justified after consideration of any objections from OWNER. At the time of delivery of the tentative certificate of Substantial Completion ENGINEER will deliver to OWNER and CONTRACTOR a written recommendation as to division of responsibilities pending final payment between OWNER and CONTRACTOR with respect to security, operation, safety, maintenance, heat, utilities, insurance and warranties and guarantees. Unless OWNER and CONTRACTOR agree otherwise in writing and so inform~~

~~ENGINEER in writing prior to ENGINEER's issuing the definitive certificate of Substantial Completion, ENGINEER's aforesaid recommendation will be binding on OWNER and CONTRACTOR until final payment.~~

See SC 14.8 of Supplementary Conditions

14.9. OWNER shall have the right to exclude CONTRACTOR from the Work after the date of Substantial Completion, but OWNER shall allow CONTRACTOR reasonable access to complete or correct items on the tentative list.

Partial Utilization:

14.10. Use by OWNER at OWNER's option of any substantially completed part of the Work which: (i) has specifically been identified in the Contract Documents, or (ii) OWNER, ENGINEER and CONTRACTOR agree constitutes a separately functioning and usable part of the Work that can be used by OWNER for its intended purpose without significant interference with CONTRACTOR's performance of the remainder of the Work, may be accomplished prior to Substantial Completion of all the Work subject to the following:

14.10.1. OWNER at any time may request CONTRACTOR in writing to permit OWNER to use any such part of the Work which OWNER believes to be ready for its intended use and substantially complete. If CONTRACTOR agrees that such part of the Work is substantially complete, CONTRACTOR will certify to OWNER and ENGINEER that such part of the Work is substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. CONTRACTOR at any time may notify OWNER and ENGINEER in writing that CONTRACTOR considers any such part of the Work ready for its intended use and substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. Within a reasonable time after either such request, OWNER, CONTRACTOR and ENGINEER shall make an inspection of that part of the Work to determine its status of completion. If ENGINEER does not consider that part of the Work to be substantially complete, ENGINEER will notify OWNER and CONTRACTOR in writing giving the reasons therefor. If ENGINEER considers that part of the Work to be substantially complete, the provisions of paragraphs 14.8 and 14.9 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

14.10.2. No occupancy or separate operation of part of the Work will be accomplished prior to compliance with the requirements of paragraph 5.15 in respect of property insurance.

Final Inspection:

14.11. Upon written notice from CONTRACTOR that the entire Work or an agreed portion thereof is complete, ENGINEER will make a final inspection with OWNER and CONTRACTOR and will notify CONTRACTOR in writing of all

particulars in which this inspection reveals that the Work is incomplete or *defective*. CONTRACTOR shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

Final Application for Payment:

14.12. After CONTRACTOR has completed all such corrections to the satisfaction of ENGINEER and delivered in accordance with the Contract Documents all maintenance and operating instructions, schedules, guarantees, Bonds, certificates or other evidence of insurance required by paragraph 5.4, certificates of inspection, marked-up record documents (as provided in paragraph 6.19) and other documents, CONTRACTOR may make application for final payment following the procedure for progress payments. The final Application for Payment shall be accompanied (except as previously delivered) by: (i) all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by subparagraph 5.4.13, (ii) consent of the surety, if any, to final payment, and (iii) complete and legally effective releases or waivers (satisfactory to OWNER) of all Liens arising out of or filed in connection with the Work. In lieu of such releases or waivers of Liens and as approved by OWNER, CONTRACTOR may furnish receipts or releases in full and an affidavit of CONTRACTOR that: (i) the releases and receipts include all labor, services, material and equipment for which a Lien could be filed, and (ii) all payrolls, material and equipment bills and other indebtedness connected with the Work for which OWNER or OWNER's property might in any way be responsible have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, CONTRACTOR may furnish a Bond or other collateral satisfactory to OWNER to indemnify OWNER against any Lien.

Final Payment and Acceptance:

14.13. If, on the basis of ENGINEER's observation of the Work during construction and final inspection, and ENGINEER's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, ENGINEER is satisfied that the Work has been completed and CONTRACTOR's other obligations under the Contract Documents have been fulfilled, ENGINEER will, within ten days after receipt of the final Application for Payment, indicate in writing ENGINEER's recommendation of payment and present the Application to OWNER for payment. At the same time ENGINEER will also give written notice to OWNER and CONTRACTOR that the Work is acceptable subject to the provisions of paragraph 14.15. Otherwise, ENGINEER will return the Application to CONTRACTOR, indicating in writing the reasons for refusing to recommend final payment, in which case CONTRACTOR shall make the necessary corrections and resubmit the Application. Thirty days after the presentation to OWNER of the Application and accompanying documentation, in appropriate form and substance and with ENGINEER's recommendation and notice of acceptability, the amount recommended by ENGINEER will become due and will be paid by OWNER to

CONTRACTOR.

14.14. If, through no fault of CONTRACTOR, final completion of the Work is significantly delayed and if ENGINEER so confirms, OWNER shall, upon receipt of CONTRACTOR's final Application for Payment and recommendation of ENGINEER, and without terminating the Agreement, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by OWNER for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if Bonds have been furnished as required in paragraph 5.1, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by CONTRACTOR to ENGINEER with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

Waiver of Claims:

14.15. The making and acceptance of final payment will constitute:

14.15.1. a waiver of all claims by OWNER against CONTRACTOR, except claims arising from unsettled Liens, from *defective* Work appearing after final inspection pursuant to paragraph 14.11, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from CONTRACTOR's continuing obligations under the Contract Documents; and

14.15.2. a waiver of all claims by CONTRACTOR against OWNER other than those previously made in writing and still unsettled.

ARTICLE 15—SUSPENSION OF WORK AND
TERMINATION

OWNER May Suspend Work:

15.1. At any time and without cause, OWNER may suspend the Work or any portion thereof for a period of not more than ninety days by notice in writing to CONTRACTOR and ENGINEER which will fix the date on which Work will be resumed. CONTRACTOR shall resume the Work on the date so fixed. CONTRACTOR shall be allowed an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if CONTRACTOR makes an approved claim therefor as provided in Articles 11 and 12.

OWNER May Terminate:

15.2. Upon the occurrence of any one or more of the following events:

15.2.1. if CONTRACTOR persistently fails to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the progress schedule established under paragraph 2.9 as adjusted from time to time pursuant to paragraph 6.6);

15.2.2. if CONTRACTOR disregards Laws or Regulations of any public body having jurisdiction;

15.2.2. if CONTRACTOR disregards the authority of ENGINEER; or

15.2.4. if CONTRACTOR otherwise violates in any substantial way any provisions of the Contract Documents;

* See SC 15.2.5 of Supplementary Conditions
OWNER may, after giving CONTRACTOR (and the surety, if any,) seven days' written notice and to the extent permitted by Laws and Regulations, terminate the services of CONTRACTOR, exclude CONTRACTOR from the site and take possession of the Work and of all CONTRACTOR's tools, appliances, construction equipment and machinery at the site and use the same to the full extent they could be used by CONTRACTOR (without liability to CONTRACTOR for trespass or conversion), incorporate in the Work all materials and equipment stored at the site or for which OWNER has paid CONTRACTOR but which are stored elsewhere, and finish the Work as OWNER may deem expedient. In such case CONTRACTOR shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds all claims, costs, losses and damages sustained by OWNER arising out of or resulting from completing the Work such excess will be paid to CONTRACTOR. If such claims, costs, losses and damages exceed such unpaid balance, CONTRACTOR shall pay the difference to OWNER. Such claims, costs, losses and damages incurred by OWNER will be reviewed by ENGINEER as to their reasonableness and when so approved by ENGINEER incorporated in a Change Order, provided that when exercising any rights or remedies under this paragraph OWNER shall not be required to obtain the lowest price for the Work performed.

15.3. Where CONTRACTOR's services have been so terminated by OWNER, the termination will not affect any rights or remedies of OWNER against CONTRACTOR then existing or which may thereafter accrue. Any retention or payment of moneys due CONTRACTOR by OWNER will not release CONTRACTOR from liability.

* 15.4. ~~Upon seven days' written notice to CONTRACTOR and ENGINEER, OWNER may, without cause and without prejudice to any other right or remedy of OWNER, elect to terminate the Agreement. In such case, CONTRACTOR shall be paid (without duplication of any items):~~

See SC 15.4 of Supplemental Conditions
~~15.4.1. for completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;~~

~~15.4.2. for expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;~~

~~15.4.3. for all claims, costs, losses and damages incurred in settlement of terminated contracts with Subcontractors, Suppliers and others; and~~

~~15.4.4. for reasonable expenses directly attributable to termination.~~

CONTRACTOR shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

*

CONTRACTOR May Stop Work or Terminate:

15.5. If, through no act or fault of CONTRACTOR, the Work is suspended for a period of more than ninety days by OWNER or under an order of court or other public authority, or ENGINEER fails to act on any Application for Payment within thirty days after it is submitted or OWNER fails for thirty days to pay CONTRACTOR any sum finally determined to be due, then CONTRACTOR may, upon seven days' written notice to OWNER and ENGINEER, and provided OWNER or ENGINEER do not remedy such suspension or failure within that time, terminate the Agreement and recover from OWNER payment on the same terms as provided in paragraph 15.4. In lieu of terminating the Agreement and without prejudice to any other right or remedy, if ENGINEER has failed to act on an Application for Payment within thirty days after it is submitted, or OWNER has failed for thirty days to pay CONTRACTOR any sum finally determined to be due, CONTRACTOR may upon seven day's written notice to OWNER and ENGINEER stop the Work until payment of all such amounts due CONTRACTOR, including interest thereon. The provisions of this paragraph 15.5 are not intended to preclude CONTRACTOR from making claim under Articles 11 and 12 for an increase in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to CONTRACTOR's stopping Work as permitted by this paragraph.

ARTICLE 16—DISPUTE RESOLUTION

If and to the extent that OWNER and CONTRACTOR have agreed on the method and procedure for resolving disputes between them that may arise under this Agreement, such dispute resolution method and procedure, if any, shall be as set forth in Exhibit GC-A, "Dispute Resolution Agreement," to be attached hereto and made a part hereof. If no such agreement on the method and procedure for resolving such disputes has been reached, and subject to the provisions of paragraphs 9.10, 9.11, and 9.12, OWNER and CONTRACTOR may exercise

such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any dispute.

ARTICLE 17—MISCELLANEOUS

Giving Notice:

K 17.1. ~~Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.~~

see SC 17.1 of Supplemental Conditions
Computation of Times:

17.2.1. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.2.2. A calendar day of twenty-four hours measured from midnight to the next midnight will constitute a day.

Notice of Claim:

17.3. Should OWNER or CONTRACTOR suffer injury or damage to person or property because of any error, omission or

act of the other party or of any of the other party's employees or agents or others for whose acts the other party is legally liable, claim will be made in writing to the other party within a reasonable time of the first observance of such injury or damage. The provisions of this paragraph 17.3 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitations or repose.

Cumulative Remedies:

17.4. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto, and, in particular but without limitation, the warranties, guarantees and obligations imposed upon CONTRACTOR by paragraphs 6.12, 6.16, 6.30, 6.31, 6.32, 13.1, 13.12, 13.14, 14.3 and 15.2 and all of the rights and remedies available to OWNER and ENGINEER thereunder, are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee or by other provisions of the Contract Documents, and the provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right and remedy to which they apply.

Professional Fees and Court Costs Included:

17.5. Whenever reference is made to "claims, costs, losses and damages," it shall include in each case, but not be limited to, all fees and charges of engineers, architects, attorneys and other professionals and all court or arbitration or other dispute resolution costs.

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**EXHIBIT GC-A to General Conditions of the
Agreement Between OWNER and CON-
TRACTOR Dated _____
For use with EJCDC No. 1910-8 (1990 ed.)**

DISPUTE RESOLUTION AGREEMENT

OWNER and CONTRACTOR hereby agree that Article 16 of the General Conditions to the Agreement between OWNER and CONTRACTOR is amended to include the following agreement of the parties:

16.1. All claims, disputes and other matters in question between OWNER and CONTRACTOR arising out of or relating to the Contract Documents or the breach thereof (except for claims which have been waived by the making or acceptance of final payment as provided by paragraph 14.15) will be decided by arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association then obtaining, subject to the limitations of this Article 16. This agreement so to arbitrate and any other agreement or consent to arbitrate entered into in accordance herewith as provided in this Article 16 will be specifically enforceable under the prevailing law of any court having jurisdiction.

16.2. No demand for arbitration of any claim, dispute or other matter that is required to be referred to ENGINEER initially for decision in accordance with paragraph 9.11 will be made until the earlier of (a) the date on which ENGINEER has rendered a written decision or (b) the thirty-first day after the parties have presented their evidence to ENGINEER if a written decision has not been rendered by ENGINEER before that date. No demand for arbitration of any such claim, dispute or other matter will be made later than thirty days after the date on which ENGINEER has rendered a written decision in respect thereof in accordance with paragraph 9.11; and the failure to demand arbitration within said thirty days' period will result in ENGINEER's decision being final and binding upon OWNER and CONTRACTOR. If ENGINEER renders a decision after arbitration proceedings have been initiated, such decision may be entered as evidence but will not supersede the arbitration proceedings, except where the decision is acceptable to the parties concerned. No demand for arbitration of any written decision of ENGINEER rendered in accordance with paragraph 9.10 will be made later than ten days after the party making such demand has delivered written notice of intention to appeal as provided in paragraph 9.10.

16.3. Notice of the demand for arbitration will be filed in writing with the other party to the Agreement and with the

American Arbitration Association, and a copy will be sent to ENGINEER for information. The demand for arbitration will be made within the thirty-day or ten-day period specified in paragraph 16.2 as applicable, and in all other cases within a reasonable time after the claim, dispute or other matter in question has arisen, and in no event shall any such demand be made after the date when institution of legal or equitable proceedings based on such claim, dispute or other matter in question would be barred by the applicable statute of limitations.

16.4. Except as provided in paragraph 16.5 below, no arbitration arising out of or relating to the Contract Documents shall include by consolidation, joinder or in any other manner any other person or entity (including ENGINEER, ENGINEER's Consultant and the officers, directors, agents, employees or consultants of any of them) who is not a party to this contract unless:

16.4.1. the inclusion of such other person or entity is necessary if complete relief is to be afforded among those who are already parties to the arbitration, and

16.4.2. such other person or entity is substantially involved in a question of law or fact which is common to those who are already parties to the arbitration and which will arise in such proceedings, and

16.4.3. the written consent of the other person or entity sought to be included and of OWNER and CONTRACTOR has been obtained for such inclusion, which consent shall make specific reference to this paragraph; but no such consent shall constitute consent to arbitration of any dispute not specifically described in such consent or to arbitration with any party not specifically identified in such consent.

16.5. Notwithstanding paragraph 16.4 if a claim, dispute or other matter in question between OWNER and CONTRACTOR involves the Work of a Subcontractor, either OWNER or CONTRACTOR may join such Subcontractor as a party to the arbitration between OWNER and CONTRACTOR hereunder. CONTRACTOR shall include in all subcontracts required by paragraph 6.11 a specific provision whereby the Subcontractor consents to being joined in an arbitration between OWNER and CONTRACTOR involving the Work of such Subcontractor. Nothing in this paragraph 16.5 nor in the provision of such subcontract consenting to joinder shall create any claim, right or cause of action in favor of Subcontractor and against OWNER, ENGINEER or ENGINEER's Consultants that does not otherwise exist.

16.6. The award rendered by the arbitrators will be final, judgment may be entered upon it in any court having jurisdiction thereof, and it will not be subject to modification or appeal.

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16.7. ~~OWNER and CONTRACTOR agree that they shall first submit any and all unsettled claims, counterclaims, disputes and other matters in question between them arising out of or relating to the Contract Documents or the breach thereof ("disputes"), to mediation by The American Arbitration Association under the Construction Industry Mediation Rules of the American Arbitration Association prior to either of them initiating against the other a demand for arbitration pursuant to paragraphs 16.1 through 16.6, unless delay in initiating arbitra-~~

~~tion would irrevocably prejudice one of the parties. The respective thirty and ten day time limits within which to file a demand for arbitration as provided in paragraphs 16.2 and 16.3 above shall be suspended with respect to a dispute submitted to mediation within those same applicable time limits and shall remain suspended until ten days after the termination of the mediation. The mediator of any dispute submitted to mediation under this Agreement shall not serve as arbitrator of such dispute unless otherwise agreed.~~

* See SC 16.7 of Supplemental Conditions

SUPPLEMENTARY CONDITIONS TO MODIFIED STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

The section reference numbers set forth below correspond to like numbered paragraphs of the Modified General Conditions. Except as otherwise provided herein, the below referenced numbered paragraphs of the Modified General Conditions shall be amended as set forth below.

SC 1.11 Paragraph 1.11 is amended by adding the following to the end of the paragraph:

"Except as provided in paragraph 11.9.1 (for Unit Price Work) the Contract Price shall be fixed at the amount specified in Article 4 of the Agreement, subject to change only pursuant to Change Orders."

SC 1.12 Paragraph 1.12 is amended by adding the following to the end of the paragraph:

"Contractor shall cause the Substantial Completion of the Project and the Work to occur on or before the dates specified in the Notice to Proceed."

SC 1.14 Paragraph 1.14 is amended by adding the following to the end of the paragraph:

"Without limiting the foregoing, Defective shall also mean Work that (i) does not conform to Laws or Regulations; (ii) is not free from defects in design materials or workmanship; (iii) does not comply with any warranty or installation requirements of any Suppliers or Subcontractors supplying, performing or providing any part of the Work; (iv) is of improper or inferior quality or workmanship; (v) does not permit the Project as completed, to be used and operated for its intended purposes as contemplated under the Contract Documents; or (vi) if not corrected could materially adversely affect the cost of operating or maintaining the Project or the useful life of the Project or any component."

SC 1.15 Paragraph 1.15 is amended by adding the following to the end of the paragraph:

"The term Plans, wherever used herein, shall have the same meaning as Drawings, as defined in the Modified General Conditions."

SC 1.17 Paragraph 1.17 is amended by adding the following to the end of the paragraph:

"The Engineer shall be CMA Engineers, Inc."

SC 1.22 Paragraph 1.22 is amended by adding the following to the end of the paragraph:

"Without limiting the foregoing, "Laws and Regulations" and "Laws or Regulations" include all permits, authorizations, consents or approvals pertaining to the Project or the Work."

SC 1.43 Paragraph 1.43 is amended by adding the following to the end of the paragraph:

"Consistent with paragraph 3.2 of the Modified General Conditions, the Work shall describe and produce a functionally and operationally complete Project."

SC 2.2 Paragraph 2.2 is amended by adding the following to the end of the paragraph:

"In addition to the Contract Documents furnished to Contractor by the Owner for the Contractor's use during performance of the Work there shall be at least three (3) original executed copies of the Contract Documents to be distributed by the Owner as follows:

1. One (1) copy each to the Owner, Engineer and Contractor."

SC 2.6 Paragraph 2.6 is amended by deleting the section in its entirety and substituting the following:

"Within seven (7) days after the effective date of the Owner-Contractor Agreement, Contractor shall submit to Engineer for review:"

SC 2.8 Paragraph 2.8 is amended by adding the following to the end of the paragraph the following:

"After award of the bid and prior to beginning construction, a conference will be held with representatives of the Contractor, Owner, and Engineer to discuss schedules in the Project. This conference is intended to establish lines of communication between the parties involved. Time and place of the preconstruction conference will be determined at time of bid award. The Engineer will administer the preconstruction conference at the Project site for clarification of Contractor responsibilities in use of the site and for review of administrative procedures."

SC 2.10 Article 2 is amended by adding the following new paragraph 2.10:

"2.10 Non-Resident Contractors. The successful bidder, if a corporation established under laws other than the State in which the proposed construction is located, shall file, at the time of the execution of the contract, with the Owner, notice of the time of the execution of the contract and notice of the name of its resident attorney, appointed as required by the laws of the State in which the proposed construction is located. The successful bidder, if a resident of another State other than that in which the proposed construction is located and not a corporation, shall file, at the time of execution of the contract, with the Owner, a

written appointment of a resident of the State in which the construction is located, having an office or place of business therein, to be his true and lawful attorney upon whom all lawful processes in any actions or proceedings against him may be served; and in such writing, which shall set forth said attorney's place of residence, shall agree that any same legal force and validity as if served on him, and that the authority shall continue in force so long as any liability remains outstanding against him in said State. The power of attorney shall be filed in the office of the Secretary of State if required, and copies certified by the Secretary shall be sufficient evidence thereof. Such appointment shall continue in force until revoked by an instrument in writing, designating in a like manner some other person upon whom such processes may be served, which instrument shall be filed in the manner provided herein for the original appointment.

A Non-Resident Contractor shall be deemed to be:

1. A person who is not a resident in the State where the proposed construction is to be located.
2. Any partnership that has no member thereof resident in the State where the proposed construction is to be located.
3. Any corporation established under laws other than those of the State in which the proposed construction is located."

SC 3.1 Paragraph 3.1 is amended by adding the following to the end of the paragraph:

"The above notwithstanding, any provisions in any of the Contract Documents which may be in conflict shall be subject to the following order of precedence for interpretation.

1. Technical Specifications will govern Plans.
2. Technical Specifications and Plans will govern Supplementary Conditions and Modified General Conditions.
3. Supplementary Conditions shall govern Modified General Conditions.
4. Special Conditions will govern Technical Specifications, Plans, Supplementary Conditions, and Modified General Conditions.
5. The Agreement supersedes all other Contract Documents.

The Agreement and the Contract Documents shall be governed by the laws of the State of New Hampshire."

SC 3.2 Paragraph 3.2 is amended by deleting the third sentence in its entirety and substituting the following:

"When words or phrases which have a well-known technical or construction industry or trade meaning are used to describe the Work, materials or equipment, such words or phrases shall be interpreted in accordance with that meaning, except to the extent such words or phrases are otherwise defined in the Contract Documents."

SC 3.3.3 Section 3.3.3 is amended by adding the following to the end of the paragraph:

"The above notwithstanding, Contractor's performance of the Work, in addition to being in conformance with all other standards set forth in the Contract Documents, shall in every way be in accordance with high professional standards, industry codes and insurance underwriting requirements and prudent engineering practice and shall fully comply with all applicable laws, ordinances, codes, regulations and orders of all federal, state and local governmental or regulatory authorities in effect from time to time. The Work shall also conform with Owner's insurance company requirements specific to recommendations on fire protection, property damage, general liability and business interruption insurability. Where any of the foregoing provides for less stringent standards than set out in the Contract Documents, the standards set forth in the Contract Documents shall govern. Contractor warrants to Owner that all materials and equipment furnished under the Contract Documents will be new. Contractor shall establish, to the reasonable satisfaction of Owner, quality control and quality assurance policies with respect to Contractor's performance of the Work."

SC 4.1 Paragraph 4.1 is amended by deleting the second and third sentences thereof in their entirety.

SC 4.2.2 Paragraph 4.2.2 is amended by adding the following new paragraph:

"Contractor acknowledges that it has not been provided any such reports or "technical data". The absence of such reports or data shall not relieve Contractor of any of its obligations hereunder or provide any basis for any claim against Owner or Engineer with respect to such reports or data which might have been provided."

SC 4.5.2 Paragraph 4.5.2 of the Modified General Conditions is deleted in its entirety.

SC 4.5.3 Paragraph 4.5.3 of the Modified General Conditions is deleted in its entirety.

SC 4.5.4 Paragraph 4.5.4 is amended by deleting the paragraph in its entirety and substituting the following:

"To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, Engineer, Engineer's Consultants and the officers, directors, employees, agents, other consultants and subcontractors of each and any of them from and against all claims, costs, losses and damages arising out of or resulting from such hazardous condition, except any such condition for which Owner is not responsible pursuant to paragraph 4.5.1, provided that: (i) any such claim, cost, loss or damage is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, and (ii) nothing in this subparagraph 4.5.4 shall obligate Owner to indemnify any person or entity from and against the consequences of that Person's or entity's own negligence."

SC 4.6 Add the following new paragraph 4.6 to the Modified General Conditions to read:

"4.6 Utilities. Any elevations and locations of utilities shown on the Drawings are approximate. It shall be the responsibility of the Contractor to make the final and exact determination of the locations and extent of all utilities. The Contractor shall be liable for any expense resulting from any damage to any public utility.

It shall be the responsibility of the Contractor to notify all utility companies and pipe line owners, whether public or private and other parties affected, of his intention to perform work in the area where such utilities are located and to endeavor to have all necessary adjustments of the public or private utility fixtures, pipe lines and other appurtenances within or adjacent to the limits of construction, made as soon as practicable and if at all possible, before work contemplated is started in the area.

In general, water lines, sewer lines, gas lines, service connections, water and gas meter boxes, water and gas valve boxes, light standards, cableways, signals and other utility appurtenances within the limits of the proposed construction shall be moved by the utility involved and the Owner shall bear the full expense, if any, of this work, unless otherwise specifically stated, or if otherwise noted on the plans."

SC 5.1 Paragraph 5.1 is amended by adding the following to the end of the paragraph:

"Notwithstanding anything in the foregoing to the contrary, Bonds may be in such other form as the Owner approves in writing. The Bonds shall name Owner as obligee as its interest may appear. The bonds shall be issued by a surety licensed to do business in the State of New Hampshire. Notwithstanding anything in the Modified General Conditions to the contrary, the surety shall be reputable and rated A or better and included in any of classes X through XV by Best's Insurance Guide. Contractor shall provide for and acquire any amendment to such Bonds or an additional bond to cover any increase in the Contract Price under the Contract Documents. The Bonds shall be executed on the Standard Forms provided in the Contract Documents. The surety shall be a company licensed to do business in the State of New Hampshire, and acceptable to the Owner and the Engineer. The Bonds shall be furnished prior to the execution of the Agreement."

SC 5.3.2 Paragraph 5.3.2 is amended by adding the following to the end of the paragraph:

"Contractor shall submit evidence of insurance to the Owner at the time of execution of the Agreement.

SC 5.4 The first sentence of paragraph 5.4 is amended by revising the third line thereof to read "being performed and furnished, including as a minimum such insurance as will provide protection."

SC 5.4.14 Paragraph 5.4 is further amended by adding the following new paragraph 5.4.14:

"5.4.14. be formulated to protect the Contractor and the Owner from all claims and liabilities for damages for bodily injury, including accidental death and for property damage, which may arise from operations under the Contract Documents, whether such operation be by the Contractor or by anyone directly or indirectly employed by him."

SC 5.5 Paragraph 5.5 is amended by adding the following to the end of the paragraph:

"Any insurance provided by Contractor shall be primary to any such insurance of Owner. The Owner will not be required to maintain insurance on behalf of the Contractor, or in addition to the Contractor, for any of the Contractor's actions associated with the Contract Documents."

SC 5.6.4 Paragraph 5.6.4 is amended by deleting the paragraph in its entirety and substituting the following in its entirety:

"Cover materials and equipment stored at the site, or another location that was agreed to by Owner in writing, prior to being incorporated in the Work; and"

SC 5.11.1 Paragraph 5.11.1 is amended by deleting the paragraph in its entirety and substituting the following:

"Owner and Contractor intend that all policies purchased in accordance with paragraphs 5.6 and 5.7 will protect Owner, Contractor, Subcontractors, Engineer, Engineer's Consultants and all other persons or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds in such policies and will provide primary coverage for all losses and damages caused by the perils covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or additional insured thereunder."

SC 5.11.2 Paragraph 5.11.2 and subparagraphs 5.11.2.1 and 5.11.2.2 are deleted in their entirety.

SC 5.13 Paragraph 5.13 is amended by deleting the last sentence thereof and substituting the following:

"If no such agreement among the parties in interest is reached, Owner as fiduciary shall adjust and settle the loss with insurers."

SC 5.16 Article 5 is amended by adding the following new Paragraph 5.16.

Amount of Insurance.

Except with otherwise provided herein, the amount of insurance for each policy shall not be less than:

Workers' Compensation and Employers' Liability: As required by law.

Limits of Liability: \$100,000 each accident; \$500,000 disease-policy limit; \$100,000 disease – each employee and

Commercial General Liability: Occurrence Form to include Contractual Liability, Explosion, Collapse and Underground coverages. Limits of Liability: \$1,000,000 Each Occurrence Bodily Injury & Property Damage; \$2,000,000 General Aggregate-Include Per Project Aggregate Endorsement; \$2,000,000 Products/Completed Operations Aggregate.

or

Comprehensive General Liability Form: Form to include Premises/Operations, Independent Contractors, Products/Completed Operations, Personal Injury, Contractual Liability, Collapse and Underground, Medical Payment coverages (Broad Form Comprehensive GL Endorsement). Limits of Liability \$1,000,000 Combined Single Limit of Liability for Bodily Injury & Property Damage.

Note: If blasting or demolition or both is required by the Contract, the Contractor or Subcontractor shall obtain the respective coverage and shall furnish to the Engineer a Certificate of Insurance evidencing the required coverages prior to commencement of any operation involving blasting or demolition or both, and

Municipality's Protective Liability: Coverage for the benefit of the Municipality. Limits of Liability: \$2,000,000 Each Occurrence; \$3,000,000 Aggregate; or \$2,000,000 Bodily Injury & Property Damage per Occurrence (1973 form), and

Comprehensive Automobile Liability: covering all motor vehicles including owned, hired, borrowed, and non-owned vehicles. Limits of Liability: \$1,000,000 Combined Single Limit for Bodily Injury & Property Damage, and

Commercial Umbrella Liability: Limits of Liability: \$1,000,000 Each Occurrence; \$1,000,000 Aggregate.

SC 6.1 Paragraph 6.1 is amended by deleting the second sentence thereof and substituting the following:

"Contractor shall be solely responsible for the means, methods, techniques, sequences and procedures of construction and causing the performance and completion of the Work to comply with all applicable Laws and Regulations and all requirements of applicable Suppliers and Subcontractors applicable to the Work."

SC 6.4 Paragraph 6.4 is amended by adding the following to the end of the paragraph:

"All of the foregoing responsibilities of Contractor shall be at Contractor's expense without addition to the Contract Price."

SC 6.8.1 Paragraph 6.8.1 is amended by adding the following to the end of the paragraph:

"Contractor shall not employ or permit any Subcontractor to employ any unfit person or any person not suitably trained and skilled in the performance of the tasks assigned in connection with any performance of the Work."

SC 6.8.2 Paragraph 6.8.2 is amended by deleting the last sentence thereof and substituting the following:

"No acceptance or deemed acceptance by Owner or Engineer or any such Subcontractor, Supplier, or other person or organization shall constitute a waiver of any right of Owner or Engineer under the Contract, including without limitation, the right to reject defective Work or release Contractor of any obligation under the Contract."

SC 6.11 Paragraph 6.11 is amended by adding the following to the end of the paragraph:

"Any agreement with any Subcontractor shall be in writing and shall expressly provide for the assignment of such agreement to Owner and the collateral assignment by Owner to any entity providing financing for the Project or the Work."

SC 6.12 Paragraph 6.12 is amended by adding the following to the end of the paragraph:

"Contractor shall also defend all such indemnified parties in connection with any claims covered by such indemnity."

SC 6.13 Paragraph 6.13 is amended by adding the following to the end of the paragraph:

"Additionally, Contractor shall have exclusive responsibility for the transport, storage and disposal of any hazardous or solid waste, as defined under Laws or Regulations, delivered or accepted at the Work site in connection with the Work, including the acquisition and compliance with any approvals, permits or licenses required in connection therewith. Contractor shall obtain, at its own expense, all approvals, permits or licenses as required for the ordinary conduct of its business as contemplated by the Work, including any permits required for hauling materials and disposing of waste to and from the Work site in connection with the Work."

SC 6.15 Paragraph 6.15 is amended by adding the following to the end of the paragraph:

"Contractor also shall pay all taxes, governmental fees, assessments, charges or levies assessed upon contractor in connection with the Work. Upon the failure of Contractor promptly to pay any tax or fee under this section or under Modified General Conditions

6.15 or license fee or royalty under Modified General Conditions 6.12, Owner may pay such tax, fees or royalty and immediately recover the amount paid and expenses associated therewith from the Contractor or set off such amounts and expenses against any sums owed to Contractor by Owner."

SC 6.19 Paragraph 6.19 is amended by adding the following sections:

6.19.1 Maintenance of Record Documents and Samples. All documents and samples are to be stored in the Contractor's field office apart from documents used for construction. Contractor is to provide files and racks for storage of the documents and a locked cabinet or secure storage space for the storage of samples.

6.19.1.1 Contractor is to maintain the record documents in clean, dry, legible condition in good order and in a form acceptable to the Owner and Engineer and shall not use the record documents for construction purposes.

6.19.1.2 The Contractor shall document all changes on the record drawings upon construction of that item of work. Record drawings and supporting documentation shall be kept current with work in progress and should reflect work completed on periodic payment applications.

6.19.1.3 Record drawings are to be marked with red erasable pencil and, where feasible, use other colors also.

6.19.1.4 Each document is to be labeled "PROJECT RECORD" in neat large printed letters.

6.19.1.5 Contractor is to record information concurrently with construction progress and shall not cover any work until the required information has been incorporated in the "RECORD DRAWINGS."

6.19.2 Contractor shall submit the marked up "RECORD DRAWINGS" to the Engineer for review and approval together with certification that all deviations from the Contract Documents have been recorded on it and that the record drawings reflect the Work that has been performed. Final payment on this Contract will not be made until the RECORD DRAWINGS have been reviewed and approved by the Engineer.

SC 6.20.3 Paragraph 6.20.3 is amended by adding the following to the end of the paragraph:

"Without limitation, the foregoing shall include all real and personal property, equipment, structures and appurtenances comprising the work"

SC 6.25.4 Article 6 is amended by adding the following new Paragraph 6.25.4.

“Shop Drawings/Submittals. The Contractor shall submit to the Owner six (6) copies of shop drawings for approval. At the time of submission, the Contractor shall call to the Owner’s and Engineer’s attention, in writing, any deviations that the shop drawings may have from the requirements of the Contract Documents. The Contractor shall submit the shop drawings marked as either “Submitted as Specified” or “Submitted as Equal to Specified”.

SC 6.30.1.1 Paragraph 6.30.1.1 is amended by deleting the paragraph in its entirety and substituting the following:

"Abuse or negligent operation or maintenance by persons other than Contractor, Subcontractors or Suppliers or any persons directly or indirectly (i) subject to the control of; (ii) acting pursuant to the directions of; or (iii) employed by Contractor, Subcontractors or Suppliers; or"

SC 6.31 Paragraph 6.31 is amended by deleting the paragraph in its entirety and substituting the following:

"To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify, hold harmless and defend Owner, Engineer, Engineer's Consultants and the officers, directors, employees, agents, or other consultants of each and any of them from and against all claims, costs, losses, damages, demands, suits, causes of action, proceedings, judgments, expenses and liabilities (including, without limitation, all fees and charges of engineers, architects, attorneys and other professionals and all court of arbitration or other dispute resolution costs) (collectively, a "Claim") caused by, arising out of or resulting from the performance of the Work (including any corrective action required with respect to any defective Work or Contractor's warranty obligations under the Contract Documents); provided that, any such Claim is either (i) attributable to bodily injury, sickness, disease, or death or to injury to or destruction of tangible property, including the loss of use thereof and cause in whole or in part by any act or omission of Contractor or any Subcontractor or Supplier or any person or entity directly or indirectly controlled, employed or directed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, regardless of whether or not caused in part by any negligence or omission of any indemnified party hereunder or any third party or whether liability is imposed on any such indemnified party by Laws or Regulations or (ii) attributable to any demands or liens by any Subcontractors, Suppliers, or other person or entity performing any part of the Work arising out of any non-payment of such parties for goods or services provided to Contractor."

SC 7.1 Paragraph 7.1 of the Modified General Conditions is amended by deleting clause (ii) in its entirety and substituting the following:

"(ii) Contractor may make a claim therefor as provided in Articles 11 and 12, but only to the extent such performance will, in fact, involve additional expense to Contractor or requires additional time for Contractor's performance and the parties are unable to agree as to the amount or extent thereof."

SC 8.2 Paragraph 8.2 is amended by deleting the paragraph in its entirety and substituting the following:

"In case of termination of the employment of the Engineer, Owner shall appoint a new Engineer, whose status shall be that of the former Engineer effective as of such appointments under the Contract Documents."

SC 8.9 Paragraph 8.9 is amended by adding the following to the end of the paragraph:

"The foregoing shall not be construed to limit the right of Owner or Engineer under the Contract Documents to require Contractor to correct defective Work; provided, however, no exercise or failure to exercise such rights shall relieve Contractor from any of its liability or obligations under the Contract Documents."

SC 8.11 Paragraph 8.11 of the Modified General Conditions is deleted in its entirety.

SC 9.2 Paragraph 9.2 is amended by adding the following to the end of the paragraph:

"The foregoing shall not be construed to limit the right of Owner or Engineer under the Contract Documents to require Contractor to correct defective Work; provided, however, no exercise or failure to exercise such rights shall relieve Contractor from any of its liability or obligations under the Contract Documents."

SC 9.3.1 Paragraph 9.3 is amended by adding the following new paragraph 9.3.1:

"9.3.1 Duties, Responsibilities and Limitation of the Authority of Resident Project Representative:

9.3.1.1 The Resident Project Representative is an agent of the Owner and shall act as directed by and under the supervision of the Owner, in coordination with the Engineer. He shall confer with Engineer regarding his actions. His dealings in matters pertaining to the on-site Work, will, in general, be only with the Engineer and the Contractor. His dealings with Subcontractors will only be through or with the full knowledge of the Contractor or his superintendent. He shall generally communicate with the Owner only with the full coordination of the Engineer regarding project issues.

9.3.1.2 The Resident Project Representative shall:

- a. review the Progress Schedule, schedule of Shop Drawing submissions, schedule of values and other schedules prepared by the contractor and consult with the Engineer concerning their acceptability.
- b. attend the preconstruction conference.

- c. arrange a schedule or progress meetings and other job conferences as required in consultations with the Engineer and notify in advance those expected to attend.

9.3.1.3 The Owner may, at his discretion, provide additional on-site agents, who will coordinate fully with the Engineer for matters pertaining to on-site activities."

SC 10.1 The first sentence of paragraph 10.1 is amended by deleting the sentence in its entirety and substituting the following:

"Without invalidating the Agreement and without notice to any surety, Owner or Engineer may, at any time or from time to time, order additions, deletions or revisions in the Work."

SC 11.3.4 Paragraph 11.3.4 is amended by adding the following to the end of the paragraph:

"11.3.4 Notwithstanding any other provision of the Contract Documents, the Contractor shall not be entitled to any increase in the Contract Price (i) to the extent not attributable to an increase in the Contractor's actual cost of the Work resulting from an event for which Contractor is expressly authorized to make a claim for adjustment pursuant to this Agreement, (ii) to the extent attributable to the fault or negligence of Contractor, any Subcontractor or any one directly or indirectly employed by any of them or for whose acts any of them may be liable, or (iii) to the extent of the failure of Contractor or Subcontractor to comply with its obligations under the Contract Documents."

SC 11.4 The first sentence of paragraph 11.4 is amended by deleting the sentence in its entirety and substituting the following:

"The term Cost of Work means the sum of all reasonable costs necessarily incurred and paid and properly documented by Contractor in the proper performance of the Work, all as determined by the Engineer."

SC 11.4.5.6 The first sentence of paragraph 11.4.5.6 is amended by deleting the sentence in its entirety and substituting the following:

"Losses and damages (and related expenses) caused by damage to the Work not compensated by insurance or otherwise, sustained by Contractor in connection with the performance and furnishing of the Work (except losses and damages within the deductible amounts of property insurance established by Owner in accordance with paragraph 5.9), provided they have resulted from causes other than the fault or negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable."

SC 11.6.2.1 Paragraph 11.6.2.1 is amended by deleting the paragraph in its entirety and substituting the following:

"for the cost incurred under paragraphs 11.4.1 and 11.4.2, the Contractor's fee shall be ten percent;".

SC 11.6.2.3 Paragraph 11.6.2.3 is amended by deleting the paragraph in its entirety and substituting the following:

"where one or more tiers of subcontractors are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of the paragraphs 11.4.1, 11.4.2, 11.4.3, and 11.6.2 is that the Subcontractor who actually performs or furnishes the Work, at whatever tier, will be paid a fee of ten percent the costs incurred by such Subcontractor under paragraphs 11.4.1 and 11.4.2 and that any higher tier Subcontractor and CONTRACTOR shall be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;"

SC 11.6.2.5 Paragraph 11.6.2.5 is amended by deleting the paragraph in its entirety and substituting the following:

"the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to ten percent of such net decrease; and"

SC 11.6.2.6 The second numbered paragraph 11.6.2.5 of the Modified General Conditions is hereby renumbered as paragraph 11.6.2.6.

SC 11.9.3 Paragraph 11.9.3 and subparagraph 11.9.3.1, 11.9.3.2, 11.9.3.3 of the Modified General Conditions are deleted in their entirety.

SC 12.1 Paragraph 12.1 is amended by deleting the paragraph in its entirety and substituting the following:

"The Contract Times (or Milestones) may only be changed by a Change Order or a Written Amendment. Any claim for an adjustment of the Contract Times (or Milestones) shall be based on written notice delivered by the party making the claim to the other party and to Engineer promptly (but in no event later than ten days) after the occurrence of the event giving rise to the claim. The notice shall indicate the nature of the event, its anticipated length, and its probable effect upon the progress of the Work. If the event causing the delay, hindrance, interference, or obstruction is continuing, the Contractor must give written notice every month at the same time it submits its request for payment to the Owner. Notice of the extent of the claim with supporting data shall be delivered within thirty days after such occurrence (unless Engineer allows an additional period of time to ascertain more accurate data in support of the claim) and shall be accompanied by the claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant has reason to believe it is entitled as a result of the occurrence of said event. Such notice of claim shall include further documentation of the event and a formal Change Order request for an extension of time for any delay, hindrance, interference, or obstruction caused thereby. The written request for time extension shall state the cause of the delay,

hindrance, interference or obstruction and documentation of the schedule of the Project and other documentation to demonstrate a delay in the critical path of the Work or overall Project completion. All claims for adjustment in the Contract Times (or Milestones) shall be determined by Engineer in accordance with paragraph 9.11 if Owner and Contractor cannot otherwise agree. No claim for an adjustment in the Contract Times (or Milestones) will be valid if not submitted in accordance with the requirements of this paragraph 12.1."

SC 12.3 Paragraph 12.3 is amended by deleting the paragraph in its entirety and substituting the following:

"To the extent Contractor is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of Contractor and which Contractor is unable to prevent to avoid through the exercise of due diligence by Contractor, Subcontractor, or Supplier or for whose acts any of them may be liable, the Contract Times (or Milestones) will be extended in an amount equal to such reasonable time as the Owner may determine that such act, omission, or neglect has delayed the critical path of the Work or overall completion of the Work after considering the advice of the Engineer, but only if a claim is made therefore as provided in paragraph 12.1. Delays beyond the control of Contractor shall include, but not be limited to Owner's failure to comply with its material obligations under this contract, to the extent the direct cause of such delay, acts or neglect of utility owners or other contractors performing other Work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions or acts of God. Delays attributable to and within the control of a Subcontractor or Supplier or anyone directly or indirectly employed by shall be deemed to be delays within the control of Contractor."

SC 12.4 Paragraph 12.4 is amended in its entirety to read:

"Where Contractor is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of Contractor including, without limitation any act, omission or neglect of Owner, Engineer or any of their officers, employees, agents, consultants or any party for which Owner and Engineer are responsible, an extension of the Contract Times (or Milestones) in an amount allowable and determined in accordance with paragraphs 12.1 and 12.3 shall be the Contractor's sole and exclusive remedy for any and all damages resulting from such delay, hindrance, interference, or obstruction to breach of contract, breach of implied warranty, or tort, and including, but not limited to, loss of profits, loss of use, material and/or labor escalation, home and project office overhead expenses, and equipment rental. No payment or compensation of any kind shall be made to the Contractor for damages because of such delay, hindrance, interference, or obstruction attributable to breach of contract, breach of implied warranty, or tort, and including, but not limited to, loss of profits, loss of use, material and/or labor escalation, home and project office overhead expenses, and equipment rental. No payment or compensation of any kind shall be made to the Contractor for damages because of such delay, hindrance, interference, or obstruction of whatever duration in the orderly progress of the work, whether such delay, hindrance, interference, or obstruction be reasonable or unreasonable, avoidable or unavoidable.

Contractor expressly agrees not to make delay claims, and hereby waives any claim for damages against the Owner, the Engineer, the officers, directors, agents, employees, consultants, and representatives on account of any such delay, hindrance, interference, or obstruction from any cause of event whatsoever, including but not limited to the aforesaid causes and events and agrees that Contractor's sole and exclusive right, and remedy in the cause of any such delay, hindrance, interference or obstruction shall be an extension of the Contract Time in accordance with paragraphs 12.1 and 12.3. Without limitation, the Owner's exercise of its rights under the changes in the Work clause, regardless of the extent or number of such changes, shall not under any circumstances be constructed as a compensable delay, it being acknowledged that the Contract Price includes and anticipates any and all such delay, hindrance, interference, and obstruction whether it be reasonable or unreasonable, avoidable or unavoidable."

SC 13.10 Paragraph 13.10 is amended by adding the following to the end of the paragraph:

"Contractor shall not be allowed an increase in the Contract Price or extension of the Contract Time (or Milestones) to the extent attributable to any exercise by Owner of its rights under this paragraph."

SC 13.14A The first sentence of Paragraph 13.14 is amended by deleting the sentence in its entirety and substituting the following:

"If Contractor fails within a reasonable time after written notice from Engineer to initiate, make continuous reasonable progress toward completing and complete the correction of defective Work or to remove and replace rejected Work as required by Engineer in accordance with paragraph 13.11 or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven days' written notice to Contractor, correct and remedy any such deficiency."

SC 13.14B The last sentence of Paragraph 13.14 is amended by deleting the sentence in its entirety and substituting the following:

"Contractor shall not be allowed an extension of the Contract Times (or Milestones) or an increase in the Contract Price to the extent attributable to any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies hereunder."

SC 14.5.1 Paragraph 14.5.1 is amended by deleting the paragraph in its entirety and substituting the following:

"The Work has progressed to the point indicated on the Application for Payment and the portion of the Work completed as of such time constitutes satisfactory progress toward final completion of the Work in accordance with the Contract Documents,".

SC 14.7.4 Paragraph 14.7.4 is amended by deleting the paragraph in its entirety and substituting the following:

"Engineer has actual knowledge of the occurrence of any of the events enumerated in paragraphs 15.2.1 through 15.2.16 inclusive."

SC 14.7.8 Paragraph 14.7.8 is amended by deleting the paragraph in its entirety and substituting the following:

"Owner has actual knowledge of the occurrence of any of the events enumerated in paragraphs 14.7.1 through 14.7.3 or paragraphs 15.2.1 through 15.2.16 inclusive or that Contractor has failed to satisfy any of the requirements set forth in paragraphs 14.2 or that Engineer's determination under any of paragraphs 14.5.1 through 14.5.3 was in error."

SC 14.8 Paragraph 14.8 is amended by deleting the paragraph in its entirety and substituting the following:

"When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work meets the requirements for Substantial Completion (and indicate any items which are regarded by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion. Within a reasonable time thereafter, Owner, Contractor and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work to meet the requirements for Substantial Completion, Engineer will notify Contractor in writing giving the reasons therefore. If Engineer considered the Work substantially complete, Engineer will prepare and deliver to Owner a tentative certificate of Substantial Completion

which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work does not meet the requirements for Substantial Completion, Engineer will within said fourteen days execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner.

At the time of delivery of the tentative certificate of Substantial Completion Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, maintenance, heat, utilities, insurance and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment."

SC 15.2.5 Add the following new paragraphs 15.2.5 through 15.2.16 after paragraph 15.2.4 of the Modified General Conditions to read:

"15.2.5 or, if the Contractor is adjudged bankrupt or insolvent;

- 15.2.6 if the Contractor makes a general assignment for the benefit of creditors;
- 15.2.7 if a trustee or receiver is appointed for the Contractor or for any of the Contractor's property;
- 15.2.8 if the Contractor files a petition to take advantage of any debtor's act, or to reorganize under the bankruptcy or similar laws;
- 15.2.9 if the Contractor repeatedly fails to supply sufficient skilled workmen or suitable materials or equipment;
- 15.2.10 if the Contractor fails to make payments to Subcontractors or for labor, materials, or equipment;
- 15.2.11 if the Contractor disregards laws, ordinances, rules, regulations, or orders of any public body having jurisdiction;
- 15.2.12 if the Contractor disregards the authority of the Engineer;
- 15.2.13 if the Contractor otherwise violates in any substantial way any provisions of the Contract Documents;
- 15.2.14 if the Contractor fails to begin the work within the time stated in the Notice to Commence Work and completion of phases of Work in accordance with schedules approved by the Owner;
- 15.2.15 if the Contractor discontinues the Work or fails to resume the work when directed by the Owner; or
- 15.2.16 if the Contractor does not perform the Work in a manner acceptable to the Owner."
- SC 15.4 Paragraph 15.4 of the Modified General Conditions is amended in its entirety to read:

"Upon seven days written notice to Contractor and Engineer, Owner may, without cause, and without prejudice to any other right or remedy, elect to abandon the Work and terminate the Agreement. In such case, Contractor shall be paid for all Work executed and termination expenses which shall be limited to the unavoidable costs to the Contractor of materials ordered but not installed as of the date of termination, as approved by the Engineer. Contractor shall also not be entitled to any expenses, claims, costs, losses or damages to the extent attributable to Contractor's failure to use all reasonable efforts to minimize or mitigate any such expenses, claims, costs, losses or damages."
- SC 16.7 Paragraph 16.7 is deleted in its entirety.

SC 17.1 Paragraph 17.11 is amended by deleting the paragraph in its entirety and substituting the following:

"Notices. All notices, consents and other communications required or permitted by this Agreement shall be in writing and shall be deemed to have been given when delivered by hand to an authorized representative or officer of any party or two (2) days after having been deposited in the United States mail, in registered or certified form, return receipt requested, postage prepaid, and addressed as follows:

If to Owner: Address as shown in the Agreement

If to Contractor: Address as shown in the Agreement

If to the Engineer: CMA Engineers, Inc.
1 Sundial Avenue
Suite 510N
Manchester, NH 03103

Changes In the respective addresses, or addresses to which such notices shall be directed may be made from time to time by any such person by notice to the others."

Section E

TECHNICAL SPECIFICATIONS

NHDOT Standard Specifications for Road and Bridge Construction
(Incorporated by reference)

Special Provisions
Special Attentions
Supplemental Specifications

SPECIAL PROVISIONS

A. TECHNICAL SPECIFICATIONS

Incorporated into the Contract Documents by reference is the current edition of the New Hampshire Department of Transportation Standard Specifications for Road and Bridge Construction,

Division 100 – General Provisions shall apply to the extent that it does not conflict with the Modified General Conditions of the Contract. Where a conflict exists between the adopted specification and the Modified General Conditions, the Modified General Conditions shall govern. Provisions of the adopted specifications are not superseded by the Modified General Conditions. The adopted specifications shall apply.

Wherever in the adopted Technical Specifications reference is made to specific sections or paragraphs in the NHDOT Specification Division 100, that reference shall be interpreted to refer to similar sections or paragraphs in the herein incorporated Modified General Conditions of the Contract for Construction.

The Contractor shall be responsible for obtaining and familiarizing himself with all such NHDOT standards, amendments, and supplements. Copies of the Standard Specifications may be obtained from the NHDOT, John O. Morton Building, 7 Hazen Drive, Concord, NH 03302.

1. References to Engineer

Wherever reference is made in NHDOT to “the Engineer,” “the Bridge Engineer,” “the Materials and Research Engineer,” “the Inspector,” and similar terms, it shall be understood to refer to the individual, partnership, firm, or corporation duly authorized by the Owner to be responsible for engineering supervision of the Contract work and acting directly through an authorized representative, except where otherwise indicated in the individual Special Provisions.

2. Special Provisions

All provisions of NHDOT shall apply except as modified herein by these Special Provisions.

3. References to State

Wherever reference is made in NHDOT to “the State,” “FHWA,” “the Commissioner,” “the Department,” “the Bureau” or “the Bureau of,” “The Agency” it shall be understood to refer to the OWNER, except where otherwise indicated in the individual Special Provisions.

B. MEASUREMENT AND PAYMENT

1. General

- a. Each unit and lump sum price stated in the Bid Proposal shall constitute full compensation, as herein specified, for each item of the work completed.
- b. All unit price bid items will be measured in accordance with Paragraph 1.05 B to determine final quantities of Work in place after completion of the Work.
- c. All units of measurement shall be standard United States units as applied to the specific items of work by industry tradition and as interpreted by the ENGINEER.

2. Partial Payment/Monthly Pay Estimate

- a. After Award of the Contract and prior to the CONTRACTOR'S mobilization on-site, the CONTRACTOR shall submit a breakdown of component items and associated prices of the individual lump sum units. This information shall form the basis for preparation of the monthly cost estimate in the "Monthly Progress Summation" form.
- b. Prior to request for partial payment, the CONTRACTOR'S superintendent or other authorized representative of the CONTRACTOR shall meet with the Resident Engineer and determine and agree upon quantities of work accomplished and/or completed during the work period.
- c. Once each month the CONTRACTOR will prepare a "Monthly Progress Summation" form as part of his partial payment request.
- d. These completed forms will provide the basis of the ENGINEER'S review of monthly quantity estimates upon which payment will be made. Items not appearing on the "Monthly Progress Summation" will not be considered for payment.
- e. The CONTRACTOR shall submit with each payment application a bill of sale, invoice or other documentation warranting that the OWNER has received the material and equipment free and clear of all liens and that the materials and equipment are covered by appropriate insurance.
- f. The CONTRACTOR shall submit a copy of the Lien Waiver Form included in the Contract Documents for work or materials supplied by subcontractors and suppliers with each payment application.
- g. The CONTRACTOR shall make prompt payment to subcontractors and suppliers in accordance with the attached NHDOT Supplemental Specification Section 109.

3. Scope of Payment

- a. For lump sum payment items, payments to the CONTRACTOR will be based upon the ENGINEER'S approved estimate of percentage completion of the lump sum tasks. The estimate shall be based on approximated quantities of work completed in accordance with the Plans and Specifications and shall be reviewed and approved by the ENGINEER.
- b. For unit price payment items, payments to the CONTRACTOR will be made for the actual measured quantities of contract items performed and accepted in accordance with the Plans and Specifications. Upon completion of the construction, if these actual quantities show either an increase or decrease from the quantities given in the Proposal Form, the contract unit prices will still prevail, except as provided hereinafter.

Measurements for quantities shall be based on actual field surveys performed jointly by the ENGINEER and CONTRACTOR unless other measurement techniques are approved by the ENGINEER. The volume calculations shall be based on the average end area method except as approved by the ENGINEER. When measurement of materials in vehicles is permitted by the ENGINEER, the quantity will be determined as 80 percent of the loose volume.

- c. The CONTRACTOR shall accept as payment as herein provided, full compensation for furnishing all materials, labor, tools, equipment, and incidentals necessary to the completed work and for performing all work contemplated and embraced by the contract. The payment shall be made with the prices contained in the Bid Proposal and shall include compensation for all loss or damage arising from the nature of the work, or from the action of the elements, or from any unforeseen difficulties which may be encountered during the prosecution of the work and until its final acceptance by the ENGINEER, and for all risks of every description connected with the prosecution of the work, except as provided herein, and also for all expenses incurred in consequence of the suspension of the work as herein authorized.

4. Payment for Increased or Decreased Quantities

- a. When alterations in the quantities of work not requiring supplemental agreements are ordered and performed, the CONTRACTOR shall accept payment in full at the contract price for the actual quantities of work done. No allowance will be made for anticipated profits.
- b. Measurements for increased or decreased work shall be based on actual field surveys performed jointly by the ENGINEER and CONTRACTOR unless other measurement techniques are approved by the ENGINEER.

5. Eliminated Items

The ENGINEER may eliminate any items from the Contract should they be found unnecessary for the proper completion of the work contracted. Such action shall in no way invalidate the contract, and no allowance will be made for items so eliminated in making final payment to the CONTRACTOR. The contract price shall be reduced by the lump sum amount or unit price amount provided in the CONTRACTOR'S Bid Proposal.

6. Partial Payment

- a. Partial Payments shall be made monthly as the work progresses. All partial invoices and payments shall be subject to correction in the final quantity invoice and payment.
- b. No monthly payment shall be required to be made when, in the judgment of the ENGINEER, the work is not proceeding in accordance with the provisions of the contract, or when, in his judgment, the total value of the work done since the last payment amounts to less than \$10,000.

7. Payment for Material Delivered on Lump Sum Projects

- a. At the discretion of the ENGINEER, acting upon the request of the CONTRACTOR, an invoice, accompanied by receipted bills, may be made for payment of all or part of the value of acceptable, non-perishable materials and equipment which are to be incorporated into the contract which have been delivered to the site of the work or in acceptable storage places, and not used at the time of such invoice.
- b. Materials, when so paid for by the OWNER shall become the property of the OWNER and in the event of default on the part of the CONTRACTOR, the OWNER may use, or cause to be used, these materials in the construction of the work provided for in the contract
- c. The CONTRACTOR shall be responsible for any damage to, or loss of, stored materials.
- d. The amount thus paid by the OWNER shall go to reduce estimated amounts due the CONTRACTOR as the material is used in the work.

8. Incidental Work

- a. Incidental work items for which payment is not measured or made include but are not limited to, the following items:
 - i. Bond, insurance and administrative costs.
 - ii. Incidental Site Preparation, including removing of existing debris in the work area, and disposing of the materials at authorized disposal facilities.

- iii. Clean up.
- iv. Security, signs, safety equipment, etc.
- v. Restoration of property.
- vi. Cooperation with other Contractors.
- vii. Utility crossing, unless otherwise paid for.
- viii. Dewatering.
- ix. Preconstruction photographs and video tapes.
- x. Temporary utilities.
- xi. Site safety.
- xii. Existing pipe/culvert cleaning/jetting.
- xiii. Mailbox relocations.
- xiv. Water gate and valve adjustments.
- xv. Invasive species control.
- xvi. Removal of existing signs.
- xvii. As-built/record plans.
- xviii. All other work indicated on the Drawings or in the Specifications which is required and not specifically indicated in the bid items.

C. HOT BITUMINOUS PAVEMENT

1. General

- a. All Hot Bituminous Pavement Job Mixes require shop drawing approval.
- b. The following requirements pertain to machine method and hand method pavement mixes, not sidewalk mixes.
 - i. Asphalt Binder grade for all Hot Bituminous Job Mixes shall be **PG 64-28**.
 - ii. All 3/8" nominal aggregate Hot Bituminous Pavement Job Mixes shall conform to **75 Gyrat**ion superpave mix design criteria. All 1/2" and 3/4" nominal aggregate Hot Bituminous Pavement Job Mixes shall conform to **50 Gyrat**ion superpave mix design criteria.
 - iii. **Minimum Binder Content** to be 6.0% for 3/8" mix designs; 5.9% for 1/2" mix designs; and 5.1% for 3/4" mix designs. All pavement mixes shall have a maximum **Total Reused Binder (TRB)** content of 0.5% and meet all the volumetric mix design criteria.
 - iv. Hot Bituminous Pavement to be placed under NHDOT Section 401 "**Method Requirements**" (not "QC/QA").
 - v. Pavement Joint Adhesive (Item 403.6) shall be applied to longitudinal joints in accordance with NHDOT Section 401.
 - vi. The **CONTRACTOR is required to repair any pavement defects** (rutting, cracking, aggregate separation, delamination, etc.) that occur in placed pavement within the 1-year correction period following the date of Substantial Completion at no cost to the OWNER. Suitable repair methods and materials (such as routing and crack sealing or cutting and patching) to be reviewed and approved by OWNER and ENGINEER prior to installation.
 - vii. Asphalt emulsion for tack coat shall be applied between all layers.

END OF SECTION

**EXETER
40436**

SPECIAL PROVISION

AMENDMENT TO SECTION 101 – DEFINITIONS AND TERMS

*This special provision adds the definition of Limited Reuse Soil
and revises the definition of topsoil.*

Insert 101.64 “A” as follows:

101.64 “A” Limited Reuse Soils (LRS). Material within the project that requires a Soils Management Plan to address soil that is likely and/or demonstrated to contain concentrations of contaminants due to the presence and breakdown of asphalt pavement, the normal operation of motor vehicles, and other “non-point sources” of pollution. The definition of LRS includes:

- All topsoil within the project limits and within the existing right-of-way, regardless of depth.
 - In instances where topsoil is not present, LRS is defined as soil from the top of ground to a depth of six (6) inches.
- Asphalt pavement that has been ground or pulverized (including milled material and reclaimed stabilized base).
- Street waste (catch basin cleanouts, street sweeping, and ditching material).

Revise 101.108 as follows:

101.108 Topsoil. The surface layer of soil consisting of mineral soil mixed with organic matter and vegetative debris that is suitable for plant growth and is typically darker in color than the underlying soil.

END OF SECTION

SPECIAL PROVISION**SECTION 202 – REMOVAL OF STRUCTURES AND OBSTRUCTIONS****Item 202.45 – Removal of Drainage Pipe Sediment****Item 202.55 – Removal of Drainage Structure Sediment****Description**

1.1 The work shall consist of removal and disposal of accumulated sediment, which may contain refuse and other debris, from designated drainage systems, including: drainage structures, pipes, the gutter mouth of curb inlets, and as directed by the Engineer.

Materials

2.1 Drainage system sediment material shall be disposed of properly and in conformance with all Federal, State, and local regulations.

Construction Requirements

3.1 No casting shall be removed until immediately preceding the work and shall be replaced immediately after the cleaning of the drainage structure and/or pipes is completed. Open structures shall not be left unattended. The Contractor shall properly secure the cover/grate after cleaning.

3.2 The Contractor shall protect the cast iron hood of drainage structures so equipped, during the sediment removal process.

3.3 Conditions such as location, extraordinary shape due to conduits or public utility pipes, or off pavement work, may require hand work.

Method of Measurement

4.1 Sediment removed from drainage structures will be measured by the cubic yard after decanting.

4.2 Sediment removed from drainage pipes will be measured by the foot of drainage pipe, regardless of the diameter of pipe from which material is removed.

Basis of Payment

5.1 Removal and disposal of drainage structure sediment will be paid for at the contract unit price per cubic yard.

5.2 Removal and disposal of drainage pipe sediment will be paid for at the contract unit price per linear foot, regardless of the volume of sediment removed.

5.3 The price of these items shall include all labor, equipment, approvals, permits, testing, transportation, disposal and all other incidentals necessary to complete the work.

Pay Item and Unit

202.45 Removal of Drainage Pipe Sediment	Linear Foot
202.55 Removal of Drainage Structure Sediment	Cubic Yard

END OF SECTION

**EXETER
40436**

SPECIAL PROVISION

AMENDMENT TO SECTION 202 – REMOVAL OF STRUCTURES AND OBSTRUCTIONS

Item 202.851 – Removal of Flashing Beacon

Description

- 1.1** This work shall consist of the removal and satisfactory disposal of the existing overhead flashing beacon at the Kingston Road/Riverwoods Drive/White Oak Drive intersection located at approximately STA 106+74, and all span wires, wiring, meters, guy wires, and hardware that is utilized solely for the overhead flashing beacon. If the contractor feels any of the equipment scheduled for removal should remain, approval from the resident engineering is required.

Construction Requirements

- 3.1** Excavations resulting from operations, except within the limits of subsequent excavation, shall be backfilled in accordance with the provisions of Section 203.
- 3.2** The contractor will contact and coordinate with Unitil for the electrical disconnection of the overhead flashing beacon. The contact for Unitil is:

Patrick Aquilina
Manager, Electric Operations
Unitil
30 Energy Way, Exeter, NH 03833
Office: (603) 777-5546
aquilina@unitil.com

- 3.3** The New Hampshire Department of Transportation is the owner of the beacon. The beacon and all appurtenances shall be salvaged to the NHDOT upon removal.

Method of Measurement

- 4.1 Removal of Flashing Beacon shall be measured as a unit and includes the removal of the flashing beacon, support poles, span wires, wiring, meters, guy wires, and hardware that is utilized solely for the overhead flashing beacon.

Basis of Payment

- 5.1 The accepted quantity of Removal of Flashing Beacon will be paid for at the Contract lump sum price per unit complete.

Pay items and units:

202.851	Removal of Flashing Beacon	Unit
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END OF SECTION

**EXETER
40436****SPECIAL PROVISION****AMENDMENT TO SECTION 203 – EXCAVATION AND EMBANKMENT****Amendment** to Basis of Payment

Paragraph 5.1.1 is removed and replaced with the following:

5.1.1 Common Excavation and Embankment-in-place are final pay quantities and will be paid for at the Contract unit price per cubic yard, in accordance with 109.11, with appropriate deductions for excavation slopes to be above prescribed template lines, and embankment slopes shown to be below prescribed template lines.

Add to Pay Items and Units

203.15	Common Excavation (F)	Cubic Yard
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END OF SECTION

**EXETER
40436**

SPECIAL PROVISION

AMENDMENT TO SECTION 203 – EXCAVATION AND EMBANKMENT

This special provision addresses Limited Reuse Soil (LRS), including adding an item for excavating, handling, transporting, and stockpiling of LRS. All the requirements as set forth in the Standard Specifications are applicable except as modified or changed herein.

Add to 1.1:

1.1.1 This work shall consist of excavating, handling, transporting, and disposing of Limited Reuse Soil (LRS) in conformance with the Soils Management Plan and the Prosecution of Work.

Add to 2.1:

2.1.1 Common Excavation – LRS shall consist of all excavation of LRS as defined in 101.64 “A” and/or material as identified on the plans.

Amend 3.1.2 as follows:

3.1.2 Topsoil and humus material shall be removed in excavation areas and also in fill areas to such depths as the Engineer may direct. Such material shall be immediately loaded onto hauling vehicle and transported to Turnkey Landfill, 176 Rochester Neck Road, Rochester, NH 03839. Stockpiling and/or reuse of this material shall not be allowed.

3.1.2.1 In areas where no measurable topsoil exists, the material from the top of ground to a depth of six inches is considered LRS. This material shall be handled as described in 3.1.2.

3.1.2.2 Contractor shall coordinate with the Engineer for LRS testing prior to excavation and disposal of LRS.

Add 5.1.4 as follows:

5.1.4 LRS

5.1.4.1 LRS removal will be paid for as Common Excavation – LRS. Payment of Common Excavation – LRS will be full payment for excavating, handling, transporting, and disposal at Turnkey Landfill.

5.1.4.2 Tipping fees associated with the disposal of LRS will be paid for under item 1008.53 Alterations and Additions as Needed – LRS Disposal.

5.1.4.2 LRS testing costs shall be paid for by the Town.

Add to Pay Items and Units

203.11	Common Excavation - LRS	Cubic Yard
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END OF SECTION

**EXETER
40436**

SPECIAL PROVISION

AMENDMENT TO SECTION 304 – BASE COURSES

Amendment to Method of Measurement

Paragraph 4.1 is removed and replaced with the following:

4.1 Roadbed base course materials of gravel, crushed gravel, crushed aggregate for shoulders, crushed stone (fine gradation), and crushed stone (coarse gradation) will not be measured, but shall be the cubic yard final pay quantity in accordance with 109.11 of compacted material required within the lines shown on the plans.

Paragraph 4.1.1 is added:

4.1.1 Sand will be measured by the cubic yard of compacted material placed within the limits shown on the plans.

Amendment to Basis of Payment

Paragraph 5.1 is removed and replaced with the following:

5.1 Roadbed base course materials of sand, gravel, crushed gravel, crushed stone (fine gradation), and crushed stone (coarse gradation) are final pay quantities and will be paid for at the Contract unit price per cubic yard in accordance with 109.11.

Paragraph 5.3 is removed and replaced with the following:

5.3 The accepted quantity of sand, gravel, crushed aggregate for shoulders or crushed gravel for drives will be paid for at the Contract unit price per cubic yard complete in place. The accepted quantity of crushed gravel for shoulder leveling will be paid for at the Contract unit price per ton delivered and used on the project.

Add to Pay Items and Units

304.101

Sand

Cubic Yard

END OF SECTION

SPECIAL PROVISION**SECTION 604 – CATCH BASINS, DROP INLETS, AND MANHOLES****Item 604.615 – Sewer Manhole Covers and Frames (Water Tight)****Description**

- 1.1** This work shall consist of furnishing frames and manhole covers, as shown on the plans or as ordered.

Materials

- 2.1** Sewer manhole frames and covers shall conform to the material requirements of Section 604 of the 2016 NHDOT Standard Specifications.
- 2.2** Water tight seal between frame and cover shall be accomplished by means of a rubber gasket and bolted down cover. Water tight frames and covers shall be US Foundry Type BWT or approved equal.

Construction Requirements

- 3.1** Sewer manhole frames and covers shall conform with the construction requirements of Section 604 of the 2016 NHDOT Standard Specifications.

Method of Measurement

- 4.1** Frames with water tight manhole covers together will be a unit and will be measured by the number of each unit installed.

Basis of Payment

- 5.1** The accepted quantities of frames and water tight manhole covers will be paid for at the Contract unit price per each unit complete in place, including setting to final grade.

Pay Item and Unit

604.615	Sewer Manhole Covers and Frames (Water Tight)	EA
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END OF SECTION

**EXETER
40436**

SPECIAL PROVISION

AMENDMENT TO SECTION 606 – GUARDRAIL

Item 606.1255 – Beam Guardrail (Terminal Unit Type EARGT, TL 2) (Steel Post)

This special provision provides for mid-way splice guardrail. All requirements as set forth in the Standard Specifications are applicable except as modified or changed herein for these items only.

Amend to 2.12.1 as follows

2.12.1 Terminal unit EAGRT shall be an energy absorbing tangent type end unit selected from one of the following (Test Level 3 shall be a fixed-head or through-anchored-head energy absorbing tangent type end unit, no substitutions allowed):

Terminal Name	Manufacturer and/or US Distributor	Test Level
Trend®350 Tangent	Trinity Highway Products, LLC	TL2 / TL3
X-LITE®	Lindsay Corporation/Barrier Systems, Inc.	TL 3
Softstop®	Trinity Highway Products, LLC	TL 2 / TL 3
X-Tension™	Lindsay Corporation/Barrier Systems, Inc.	TL 3
SKT-SP	Road Systems, Inc.	TL 2 Only

2.12.1.1 The EAGRT shall be FHWA eligible and meet the NCHRP 350 test level required, at a minimum. MASH certification of a terminal for the same or greater test level meets the NCHRP 350 requirement.

Add to 3.3 the following

3.3.3 The first 12.5' of the EAGRT unit is assumed gating and the length of need begins at the 3rd post. In addition, the Test Level 3 EAGRT is assumed to require a 50 foot length and the Test Level 2 EAGRT is assumed require a 37.5 foot length. If a terminal of a length other than indicated is selected, or the gating length is other than indicated, then extend or shorten the rail run to maintain the coverage of length-of-need redirective rail. Refer to the FHWA website(https://safety.fhwa.dot.gov/roadway_dept/countermeasures/reduce_crash_severity/listing.cfm?code=cushions) for the Letters of Acceptance (Eligibility) indicating the beginning of length-of-need for the terminals.

Add to 4.1

4.1.4.1 Any additional standard rail required to maintain the coverage of the length-of-need (Section 3.3.3) for an EAGRT will not be measured.

Add to 5.1

5.1.1.1 Any additional standard rail required to maintain the coverage of the length-of-need (Section 3.3.3) will be subsidiary to the EAGRT unit.

Revise item numbers to read

606.1255	Beam Guardrail (Terminal Unit Type EARGT, TL 2) (Steel Post)	Unit
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END OF SECTION

**EXETER
40436**

SPECIAL PROVISION

AMENDMENT TO SECTION 606 – GUARDRAIL

Item 606.18001 – 31” W-Beam Guardrail with 8” Offset Blocks (Steel Post)

This special provision provides for mid-way splice guardrail. All requirements as set forth in the Standard Specifications are applicable except as modified or changed herein for these items only.

Add to Materials

2.14 31” W-Beam Guardrail. Material/components required for installation shall be as shown in the plans or as ordered.

Add to Construction Requirements

3.9 31” W-Beam Guardrail. Construction requirements shall be as shown in the plans or as ordered.

Add to pay items and units

606.18001	31” W-Beam Guardrail with 8” Offset Blocks (Steel Post)	Linear Foot
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END OF SECTION

**EXETER
40436**

SPECIAL PROVISION

AMENDMENT TO SECTION 606 – GUARDRAIL

Item 606.914 – Resetting Terminal Unit

This special provision provides for mid-way splice guardrail. All requirements as set forth in the Standard Specifications are applicable except as modified or changed herein for these items only.

Add to 1.1.1:

1.1.2.1 Resetting existing beam guardrail terminal unit(s) shall consist of resetting, as shown on plans or as directed.

Add to 3.5:

3.5.1.1 Resetting beam guardrail terminal unit(s) as specified shall meet the requirements of the existing terminal.

3.5.2 The unit shall be carefully dismantled and reset at the location indicated on the plans or as ordered.

3.5.3 The Contractor and Engineer shall re-inspect the unit after reset to ensure that no damage occurred during dismantling, transport and handling. Any damaged pieces shall be repaired or replaced as directed by the Engineer at the Contractors expense.

3.5.4 The unit shall be reset/installed in accordance with the Standard Plans or manufactures recommendations.

Amend 5.2 to read:

5.2 The accepted quantity of resetting beam guardrail terminal unit will be paid for at the contract unit price complete for the units reset. New material required for resetting terminal units, other than that damage due to Contractor's negligence, will be paid for as provided in 109.04.

Add to pay items and units

606.914	Resetting Terminal Unit	Unit
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END OF SECTION

SPECIAL PROVISION

AMENDMENT TO SECTION 608 – SIDEWALKS

Amendment to Materials

Paragraph 2.3 is removed and replaced with the following:

2.3 Reinforcement shall be Synthetic Fiber Reinforcement, MasterFiber F70 or approved equal, at a rate of 1.5 lbs./cy.

END OF SECTION

**EXETER
40436****SPECIAL PROVISION****AMENDMENT TO SECTION 609 – CURBS****Amendment** to Basis of Payment

Paragraph 5.3 is removed and replaced with the following:

5.3 Hot bituminous base courses placed adjacent to the curb for a maximum width of 1 ft. will be paid for under 403.12. No separate payment will be made for Concrete Class A substituted for aggregate base course and hot bituminous base courses.

END OF SECTION

SPECIAL PROVISION**AMENDMENT TO SECTION 615 - TRAFFIC SIGNS**

The purpose to this Special Provision, in addition to other issues, removes demountable copy, updates reference documents, updates the concrete class for bases and removes the final pay designation for signs.

Amend 1.2.1 to read:

1.2.1 Traffic Signs Type A and Type AA shall be extruded aluminum plank traffic signs with retroreflective sheeting background and retroreflectorized copy. Type A shall include W- beam mounts and hardware as shown on the plans.

Amend 2.5.1.1 to read:

2.5.1.1 Blank.

Add 2.5.3.1 to read:

2.5.3.1 U-channel breakaway systems may be used. See Section 2.8.1.

Amend 2.8.1 (including the addition of 2.8.1.1) to read:

2.8.1 All sign supports and breakaway support systems shall conform to the AASHTO “Standard Specifications for Structural Supports for Highway Traffic Signs, Luminaires and Traffic Signals” and shall conform to the testing and evaluation criteria of NCIIRP Report 350. Devices not conforming to the criteria shall be replaced with conforming devices at no expense to the Department.

The Contractor shall provide a Certificate of Compliance for each sign support and breakaway support system being supplied, stating it meets the testing and evaluation criteria of NCHRP Report 350 and has been approved by FHWA for use in weak and strong soils. A copy of the FHWA Eligibility Letter for breakaway sign supports shall be submitted with the sign shop drawings.

Amend 2.8.2 to read:

2.8.2 Concrete for bases shall be Class A and shall conform to Section 520. Reinforcing steel shall conform to Section 544.

Amend 2.9.1.1, 2.9.1.2, and 2.9.1.3 to read:

2.9.1.1 The design, arrangement, color, and spacing of copy shall be in accordance with, the NHDOT Standard Plans for Road Construction, or the MUTCD and the FHWA “Standard Highway Signs”.

2.9.1.2 All sign sheeting and copy materials shall be fabricated from components of compatible systems warranted by the same manufacturer in accordance with the NHDOT Qualified Products List Product Qualification Criteria/Acceptance Criteria.

2.9.1.3 Blank.

Amend 2.9.2.1 and 2.9.2.2 to read:

2.9.2.1 The letters, numerals, symbols, shields, and borders shall be retroreflective sheeting conforming to 718 Retroreflective Sheeting. Interstate route shields (red, white, and blue) and Turnpike shields shall not be silk screened.

2.9.2.2 Blank.

Amend 2.9.3.1 to read:

2.9.3.1 The letters, numerals, symbols, shields, and borders shall be retroreflective sheeting conforming to 718 Retroreflective Sheeting. Interstate route shields (red, white, and blue) and Turnpike shields shall not be silk screened.

Amend 2.9.4.1 to read:

2.9.4.1 The letters, numerals, symbols, shields, and borders of retroreflective or nonreflective sheeting shall be cut-out, overlay film or silk screened retroreflective or nonreflective sheeting conforming to 718 Retroreflective Sheeting. Interstate route shields (red, white, and blue) and Turnpike shields shall not be silk screened.

Amend 2.10.1.1 to read:

2.10.1.1 All background sheeting shall be retroreflective sheeting conforming to 718 Retroreflective Sheeting. Overlay film shall be from the NHDOT Qualified Products List.

Amend 3.2.4 to read:

3.2.4 The Contractor shall submit shop drawings for all signs for approval showing arrangements, spacing, arrow sizes, radii, border widths, indent spacing and colors of copy, and manufacturer and types of retroreflective sheeting, overlay or nonreflective materials for the background and letters, numerals, symbols, shields, and borders in accordance with 105.02.

Amend 3.2.5 to read:

3.2.5 Application of Retroreflective Sheeting to Aluminum Plank. The sheeting shall be applied to the face of the extruded aluminum planks by a squeeze roller applicator in accordance with the recommendations of the sheeting manufacturer. The face of the planks shall be completely covered by the retroreflective sheeting. All signs shall contain the date of manufacture and size, located in the lower left corner of the front face of the sign (e.g., 3-15 10'x15'). Letters and numbers shall be 2 in. white adhesive pressure copy.

Amend 3.2.6 to read:

3.2.6 Application of Retroreflective Sheeting to Aluminum Sheets. The sheets shall conform to the provisions of 3.2.5 except that the sheeting shall be applied to the aluminum either by the heat vacuum applicator method or by mechanical roller application in accordance with the recommendations of the sheeting manufacturer. All Type B and C aluminum sheet signs larger than 48" x 48" shall contain the date of manufacture and size, located in the lower left corner of the front face of the sign (e.g., 3-90 4'x6'). Letters and numbers shall be 1 in. white adhesive pressure copy. All aluminum sheet signs 48" x 48" and smaller shall contain a legible size and date of manufacture, located in the lower right corner on the back of the sign, applied with permanent marker or paint (e.g., 9-14, 3'x3').

Delete entire 3.2.7 section.

Add 3.2.7 to read:

3.2.7 Application of Sign Copy. Sign copy shall be applied in accordance with manufacturer's recommendations.

Delete entire 3.4 section. (See additional Special Provision for Section 615, if necessary.)

Add 3.5.9 to read:

3.5.9 Overhead mounted signs shall be attached to the overhead structure with all new mounting hardware unless otherwise noted on the plans.

Amend 4.2 and 4.3 to read:

4.2 Traffic sign Type A, B, C will be measured by the square foot (square meter) for traffic, including all necessary posts, footings, bases, and mounting hardware.

4.3 Traffic sign Type AA, BB or CC will be measured by the square foot (square meter), including all necessary mounting hardware.

Amend 4.5 to read:

4.5 Removing traffic signs Type B or C shall be measured by the unit. Removing traffic signs Type BB or CC shall be subsidiary unless otherwise noted. Removal will include all footings (to a minimum of one foot below finished grade, posts, mounting hardware and all signs on each post.

Amend 5.2 and 5.2.1 to read:

5.2 Traffic signs type A, B, C, AA, BB or CC will be paid for at the Contract unit price per square foot (square meter) complete in place.

5.2.1 The accepted quantities of removing traffic sign Type A, AA, B or C or relocating traffic sign Type A, B, C, AA, BB or CC will be paid for at the Contract unit price per each unit.

Delete all final pay items from the Pay Item and Units section.

Add to Pay Items and Units:

615.0101	Traffic Sign Type A	Square Feet
615.01201	Traffic Sign Type A, Breakaway Mounts	Square Feet
615.0201	Traffic Sign Type B	Square Feet
615.02201	Traffic Sign Type B, Breakaway Mounts	Square Feet
615.0301	Traffic Sign Type C	Square Feet
615.03201	Traffic Sign Type C, Breakaway Mounts	Square Feet
615.0401	Traffic Sign Type AA	Square Feet
615.0501	Traffic Sign Type BB	Square Feet
615.0601	Traffic Sign Type CC	Square Feet

END OF SECTION

SPECIAL PROVISION**AMENDMENT TO SECTION 616 – TRAFFIC SIGNALS****Item 616.261 – Rectangular Rapid Flashing Beacon Assembly
(Kingston Road)**

This special provision provides for the construction of new Rectangular Rapid Flashing Beacons (RRFB) at the proposed Kingston Road crosswalk located at approximately Sta. 107+27, 30.5' LT (Double Sided) & Sta. 107+35, 31.0' RT (Double Sided) in the Town of Exeter. The Contractor shall field verify vertical clearance of overhead wires at Sta. 107+35, 31.0' RT prior to placing foundation. If vertical clearance is insufficient, RRFB shall be relocated from Sta. 107+35, 31.0' RT to Sta. 107+35.5, 27.0' RT.

Add to Description:

1.3 All provisions of Section 616, except as modified or changed below, shall apply.

- a. The RRFB installations, equipment and operation shall comply with all provisions of FHWA's Interim Approval 21 – Rectangular Rapid - Flashing Beacons at Crosswalks dated March 20, 2018 unless otherwise noted.
- b. The RRFB must be inspected and approved by the Bureau of Traffic prior to placing in operation. The Contractor shall contact Peter Crouch at the Bureau of Traffic at (603)271-2291 one week prior to installation. If the Contractor does not speak directly with Peter Crouch they must leave a detailed message with the Administrative Assistant and expect a call back. Leaving a message does not constitute an approval.

Add to 2.1:**2.1.3 List of Major Materials for RRFB:****2.1.3.1 Housing, Post and Signs.**

- a. RRFB housings shall be made from powder coated aluminum (black).
- b. The outside edges of the RRFB indications, including any housing, shall not project beyond the outside edges of the W11-2 sign.
- c. The RRFB shall be located between the bottom of the crossing warning sign (W11-2) and the top of the supplemental downward diagonal arrow plaque (W16-7p), rather than 12" above or below the sign assembly.
- d. Each RRFB assembly shall be mounted on a tapered tubular aluminum pole (2 total) with a aluminum square pedestal breakaway base assembly. The poles, breakaway assemblies, and foundations shall conform to Section 616 of the Standard Specifications.

- e. The pedestrian crossing signs (W11-2) and arrow plaques (W16-7P) at the RRFB assembly location shall be back-to-back Type CC signs, black on yellow, and as defined in Section 615 of the Standard Specifications.
- f. All signs shall conform to MUTCD and NHDOT requirements.
- g. R1-6 Sign may be installed in roadway on the roadway centerline.

2.1.3.2 LED.

- a. There shall be 8 7" x 3" amber LED arrays.
- b. The 2 RRFB indications shall be aligned horizontally, with the longer dimension horizontal and with a minimum space between the two indications of approximately seven inches (7"), measured from inside edge of one indication to inside edge of the other indication.
- c. The light intensity of the yellow indications shall meet the minimum specifications of Society of Automotive Engineers (SAE) standard J595 (Directional Flashing Optical Warning Devices for Authorized Emergency, Maintenance, and Service Vehicles) dated January 2005.

2.1.2.3 BEACON FLASHING REQUIREMENTS.

- a. When actuated, the two yellow indications in each RRFB unit shall flash in a rapidly flashing sequence.
- b. As a specific exception to the requirements for the flash rate of beacons provided in Paragraph 3 of Section 4L.01, RRFBs shall use a much faster flash rate and shall provide 75 flashing sequences per minute. Except as provided in Condition 5f below, during each 800-millisecond flashing sequence, the left and right RRFB indications shall operate using the following sequence:
 1. The RRFB indication on the left-hand side shall be illuminated for approximately 50 milliseconds, then both RRFB indications shall be dark for approximately 50 milliseconds.
 2. The RRFB indication on the right-hand side shall be illuminated for approximately 50 milliseconds, then both RRFB indications shall be dark for approximately 50 milliseconds.
 3. The RRFB indication on the left-hand side shall be illuminated for approximately 50 milliseconds, then both RRFB indications shall be dark for approximately 50 milliseconds.
 4. The RRFB indication on the right-hand side shall be illuminated for approximately 50 milliseconds, then both RRFB indications shall be dark for approximately 50 milliseconds.
 5. Both RRFB indications shall be illuminated for approximately 50 milliseconds, then both RRFB indications shall be dark for approximately 50 milliseconds.
 6. Both RRFB indications shall be illuminated for approximately 50 milliseconds, then both RRFB indications shall be dark for approximately 50 milliseconds.

- c. The flash rate of each individual RRFB indication, as applied over the full flashing sequence, shall not be between 5 and 30 flashes per second to avoid frequencies that might cause seizures.
- d. The light intensity of the yellow indications during daytime conditions shall meet the minimum specifications for Class 1 yellow peak luminous intensity in the Society of Automotive Engineers (SAE) Standard J595 (Directional Flashing Optical Warning Devices for Authorized Emergency, Maintenance, and Service Vehicles) dated January 2005.
- e. To minimize excessive glare during nighttime conditions, an automatic signal dimming device should be used to reduce the brilliance of the RRFB indications during nighttime conditions.

2.1.2.4 BEACON OPERATION.

- a. The RRFB shall be normally dark, shall initiate operation only upon pedestrian actuation, and shall cease operation at a predetermined time after the pedestrian actuation.
- b. All RRFB units associated with a given crosswalk (including those with an advance crossing sign, if used) shall, when actuated, simultaneously commence operation of their rapid-flashing indications and shall cease operation simultaneously.
- c. A Push Button To Turn On Warning Lights (R10-25) sign shall be installed explaining the purpose and use of the pedestrian pushbutton detector.
- d. The duration of a predetermined period of operation of the RRFBs following each actuation should be based on the procedures provided in Section 4E.06 of the 2009 MUTCD for the timing of pedestrian clearance times for pedestrian signals.
- e. The predetermined flash period shall be immediately initiated each and every time that a pedestrian is detected as a result of a pedestrian pressing a pushbutton detector, including when pedestrians are detected while the RRFBs are already flashing and when pedestrians are detected immediately after the RRFBs have ceased flashing.
- f. A small pilot light may be installed integral to the RRFB or pedestrian pushbutton detector to give confirmation that the RRFB is in operation.

2.1.2.5 Pushbutton & Walk Duration.

- a. Pedestrian pushbuttons shall be used to actuate the RRFB, Polara Bulldog III RBDL3-Y-2H or approved equal.
- b. The push button shall be mounted in a 9" x 12" Aluminum Blank Face Station housing. A R10-25 instruction sign with the legend "PUSH BUTTON TO TURN ON WARNING LIGHTS" shall be mounted above the pedestrian push buttons.

- c. The duration of a predetermined period of operation of the RRFB's following each actuation shall be based on the MUTCD procedures for timing of pedestrian clearance times for pedestrian signals (3.5 ft. /sec Maximum) plus an additional 4 seconds.
- d. The pedestrian push buttons shall conform to the applicable provisions of the ADA and be powered by a replaceable battery. The battery shall have a lifespan of approximately 2 years.

2.1.2.6 ACCESSIBLE PEDESTRIAN FEATURES.

- a. If a speech pushbutton information message is used in conjunction with an RRFB, a locator tone shall be provided.
- b. If a speech pushbutton information message is used in conjunction with an RRFB, the audible information device shall not use vibrotactile indications or percussive indications.
- c. If a speech pushbutton information message is used in conjunction with an RRFB, the message should say, "Yellow lights are flashing." The message should be spoken twice.

2.1.2.7 Solar Power and Radio Communications.

- a. The solar power system (1 required per assembly, 2 total) shall be housed in a NEMA 4 rated fiberglass cabinet with lockable straps.
- b. The solar panel shall be approximately 25 1/4" H x 25 3/4" W x 1 1/2" D and have a articulating mount that pivots.
- c. The solar power system control circuitry shall be in a NEMA IP-67 rated enclosure dustproof and waterproof in up to 3' for 30 minutes.
- d. The solar panel shall produce at least 55 watts, conform to IP-67, and be adjustable to an angle of between 40 degrees and 60 degrees from the ground.
- e. The solar battery shall be a 12 V, 40 AH sealed gel unit that does not require periodic watering. The battery shall be capable of operation without sun for 30 days and have a life span of 2 years.
- f. Solar & Battery installation shall be installed by manufacturer recommendations for optimum performance.
- g. Radio communication shall be used to connect the RRFB on either side of the street.
- h. The radio shall operate at 900 MHz, and shall utilize frequency hopping spread spectrum network with an operating range of 3.6 vdc to 15 vdc.

Add to Method of Measurement:

4.2 RRFB shall be measured as a unit and include all appurtenances described above for two double sided pedestrian crossing signs.

Add to Basis of Payment:

5.4 The accepted quantity of RRFB will be paid for at the Contract lump sum price complete in place.

Add to Pay Items and Units:

616.261	Rectangular Rapid Flashing Beacon Assembly (High Street)	Unit
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SPECIAL PROVISION**AMENDMENT TO SECTION 645 – EROSION CONTROL****Item 645.54 – Perimeter Erosion Control**

This special provision provides perimeter erosion control and neither amends nor modifies the provision of this section except as noted below. The intent of this item is to allow silt fence or compost sock for perimeter berm to be installed as required by the SWPPP or directed by the Engineer under a single item.

Description

1.1 This item allows the contractor to use compost sock for perimeter berm or silt fence as required by the SWPPP or directed by the Engineer under a single item.

Materials

2.1 When compost sock for perimeter berm is installed it shall meet the material requirements of Item 645.512 – Compost Sock for Perimeter Berm.

2.2 When silt fence is installed it shall meet the material requirements of Item 645.531 – Silt Fence.

Construction Requirements

3.1 When compost sock for perimeter berm is installed it shall meet the construction requirements of Item 645.512 – Compost Sock for Perimeter Berm.

3.2 When silt fence is installed it shall meet the construction requirements of Item 645.531 – Silt Fence.

Method of Measurement

4.1 Perimeter erosion control will be paid for by the linear foot to the nearest 1 foot. Measurement will be along the top of each continuous run complete in place.

Basis of Payment

5.1 The accepted quantity of perimeter erosion control will be paid for at the contract unit price per linear foot installed. No additional payment will be made for overlaps, splices or the anchoring of the system.

Pay items and units:

645.54 Perimeter Erosion Control

Linear Foot

END OF SECTION

SPECIAL PROVISION**SECTION 645 – EROSION CONTROL****Item 645.99 – Bioretention Swale****Description**

1.1 This work shall consist of furnishing materials, labor, equipment, and supervision to install a bioretention swale system in accordance with the plans and specifications and in close conformance with the lines, grades, design, and dimensions shown on the plans, or where ordered.

Materials**2.1 Seed**

2.1.1 Seeding shall conform to the material requirements of Section 644 of the 2016 NHDOT Standard Specifications.

2.1.2 Seeding shall be Slope Seed Type 44.

2.2 Loam

2.2.1 Loam shall conform to the material requirements of Section 641 of the 2016 NHDOT Standard Specifications.

2.3 Soil Filter

2.3.1 Soil filter shall conform to the gradation requirements of either Option A or Option B in Table 4-4.

Table 4-4. Bioretention Filter Media			
Component Material	Percent of Mixture by Volume	Gradation of Material	
		Sieve No.	Percent by Weight Passing Standard Sieve
Filter Media Option A			
ASTM C-33 concrete sand	50 to 55		
Loamy sand topsoil, with fines as indicated	20 to 30	200	15 to 25
Moderately fine shredded bark or wood fiber mulch, with fines as indicated	20 to 30	200	< 5
Filter Media Option B			
Moderately fine shredded bark or wood fiber mulch, with fines as indicated	20 to 30	200	< 5
Loamy coarse sand	70 to 80	10	85 to 100
		20	70 to 100
		60	15 to 40
		200	8 to 15

2.4 Coarse Gravel

2.4.1 Coarse gravel shall be angular, clean stone conforming to the grading requirements in Table 2.

**Table 2 – Grading Requirements for Coarse Gravel
ASTM D 422**

<u>Sieve Size</u>	<u>Percent Passing</u>
1 in.	100
3/4 in.	75 to 100
No. 4	0 to 60
No. 40	0 to 50
No. 200	0 to 5

2.5 Pea Gravel

2.5.1 Pea gravel shall be semi-round, clean stone conforming to the grading requirements in Table 3.

**Table 3 – Grading Requirements for Pea Gravel
ASTM D 422**

<u>Sieve Size</u>	<u>Percent Passing</u>
1/2 in.	100
3/8 in.	85 to 100
No. 4	10 to 30
No. 8	0 to 10

2.6 Perforated Underdrain

2.6.1 The perforated underdrain shall be a perforated or slotted PVC, or corrugated PE pipe and shall conform to the requirements of Section 605 of the 2016 NHDOT Standard Specifications.

2.6.2 Drainage pipe shall be manufactured in accordance with ASTM 405 or ASTM F 758.

2.7 Flushing Basins

2.7.1 Flushing basins shall conform to the material requirements of Section 605 of the 2016 NHDOT Standard Specifications.

Construction Requirements

3.1 Seed shall conform with the construction requirements of Section 644 of the 2016 NHDOT Standard Specifications.

3.2 Loam shall conform with the construction requirement of Section 641 of the 2016 NHDOT Standard Specifications.

3.3 Soil filter shall be placed to the required height in layers at the locations shown or ordered. Soil filter layers shall not exceed 8" of compacted depth unless otherwise directed.

3.4 Coarse gravel shall be placed, as shown in the plans, and in accordance with Section 3.7.

3.5 A layer of pea gravel shall be placed in the bottom of the trench for its full width and length, to the required height, as shown in the plans, and compacted.

3.6 Perforated pipe shall normally be placed with the perforations down, and sections shall be securely joined with the appropriate couplings, fittings, or bands. Perforated pipe shall be placed with a minimum longitudinal slope of 0.5 percent.

3.7 Flushing basins shall conform with the construction requirement of Section 605 of the 2016 NHDOT Standard Specifications.

3.8 After the pipe installation has been inspected and approved, backfill material, as shown in the plans, shall be placed to the required height and compacted in lifts not to exceed 8”.

Method of Measurement

4.1 The accepted quantity of bioretention swale will be measured by the linear foot along the centerline of the swale.

4.2 Excavation will be measured in accordance with Section 203.

Basis of Payment

5.1 The accepted quantity of bioretention swale will be paid for at the contract price per linear foot completed and in place, including seeding, bioretention soil mix, soil filter, coarse gravel, perforated underdrain, and flushing basins.

5.2 Excavation will be paid for under the appropriate items of Section 203.

5.3 Steel witness markers will be paid for under the appropriate items of Section 622.

Pay Item and Unit

645.99	Bioretention Swale	Linear Foot
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END OF SECTION

SPECIAL PROVISION

Item 665.21 – Street Lights (Kingston Road)

Description

1.1 This work shall consist of furnishing and installation of a new pole with luminaire at approximately STA. 107+19, 31.0' RT and a new pole with luminaire at approximately STA. 107+46, 36.0' LT at the proposed Kingston Road crosswalk located in the Town of Exeter.

Materials

2.1 The contractor shall use all new materials of high quality. The contractor shall submit product specifications for approval. All products and material required shall meet or exceed Unutil standards.

2.2 Poles & Guys

2.2.1 Poles shall be wood and meet or exceed the Unutil requirements and product specifications.

2.2.2 Poles shall be of sufficient length to provide proper embedment depth required by Unutil and provide for lighting fixtures to be mounted at 25 ft. above the roadway surface.

2.2.3 Guys shall meet or exceed the Unutil requirements and product specifications.

2.3 Mounting Bracket

2.3.1 Mounting brackets shall be a 6 ft. galvanized brackets with a 1 ½" diameter.

2.4 Wiring

2.4.1 All wiring shall comply with Unutil standards.

2.5 LED Fixture - Luminaires shall conform to the requirements shown in the following tables. Luminaires furnished under this contract shall be LED and shall be from the same manufacturer for all similar wattages to be furnished. The wattage of proposed fixtures shall match those of the existing LED fixtures in the immediate area.

2.5.1 LED fixture head shall conform to the following minimum requirements:

LED Fixture Minimum Requirements	
Required Certifications	The LED Fixture must be approved by the Design Lights Consortium, Entire fixture including internal components, and as a whole unit, shall be UL certified, CSA International certified, ROHS, or equivalent. Fixture Manufacture must be ISO 9001 Certification
Correlated Color Temperature (CCT)	CCT shall be 1. Between 4,000K and 5,700K. Owner reserves the right to choose the color temperature (K) from within this range for the fixtures to be purchased. Color shift during L70 period shall be less than 5%. Acceptable LM80 test results must be provided.
Color Rendering Index (CRI)	LED Fixtures shall have a minimum CRI of 70.
Operating Environment	Luminaire shall be able to operate normally in temperatures from -20°C to 50°C, and have a documented history of successful trials in a climate similar to that of the owner.
Cooling System	Shall consist of a heat sink with no fans, pumps, or liquids and shall be tested for heat management with debris to ensure buildup does not degrade heat dissipation such that the light operates outside of its design life performance parameters.
Dimensions (Approx.)	For fixtures to be mounted on mast arms on average longer than 5 feet long, when any single dimension is more than 10 percent greater than the fixture being replaced, a Wind Load analysis, stamped by an appropriately registered Engineer, shall be provided to prove the existing pole can accommodate the Wind Loading of the proposed fixture.
Housing	Shall be primarily constructed of die-cast aluminum. Finish shall be powder coated and rust resistant. Finish shall have a warranty of not less than 10 years. Fixture shall be self-cleaning. Driver must be mounted internally and be replaceable. Driver must be accessible without tools. All screws shall be stainless steel. Captive screws are needed on any components that require maintenance after installation. Driver and optical systems will be IP rated to not less than 66. Housing must have a rating of 54 (small drain holes on the bottom of the fixture are acceptable) or better and the mounting point must have an installed barrier to restrict entry of birds and bugs. Fixture color to be submitted on and chosen by the Town of Exeter
Dark Sky Compliance	Fixtures shall comply with International Dark Sky Association guidelines and have a BUG rating B1-U1-G1 per IES Addendum TM 15-07. Fixtures shall be fully shielded and installed in such a way that no light is emitted above a horizontal plane running through the lowest part of the fixture.
Mounting Arm Connection	Led replacement fixtures must be suitable with existing mast arms and mounting brackets. Cobrahead fixtures shall mount on 1 ⁵ / ₈ " to 2 ³ / ₈ " O.D. horizontal tenon with no more than four ⁹ / ₁₆ inch hex bolts and two piece clamp with vertical tilt adjustment range of ^{+/-} 5%. The fixture <i>shall</i> allow for horizontal adjustment in order to be level with the roadway surface regardless of angle of support arm or pole. Effective Projected Area (EPA) of luminaire shall not exceed 1.6 and shall withstand 100 MPH wind gusts when mounted on a standard 5' to 6' steel mounting bracket arm without additional reinforcement.

Photo Electric Cell Receptacle	LED Fixtures shall have a 3-prong twist-lock photo-control receptacle in accordance with ANSI C136.10. The PE socket shall be able to rotate so that the PE window can be positioned to face the north direction. The photo-control receptacle shall be compatible with remote control modules that may be added at a future date.
House Shield	Shall provide option for house side light control, both field installable and manufacturer installed.

2.5.2 LED module/array shall conform to the following requirements:

LED Module/Array Requirements	
Lumen Depreciation of LED Light Sources	LED module(s)/array(s) shall deliver at least 70% of initial lumens, when installed for a minimum of 70,000 hours. Submit lumen depreciation (operating life) data for each luminaire supported by the LED chip manufacturers IESNA LM80 test data that directly correlates to luminaire level performance. Submit certified photometric reports per IESNA LM79 from an approved Department of Energy Independent testing laboratory to validate manufacturer's photometric performance claims for each luminaire.
Power Factor	Shall have a minimum Power Factor of 0.90
Input Voltage	Shall be standard for multi voltage input from 120 volts to 277 volts. Consistent with local utility provider standards
Max amperage at LED	Shall conform to one of the following:
	1) Step increments on current to the driver: ~350 mA (with option of ~525 mA and ~700 mA)
	2) Driver adjustment for multi-current input operation: Standard factory for Equivalent Replacement of 70 W HPS and 100 W HPS shall be 350 mA, 525 mA, and 700 mA as delivered from the factory. Adjustment shall not exceed 1000 mA. L70 shall not be below 70,000 for the highest operating forward current.
	3) Fixtures using the smaller chip and operating at lower forward currents or alternate step currents will also be considered so long as the output requirements are met for equivalent light on the roadway.
Transient Protection	Per IEEE C.62.41-1991, Class A operation. The line transient shall consist of seven strikes of a 100K HZ ring wave, 6 kV level, for both common mode and differential mode.
Operating Temperature	Power Supply shall operate between -40°C and 40°C.
Frequency	Output operating frequency must be ≥ 120 Hz (to avoid visible flicker) and input operating frequency of 60 Hz.
Interference	Power supplies shall meet FCC 47 CFR Part 15/18 (Consumer Emission Limits).
Noise	Power Supply shall have a Class A sound rating per ANSI Standard C63.4.
Terminal Block	Shall be capable of #12 to #6 AWG.

2.5.3 LED Roadway applications shall conform to the following requirements:

LED Roadway Application Requirements	
Vibration certification	The proposed LED fixture shall be ANSI C136.31 Roadway Luminaire at 3G
Minimum Light Output	The 0.2 fc contour line, measured parallel to the luminaire arm on the street side of the fixture, shall fall within +/- 10 percent from the equivalent fixture selected for each location in the lighting plan.
	The 0.2 fc contour line, measured parallel to the luminaire arm on the house side of the fixture, shall fall no less than 20 percent nor more than 5 percent from the equivalent fixture selected for each location in the lighting plan.
Luminaire Efficacy	Luminaire Light Output (includes fixture efficiency and thermal effects); Luminaire Input Power shall meet DOE Energy Star Criteria.
Minimum Luminaire Efficacy	72 lm/W at 350 mA and 62 lm/W at all operating temperatures and forward currents.

Construction Requirements

3.1 General

- 3.1.1** All electrical work, including conduit, will be installed under the supervision of a New Hampshire Licensed Electrician. An electrical permit is required prior to any project work being completed.
- 3.1.2** Contractor shall perform all work to be in conformance with local and national code requirements.
- 3.1.3** The Contractor shall provide a proposed design with lighting fixture samples for approval prior to installation for approval by the Engineer.
- 3.1.4** Street or area lighting design shall be consistent with Unitil lighting standards.
- 3.1.5** Contractors may choose to have Street Lights (Kingston Road) work completed by Unitil or may opt to hire a private line contractor to perform the work.
- 3.1.6** Any private contractor shall have all the requisite training, certifications and insurance to safely perform the required installations, and shall be licensed by the State of New Hampshire and accepted by Unitil.
- 3.1.7** Prior to commencement of work, the municipality must provide written certification of the qualifications to Unitil.
- 3.1.8** Contractors shall coordinate the installation work with Unitil and submit a work plan subject to approval by Unitil.

3.2 Poles & Guys

3.2.1 Poles and guy supports shall be installed as needed and coordinated with Unitil and the Town of Exeter prior to installation.

3.3 Wiring

3.3.1 Wiring shall be installed a minimum of 20 ft. above roadway surface.

3.3.2 The contractor shall work with Unitil construction support services to coordinate wiring requirements.

3.4 LED Fixtures

3.4.1 Finished lighting fixture height shall be 25 ft. above roadway surface.

Method of Measurement

4.1 Street Lights (Kingston Road) shall be measured as a unit and include all appurtenances described above and shown on the plans for street light installations and modification required at the Kingston Road pedestrian crossing.

Basis of Payment

5.1 Payment for Street Lights (Kingston Road) will be full compensation for all labor, permitting, equipment, tools, supervision, and materials necessary to complete the work associated with construction and installation of the Street Lights (Kingston Road) as shown on the Plans and specified herein, including any expenses arising from damage to Unitil's electrical system caused by the contractor's actions. The work shall include, but not be limited to coordination with related works of other trades, shop drawings, procurement of material, delivery of material, excavation, backfilling, tree trimming, poles & guys, mounting bracket, LED fixtures, wiring, controls, electrical service, hardware, and all other work required to complete the streetlight installation not paid for under other items as specified herein.

Pay Item and Unit:

665.21	Street Lights (Kingston Road)	Unit
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END OF SECTION

**EXETER
40436****SPECIAL PROVISION****SECTION 1008 – ALTERATIONS AND ADDITIONS AS NEEDED****Item 1008.54 – Alterations and Additions as Needed – LRS Disposal**

This special provision is intended to provide and pay for certain measures that will be required during construction. Engineering judgement indicates that a reasonable estimated dollar allowance is in order in setting up this contract.

Description

1.1 This special provision is provided to pay for disposal “tipping” fees and any required permits that may be necessary for the proper disposal of Limited Reuse Soil (LRS) removed under Item 203.11 Common Excavation – LRS.

Construction Requirements

3.1 The Contractor shall perform the work necessary to dispose of LRS.

3.2 Work ordered under this section shall be performed in accordance with the applicable provisions of the Standard Specifications; Special Provisions; and State, Regulations for the class of work involved and the pertinent provisions of 104.03.

3.3 The Contractor shall coordinate with the Engineer for testing the LRS materials prior to disposal.

Method of Measurement

4.1 Work authorized under this section will be measured as provided in 109.01; however when such work falls within the specifications for another contract item, the work will be measured according to the method of measurement for that contract item.

Basis of Payment

5.1 Payment for work authorized under this section will be made on a dollar basis according to 109.40.

5.2 Payment on the amount set in the proposal will not be on a lump sum basis, but only the amount determined for the value of the work ordered will be paid.

5.3 Contractor shall provide the Engineer with Bill of Lading (BOL) used to track transport and disposal of LRS, including all receipts from the Turnkey Landfill, 176 Rochester Neck Road, Rochester, NH 03839.

5.4 The Bidder's attention is called to the dollar amount inserted in the proposal under these items, which dollar amount is the allowance the Department has set up for the special work. This figure must not be altered by the Bidder on his proposal, and must be included to obtain the grand total of the bid.

Pay Item and Unit

1008.53	Alterations and Additions as Needed – LRS Disposal	Dollar
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END OF SECTION

**NEW HAMPSHIRE DEPARTMENT OF EMPLOYMENT SECURITY
EMPLOYMENT OF NEW HIRES**

The following is a list of the local State Employment Security Offices from which the Contractor may secure the unskilled labor for this project:

Department of Employment Security
151 Pleasant Street, PO Box 159
Berlin, NH 03570-2006
Telephone: (603) 752-5500

Department of Employment Security
404 Washington Street, PO Box 180
Claremont, NH 03743-0180
Telephone: (603) 543-3111

Department of Employment Security
10 West Street, PO Box 1140
Concord, NH 03302-1140
Telephone: (603) 228-4100

Department of Employment Security
518 White Mountain Hwy.
Conway, NH 03818-4205
Telephone: (603) 447-5924

Department of Employment Security
109 Key Road
Keene, NH 03431-3926
Telephone: (603) 352-1904

Department of Employment Security
426 Union Avenue, Suite 3
Laconia, NH 03246-2894
Telephone: (603) 524-3960

Department of Employment Security
646 Union Street, Suite 100
Littleton, NH 03561-5314
Telephone: (603) 444-2971

Department of Employment Security
300 Hanover Street
Manchester, NH 03104-4957
Telephone: (603) 627-7841

Department of Employment Security
6 Townsend West
Nashua, NH 03063-1217
Telephone: (603) 882-5177

Department of Employment Security
2000 Lafayette Road
Portsmouth, NH 03801-5605
Telephone: (603) 436-3702

Department of Employment Security
29 South Broadway
Salem, NH 03079-3026
Telephone: (603) 893-9185

Department of Employment Security
6 Marsh Brook Road
Somersworth, NH 03878
Telephone: (603) 742-3600

03/21/18

SSD: 03/01/16, 06/10/16, 6/11/16, 06/27/16, 08/03/16, 10/31/16, 11/28/16, 06/19/17, 11/30/17

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SPECIAL ATTENTION**ERRATA SHEET**

The following table is a list of corrections to the 2016 *Standard Specifications for Road and Bridge Construction*, as of the date of this Proposal.

Section	Description	Correction	Date
<i>DIVISION 100</i>			
104.03	Maintenance of Traffic	Amend 'winter work suspensions' in 104.03 to read 'Winter Suspension'.	06/07/07
<i>DIVISION 200</i>			
<i>DIVISION 300</i>			
<i>DIVISION 400</i>			
<i>DIVISION 500</i>			
		Insert the following footnotes under Table 520-1A:	
		¹ See 3.1.6 TESTING	
		² For mixes containing fly-ash, silica fume, slag, or any other pozzolanic or cementitious material, the water/cement ratio of the concrete mix shall be based on the water cementitious (cement + pozzolanic or cementitious material) ratio of the mix. This water to cementitious ratio shall not exceed those listed in Table 1A. The maximum water/cement ratios listed for Concrete Class B and T are for design purposes only.	
		³ Deck Overlays.	
520	Classes of Concrete	⁴ <u>Maximum</u> 84 day Compressive Strength for Flowable Fill, Excavatable shall not exceed 200 psi.	06/11/16
		⁵ These are recommended values that may be used as a starting point for a mix design that has shown ability to meet the requirements. The amount of cement shall be adjusted and fly-ash or ground granulated blast furnace slag shall be used provided the mix design meets the minimum and does not exceed the maximum compressive strength in accordance with 2.11.1.	
		⁶ Target values shown are for mix design approval only and are not intended for use as quality control or quality assurance requirements.	

Section	Description	Correction	Date
520	Classes of Concrete – Performance Requirements (QC/QA)	Amend the title of <i>Table 420-1B - Class of Concrete – Performance Requirements (QC/QA)</i> to <i>Table 520-1B - Class of Concrete – Performance Requirements (QC/QA)</i>	11/28/16
528	Shear Key Grout for Butted Beams	Amend 528.2.9.1 to read: <i>Grout for shear keys shall be an approved grout as listed in Section 528A of the Qualified Products List.</i> Amend 528.2.9.2 to read: <i>For testing, 3 neat 2” cubes shall be molded and cured in accordance with AASHTO T 106 (ASTM C 109). The average compressive strength of the 3 cubes at 7 days shall be a minimum of 6000 psi.</i>	06/10/16
528	Installation of Deck Panels	Replace last sentence of 528.3.22.6.4 to read: <i>If leveling screws are used, they shall be completely removed and the holes filled with grout listed in Section 528A of the Qualified Products List prior to placement of deck concrete.</i>	06/10/16
550	PTFE Surfaces for Bearings	Amend the first sentence of 550.2.10 to read: <i>PTFE for use in expansion bearing assemblies shall be 100 percent virgin (unfilled) polytetrafluoroethylene polymer...</i>	08/03/16
550	Anchor Rods	Amend 550.3.15.4.1 to read: <i>Anchor rods shall be set in one of the following materials:</i> <i>(a) Non-shrinking, non-ferrous, cement-base grout listed in Section 550A of the Qualified Products List. This grout shall be used only when both the temperature of the masonry and the ambient temperature are kept at 40 °F or above until the grout has cured.</i> <i>(b) Sulfur.</i> Amend the first sentence of 550.3.15.4.2 to read: <i>Non-shrinking, non-ferrous, cement base grout shall be a product as included in Section 550A of the Qualified Products List.</i>	06/10/16
563	Bridge Rail	Amend 4.1 to read: <i>Bridge rail, of the type specified, will be measured by the linear foot to the nearest tenth of a foot.</i>	06/27/16
<i>DIVISION 600</i>			
606	Handrail	Amend 606.2.8.2 to read: <i>Grout for anchoring the pipe posts shall be High Strength, Impact Resistant, Non-shrink Grout as included in Section 528A of the Qualified Products List.</i>	06/10/16

Section	Description	Correction	Date
606	Temporary Impact Attenuators	Amend in 606.2.10.2 the reference to 2.12.4 to 2.10.4.	11/28/16
	Repair of Hardened Concrete	Amend in 606.3.7.12.A the reference to <i>Fast Set Non-shrink Patching Mortar</i> to <i>Rapid-Hardening Patching Material</i> .	03/21/18
609	Curbing	Amend the 2 nd sentence of 609.2.5 to read: <i>The non-shrink, non-metallic grout shall be a product as included in Section 550A of the Qualified Products List.</i>	06/10/16
609	Curb anchors	Amend 609.3.1.5.1 to read: <i>Curb anchors shall be set and grouted using non-shrink, non-metallic grout as shown on the plans.</i>	06/10/16
621	Delineators	Add the following to the end of 621.3.1.3: <i>Grout shall be as listed in Section 550A of the Qualified Products List or as directed by the Engineer.</i>	06/10/16
632	Pavement Markings	Amend the AASHTO reference in 3.2.3.1 to read: <i>AASHTO M248 Type F</i>	
<i>DIVISION 700</i>			
707	Cement Mortar	Amend 2.3 to read: <i>Testing for impurities shall comply with AASHTO T 21. Results that are darker than the standard shall be cause for rejection, except as provided in 2.3.1.</i>	10/31/16
		Amend 2.3.1 to read: <i>Sand for mortar not conforming to 2.3 shall be tested in accordance with AASHTO T 71 and shall meet the requirements of 5.2.3 of AASHTO M 45.</i>	

SPECIAL ATTENTION

INVASIVE SPECIES

The statutory authority of NH Department of Agriculture RSA 430:55 and NH Department of Environmental Services RSA 487:16-a prohibits the spread of invasive plants listed on the NH Prohibited Species list. Construction activities should avoid impacting areas containing invasive plant species in order to avoid spreading these plants to new sites. If invasive plants cannot be avoided, then the following suggested best management practices (BMPs) should be incorporated into all projects. These BMPs have been summarized from the NHDOT manual *Best Management Practices for the Control of Invasive and Noxious Plant Species*.

Earthwork:

- Minimize soil disturbance whenever possible outside the limits of excavation.
- Stabilize disturbed soils by seeding and/or using mulch, hay, rip-rap, or gravel that is free of invasive plant material.
- Materials such as fill, loam, mulch, hay, rip-rap, and gravel should not be brought into project areas from sites where invasive plants are known to occur.

Movement of equipment:

- Equipment movement should be from areas not infested by invasive plants to areas infested by invasive plants whenever possible.
- Staging areas should be free of invasive plants to avoid spreading seeds and other viable plant parts.

Removing vegetation:

- In areas where invasive plants will be impacted by construction activities, vegetation should be cut or removed prior to seed maturation (approximately August 1st).
- These invasive plants have the ability to sprout from stem and root fragments: purple loosestrife, phragmites, and Japanese knotweed. Mowing these plants should be avoided. When these plants are cut by other means, all plant material must be destroyed and extra care should be taken to avoid spreading plant fragments.
- Equipment used to cut or remove invasive plants should be cleaned at least daily, as well as prior to transport.

The NHDOT manual *Best Management Practices for the Control of Invasive and Noxious Plant Species* and supporting fact sheet documents are available on line at www.nh.gov/dot/org/projectdevelopment/environment/units/program-management/invasivespecies.htm or through the NHDOT Records Section (603-271- 1601).

Items will be included in the contract under Sections 201 or 697 for projects that will require these control methods.

05/13/09

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SSD: 1/19/95, 4/6/99, 2/14/03 & 7/14/08

SPECIAL ATTENTION

HISTORIC AND ARCHAEOLOGICAL RESOURCES

In order to avoid impacts to archaeological resources, the Contractor shall obtain and submit to the Engineer a written certification from either: 1) the State Archaeologist, or 2) a qualified archaeologist as defined below prior to any offsite excavation or other work at any disposal site, haul road, storage area, staging area, or other areas located outside the right-of-way limits of the project. Such certification shall be made on one of the attached forms. One is intended for site clearance by the state archaeologist and the other for investigation by a qualified archaeologist. Any work in such areas may only commence after receipt of this certification and upon written authorization to proceed by the Engineer.

This Special Attention does not apply to natural materials obtained from pre-existing (i.e., owned and operated by the Contractor prior to bidding on the subject contract) and/or commercially available sources. Commercially available sources is meant to include licensed or permitted sources where anyone could purchase natural materials.

If the State Archaeologist determines that further field investigation is necessary the Contractor must decide whether to pursue alternative locations or to have the site(s) in question evaluated. If the latter is decided, it will be necessary for the Contractor and the Engineer to meet with the NHDOT Bureau of Environment, the Division of Historic Resources and the Federal Highway Administration to determine the appropriate course of action. Note that the latter parties meet twice a month on the first and second Thursdays of each month.

Professional Qualifications for Principal Investigators in Archaeological Investigations

All archaeologists contracting with NHDOT as principal investigators will be qualified for such work, as determined by NHDHR. **See list of qualified archaeological firms at www.nh.gov/nhdhr/consultants_archaeology.html.** According to NHDHR guidelines, principal investigators must meet the minimum standards presented in 36 CFR 61.

These regulations require a graduate degree in archaeology, anthropology, or related field; at least one year full-time professional experience or an equivalent period of training in archaeological research, administration, or management; at least four months of supervised field and analytical experience in general North American archaeology; and demonstrated capability to complete archaeological research through all its phases. These standards distinguish between the prehistorian and historical archaeologist. Each must have a specialization in his/her respective areas and at least one year of full-time professional experience at the supervisory level in the study of the Native American cultural traditions or the historic period.

NHDHR also requires the following additional qualifications. All prehistorians will have at least one year of supervisory experience in the region encompassing the glaciated Northeast. Historical archaeologist will have a least one year of supervisory experience in New England, New Jersey, New York, or Pennsylvania. Historical archaeologists specializing in submerged nautical resources will possess at least one year's experience in the study of such resources along the Atlantic seaboard. NHDOT requires that the principal investigator has successfully completed one or more projects in New Hampshire in a timely manner. Principal investigators will be knowledgeable about the federal and state cultural resources management laws and regulations including those relating to the treatment of human remains in marked and unmarked graves. As soon as research or initial investigations indicate the likely presence of Native American or historic deposits, a principal investigator with training and experience in that area shall supervise the work.

The principal investigator is responsible for each aspect of the project. The principal investigator will maintain sufficient presence in repositories, the field, and laboratory to set up the study, ensure appropriate collection and accurate documentation of data, direct needed modifications as investigations proceed, field-check accuracy of field data, establish and direct analysis, and oversee documentation and preparation of recommendations at its close. In phases II and III as the intensity of excavation increases, it is anticipated that this presence will proportionately rise. All research, field investigations, analysis, and report preparation will be completed within the schedule set in the authorization of work unless notification is given and adequate justification is provided to NHDOT.

Depending on the nature of the site, the prehistoric or historic archaeologist may require additional qualifications or additional personnel qualified in other fields that may not be specified under 36CFR61. For example, projects for NHDOT encounter situations in which personnel with expertise and/or demonstrated experience in geomorphology, botany, faunal analysis, forensic anthropology, and industrial and urban archaeology are needed. These individuals will possess graduate training in their field, two years of professional experience in the area of expertise for which they are being consulted, and the demonstrated ability to complete a research project with a report of findings. Principal investigators may also need to add architectural historians, historians, historical landscape architects, etc. to their team whose professional qualifications will follow those provided in 36 CFR 61.

CERTIFICATION BY NHDHR

For the purpose of compliance with the Special Attention, Historic and Archeological Resources, dated February 14, 2003, relative to Federal-Aid Highway Project No. _____, NHDOT Project No. _____, I certify the following:

1. That I have reviewed the maps, plats, photographs or other identifying geographical information supplied to me by the Contractor.
2. That the areas located on these maps, etc. are to be utilized by the Contractor _____
_____ for the following purposes:
 - a. Excavation area _____.
 - b. Waste material area _____.
 - c. Storage or staging area _____.
 - d. Haul road _____.
 - e. Other (describe) _____

_____.
3. That I have reviewed the NHDHR site files relative to these locations and proposed uses.
4. On the basis of the above information, I have concluded that:
 - a. The location(s) have been previously reviewed, no resources have been identified, and there is no need for further archaeological evaluation _____.
 - b. The location(s) are such that no further archaeological evaluation is necessary _____.
 - c. The location(s) are such that further field investigation is necessary _____.

NHDHR Review and Compliance Coordinator

Date

Received:

NHDOT Contract Administrator

Date

cc: FHWA
NH Division of Historical Resources
NHDOT, Bureau of Environment

CERTIFICATION BY ARCHAEOLOGICAL CONTRACTOR

For the purpose of compliance with the Special Attention, Historic and Archeological Resources, dated February 14, 2003, relative to Federal-Aid Highway Project No. _____, NHDOT Project No. _____, I certify the following:

1. That I have examined the areas identified on the attached plans, maps, or property plats.
2. That these areas are to be utilized by the Contractor _____ for the following purposes:
 - a. Excavation area _____.
 - b. Waste material area _____.
 - c. Storage or staging area _____.
 - d. Haul road _____.
 - e. Other (describe) _____

_____.
3. That I have used the following techniques in my examination:
 - a. Literature search _____
 - b. Walkover (describe methodology) _____

 - c. Subsurface testing (if appropriate) _____

4. That in my professional opinion, there is minimal or no likelihood that there are cultural resources (either historic or pre-historic) present or that any such resources present have integrity, and that there is no need for any other evaluative measures prior to the use of the areas described above for the purposes noted.

Archaeological Contractor

Date

Review by: _____
NHDHR Review and Compliance
Coordinator

Date

Received:

NHDOT Contract Administrator

Date

cc: FHWA
NH Division of Historical Resources
NHDOT, Bureau of Environment

NOTICE TO CONTRACTORS

MASH Compliant Portable or Temporary Barrier Requirement and Sunsetting of Non-MASH PCB on the NHS

For contracts on the NHS, all new Portable Concrete Barrier (PCB) (For Traffic Control) (Item 606.417) and Temporary Traffic Control Barrier (Item 606.953) manufactured after December 31, 2019, shall conform to the testing and evaluation criteria of the Manual for Assessing Safety Hardware (MASH). Existing 3-Loop PCB (NHDOT Standard GR-23) and temporary barrier that meets National Cooperative Highway Research Program (NHCPR) 350 can be used throughout its remaining useful service life (see current Standard Drawing GR-23 regarding linking pin information). Non-MASH compliant PCB and temporary barrier fabricated/manufactured after December 31, 2019 will not be allowed.

To achieve the goal of 100% MASH compliant PCB and temporary barrier on the NHS, the NHDOT will “phase-out” the use of non-MASH compliant barrier over a future four (4) year period. Beginning in 2030, approximately 25% of the contracts advertised will require the use of MASH compliant PCB and temporary barrier and the requirement will increase incrementally until the 2034 construction season, when all new contracts will specify the use of only MASH compliant PCB and temporary barrier.

***Note:** In addition, a Certificate of Compliance for Item 619.1, accompanied with FHWA letter of compliance if one exists - or a copy of report of successful MASH testing if one does not exist, shall be provided to the Department stating that the traffic control devices provided meet the testing and evaluation criteria of MASH.*

New NHDOT Standard Portable Concrete Barrier

Item 606.417 - Portable Concrete Barrier (Standard Drawing GR-24 and GR-25, based on Roadside Pooled Fund F-Shape Concrete Portable Barrier) cast after December 31, 2019, meets all the testing and evaluation criteria of MASH and is therefore acceptable on applicable state contracts.

MASH-compliant PCB other than the state standard (GR-24 and GR-25) may be used on a project-by-project basis, with approval of the Engineer, and only if documentation of its MASH-compliance is provided.

06/11/2020

SSD: 2/1/2001;03/03/04, 05/13/04, 02/15/11, 11/22/13

Page 1 of 2

SPECIAL ATTENTION

ROADSIDE SAFETY HARDWARE WORTHINESS COMPLIANCE WITH NCHRP REPORT 350 AND MASH

The American Association of State Highway and Transportation Officials (AASHTO) has most recently published the Manual for Assessing Safety Hardware (MASH), 2016 edition. The main objective of MASH is to present uniform guidelines for the crash testing of both permanent and temporary highway safety hardware and evaluation criteria to assess test results. The need for updated crash criteria was based primarily on the changes to the vehicle fleet since the publication of National Cooperative Highway Research Program (NCHRP) Report 350. Highway safety hardware includes, but is not limited to, longitudinal barriers, crash cushions, attenuators, end terminals, breakaway supports, and work zone hardware/devices.

IMPORTANT: AASHTO & FHWA formed a joint Implementation Agreement (dated January 7, 2016) for MASH to set dates for states to come into compliance with MASH standards for various categories of roadside safety hardware. This agreement states full compliance to MASH for all permanent hardware by January 1, 2020.

Temporary work zone devices manufactured after December 31, 2019 must be MASH 2016 compliant. However, NCHRP-350 and MASH 2009 compliant devices manufactured prior to January 1, 2020 can be used throughout their normal service life. Service life for portable concrete barrier has been defined in the *Notice to Contractors*. Service life for temporary impact attenuation devices has been defined in their item specifications. All other devices meeting NCHRP-350 or MASH 2009 compliance, and manufactured prior to January 1, 2020, such as temporary barricades, can be used until December 31, 2025.

WORK ZONE TRAFFIC CONTROL DEVICES:

The following is a summary of work zone traffic control devices categories, and their crash testing acceptance requirements, titled "Recommended Procedures for the Safety Performance Evaluation of Highway Features," testing and evaluation criteria as implemented by the AASHTO-FHWA Agreement (350 Agreement) dated July 1, 1998. These categories and associated requirements also apply to newly designed or revised devices that would now fall under MASH testing criteria.

Category I: Small, lightweight devices that are known to be crash-worthy from crash testing or years of demonstrable safe operational performance. These include plastic or rubber cones, tubular markers, flexible delineators, and plastic drums with no lights, batteries, signs, etc. added. For devices to be included in this category, there must be virtually no potential that they will penetrate windshields, cause tire damage, or have a significant effect on the control or trajectory of an impacting vehicle. These devices will be allowed based upon developer's self-certification, as long as there are no attachments to the device.

Category II: Devices that are not expected to produce significant vehicular velocity change, but may be otherwise hazardous. All or parts of the devices may be substantial enough to penetrate a windshield or injure a worker or they may cause instability when driven over or become lodged under a vehicle. The total mass of a Category II device must be less than 45 kg. Examples of this category are barricades, portable sign supports, intrusion detectors and alarms and drums, vertical panels, or cones with lights.

Category III: Devices expected to cause significant velocity change or other potentially harmful reactions in impacting vehicles and Category II devices with a mass greater than 45 kg. Examples of this category are Truck-mounted attenuators (TMA), portable crash cushions, and portable concrete barrier (requires appropriate sized pin and loop or better connection).

Category IV: Examples of this category are portable, usually trailer mounted devices such as area light supports, flashing arrow panels/arrows displays, temporary traffic signals, and changeable message signs. However, these types of devices combined with TMA are considered Category III devices.

All categories of project work zone traffic control devices in use shall conform to the testing and evaluation criteria as outlined above. Devices not conforming to the criteria shall be replaced with conforming devices at no expense to the Department.

06/11/20

SSD: 09/01/05, 04/07/09, 11/30/10, 06/11/13

SPECIAL ATTENTION**SECTION 606 – GUARDRAIL****W-BEAM GUARDRAIL**

There may be situations where standard beam guardrail, set at 31 inches high as required by the mid-splice guardrail system, will need to be connected to beam guardrail terminals that have only been crash tested at 27 inches high or bridge approach units that are designed at 27-inches high. This may reflect an existing or new installation. Similarly, new standard beam guardrail may be connected to existing beam guardrail that is not at the 31-inch height as stated above. In those circumstances, transition the height of the new standard beam guardrail over 50 feet to connect to the existing rail, terminal unit, or bridge approach unit (transition will be subsidiary to 606 Items).

Set the EAGRT heights according to the manufacturer's recommendation, as accepted under the Manual for Assessing Safety Hardware (MASH) - 2016 criteria. All other terminals, including but not limited to, ELT, MELT, and the CRT, shall be set at the crash acceptance height of 27-inch unless otherwise accepted under crash test acceptance for a higher height.

04/27/17

SSD: 1/7/00, 3/22/00, 6/14/00, 2/8/01, 4/2/01, 1/25/02, 4/1/02, 04/15/03, 04/20/04, 05/06/05, 05/19/06, 09/17/07, 06/12/08, 03/04/09, 08/26/09, 06/28/10, 06/10/11, 04/12/12, 04/18/13, 01/02/14, 10/22/14, 01/16/15, 01/15/16, 09/12/16, 02/09/17

SPECIAL ATTENTION

QUALIFIED PRODUCTS LIST

The Qualified Products List is available online at www.nhdot.com on the *Doing Business with DOT>Contractors* webpage. A link to the Qualified Product List (QPL) is shown under the *Products and Materials* heading in the *Engineering/Technical Information* section of this webpage. The QPL is now considered a live document and periodic updates will occur. The QPL in effect on the date of project advertisement shall apply to this contract.

Products added to the QPL can be used under this contract upon issuance of the updated QPL. The Contractor shall not use the anticipated addition of a product to the QPL as a basis for use of a product. A product removed from an updated QPL can still be used under this contract unless specifically directed by the Department that the removed product shall not be used.

SPECIAL ATTENTION**STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION,
STANDARD PLANS FOR ROAD CONSTRUCTION & BRIDGE DETAIL SHEETS**

This project will be constructed under the requirements of the 2016 Standard Specifications for Road and Bridge Construction, which has been adopted and will be utilized for projects advertising after March 1, 2016, and the 2010 Standard Plans for Road Construction, including revised Standard Plans.

For Bridge Standard Plans, Bridge Design will include the appropriate standard plans, now referred to as Detail Sheets, in the plan set that pertain to the specific project, as necessary.

The Standard Specifications for Road and Bridge Construction and the Standard Plans for Road Construction manuals are available for purchase from NHDOT Records Section (603-271-3514) or can be viewed on the NHDOT website: <http://www.nh.gov/dot/business/contractors.htm>. The Specification Book and the Standard Plans are located under the *Standards and Specifications* heading while the Bridge Detail Sheets are located under the *Plans and Details* heading.

07/27/20

SSD: 04/14/16, 05/11/16, 06/02/16, 09/15/16, 01/04/17, 02/01/17, 04/06/17, 06/09/17, 04/02/18, 05/21/18,
07/06/18, 11/07/18

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SPECIAL ATTENTION**THIS PROJECT IS TO BE BID AND CONSTRUCTED UNDER THE
2016 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION****NOTICE OF SUPPLEMENTAL SPECIFICATIONS**

The following table is a list of all of the Supplemental Specifications that have been adopted as additions or revisions to the *Standard Specifications for Road and Bridge Construction*, **March 2016** Edition as of the date of this Proposal. The Bidder is responsible to examine each item to determine its effect, if any, upon the Contract.

Note: Due to the limited scope of some projects, not all Supplemental Specifications will be included in all Proposals. All Supplemental Specifications are available on-line: www.nh.gov/dot/org/projectdevelopment/highwaydesign/specifications/.

Section	Description	Revision	Previous Revision Date	Current Revision Date
<i>DIVISION 100</i>				
101	Definitions and Terms	101.79 – Revises Frequency of QPL Updates (06/06/17) 101.116-119 – Revises Definitions of Weather Days and Working Days (04/02/18)	06/06/17	04/02/18
106.04	Qualified Products List	Revises Frequency of Updates		06/06/17
107.01	Legal Relations and Responsibility to Public	107.01 – Revises References to DES Rules and Regulations		07/06/18
108.09	Prosecution and Progress	108.09 – Amends the Requirements for Liquidated Damages		07/06/18
109.04	Differing Site Conditions, Changes and Extra Work	Revises Rental Rate Blue Book Online Requirements (04/02/18)	01/06/12	04/02/18
<i>DIVISION 200</i>				
211.3.4	Vibration Monitoring	Adds reference to pre- and post-construction survey requirements		04/05/17
<i>DIVISION 300</i>				
<i>DIVISION 400</i>				
401	Plant Mix Pavements - General	2.5.1 - Adds winter binder to the design control points (04/05/17) 2.10 – No greater than 1% TRB (06/06/17) 3.4.1 – Revises Cold Feeder Requirements (07/06/18)	07/06/18	11/07/18

		<p>3.4.7.1 – Revises Recycled Materials Weighing Procedures (07/06/18)</p> <p>3.4.11 - 3.4.15 – Describes Introduction of Recycled Materials at a Batch Plant and Controls Minimum Dry Time for Recycled Aggregates (07/06/18)</p> <p>3.5.2 & 3.5.2.1 – Revises Recycled Materials Requirements (07/06/18)</p> <p>3.10.10.1 – Removes penalty for failing tack (06/06/17)</p> <p>3.12 – Allows a reduction in use of pneumatic-tired rollers (06/06/17)</p> <p>3.17.1.3 - Revise NETTCP QA Technologist requirements (11/07/18)</p> <p>3.17.3.1.1 – Revises HMA gradation specification limits, completes addition of winter binder, removes allowance for Aim change after two sub-lots (06/06/17)</p> <p>4.1.1 – Removes reference to Night Items (06/06/17)</p>		
403.1.3	Pavement Item Numbers	<p>Removes all references to Night Items and removes “percent wear” items. (06/06/17)</p> <p>Total overhaul of Item Numbers and Descriptions to allow for type of lift in item description. (07/27/20)</p>	06/06/17	07/27/20
410	Bituminous Surface Treatment	<p>2.1- Adopts new AASHTO Specifications for Emulsions (04/13/16)</p> <p>3.4.1.1 – Revises pavement conditions, application rate for tack (01/04/17)</p> <p>2.1.1, 2.1.2, 3.2, 3.3, 3.4 – Identifies tack sampling and penalties for non-conformance (06/06/17)</p> <p>3.2 & 3.5.2 – Amends Distribution Equipment and Initiates an Annual Tack Truck Inspection Program (07/06/18)</p>	06/06/17	07/06/18
411.3.5.5	Pneumatic Tired Roller	<p>3.5.5 – Requires the use of pneumatic tired rollers on all Section 411 paving (06/06/17).</p> <p>5.1.1 – Ensures Tack Used for PMST and Leveling Course is a Pay Item (07/06/18)</p>	04/02/18	07/06/18

Removes Pay Items (04/02/18)				
417	Rumble Strip Inlay	2.1 & 3.7 – Specifies PMST as the asphalt inlay to fill in rumble strips		04/02/18
<i>DIVISION 500</i>				
520	Portland Cement Concrete	3.8.1.1 – Revises the acceptable concrete delivery temp to 90° F (04/02/18) 3.1.6.2.1.2 A - Revise NETTCP QA Technologist requirements (11/07/18)	04/02/18	11/07/18
530	Waterproofing Concrete Surfaces	Deletes Section 530		05/21/18
538	Barrier Membrane	3.3.5 – Updates the laydown temperature range.		09/15/16
563	Bridge Fence	2.8 – Allows aluminum ties for attaching bridge fence		09/15/16
568	Structural Timber	2.2, 3.4.4 & 3.4.5 – Adds specific references to AWP Standards & wooden piles		04/02/18
582	Preformed Joint Filler	2.4 – Revises Preformed Joint Filler Requirements		04/02/18
<i>DIVISION 600</i>				
603	Plastic Pipe	2.3, 2.6 & 2.7 – Updated to include Polypropylene Pipe as well as associated UV Requirements (04/13/16) 2.13 – Adds Contractor's Option (06/02/16)	04/13/16	06/02/16
605	Plastic Pipe	2.1 & 2.2 – Updated to include Polypropylene Pipe		04/13/16
606	Guardrail	2.2 – Adds specific references to AWP Standards & wooden piles		04/02/18
608	Detectable Warning Devices	2.6 – Updates Detectable Warning Device Requirements		04/02/18
609	Curbs	2.4.1.1 – Allows the substitution of PG 76-28 binder in lieu of fibers		04/02/18
615	Cofferdam for Sign Installation	5.1.5 – Revises payment for sheeting and shoring for sign structures		04/02/18

645	Erosion Control	<p>1.1 – Matting Section Revised and Pay Items Revised (04/02/18)</p> <p>1.1 – ‘Stabilization’ changed to ‘matting’ (02/01/17)</p> <p>Incorporates BFM, FRM and SMM into the Standard Specs (07/06/18)</p> <p>1.2.1 – Add Erosion Control Plans to furnish for SWPPP (11/07/18)</p> <p>3.1.5 – Update construction dates for allowable area of exposed, unstabilized soil (11/07/18)</p>	07/06/18	11/07/18
<i>DIVISION 700</i>				
702	Bituminous Materials	<p>Amends Table 702-1 & 702-2 (04/13/16)</p> <p>Amends Tables, and Adds test method (05/11/16)</p>	04/13/16	05/11/16

SUPPLEMENTAL SPECIFICATION

AMENDMENT TO SECTION 101 – DEFINITIONS AND TERMS

The intent of the Supplemental Specification is to revise:

- *the frequency of QPL updates (06/06/17)*
- *the definitions of weather days and working days (04/01/18)*

Amend 101.79 to read:

101.79 Qualified Products List (QPL). A list of products prequalified by the Engineer as meeting the Contract requirements for specified materials to be incorporated into the Work. The list is maintained and updated by the Bureau of Materials and Research.

Amend 101.116-119 to read:

101.116 Wear. The percent of wear of aggregate as determined by the AASHTO T 96 (Los Angeles Abrasion Test). The grading shall be Grading A unless otherwise specified.

101.117 Weather Day. Days on which weather conditions beyond the Contractor's control would prevent Work on the Controlling Activities for at least five hours with a work force consistent in size and type for the work to be performed. Should the Contractor prepare to begin work on any day on which inclement weather, or the conditions resulting from the weather, prevent the work from beginning at the usual starting time, and the crew is dismissed as a result, the Contractor will not be charged for a working day whether or not conditions change during the day and the rest of the day becomes suitable for construction operations.

101.118 Wetland. "An area that is inundated or saturated by surface or ground water at a frequency and duration sufficient to support and that under normal conditions does support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands include, but are not limited to swamps, marshes, bogs, and similar areas." (NH Code of Administrative Rules, Env-Wt 101.113)

101.119 Winter Suspension. Winter Suspension shall be such time that the Contractor, utilizing conventional means and methods, is unable to proceed in an efficient manner with construction activity due to unfavorable weather conditions and suspends operations until such time that conditions are favorable for sustained construction activity.

101.120 Winter Work. Winter work is any work that is done in December, January, February, and March. The Contract may require winter work on all or portions of the project, in which case time will be determined as specified in 108.07 unless otherwise amended.

101.121 Work. The furnishing of all labor, materials, equipment, and incidentals necessary or convenient to the successful completion of the Project, and the carrying out of the duties and obligations imposed by the Contract.

101.122 Working Day. Any calendar day, except Saturdays, Sundays, Contract designated Holidays and Weather Days. Days in December, January, February, and March are not considered working days even if the Engineer allows the Contractor to work and the Contractor so chooses except when:

- (1) The Contract requires Winter Work;
- (2) The Contract Completion Date gets extended into this period and the weather conditions are favorable for the continuation of the remaining Work; however, should weather or site conditions change during the Winter Work period and the Contractor suspend operations as a result, Working Days will not be charged until April 1 whether or not the conditions become suitable for construction operations during the remainder of the Winter Work period.

101.123 Working Drawings. Working Drawings may be submitted for approval or documentation. See 105.02.

SUPPLEMENTAL SPECIFICATION**AMENDMENT TO SECTION 106 – CONTROL OF MATERIAL**

*The purpose of this Supplemental Specification
is to revise frequency of updates.*

Amend the last paragraph of 106.04 to read:

Products that have been prequalified by Materials and Research and are included on the Qualified Products List (QPL) may be used on projects without further testing, unless otherwise noted on the QPL, but a Certificate of Compliance for the qualified products will be required. The QPL is updated as warranted, and is available online at the Department's Website. A product that is not listed will not be used until qualified through a written request to Materials and Research. Such request should be made with sufficient lead-time to allow necessary testing or research.

SUPPLEMENTAL SPECIFICATION**AMENDMENT TO SECTION 107 – LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC**

The intent of the Supplemental Specification is to revise references to DES rules and regulations

Amend the last 3 paragraphs in Section 107.01 as follows:

The Contractor shall also protect the atmosphere from particulate and gaseous pollutants in conformance with rules promulgated by the New Hampshire Department of Environmental Services, Air Resources Division.

The Contractor's attention is called to Chapter Env-A 1000 Prevention, Abatement and Control of Open Source Air Pollution, in particular the regulations concerning open burning (Env-A 1001) and the control of fugitive dust (Env-A 1002).

The Air Resources Division may order unauthorized burning to cease and may order authorized burning creating a nuisance to cease. The order may be issued directly to the Contractor or to the Contractor through the Engineer.#

SUPPLEMENTAL SPECIFICATION

AMENDMENT TO SECTION 108 – PROSECUTION AND PROGRESS

*The purpose of this Supplemental Specification is to amend
the requirements for liquidated damages.*

Amend Section 108.09 to read:

108.09 Failure to Complete on Time.

For each work day that work remains uncompleted after the Contract Time, the sum specified below will be deducted from any money due the Contractor. This sum shall not be considered and treated as a penalty but as liquidated damages to defray the cost to the Department to administer the Contract including but not limited to the cost of engineering, inspection, supervision, inconvenience to the public obstruction of traffic, and interference with business due to the Contractor's failure to complete the Work on time. Any adjustment of the Contract Time for completion of the Work granted under the provisions of [108.07](#) will be considered in the assessment of liquidated damages.

In the case of a date in the Contract being given for the completion of parts, phases, or stages, the liquidated damages will be deducted for the period during which that particular work remains incomplete.

Permission for the Contractor or Surety to continue and finish work after the Contract Time and approved time extensions have elapsed shall not waive the Department's rights under the Contract.

The assessment of all or any of the liquidated damages that accrue may be terminated if the Department has determined that the Work is substantially complete and is in a condition for safe and convenient use by the traveling public.

The Work will be considered substantially complete when all necessary signing, striping, guardrail, and other safety appurtenances have been installed, and when applicable opened to the traveling public. For projects that will not be opened to the traveling public, the Contract will be considered substantially complete when it is ready for the subsequent project. This shall not be construed as a Contractual right and its application will be contingent upon the Contractor's diligence in completing the remaining items of work.

Liquidated damages shall be assessed in accordance with the following schedule:

<u>Original Contract Amount (\$)</u>		<u>Daily Charge(\$)</u>
<u>From more than</u>	<u>To and including</u>	<u>Working Day</u>
0	750,000	850
750,000	2,000,000	1280
2,000,000	5,000,000	1700
5,000,000	10,000,000	2550
10,000,000	20,000,000	3400
20,000,000	20,000,000+	4250

Should the Contractor elect to work on Saturdays, Sundays, holidays, or days from December 1st, to April 1st, inclusive, after the Contract Completion Date, the Contractor will be charged liquidated damages for such days worked.

When the Contract Time is on a calendar date basis, the schedule for calendar date shall be used. When the Contract time is on a working day basis, the schedule for working days shall be used.

When Acceptance has been made by the Engineer as prescribed in [105.17](#), the daily charge will no longer be assessed.

Should the amount of money otherwise due the Contractor be less than the amount of such liquidated damages, the Contractor and the Surety shall be liable to the State for such deficiency.

The Engineer has the right to deduct the amount of anticipated liquidated damages against the Contractor from any estimated payment for Work performed under the Contract; or to claim and recover such sums by process of law. Review of anticipated Contract completion and potential liquidated damages will commence when 80% of the original Contract Time has elapsed.

SUPPLEMENTAL SPECIFICATION

AMENDMENT TO SUBSECTION 109 – MEASUREMENT AND PAYMENT

*The purpose of this Supplemental Specification is to amend the
Rental Rate Blue Book for Construction Equipment requirements.*

Amend 109.04.4.4 to read:

109.04.4.4 Equipment and Plant.

For any Contractor-owned machinery or special equipment (other than small tools), the use of which is approved by the Engineer, the hourly rate will not exceed that determined from the Rental Rate Blue Book online at “equipmentwatch.com” used in the following manner:

- a. The hourly equipment rental rate R will be determined by formula as follows:

$$R = (A \times B \times C) + D$$

Where A = Monthly rate divided by 176. The listed weekly, hourly, and daily rates will not be used.

B = Regional adjustment factor for New Hampshire.

C = Model year adjustment for the year of equipment manufacture.

D = Estimated operating costs per hour.

This formula is equal to the **FHWA Rate** that is shown in the Rental Rate Blue Book at “equipmentwatch.com”.

- b. The number of hours to be paid for will be the number of hours that the equipment or plant is actually used on a specific Force Account activity and, in addition, shall include the time required to move the equipment to the location of such Force Account activity and return it to the original location or to another location requiring no more time than that required to return it to its original location, except that moving time will not be paid for if the equipment is used during the move on work other than the specific Force Account activity.
- c. The “Rate Effective Date” to be selected online will be the actual date that the work was performed.
- d. Overtime shall be charged at the same rate indicated in subparagraph (a) above.
- e. The estimated operating costs per hour will be used for each hour that the equipment or plant is in operation on the Force Account work. Operating costs are not reimbursable for the time the equipment is idle.
- f. The maximum rental period to be paid for per day shall not exceed eight hours unless the equipment operates for eight or more hours.
- g. If equipment is idled solely due to the responsibility of the Department, then the Contractor may be compensated for such idle equipment at 50% of the rate defined in “A” above (monthly rate divided by 176).
- h. The rates established above shall include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs, overhauls, and maintenance of any kind, depreciation, storage, field and home office overhead, profits, insurance, and all incidentals.

The Contractor shall provide the Engineer with the following: the manufacturer’s name, equipment type, year of manufacture, model number, type of fuel used, horsepower rating, attachments required, together with their size or capacity, and any further information necessary to ascertain the proper rate. Unless otherwise specified, manufacturer’s ratings and manufacturer approved modifications shall be used to classify equipment for the determination of applicable rental rates. Equipment which has no direct power unit shall be powered by a unit of at least the minimum rating recommended by the manufacturer. The Contractor is not required to purchase an online subscription, as the equipment rental rates will be provided by the Department.

Equipment used by the Contractor shall be in good working condition and shall be of suitable size and suitable capacity required for the work to be performed. The rate for the basic equipment with the appropriate attachments shall include only the rate for the combined equipment necessary to perform the Extra Work. In case the Contractor

elects to use equipment of a higher rental value than that suitable for the work, payment will be made at the rate applicable to the suitable equipment. The equipment actually used and the suitable equipment to be paid for will be recorded as a part of the record for Force Account work. The Engineer will determine the suitability of the equipment. If there is a differential in the rate of pay of the operator of oversize or higher rate equipment, the rate paid for the operator will likewise be that for the suitable equipment.

Payable time periods will not include:

- (1) time elapsed while equipment is inoperative due to breakdowns,
- (2) time spent repairing equipment, or
- (3) time elapsed 24 hours after the Engineer has advised the Contractor that the equipment is no longer needed.

If a piece of equipment is needed that is not listed in the above stated rental rate guide, a rate will be established by the Engineer in writing before the equipment is used. The Contractor may furnish any cost data which might assist the Engineer in the establishment of such rate.

If the Contractor does not own a specific type of equipment or if the Department orders the Contractor to utilize a specific type of equipment and the equipment must be obtained by rental, the Contractor shall inform the Contract Administrator of the need to rent the equipment and of the rental rate for that equipment before using it on the work. Provided that the rate is reasonable, the Contractor will be paid the actual rental cost for the equipment for the time that the equipment is actually used to accomplish the work, plus the cost of moving the equipment onto and away from the job. A 5 percent mark-up will be added to the actual rental cost, provided the total cost does not exceed the *Rental Rate Blue Book for Construction Equipment* rate (in accordance with 109.04.4.4(a)). The Contractor shall provide a copy of the paid receipt or canceled check for the rental expense incurred.

Transportation charges for each piece of equipment, whether owned or rented, moved to and from the site of the work will be paid provided:

- (1) the equipment is obtained from the nearest approved source,
- (2) the return charges do not exceed the delivery charges,
- (3) haul rates do not exceed the established rates of licensed haulers,
- (4) charges are restricted to those units or equipment not already available and not on or near the Project, and
- (5) equipment is not used elsewhere on the project.

SUPPLEMENTAL SPECIFICATION**AMENDMENT TO SECTION 211 – VIBRATION MONITORING**

The purpose of this Supplemental Specification is to add the reference to the requirements for pre-construction and post-construction surveys.

Replace 3.4 to read:

3.4 Pre-construction and post-construction condition surveys. The Contractor shall conduct a pre-construction condition survey on all structures, including swimming pools and mobile homes, within 150 feet of the anticipated sources of construction related vibrations. A pre-construction survey shall also be conducted on structures that may be affected by construction related vibrations beyond the 150 foot distance as directed by the Engineer or as contained in the approved Vibration Monitoring Plan. The pre-construction surveys shall not be initiated until the Vibration Monitoring Plan has been approved. Upon completion of all construction operations that are a source of construction related vibrations, the Contractor shall conduct a post-construction condition survey of all structures for which a complaint of damage has been received or a damage claim has been filed. Notification of the post-construction survey shall be given to all interested parties, so they may be present during the survey. A copy of all pre-construction condition surveys shall be provided to the Engineer prior to the start of work. A copy of all post-construction condition surveys conducted shall be provided to the Engineer upon completion of the survey. Perform the surveys in accordance with of 203.3.3.3.2 and 203.3.3.3.3.

SUPPLEMENTAL SPECIFICATION

AMENDMENT TO SECTION 401 – PLANT MIX PAVEMENTS – GENERAL

This Supplemental Specification is a rewrite of Section 401 to remove redundancies and inconsistencies due to many revisions throughout the years. Previous supplemental specifications thus far have been incorporated.

Description

1.1 These specifications include general requirements that are applicable to all types of plant mix asphalt pavements irrespective of the gradation of aggregate, kind and amount of asphalt binder, or pavement use. Deviations from these general requirements will be indicated in the specific requirements for each type.

1.2 These specifications provide for the use of reclaimed asphalt pavement material in certain specified mixtures.

1.3 This work shall consist of the construction of one or more courses of asphalt pavement constructed on a prepared foundation in accordance with these specifications and the specific requirements of the type under Contract. The work shall be in reasonably close conformance with the lines, grades, thickness, and typical cross-sections shown on the plans, within the tolerances specified or established by the Engineer.

1.4 These specifications provide for both method and quality control/quality assurance (QC/QA) specification work. Sections under the heading Performance Requirements (QC/QA) are applicable on QC/QA items only. Sections marked Method Requirements are applicable for non-QC/QA items and those portions of QC/QA items that are not measured for pay adjustment. All sections under the heading General are for use with all items.

1.5 Performance Requirements (QC/QA).

1.5.1 The work will be accepted under Performance Requirements (QC/QA) provisions in accordance with these Specifications and the applicable requirements of [Section 106](#).

- (a) The QC/QA Tier 1 item is to be used on specified projects that are on new locations, interstate projects, full depth reconstruction projects in rural areas, or on reclamation projects in rural areas.
- (b) The QC/QA Tier 2 item is to be used on specified projects that are inlay type projects, full depth reconstruction projects with maintenance of traffic phasing, projects with intersecting streets, projects with pavement tapers, bridge projects with short approach paving, projects where there are many manhole/drainage structures or driveways (generally in urban and suburban areas).

QUALITY/PAY FACTORS TO BE ASSESSED

	Tier 1	Tier 2
Asphalt Content and Gradation	X	X
Cross Slope	X	
Density	X	X
Ride Quality	X	
Thickness	X	

Materials

2.1 Aggregates – General.

2.1.1 Aggregates shall be uniform quality durable pebbles or fragments of rock, with or without sand or other inert finely divided mineral aggregate. All material shall be free from clay balls, organic matter, deleterious substances, and an excess of flat or elongated pieces as specified in ASTM D 4791. Washing will not be required, except when aggregate plants do not produce clean material by the dry process method. In order to obtain uniformity of color and appearance of the pavement throughout the project, the aggregate for all the surface mixes shall be obtained from the same material source. Sufficient material shall be on hand prior to starting daily operations to ensure uninterrupted processing for the working day.

2.1.2 Fine aggregate shall consist of sound durable particles of sand, crushed stone, or a combination thereof. Stone screening shall be produced from stone at least equal in quality to that specified for coarse aggregate.

2.1.2.1 Fine aggregate may be 100 percent manufactured aggregate.

2.1.3 Mineral filler shall conform to AASHTO M 17 except that 100 percent shall pass the No 16 sieve, waiving the requirement for the No. 30 sieve.

2.1.4 Coarse aggregate shall be crushed stone or crushed gravel and shall have a percentage of wear as determined by AASHTO T 96 of not more than 45 percent unless otherwise specified by Contract item. In each stockpile, not less than 50 percent by weight of the particles retained on the No. 4 sieve shall have at least one fractured face. Stockpiles consisting of a blend of crushed stone and crushed gravel will be permitted so long as the overall consistency of the stockpile is reasonably maintained and the lesser portion of coarse aggregate material does not exceed 10 percent of the total. This percentage shall be determined on the portion of the total sample by weight that is retained on the No. 4 laboratory sieve.

2.2 Bituminous Materials – General.

2.2.1 Bituminous materials used for asphalt cement binder shall meet the properties specified in AASHTO M 320. The grade of asphalt cement binder to be used will be specified in a Special Provision contained in the Proposal. Asphalt cement shall not be air blown or contain any form of used, recycled or re-refined oil.

2.2.1.1 The unit bid price for hot bituminous pavement containing failing asphalt binder shall be assessed a 10% reduction for one temperature grade below the specified high temperature grade or one temperature grade above the specified low temperature grade. The penalty will be applied to all tonnage produced with the non-compliant binder. When the binder failure is non-compliant by two grades or more, as described above, the Contractor shall be required to remove and replace all non-compliant material at the Contractor's expense, or at the Engineer's discretion, may be allowed to leave the tonnage in place at a unit price reduction of 50%.

2.2.2 Liquid binder samples shall be obtained by plant personnel in the presence of the Inspector/Technician. Samples shall be obtained during each day's production.

2.2.3 Producers and suppliers of asphalt binders shall comply with the requirement of AASHTO R 26. Asphalt binder suppliers shall have a quality control plan approved by the Bureau of Materials and Research that complies with AASHTO R 26.

2.2.3.1 All suppliers of PG binder shall certify that the PG binder supplied for use on Department projects does not contain used, recycled or re-refined oil.

2.3 Approval of Materials - Method Requirements.

2.3.1 At least five working days in advance of the date of starting operations, the Bureau of Materials & Research may request that representative samples of all materials proposed for use be submitted for testing.

2.4 Composition of Mixtures - General.

2.4.1 Hot bituminous pavement shall be composed of a mixture of aggregate, filler if required, and asphalt binder. The several aggregate fractions shall be sized, uniformly graded, and combined in such proportions that the resulting mixture meets the grading requirements of the job mix formula. The Contractor shall use the Volumetric Mix Design Method in AASHTO Standard Practice R 35 as modified herein.

2.4.2 The Contractor shall have the option of utilizing asphalt pavement removed under the Contract, if any, or old asphalt pavement from an existing stockpile or supplying all new materials for the production of asphalt pavement or any combination of the foregoing. If the job mix formula uses recycled materials, the mix shall meet the requirements of Reclaimed Asphalt Pavement as specified in 2.9.

2.4.3 The Department allows the use of recycled binder in mix designs, up to 1.0% Total Reused Binder (TRB), without any change in asphalt binder requirements as long as the mix design meets all volumetric mix design criteria. When a design has been completed using the maximum allowable percentage of TRB, one point verifications may be performed using decreasing percentages of TRB. If the design is not validated using a decreased amount of TRB, a new design will be required.

2.5 Job Mix – General.

2.5.1 When a new volumetric mix design is required, the Contractor shall use the Volumetric Mix Design Method in AASHTO Standard Practice R 35 to develop a mix that meets the associated design criteria. The Mix design shall follow the procedure detailed in AASHTO with the following exceptions: Amend Table 1 Superpave Gyratory Compaction Effort to read as follows:

Design ESALs (Million)	N initial	N design	N max
0 < 5	6	50	75
≥ 5	7	75	115

Add the following:

Minimum Binder Content		
50 Gyraton		75 Gyraton
	3/8"	6.0%
5.8%	1/2"	5.5%
5.5%	Winter Binder 3/4"	5.2%
4.9%	3/4"	4.6%
4.6%	1"	4.3%

This required minimum asphalt content is based on the use of aggregate with a specific gravity of 2.65 to 2.70. The minimum asphalt content requirement may be adjusted when aggregate with a higher specific gravity is used, or the minimum may be adjusted at the discretion of Materials and Research if it is believed to be in the best interest of the Department.

Amend Table 4 in AASHTO M 323, referenced in AASHTO R 35, to read as follows:

Table 401-1 –Design Control Points*

Standard Sieves	Nominal Maximum Aggregate Size											
	1"		3/4"		3/4" Winter Binder		1/2"		3/8"		No. 4	
	Max.	Min.	Max.	Min.	Max.	Min.	Max	Min.	Max.	Min.	Max.	Min.
Inch	Percentage by Weight Passing Criteria (Control Points)											
2												
1-1/2		100.0										
1	100.0	90.0		100.0		100.0						
3/4	90.0		100.0	90.0	100.0	90.0		100.0				
1/2			90.0		90.0		100.0	90.0		100.0		
3/8							90.0		100.0	90.0	100.0	99.0
No. 4									90.0		97.0	90.0
No. 8	45.0	19.0	42.0	32.0	48.0	38.0	52.0	42.0	56.0	46.0	75.0	65.0
No. 16											55.0	45.0
No. 30											36.0	26.0
No. 50											30.0	20.0
No. 100											13.0	8.0
No. 200	7.0	1.0	8.0	2.0	8.0	2.0	10.0	2.0	10.0	2.0	8.0	4.0

All mix designs shall be submitted to the Department for verification and approval.

* Superpave designs will be accepted through the restricted zone, pending verification and approval by the Bureau of Materials & Research. The Contractor shall submit compaction data from trial blends at the optimum asphalt content and at 0.5% below and above the optimum asphalt content. The data shall include the temperature at which the hot bituminous pavement was aged.

2.5.1.1 All 25 mm base course mixes shall be designed using the 50 gyraton N_{design} .

2.5.2 The Design Information shall include:

- (a) Asphalt Binder
- (b) PG Test Data
- (c) Specific Gravity
- (d) Laboratory Mix/Compaction Temperature
- (e) Aggregate

- (f) Dry and Washed Gradation
- (g) Bulk and Apparent Specific Gravity
- (h) All appropriate consensus properties
- (i) Blends
- (j) Baghouse material from the plant shall be incorporated into the mix design. The amount of baghouse material should be based on estimated usage or experience.
- (k) Moisture susceptibility according to AASHTO T 283.

Along with the design information, Materials & Research (M&R) requires 2 quarts of the designated asphalt binder, 4 pre-blended aggregate specimens for gyratory and 2 pre-blended aggregate specimens, suitable for AASHTO T-209 when mixed with the appropriate asphalt, in order to verify the design. M&R will accept the mix design based on the submitted information meeting the mix requirements and on verification of the mix volumetrics of the submitted specimen. If the verification samples indicate voids between 3.0 and 5.5 percent, and the Voids in Mineral Aggregate (VMA) and Voids Filled with Asphalt (VFA) fall within the specified limits, then the design will be accepted. Once accepted, the approved mix design is the job mix formula (JMF). If the voids are outside the aforementioned range or the VMA or VFA are outside the specified limits, the design will be rejected. M&R may elect to verify the design again.

2.5.3 The proposed mix designs and materials shall be submitted to the Engineer a minimum of 20 working days before placement for approval. It shall be the responsibility of the Contractor to ensure all approved mix designs have been entered into the plant automation system before production begins. The Contractor will also be required to post a copy of the JMF in the DOT testing laboratory.

2.5.4 Whenever the aggregate properties change enough to negate the project's existing design, a new design shall be submitted.

2.5.5 If it becomes necessary to change the asphalt binder grade or the source of aggregate, a new mix design shall be developed. Up to 14 calendar days will be required to evaluate a change. Approved changes in target values will not be applied retroactively for acceptance or payment. If it becomes necessary to change the source of asphalt binder, the Contractor must submit recent quality test results from the manufacturer for the asphalt binder including a temperature viscosity curve.

2.5.6 The Contractor shall perform a single point verification of an existing project mix design at the beginning of a new construction season to determine if the design remains valid. If the design is validated, the data from the single point verification shall be submitted to the Department. If the design cannot be validated, a new design shall be developed.

2.5.7 The Bureau of Materials and Research may require the use of certain chemical additives.

2.5.8 The laboratory performing the design shall be approved by the Department. To obtain the Department's approval, a laboratory must demonstrate that it is equipped, staffed, and managed so as to be able to produce job mix formulas and test hot asphalt mix in accordance with these Specifications. Approval for each laboratory shall remain in effect for a period of one year.

2.6 Method Requirements.

2.6.1 Stockpiled coarse aggregate shall meet the requirements of Table 401-2.

Table 401-2 -- Percent Passing

Sieve Size	Base Mix 1-1/2"	Binder Mix 3/4"	Surface Mix 1/2"	Surface Mix 3/8"
1-1/2"	100			
1-1/4"	90.0 - 100			
1"	50.0 - 85.0	100		
3/4"	10.0 - 50.0	90.0 - 100	100	
1/2"		15.0 - 55.0	90.0 - 100	100
3/8"			20.0 - 60.0	95.0 - 100
# 4				22.0 - 55.0
No. 8	0 - 5.0	0 - 5.0	0 - 10.0	0 - 10.0

2.6.2 After the job mix formula (JMF) is established, all mixtures furnished for the project shall conform within the following ranges of tolerances:

Passing No. 4 and larger sieves	±7.0 percent
Passing No. 8 No. 100 sieves (inclusive)	±4.0 percent
Passing No. 200 sieve	±1.0 percent
Asphalt binder	±0.4 percent
Temperature of mixture	± 20 °F (11 °C)

2.6.3 When Non-compliant test results or other conditions make it necessary, it shall be the responsibility of the Contractor to make all adjustments required to ensure the mix conforms to the JMF.

If two consecutive non-compliant results occur, the Engineer may stop production until satisfactory corrective action has been taken. A 5% reduction in unit price will be assessed to all tonnage represented by consecutive gradation failures and a 10% reduction will be assessed to all tonnage represented by consecutive asphalt binder content failures. At the Engineer's discretion, the Contractor may be required to remove non-compliant material (no payment will be made for this material or its removal).

Contractor quality control personnel will not be required to be on site during production of non-quality control projects, but contract information shall be posted in the testing lab.

2.7 Plant Mix Surface Treatment - General.

2.7.1 The general composition limits given in [Table 411-1](#) indicate target value ranges of mixtures permissible under [Section 411](#). The job mix formula shall lie within the target value ranges indicated for the particular type of hot asphalt mix.

2.8 Bridge Pavement Bases Course – General.

2.8.1 Bridge pavement base course shall be 3/8" surface mix.

2.9 Non-modified Asphalt Binder – General.

2.9.1 Non-modified asphalt binder shall contain silicone additive with the concentration being 3 parts per million plus or minus 1 part per million of silicone to asphalt binder, unless otherwise directed. Silicone additive shall be in liquid form and have a viscosity of 1,000 centipoises (1 Pas) at 77 °F. Asphalt binder containing silicone shall meet the requirements of [401.2.2](#)

2.10 Allowed Recycled Materials – General.

2.10.1 Reclaimed asphalt pavement (RAP) may be used in the production of hot bituminous pavement. The allowed dust to asphalt ratio shall be as identified in AASHTO M 323. The maximum allowable total reused "asphalt" binder (TRB) in hot bituminous mixes shall be 1.0%. Any changes in the combination of recycled materials shall require a new mix design unless otherwise approved by the Bureau of Materials & Research.

2.10.2 Reclaimed Asphalt Pavement (RAP).

2.10.2.1 RAP shall consist of recycled asphalt pavement and shall be processed by crushing, cold milling, or other approved sizing techniques approved by the Bureau of Materials and Research to meet the required gradation specifications. The mixture of RAP and new aggregate shall meet the requirements specified in [Table 401-1](#) for aggregate gradation. The RAP shall be tested every 1,000 tons for gradation and asphalt binder content as a stockpile is being built. These test results shall remain on file by the Contractor until such time as the entire RAP stockpile has been utilized.

2.10.2.2 The PG grade of added asphalt shall be as specified by the Bureau of Materials and Research. The aggregate component of the RAP shall meet the requirements of [401.2.1](#). The bitumen component of the RAP shall be asphalt cement and shall be free of significant contents of solvents, tars, and other volatile organic compounds or foreign substances that will make the RAP unacceptable for recycling as determined by the Bureau of Materials and Research.

2.10.2.3 RAP materials may be rejected if deemed unsuitable for any reason or require an increase or decrease in the mix asphalt content. The Contractor shall submit representative samples, and gradation and asphalt cement content test results of the RAP to be incorporated into the Recycled Mixture for approval by the Bureau of Materials and Research at least 30 calendar days prior to the start of paving.

2.11 Asphalt Modifiers - General.

2.11.1 The generic type of each asphalt binder admixture, modifier and/or additive shall be identified on the certificate of analysis, which shall be furnished by the manufacturer for each load of asphalt delivered. Modifiers shall be pre-blended with the asphalt binder.

2.11.2 Asphalt binder modification to produce high-strength mix shall utilize either a styrene-butadiene or a styrene-butadiene-styrene polymer to achieve the specified performance grade of asphalt. The Section 401 contract Special Provision specifying the asphalt binder grade shall also identify the AASHTO test method by which the binder grade shall be determined. The modified binder shall be pre-blended, storage-stable and homogeneous.

2.11.3 The use of Warm Mix Technologies will be permitted in mix production. Qualified technologies are listed on the Qualified Warm Mix Asphalt (WMA) Technologies List.

2.12 Pavement Joint Adhesive - General. Pavement Joint Adhesive shall be a product listed on the [Qualified Products List](#).

Construction Requirements

3.1 Mixing Plants - General.

3.1.1 Coarse aggregates shall be furnished in at least two nominal sizes for mix types containing top size aggregates of 1/2" and larger.

3.1.2 RAP shall be fed into the plant by equipment specifically designed for recycling and approved by the Bureau of Materials and Research. In addition, all requirements pertaining to aggregates shall apply to RAP. Scalping screens, grizzlies, or similar devices shall be installed on the RAP feed bin(s) to remove any debris or other foreign materials in excess of 2". If a drum mix plant is used, the RAP shall be fed into the drum so that it will not come in direct contact with the burner flame. Mixing of RAP with the new aggregate shall occur before the bituminous material introduction point. The final mix produced shall be visually free from any chunks of RAP.

3.1.3 Plants shall be approved at least five days prior to operations and will be capable of maintaining an adequate supply of mixture to the project.

3.1.4 The site shall have ample storage space for the required separate bins, stalls, or stockpiles to allow delivery of uncontaminated sized aggregates to the feeder. To prevent spillage from one pile or bin to the next, aggregate assigned to different stockpiles shall be separated by bulkheads or other satisfactory means.

3.1.5 Stockpiles of coarse aggregate produced for use in drum mix plants having top size aggregates greater than 3/4" shall be constructed in layers not to exceed 4 ft.

3.1.6 All blending of aggregates shall be accomplished through separate bins at the cold elevator feeders and not in stockpiles.

3.1.7 The plant shall be provided with a dust collector or collectors, designed to waste or return uniformly to the hot elevator all or part of the material collected, as directed. All plants shall have adequate covers and housing as may be necessary to ensure the proper collection of dust and the general cleanliness of the plant operation. The Contractor shall comply with all State and Federal environmental regulations.

3.1.8 Mixing plants shall conform to AASHTO M 156. An efficient dust collecting system shall be provided to prevent the loss of fine material. The material collected may be returned to the mixture at a uniform rate or discarded.

3.1.9 Safety Requirements for Inspection

3.1.9.1 Adequate and safe stairways to the mixer platform shall be provided, and guarded ladders to other plant units shall be located where required for accessibility to plant operations.

3.1.9.2 All gears, pulleys, chains, sprockets, and other dangerous moving parts shall be thoroughly guarded and protected.

3.1.9.3 Ample and unobstructed space shall be provided on the mixing platform. The plant operator shall have a clear and unobstructed view of the plant operations.

3.1.9.4 A platform shall be located in close proximity to the inspector's laboratory for the purpose of easily obtaining samples of the mixture from the trucks.

3.1.9.5 When the plant is to be operated in other than daylight hours, adequate lighting shall be provided in all areas frequented by the inspector during his normal routine. Specific areas to be illuminated include the truck loading zone and sampling location. A light or lights shall also be located so as to allow the clear observance of the truck body lubrication operation.

3.1.10 Scheduling Inspection Personnel

3.1.10.1 The Contractor shall notify the Bureau of Materials and Research at least three working days in advance of starting paving operations to allow sufficient time to schedule required plant inspection personnel. When paving bridge decks that have barrier membranes, this notice shall include the name of the membrane product so that the mix temperature may be established.

3.1.11 Access to Production Facilities

3.1.11.1 The Engineer shall have access at any time to all parts of the plant for inspection of the conditions and operations of the plant, for confirmation of the adequacy of the equipment in use, for verification of proportions and character of materials, and for determination of temperatures being maintained in the preparation of the mixtures. The Contractors shall provide a suitable building, room, or trailer for exclusive use by the DOT Technician as a testing laboratory in which to house and use the testing equipment. Laboratories shall be in an approved location, with one laboratory provided for each plant.

3.1.12 Field Laboratories

3.1.12.1 Field laboratories shall meet the following minimum requirements:

Size:	Laboratory shall consist of a minimum of 200 ft ² of floor space, laid out to accommodate shelves, benches, desk, equipment and personnel movement.
Windows:	Two, with locks and screens, providing cross ventilation.
Doors:	One, with lock and screen.
Electrical:	Adequate lighting and power outlets.
Air Conditioner:	Unit size shall be as recommended for size of the facility.
Heat:	Thermostatically controlled to maintain a minimum temperature of 68°F (20°C).
Weatherproofing:	Roof, sides, and floor shall be maintained weatherproof at all times.
Appurtenances:	a) An exhaust fan and hood over the extractor. The hood shall be large enough to cover the extractor. The fan shall be a high-volume axial-flow fan, at least 10" in diameter, and of sufficient capacity to vent the fumes adequately. b) Free wall space of at least 12 ft ² ; or a bulletin board of equal area for posting notices and job mix formulas. c) Suitable shelves and benches. Bench space shall be approximately 24" wide by 36" high. There shall be a minimum total length of 19 ft of bench space.

3.1.12.2 The following office furnishings and testing equipment shall be provided:

- (a) Electronic balance with tray, at least 300 oz net capacity, sensitive to 0.003 oz.
- (b) Desk and chair in good working condition.
- (c) Set of U.S. Standard brass sieves, each sieve being 12" in diameter and 1- 1/2" high. The set shall consist of one each of the following sizes: 1- 1/2", 1-1/4", 1", 3/4", 1/2", 3/8", No. 4, No. 8, No. 16, No. 30, No. 50, No. 100, No. 200, with pan and cover.
- (d) Motor driven shaker for 12" diameter sieves. Shaker shall meet the following requirements: Rotating turntable, tilt to 45-degree angle and have hammers to tap each sieve during operation.
- (e) Motor driven centrifuge extractor, 100 oz capacity with variable speed up to 3600 rpm, with filter rings and non-toxic solvent approved by the Bureau of Materials and Research.
- (f) Tachometer readily available to check the speed of the extractor.
- (g) Automatic timer with interval of 0 to 30 minutes.
- (h) Bristle brush for cleaning No. 200 sieve.
- (i) Brass brush for cleaning 8" diameter sieves.
- (j) Five pans or bowls, approximately 4" high, 15" round or square.
- (k) Spatula, large spoon, garden trowel, measuring scoop, and 1-quart pitcher.
- (l) Fire extinguisher, minimum five pound dry chemical.

- (m) Desk brush and floor broom.
- (n) Sample splitter (riffle type), chute width 1- 1/2 to 2"
- (o) Microwave oven when drum mix plant is used.
- (p) Minimum of one metal sample pail for each hot bin.
- (q) Lavatory with toilet (See 698.3.1.4) and wash basin, unless approved otherwise.
- (r) Water, hot and cold, and water suitable for drinking. (Fountain style will be acceptable).
- (s) Telephone with private line.
- (t) Drying oven, minimum of 3.5 ft³.*
- (u) Equipment sufficient to perform AASHTO T 209.*
- (v) Water-cooled diamond saw capable of cutting 6" road cores.
- (w) High Speed Internet Connection - Each laboratory (on State-bid projects) will be provided with bi-directional Internet access having a minimum data rate of 256K bps.
- (x) Wheelbarrow when a drum mix plant is used.

*All ovens other than microwaves shall be vented to the outside.

3.1.12.3 All of the foregoing testing equipment shall be in good condition and shall be replaced or repaired by the Contractor if, during the duration of the project, it becomes unsuitable for testing purposes. Testing equipment shall be calibrated by the Contractor in accordance with 106.03. The above mentioned equipment is for operation of a single plant.

3.2 Storage of Asphalt Binder – General.

3.2.1 Tanks for storage of asphalt binder shall be of minimum 10,000-gallon capacity and equipped for heating the material under effective and positive control at all times, to the temperature requirements set forth in the specifications for the paving mixture. Heating shall be accomplished by steam or oil coils, electricity, or other means such that no flame shall come in contact with the heating tank.

3.2.2 A complete system providing for continuous circulation of the asphalt binder between the storage tank and the proportioning units shall be employed. The discharge end of the circulating pipe shall be maintained below the surface of the asphalt binder in the storage tank to prevent discharging the hot asphalt binder into the open air.

3.2.3 The Contractor shall provide an in-line valve that is conveniently located between the storage tank and the mixing plant. The valve shall be installed in such a manner that samples may be withdrawn from the line slowly at any time during plant operation. A drainage receptacle shall be provided for flushing the outlet prior to sampling.

3.3 Control of Asphalt Binder – General.

3.3.1 Satisfactory means either by weighing or metering shall be provided to obtain the proper amount of bituminous material in the mix within the tolerance specified. Means shall be provided for checking the quantity or rate of flow of bituminous material into the mixer as follows:

- (a) Metering devices for asphalt binder shall indicate accurately to within 1.0 percent the amount of asphalt binder delivered. The section of the asphalt binder flow line between the charging valve and the spray bar shall be provided with a three-way valve and outlet whereby the quantity delivered by the meter may be checked by actual weight. The valve controlling the flow of asphalt binder to the mixer shall close tightly to prevent asphalt binder from leaking into the pug mill during the mixing cycle. The meter shall be constructed so that it may be locked at any dial setting to 0.1 gal and will automatically reset to this reading after the addition of asphalt binder to each batch. The dial shall be in full view of the mixer operator. The size and spacing of the spray bar openings shall provide a uniform application of asphalt binder the full length of the mixer in a thin uniform sheet or in multiple sprays.
- (b) If a bucket is used for weighing the asphalt binder, the bucket shall be of sufficient capacity to hold and weigh the amount required for a batch in a single weighing. The filling system and bucket shall be of such design, size, and shape that asphalt binder will not overflow, splash, or spill outside the confines of the bucket during filling and weighing. The filling system and bucket shall be so arranged as to deliver the asphalt binder in a thin uniform sheet or in multiple sprays over the full length of the mixer. The time required to add the asphalt binder shall be not more than 15 seconds.

- (c) Asphalt binder scales shall conform to the requirements for aggregate scales as specified in 3.4.10. Beam type scales shall be equipped with a tare beam or adequate counter-balance for balancing the bucket and compensating periodically for the accumulation of asphalt binder on the bucket.

3.3.2 Suitable means shall be provided, by either steam or oil jacketing or insulation, for maintaining the specified temperatures of the asphalt binder in the pipelines, meters, weigh buckets, spray bars, and other containers or flow line.

3.4 Batching Plants – General.

3.4.1 All aggregate shall be delivered by belt driven feeders. All feeders shall provide for adjustment of the cold feed and shall be capable of being secured in any position. The cold feeder for recycled materials shall be equipped with an oversize particle scalper.

3.4.2 Dryers shall continuously agitate the aggregate during the heating and drying process without leaving any visible unburned oily residue on the aggregate when it is discharged from the dryer. If unusually wet aggregate is being used, the input to the dryer shall be reduced to that amount which the dryer is capable of drying. Aggregates shall be free from coatings of dust after drying.

3.4.3 Plant screens shall be constructed and operated in such manner that all aggregates will be uniformly separated into the sizes required for proportioning. They shall have sufficient capacity to furnish the necessary quantity of each aggregate size required for continuous operation. Screen cloth that has become broken or has worn sufficiently to affect the gradation shall be replaced.

3.4.4 Thermometric equipment shall be provided as follows:

- (a) An armored thermometer of suitable range shall be fixed in the asphalt binder feed line at a suitable location near the discharge at the mixer unit.
- (b) The plant shall be further equipped with an approved thermometer, pyrometer, or other approved thermometric instrument that continuously indicates the temperature of the heated aggregate at the discharge chute of the dryer.

3.4.5 Hot bins shall consist of at least four separate aggregate compartments. One compartment shall be reserved for fine aggregate, and when required, one additional compartment shall be added for dry storage of mineral filler. Alternate bin systems may be utilized with prior approval from the Department. Provision shall be made for accurate proportioning. Each compartment shall contain the following features:

- (a) Sufficient volume to supply the mixer at full rated capacity.
- (b) An overflow pipe that shall be of such size and at such a location as to prevent any backing up of material into other bins or into contact with the screen. Overflow apparatus shall be equipped with a telltale device that alerts the operator and the inspector when the overflow equipment is full.
- (c) Adequate telltale devices to indicate the position of the aggregate in the bins at the lower quarter points.
- (d) Gates that cut off quickly and completely with no leakage.
- (e) Adequate and convenient facilities including safe platforms for obtaining representative samples from each bin.

3.4.6 Weigh boxes shall be of sufficient size to hold the maximum required weight of aggregate for one batch without hand raking or running over. The weigh box shall be supported on fulcrums and knife edges so constructed that they remain in alignment or adjustment. All parts of the weigh box shall be free from contact with any supporting rods, columns, or other equipment that affects the proper functioning of the hopper or scale. Gates on both bins and weigh hopper shall be constructed to prevent leakage when closed.

3.4.7 Aggregate scales for any weigh box or hopper shall be of standard make and design and shall be accurate to 0.5 percent of the indicated load. The weight shall be indicated on a digital display. Scales shall be substantially constructed and shall be installed in such a manner as to be free from vibration. The display shall be in full view of the operator, and the numerals shall be of such a size that the inspector can easily read them. If the digital display is so located that it is not easily accessible to the inspector, a duplicate display will be required for exclusive viewing by the inspector. The job mix formula target weights shall continuously be part of the digital display during plant operations. The digital scale weight indications shall be displayed adjacent (in juxtaposition) to each target weight for easy comparison to the job mix formula. It shall be the responsibility of the Contractor to ensure that all scales are tested and sealed according to provisions as shown in the National Institute of Standards and Technology Handbook

44, at least on an annual basis. The work shall be accomplished by a competent commercial scale company prior to the start of the construction season. Scales shall be re-tested prior to use, after they have been moved. The Contractor shall have readily available at least ten standard 50 lb. weights, for checking the scales during operations.

3.4.7.1 Recycled materials weighed separately from the materials in the virgin weigh hopper shall be weighed on a dedicated scale with digital display at the accuracy described in 3.4.7.

3.4.8 The batch mixer shall be of an approved pug mill type, hot oil or steam jacketed, or heated by other approved means and capable of producing uniform mixtures within the specified tolerances. The mixer shall have a batch capacity of not less than 4,000 lb. and be constructed so as to prevent leakage during the mixing cycle. The amount of material that may be mixed per batch shall not exceed the manufacturer's rated capacity. If the mixer does not mix properly at the rated capacity, or if its production does not coordinate with the other plant units, the Department reserves the right to reduce the size of the batch until the desired efficiency is obtained. The pug mill shall be equipped with a sufficient number of paddles operated at such speed as to produce a properly and uniformly mixed batch. If, in the course of mixing, two adjacent paddle tips become broken, immediate repair will be called for. If the paddle tips become broken at widely separated points, repair may be delayed until the end of the working day. The clearance of the tips from all fixed and moving parts shall not exceed 3/4". Badly worn or defective tips shall not be used in mixing operations. The mixer shall be covered to prevent loss of fine material. The discharge gate shall be so designed that no uncoated material is retained at the gate opening during the mixing operation. Leakage from the pug mill gate during operation will not be permitted.

3.4.9 Each plant shall be equipped with an accurate time lock to control the operations of a complete mixing cycle. A mixing cycle shall consist of two periods, the dry mixing period and the wet mixing period. The dry mixing period shall be the interval of time between the opening of the aggregate weigh hopper gate and the start of the application of asphalt binder. The wet mixing period shall be the interval of time between the start of the application of asphalt binder and the opening of the mixer gate. The time lock shall be capable of being set at intervals of five seconds or less throughout the mixing cycle and shall have a suitable case equipped with an approved lock. The setting of time intervals shall be performed in the presence and under the direction of the Engineer who may lock the case until such time as a change is to be made in timing periods. The time lock shall lock the asphalt binder bucket throughout the dry mixing period and shall lock the mixer gate throughout the dry and wet mixing period.

3.4.10 The use of a fully automatic batching plant will be required and shall meet the following requirements:

- (a) The automatic proportioning controls shall include equipment for accurately proportioning batches of the various components of the mixture by weight in the specified sequence and for controlling and timing the mixing operation. Interlocks shall be provided that delay, stop, or lock out the automatic batch cycling whenever the batched quantity of any component weight or the total batch is not within the specified weight tolerance, or when there is a malfunction in any portion of the control system.
- (b) The automatic control for each batching scale system shall be equipped with a device for stopping the automatic cycle in the underweight check position and in the overweight check position for each material so that the tolerance setting may be checked.
- (c) Each dial scale system shall be equipped with a removable dial puller that can be attached to the dial lever system so that the dial can be moved smoothly and slowly through its range to check the settings of the automatic control system. The plant operator shall perform this automatic control system checkout procedure periodically as requested by the Engineer.
- (d) The weigh batching controls shall meet the following tolerances for the various components weighed in each batch:

Component Weighed	Percentage of Total Batch Weight
Tare weight of aggregate weigh box	±0.5
Tare weight of asphalt binder weigh bucket	±0.1
Each aggregate component	±1.5
Mineral filler	±0.5
Asphalt	±0.1

- (e) The total weight of the batch shall not vary by more than ±2.0 percent of the designated batch weight.

- (f) Recording equipment shall be provided in all plants employing automatic proportioning. Each recorder shall include an automatic printer system. The printer shall be positioned so that the scale reading and the printer can be readily observed from one location by the plant inspector. The printer shall produce, in digital form, a weight slip conforming to the requirements of 109.01 and 401.3.8.1.
- (g) If at any time the automatic proportioning or recording system becomes inoperative, the plant will not be allowed to operate.

3.4.11 Each size of hot aggregate, the mineral filler if required, recycled material if applied, and the bituminous cement shall be measured separately and accurately to the proportions in which they are to be mixed.

3.4.12 The virgin aggregate shall be dried and heated to a minimum temperature of 260° F. The asphalt binder shall be heated to a temperature between 260° and 325° F. The weigh hopper shall be charged with the hot aggregate, coarse sizes first, unless otherwise directed.

3.4.13 Virgin Aggregates shall be dry mixed for 5 to 15 seconds.

3.4.14 Recycled materials can only be introduced to the weigh hopper or to the mixer.

3.4.14.1 Recycled materials that are introduced in the weigh hopper shall be dry mixed per 3.4.13.

3.4.14.2 When recycled materials are delivered to the mixer separately from the virgin aggregates, wet mixing time shall not begin until all recycled material is introduced to the mixer and is moisture free. The duration shall be determined based on field/plant conditions, and by agreement of the Contractor and Engineer.

3.4.15 The asphalt binder shall be added and the mixing continued until a uniform coating is obtained and all particles of the aggregate are thoroughly coated. The total dry and wet cycle shall not be less than 35 seconds for base and binder mixtures and not less than 40 seconds for the surface mix. In no case shall the total mixing period exceed 75 seconds. If the aggregate in the hot bins contains sufficient moisture to cause foaming in the mixture, such aggregate shall be removed from the bins, and production rate shall be reduced so as not to exceed the capacity of the dryer. Material having once gone through the mixing plant shall not be returned to the stockpiles.

3.5 Drum Mix Plants – General.

3.5.1 The plant shall be specifically designed for the process and shall be capable of satisfactorily heating, drying, and uniformly mixing the bituminous material and aggregate in accordance with the job mix formula. The rate of flow through the drum shall be controlled in order that a homogeneous mixture is obtained with all particles uniformly coated. In no case shall the quantity of mix produced exceed the manufacturer's rated capacity. If the percent of moisture in the mixture exceeds 1.0 percent by weight, the right is reserved to decrease the rate of production. The plant shall be equipped with automatic burner controls.

3.5.2 The cold bins shall be divided in at least five compartments and shall be designed to prevent the overflow of material from one bin to another. Each cold bin shall be equipped with an orifice to feed the aggregate accurately and uniformly. The feeding orifice shall be adjustable, and indicators shall be provided to show the gate opening. An automatic plant shutoff device shall be provided to operate when any aggregate bin becomes empty or the flow from any bin gate becomes restricted. A vibrator or other suitable means may be required in order to ensure a uniform flow of materials. The order of aggregate feed onto the composite cold feed belt shall be from coarse to fine. Aggregate shall pass through a scalping screen prior to the weigh belt.

3.5.2.1 When recycled material is used, an additional bin, equipped with its own oversize particle scalper, shall be required. In event of an emergency, this bin may be used to feed aggregate in an amount not to exceed 15% of material to complete the day's production.

3.5.3 The total cold aggregate feed shall be weighed continuously by an approved belt scale. The weighing system shall register within +0.5 percent of the indicated load.

3.5.4 Proportioning controls for aggregate and asphalt binder shall be located at the panel that also controls the mixture and the temperature. The panel shall be equipped with automatic controls that shall display, in digital form, the percentages of asphalt binder, mineral filler if required, and each aggregate in the job mix formula. The panel shall also be equipped to raise and lower the production rate without having to reset the individual controls for each change in production rate. The controls shall maintain aggregate flow accuracy such that the total variation of all materials being drawn per interval of time shall not exceed an amount equal to 1.5 percent of the total weight of bituminous mixture per interval of time.

3.5.5 Provisions shall be made for introducing the moisture content of the total cold feed into the belt weighing system and correcting the wet aggregate weight to dry aggregate weight. The system shall be capable of adjusting the flow of bituminous material to compensate for any variation in the dry weight of the aggregate flow. It shall be the responsibility of the Contractor to monitor and determine accurate moisture contents of the aggregate and RAP stockpiles used for production of hot bituminous pavement. Accurate moisture contents shall be determined at a minimum every other day of production. In the event of rain, moisture contents shall be determined for all aggregates and RAP to be utilized before the next day's production.

3.5.6 The dry weight of the aggregate flow shall be displayed by automatic digital readout in units of weight per interval of time.

3.5.7 When mineral filler is specified, a separate bin and feeder shall be provided with a variable drive interlocked with the aggregate feeders. Mineral filler shall be introduced and uniformly dispersed into the mixture without loss to the dust collection system. A device shall be provided to indicate when the flow of filler into the delivery system stops or its specified volume is out of job mix tolerance. The rate of flow shall be accurate to within 0.5 percent by weight, of the total mix. Means shall be provided to readily divert the flow of mineral filler into a container for measurement.

3.5.8 The asphalt binder shall be introduced through a continuously registering cumulative indicating meter by a pump specifically designed for the plant. The meter shall be located in the asphalt line so that it continuously registers the asphalt discharge to the mixer and so that the discharge through the meter can be readily diverted into a suitable container for measurement by actual weight. The meter shall indicate accurately to within 1.0 percent the amount of asphalt binder being delivered. The accuracy of the pump and meter shall be verified at periodic intervals as designated by the Engineer.

3.5.9 Satisfactory means shall be provided to ensure positive interlock between dry weight of aggregate flow and the flow of bituminous material through an approved meter.

3.5.10 The flow of bituminous material shall be displayed by automatic digital readouts in terms of volume or intervals of weight and time.

3.5.11 The plant shall have a means of diverting mixes at start up and shut down or where mixing is not complete or uniform.

3.5.12 A surge or storage system complying with 3.7 shall be provided.

3.6 Mixing Temperature - General.

3.6.1 The Engineer may adjust the job mix formula temperature within the limits of 260° and 350°F according to the existing conditions. Material with a temperature at discharge outside the job mix formula tolerance may be rejected. In no case will a mixture be accepted with a discharge temperature in excess of 375°F.

3.6.2 During hot weather, the temperature of the mixture when discharged shall be as low as is consistent with proper mixing and placing. During cold weather, a temperature approaching the upper limit is desirable

3.7 Hot Storage System – General.

3.7.1 Material may be placed in a storage silo for a period not to exceed 24 hours from the time of mixing. The upper and lower gates when closed shall create an airtight seal. The silo shall be filled to capacity. 24-hour storage will not be allowed if there is reason to believe there is a problem with the gate seals or excessive heat loss.

3.7.2 The hot storage system shall be capable of conveying the hot mix from the plant to insulated and enclosed storage bins and storing the hot mix without appreciable loss in temperature, asphalt migration, segregation, or oxidation.

3.7.3 The conveyer system may be a continuous type or skip bucket type. If the continuous type is used, it shall be enclosed to prevent a drop in mix temperature. If the skip bucket type is used, the bucket must be of sufficient capacity to transport an entire batch and mass dump it into the bins.

3.7.4 The storage bins shall be designed in such a manner as to prevent segregation of the hot mix during discharge from the conveyor into the bins and shall be equipped with discharge gates that do not cause segregation of the hot mix while loading the mix into the trucks. The storage bin heating system shall be capable of maintaining the mix temperature without localized heating (hot spots).

3.7.5 The bin shall be equipped with a light or indicator to show when the level of material reaches the top of the discharge cone. The bin shall not be emptied below the top of the discharge cone until the use of the bin is completed each day. The material remaining in the discharge cone may be rejected if there is evidence of segregation.

3.8 Weighing and Hauling – General.

3.8.1 The Contractor shall provide an approved automatic printer system that prints the weights of the material delivered, provided the system is used in conjunction with an approved automatic batching and mixing control system. Such weights shall be evidenced by a weight slip for each load.

3.8.2 Weight slips shall include requirements as shown in 109.01 and the following for batch plants with automatic proportioning equipment:

- (a) Tare weight of aggregate weigh box.
- (b) Tare weight of asphalt binder weigh bucket.
- (c) Accumulative weights as batched for each aggregate (total of last aggregate will be aggregate total).
- (d) Weight of asphalt binder.
- (e) Accumulated total weight of batch.

3.8.3 Each weight slip will show a consecutive load number and shall include an accumulative total of material delivered for each day.

3.9 Vehicles – General.

3.9.1 The inside surfaces of vehicles may be lightly lubricated with a soap solution or non-petroleum release agent that will not be detrimental to the mix. Equipment that leaks oil, diesel fuel, gasoline, or any other substance detrimental to the pavement will not be allowed on the project.

3.9.2 The mixture shall be transported from the paving plant to the project in trucks having tight, smooth, metal beds previously cleaned of all foreign materials. Truck beds may be lined with a polyethylene type material designed and installed for hauling hot bituminous mixes. Each load shall be covered with canvas or other suitable material of sufficient size and thickness to retain heat and to protect it from weather conditions. The cover material when new shall weigh a minimum of 18 oz/yd² and it shall be a tightly woven or solid material. When necessary, so that the mixture can be delivered on the project at the specified temperature, truck beds shall be insulated, and covers shall be securely fastened.

3.10 Placing

3.10.1 General.

3.10.1.1 Prior to placing of any mix, a pre-paving conference shall be held to discuss and approve the paving schedule, source of mix, type and amount of equipment to be used, sequence of paving pattern, rate of mix supply, traffic control, and general continuity of the operation. Special attention shall be made to the paving pattern sequence to minimize cold joints. The field supervisors of the above mentioned operations shall attend this meeting.

3.10.1.2 The Contractor shall notify the Engineer at least five working days in advance of paving operations to allow sufficient time to schedule required site inspection and testing. All paving and compaction equipment shall be approved and on site prior to start up each day.

3.10.1.3 Base course pavement lifts shall not exceed the maximum compacted thickness of 5 inches. Any course exceeding 5 compacted inches shall be placed in 2 passes.

3.10.1.4 When performing paving operations at night, in addition to the requirements of 3.1.4.5, the Contractor shall provide sufficient lighting at the work site to ensure the same degree of accuracy in workmanship and conditions regarding safety as would be obtained in daylight.

3.10.1.5 When patching existing pavement, the material shall be placed on the prepared clean underlying surface at the locations designated and shall be spread to produce a smooth and uniform patch. The patch material shall be thoroughly compacted and shall match the line and grade of the adjacent pavement.

3.10.1.6 Relatively small areas not accessible to the paver may be spread by hand, but extreme care shall be taken to create a surface texture similar to the machine work. Surface material shall be spread by lutes and not by rakes.

3.10.1.7 Unless otherwise authorized, the final surface course shall not be placed until guardrail posts have been set and general cleanup has been completed.

3.10.1.8 When hot bituminous bridge pavement is to be placed over barrier membrane, the placing temperature shall be as specified in [538.3.3.5](#). A paver, mounted on rubber tracks or tires, shall be used to place the 1" base course unless this procedure is found to cause damage to the membrane. When such damage is found to be evident, the hand method may be allowed. The hand method may also be allowed if the Engineer determines that the use of a paver for this work is impracticable. During warm weather, the above paving shall be done during the cool period of the day. A paver shall be used to place the surface course.

3.10.1.9 Where pavement is placed adjacent to structural members such as expansion joints, the material in the top course shall be placed so that the compacted grade of the pavement is 1/4 to 3/8" above the grade of the structural member.

3.10.1.10 When paving on aggregate base courses and/or base course pavement, the first pass paved shall be on the travel way and not on the shoulders.

3.10.1.11 Drainage and utility structures within the limits of the pavement shall be set and raised in accordance with the provisions of [604.3.4](#). Contact surfaces of the drainage and utility castings as ordered shall be painted with a thin coating of suitable bituminous material.

3.10.1.12 At the beginning and end of the project or project section, the existing pavement shall be removed to a sufficient depth to allow the placing of the new pavement and construction of a transverse joint, which shall be painted with a suitable bituminous material. The underlying course shall be clean and free from foreign materials and loose bituminous patches and must present a dry, unyielding surface.

3.10.2 Performance Requirements (QC/QA). The Contractor shall provide the following equipment for testing and sampling at the project site. The equipment shall be in good condition and shall be replaced by the Contractor if, during the duration of the project, it becomes unsuitable for testing or sampling purposes.

3.10.2.1 Metal plate 12" minimum each side, flat bottom scoop 3000-gram capacity minimum, and sample containers to perform NHDOT Test Procedure B-7 (see Appendix A) sampling.

3.10.3 Weather Limitations - General

3.10.3.1 Mixtures shall be placed only when the underlying surface is dry and frost free. The Engineer may permit, in case of sudden rain, the placing of mixture then in transit from the plant, if laid on a base free from pools of water, provided motorist visibility is not impaired and all other specifications are met. No load shall be sent out so late in the day that spreading and compaction cannot be completed during the daylight, unless the requirements of 3.10.1.5 are met. The Engineer may suspend operations for the day when the Contractor is unable to meet specifications.

3.10.3.2 Surface course shall not be scheduled for placement after October 1st and before May 1st without written approval by the Engineer.

3.10.3.3 All mix placed after October 1st and before May 1st shall be modified by a qualified warm mix technology.

3.10.3.4 In special instances, when the Engineer determines that it is in the best interest of the State, the Engineer may waive the requirements of 3.10.3, provided that 3.10.3.1 shall always remain in effect.

3.10.4 Sweeping - General. Existing pavement or previously laid courses shall be thoroughly dry and free from all dust, dirt, and loose material. Sweeping with a power broom, supplemented by hand brooming, may be necessary.

3.10.5 Tack coat - General. Surfaces of any pavement course shall have a tack coat of emulsified asphalt applied in accordance with the requirements of [410.3.4](#).

3.11 Pavers and Material Transfer Vehicles (MTV) – General.

3.11.1 Pavers shall be:

- (a) Self-contained, power-propelled units with adjustable vibratory screeds and full-width screw augers that reach within 18" of the end plate for fixed-width paving.
- (b) Heated for the full width of the screed.
- (c) Capable of spreading and finishing courses of hot asphalt mix in widths at least 12" more than the width of one lane.
- (d) Equipped with a receiving hopper having sufficient capacity to ensure a uniform spreading operation.
- (e) Equipped with automatic feed controls, which are properly adjusted to maintain a uniform depth of material ahead of the screed.

- (f) Capable of being operated at forward speeds consistent with satisfactory laying of the mix.
- (g) Capable of producing a finished surface of the required smoothness and texture without segregating, tearing, shoving, or gouging the mixture.
- (h) Equipped with the following automatic screed controls:
 - 1. Two 24 ft. ski type devices or floating beams.
 - 2. Two grade sensors.
 - 3. Two short skis (joint matchers).
 - 4. Slope sensing control for transverse slope

3.11.1.1 Pavers used for all machine method work shall have a minimum weight of 28,000 lbs. and a minimum 8-foot wheelbase, unless otherwise approved by the Engineer

3.11.1.2 All courses shall be spread and finished to the required thickness by approved, self-contained, self-propelled spreading and finishing machines (pavers). Pavers shall be provided with an adjustable, activated screed and shall be capable of spreading the mixtures with a finish that is smooth, true to the required cross-section, uniform in density and texture, and free from hollows, tears, gouges, corrugations, and other irregularities. Broadcasting behind the paver shall be held to a minimum. Pavers shall be capable of spreading and finishing courses of the required thicknesses and lane widths. Horizontally oscillating strike-off assemblies will not be approved.

3.11.1.3 The activated screed shall be of the vibrating or tamping bar type or a combination of both and shall operate without tearing, shoving, or gouging the mixture. The activated portion of the screed shall extend the full width of the mixture being placed in the traveled way and other areas with sufficient width to accommodate a paver. In other locations as permitted such as narrow shoulders, tapers, and areas adjacent to curbs, non-activated extensions to the screed will be allowed. The paver shall be equipped with a screed heater. The screed heater shall be used when starting a cold machine and for maintaining a suitable screed temperature when needed.

3.11.1.4 The paver hopper gates shall be adjusted to pass the correct amount of mix to the augers so that they operate more or less continuously. The height of material shall be maintained at a constant level in front of the screed, to a point where approximately half of the auger shall be visible at all times.

3.11.1.5 The sensors for either or both sides of the paver shall be capable of sensing grade from an outside reference line or from the surface using a ski type device. A slope control sensor, mounted on the slope beam of the paver shall be capable of sensing transverse slope of the screed. The sensors shall provide automatic signals that operate the screed to maintain the desired grade and transverse slope. Pavers shall not be used until the automatic controls have been checked and approved by the Engineer.

3.11.1.6 The use of automatic grade and slope controls shall be required on all pavers. On projects or parts of projects where the Engineer deems that the use of automatic controls are impracticable, some or all of the controls listed in 3.11.1(h) may be waived.

3.11.1.7 Whenever a breakdown or malfunction of the automatic controls occurs, the equipment may be operated manually for the remainder of the normal working day on which the breakdown or malfunction occurred. This method of operation must meet all other specifications.

3.11.1.8 The forward speed of the paver shall be adjusted to the rate of the supply of materials so that the paver operates without having to make stops except for emergencies. If the Engineer determines that the paving operations result in excessive stopping of the paver, the Engineer may suspend all paving operations until the Contractor makes arrangements to synchronize the rate of paving with the rate of delivery of materials.

3.11.2 Material Transfer Vehicle (MTV)

3.11.2.1 An approved MTV shall be used to transfer the bituminous mix from the hauling equipment to the paver. The MTV shall operate independently from the paver and shall be a commercially manufactured unit specifically designed for the transfer of mix from the hauling equipment to the paver without depositing the mix on the roadway. It shall have the ability to swing the discharge conveyor to reach the paver hopper. The MTV shall be designed so that the mix is internally remixed. The minimum storage capacity of the MTV shall be 12 tons.

3.11.2.2 The MTV will only be required for mainline construction and straight ramps (does not include loop ramps, interim connections, interim crossovers and side roads) when the section is a minimum of 600 tons per paver mobilization unless otherwise approved by the Contract Administrator.

3.11.2.3 When the MTV passes over a bridge that is not a fill over structure, it shall be as near to empty as possible. The MTV also shall not exceed 5 miles per hour while on the bridge. If the Contractor proposes moving the MTV over a bridge with more than a minimal amount of material in it, a proposal must be submitted to and

approved by the Bureau of Bridge Design prior to the placing of any mix. The submittal needs to show in detail the wheel and axle loading that will be placed on the bridge deck.

3.12 Compaction.

3.12.1 General.

3.12.1.1 Immediately after the hot asphalt mix has been spread, struck off, and surface irregularities adjusted, it shall be thoroughly and uniformly compacted by rolling. The completed course shall be free from ridges, ruts, humps, depressions, objectionable marks, visible segregation, or irregularities and in conformance with the line, grade, and cross-section shown in the Plans or as established by the Engineer.

3.12.1.2 All compaction units shall be operated at the speed, within manufacturers recommended limits, that will produce the required compaction. The use of equipment, which results in excessive crushing of the aggregate, will not be permitted. Any asphalt pavement that becomes loose, broken, contaminated, shows an excess or deficiency of asphalt binder, or is in any way defective, shall be removed and replaced at no additional cost with fresh hot asphalt mix, which shall be immediately compacted to conform to the surrounding area. Hot asphalt mix shall not be permitted to adhere to the roller drums during rolling.

3.12.1.3 When a vibratory roller is being used, the vibration shall stop automatically when the roller is stopped or reversing direction of travel. Vibratory rollers shall not be operated in the vibratory mode under the following conditions: When checking or cracking of the mat occurs, when fracturing of aggregate occurs, and on bridge decks.

3.12.1.4 Pneumatic-tire rollers shall be self-propelled and shall be equipped with smooth tires of equal size and diameter. The wheels shall be so spaced that one pass of a two-axle roller accomplishes one complete coverage. The wheels shall not wobble and shall be equipped with pads that keep the tires wet. The rollers shall provide an operating weight of not less than 2,000 lb. per wheel. Tires shall be maintained at a uniform pressure between 55 and 90 psi with a 5 psi tolerance between all tires. A suitable tire pressure gauge shall be readily available.

3.12.1.5 Pneumatic-tired rollers shall be used on all pavement leveling courses.

3.12.1.6 Rollers must be in good mechanical condition, free from excessive backlash, faulty steering mechanism, or worn parts. The empty weight and the ballasted weight shall be properly marked on each roller.

3.12.1.7 To prevent adhesion of the mixture to the rollers, the wheels shall be kept properly moistened with water or water mixed with very small quantities of detergent or other approved material. Excess liquid will not be permitted. All steel rollers shall be equipped with adjustable wheel scrapers.

3.12.1.8 A minimum of three rollers shall be used. Unless an alternate compaction package is approved at the project pre-pave meeting, roller trains shall consist of the equipment describe herein.

3.12.2 Method Requirements.

3.12.2.1 The initial rolling shall be done with a static or vibratory steel-drum roller. Intermediate rolling shall be performed by a pneumatic-tired roller and/or a vibratory/oscillatory roller. Final rolling shall be performed with a static steel-drum roller. The minimum weight of static steel-drum rollers shall be 8 tons.

3.12.2.2 Unless otherwise directed, rolling shall begin at the sides and proceed longitudinally parallel to the roadway centerline, gradually progressing to the crown of the roadway. The overlap shall be one-half the roller width for wheeled rollers and 6 inches for vibrating rollers. No overlap is required for pneumatic-tired rollers. When paving in echelon or abutting a previously placed lane, the longitudinal joint shall be rolled first followed by the regular rolling procedure. On superelevated curves, the rolling shall begin at the low side and progress to the high side by overlapping of longitudinal passes parallel to the centerline.

3.12.2.3 Rollers shall move at a slow but uniform speed with the drive roll or drive wheels nearest the paver, except on steep grades. Static and pneumatic-tired rollers shall not operate at speeds in excess of 6 mph. All courses shall be rolled until all roller marks are eliminated.

3.12.2.4 Cores shall be collected by the Contractor at locations as determined and witnessed by the Engineer. One core per lane mile, but no less than two, shall be taken for each roadway segment paved. When shoulders are overlaid, cores shall be collected solely for density information at a frequency of one core for every 750 tons of mix.

The Contractor will deliver the cores to the designated testing laboratory once Department chain of custody measures have been applied.

The minimum compaction requirement shall be 91% of maximum theoretical density as determined in accordance with AASHTO T 209. The following reductions in unit price shall apply for all tonnage placed that is represented by any core (excluding shoulder cores) that does not meet the minimum requirement: for results below 91% but equal to or greater than 90%, a 5% reduction will be assessed; for any results below 90%, a 10% penalty for all tonnage placed will be assessed. At the Engineer's discretion, the Contractor may be required to remove noncompliant material below 90% (no payment will be made for this material or its removal).

3.12.2.4.1 All cores need not be cut at the same time. The Contractor will be allowed the option to collect cores through all placed lifts at once, provided cores are collected within two working days of placing the first course. Corrective action to any covered course is at the Contractor's risk.

3.12.2.5 Any displacement occurring as a result of reversing the direction of a roller, or from other causes, shall be corrected at once by the use of lutes and the addition of fresh mixture when required. Care shall be exercised in rolling so as not to displace the line and grade of the edges of the bituminous mixture.

3.12.2.6 Along forms, curbs, headers, and similar structures and other places not accessible to a normal full-sized roller, sidewalk rollers weighing at least 2,000 lb (900 kg) shall be used. Where rollers are impracticable, the mixture shall be thoroughly compacted with heated or lightly oiled hand tamps or vibrating plate compactors.

3.12.2.7 Unless the Engineer determines that for the weight and placement conditions a lesser number will be satisfactory to obtain the desired pavement densities, the following is the list of required compaction equipment. The output of each paver placing surface course (Table 1) materials shall be compacted by the use of one each of the following complement of rollers as a minimum: a static or vibratory steel-wheel roller, a pneumatic-tired roller and a three-axle roller or a static steel-wheeled roller. If the required density is not being obtained with the rollers supplied, the use of additional rollers of the specified type may be ordered. Paving widths in excess of 16 ft will require additional rollers as ordered.

3.12.3 Performance Requirements (QC/QA).

3.12.3.1 As agreed upon at the Pre-Pavement meeting, the type of rollers to be used and their relative position in the compaction sequence shall be the Contractor's option, provided specification densities are attained.

3.13 Joints - General.

3.13.1 Unless otherwise shown on the plans, the longitudinal surface course joints shall be at the edge of lane placed, where the edge line, lane line and centerline pavement markings will be applied, and joints of other courses shall be offset approximately 2".

3.13.2 The material being placed next to a previously paved lane shall be tightly crowded against the face of the abutting lane. The paver shall be positioned so that during spreading, the material will overlap the edge of the first lane by 1 to 2" and shall be left sufficiently high such that finish pavement of the lane being placed is approximately 1/8" higher than the previously paved lane after compaction. The overlapped material shall be rolled without luting. Longitudinal joint compaction shall be achieved by rolling from the hot side to within 6" of the previously placed mat. The next roller pass will overlap onto the previously placed paved lane by 6". Further compactive effort shall be applied to all joints during the intermediate and final rolling.

3.13.3 Placing of the course shall be as continuous as possible while complying with Contract Traffic Control Plans. Transverse joints will be allowed at the end of each work shift or as required to provide properly bonded longitudinal joints.

3.13.3.1 No longitudinal joints greater than 1-1/2" height shall be left open to traffic unless a tapered overlapping ("wedge") joint is used. Joints between traveled way and shoulder greater than 3/4" shall be delineated by barrels. Barrels shall meet the requirements of [Section 619](#).

3.13.3.2 Unless otherwise precluded by weather conditions, longitudinal joints shall not remain open to traffic longer than 30 hours.

3.13.4 If a bulkhead is not used to form the transverse joint, the previously laid material shall be cut back to the designed slope and grade of the course. The joint face shall be coated with approved bituminous bonding material meeting the requirements of [410.2.1](#) before the fresh mixture is placed against it. Extreme care shall be taken to ensure that no unevenness occurs at the joint. If unsatisfactory riding qualities are obtained at the transverse joint in the surface course, the joint shall be corrected by an approved method.

3.13.4.1 Prior to opening any lane(s) to traffic, transverse joints shall be ramped by means of an asphalt fillet at a minimum of 5 ft. horizontal to 1" vertical slope.

3.13.4.2 When paving into a permanent transverse joint, a full head of material shall be carried into the joint.

3.13.5 When specified, a bituminous pavement joint adhesive, Item 403.x6, shall be applied to the longitudinal joint. If joint adhesive has not been specified, an approved bituminous bonding material meeting the requirements of 410.2.1 shall be applied to completely cover all joint contact surfaces.

3.13.5.1 Joint adhesive shall be applied to the longitudinal joints so that the entire joint surface is covered with a minimum 1/8" thick layer of material. If a wedge joint is used the upper 4" of joint surface shall be covered with joint adhesive. In lieu of using joint adhesive, the Contractor may elect, with the approval of the Engineer, to use multiple pavers in echelon to eliminate the longitudinal joint. Echelon paving shall be performed as stated in 3.13.8.

3.13.5.2 The joint face on which the joint adhesive is to be applied shall be dry, free from loose material, dust, or other debris that could interfere with adhesion. If dust or debris adheres to the joint adhesive, it shall be cleaned or recoated as directed by the Engineer.

3.13.5.3 Trucks or traffic shall not drive across the joint adhesive until it has cooled sufficiently to prevent damage from tracking.

3.13.5.4 Joint adhesive shall be melted in a melting kettle that meets the requirements of 413.2.2(b). The joint adhesive shall be applied at the temperature specified by the manufacturer and shall not be heated above the safe heating temperature specified by the manufacturer.

3.13.5.5 Joint adhesive shall be applied using a pressure feed wand applicator system equipped with an applicator shoe as recommended by the manufacturer. A pour-pot applicator will be allowed on wedge joints only.

3.13.5.6 Joint adhesive (Bridge Base) shall be applied to curbs, concrete armoring, and pavement matches so that the entire joint is covered with a minimum 1/8" thick layer of material.

3.13.6 A tapered overlapping ("wedge") joint may be used on all longitudinal joints provided that the adjacent lane can be placed when the existing surface temperature is above 50° F.

3.13.6.1 An inclined face (3:1) on the joint shall be formed in the first bituminous mat placed. The inclined face may be for the entire height or an inclined face with a 1/2" maximum vertical face at the top of the mat.

3.13.6.2 After the initial mat is placed, the mat shall be rolled to the edge of the unconfined face.

3.13.6.3 When the adjoining mat is placed, the initial longitudinal wedge shall be treated as in 3.13.5.

3.13.7 The Contractor shall furnish and have available a 10 ft, lightweight metal straightedge with a rectangular cross-section of 2 by 4" at the paver at all times during paving operations. All courses shall be tested with the straightedge laid across the transverse joint parallel to the centerline and any variations from a true profile exceeding 3/16" shall be satisfactorily eliminated. The finished surface of the pavement shall be uniform in appearance, shall be free from irregularities in contour, and shall present a smooth-riding surface.

3.13.8 Echelon Paving. Echelon paving, when specified or approved, shall be defined as multiple pavers paving simultaneously and adjacent to one another such that all rolling of both mats is performed concurrently.

3.14 Variations in Profile and Cross Slope – Method (See 3.18.4.4.1).

3.15 Replacement – General. If unsatisfactory areas are found in any course, the Contractor shall remove the unsatisfactory material and replace it with satisfactory material.

3.16 Finished Appearance – General. Any bituminous material remaining on exposed surfaces of curbs, sidewalks, or other structures shall be removed.

3.17 Quality / Process Control - General.

3.17.1 The Contractor shall operate in accordance with a Quality Control Plan, hereinafter referred to as the "Plan", sufficient to assure a product meeting the Contract requirements. The plan shall meet the requirements of 106.03.1 and these special provisions.

3.17.2 The Plan shall address all elements that affect the quality of the Plant Mix Pavement including, but not limited to, the following:

- (a) Job mix formula(s).
- (b) Hot asphalt mix plant details.
- (c) Stockpile Management.
- (d) Make & type of paver(s).

- (e) Make & type of rollers including weight, weight per inch (centimeter) of steel wheels, and average ground contact pressure for pneumatic tired rollers.
- (f) Name of Plan Administrator.
- (g) Name of Process Control Technician(s).
- (h) Name of Quality Control Technician(s).
- (i) Mixing & Transportation.
- (j) Process Control Testing.
- (k) Placing sequence and placing procedure for ride quality.
- (l) Paving and Weather Limitations.
- (m) Sequence for paving around catch basins, under guardrail, around curb, at bridges, and intersections, drives and minor approaches, to ensure a proper finish and drainage.
- (n) Procedure for fine grading the top of the surface to be paved.
- (o) Binder supplier(s)

3.17.3 The Plan shall include the following personnel performing the described functions and meeting the following minimum requirements and qualifications:

A. Plan Administrator shall meet one of the following qualifications:

- (a) Professional Engineer licensed in the State of NH with one year of highway experience acceptable to the Department and proof of past certification as a NETTCP QA Technologist.
- (b) Engineer-In-Training with two years of highway experience acceptable to the Department and hold current certification as a NETTCP QA Technologist.
- (c) An individual with three years highway experience acceptable to the Department and with a Bachelor of Science Degree in Civil Engineering Technology or Construction and hold current certification as a NETTCP QA Technologist.
- (d) An individual with five years of paving experience acceptable to the Department and hold current certification as a NETTCP QA Technologist.

B. Process Control Technician(s) (PCT) shall utilize test results and other quality control practices to assure the quality of aggregates and other mix components and control proportioning to meet the job mix formula(s). The PCT shall periodically inspect all equipment used in mixing to assure it is operating properly and that mixing conforms to the mix design(s) and other Contract requirements. The Plan shall detail how these duties and responsibilities are to be accomplished and documented and whether more than one PCT is required. The Plan shall include the criteria utilized by the PCT to correct or reject unsatisfactory materials. The PCT shall be certified as a Plant Technician by the New England States Technician Certification Program or be a Materials Testing Technician in Training, working under the direct observation of a NETTCP certified Plant Technician.

C. Quality Control Technician(s) (QCT) shall perform and utilize quality control tests at the job site to assure that delivered materials meet the requirements of the job mix formula(s). The QCT shall inspect all equipment utilized in transporting, laydown, and compacting to assure it is operating properly and that all laydown and compaction conform to the Contract requirements. The plan shall detail how these duties and responsibilities are to be accomplished and documented, and whether more than one QCT is required. The Plan shall include the criteria utilized by the QCT to correct or reject unsatisfactory materials. The QCT shall be certified as a HMA Paving Technician as certified by the North East Transportation Training and Certification Program or be a Materials Testing Technician in Training, working under the direct observation of a NETTCP certified HMA Paving Technician.

3.17.4 The Plan shall detail the coordination of the activities of the Plan Administrator, the PCT and the QCT. The Plan shall also detail who has the responsibility to reject material, halt production or stop placement.

3.17.4.1 All project-specific Appendices and issues agreed to at the Pre-Paving meeting shall be considered to be part of the Plan.

3.17.5 Rejection by Contractor. The Contractor may, prior to sampling, elect to remove any defective material and replace it with new material at no expense to the Department.

3.17.5.1 No surface course pavement shall be removed or repaired without prior approval of the Engineer.

3.18 Performance Requirements (QC/QA)

3.18.1 Asphalt pavement shall be sampled, tested, evaluated and recorded by the Contractor in accordance with the minimum process control guidelines in Table 401-3.

3.18.1.1 Cross slope shall be measured on every pavement lift using the method described in 3.18.5.5.1 prior to placement of subsequent lifts. Particular emphasis on the first pavement lift shall be required when correcting existing substandard cross slopes. Cross slope measurements exceeding 0.5% from the specified cross slope for that location shall require an adjustment in ongoing or subsequent paving operations to correct the deficiency. If two or more consecutive measured sublots are greater than 0.5% from the specified cross slope, paving operations shall cease until the Contractor submits a corrective action satisfactory to the Engineer.

Table 401-3 - Minimum Process Control Guidelines

Properties	Test Frequency	Test Method
Temperature of Mix	6 per day at paver hopper and plant	
Surface Temperature	As needed	
Temperature of Mat	4 per day	
Density	1 per 500 tons (500 metric tons) or min. 2 per day	AASHTO T 343 or ASTM D 2950
Maximum Theoretical Specific Gravity	1 per day of operation	AASHTO T-209
Fractured Faces	1 per 2000 tons (1800 metric tons) for Gravel Sources only	AASHTO T 11 & AASHTO T 27
Aggregate Gradation & Asphalt Binder content	1 per 750 tons (700 metric tons) recommended	AASHTO T 130 & 164
Asphalt Binder	As needed	AASHTO M 226 M 320
Thickness	Contractor Defined	Contractor Defined
Cross Slope	1 per 5 full stations	Per 3.18.5.5.1

3.18.2 The Contractor may utilize innovative equipment or techniques not addressed by the specifications or these provisions to produce or monitor the production of the mix, subject to approval by the Engineer.

3.18.3 Quality Assurance.

3.18.3.1 Asphalt pavement designated for acceptance under Quality Assurance (QA) provisions will be sampled once per subplot on a statistically random basis, tested, and evaluated by the Department in accordance with 106.03.2 and the acceptance testing schedule in Table 401-4. Testing shall not take place until the material has been placed and deemed acceptable by the Contractor.

Table 401-4 - Acceptance Testing Schedule

PROPERTIES	POINT OF SAMPLING	LOT SIZE	SUBLOT SIZE	TEST METHOD
Gradation	Behind paver & before rolling ⁽⁴⁾	401.3.17.2.2	750 tons	AASHTO T 30 NHDOT B-1
Asphalt Binder content	Behind paver & before rolling ⁽⁴⁾	401.3.17.2.2	750 tons	AASHTO T 164 NHDOT B-2 NHDOT B-6
Maximum theoretical specific gravity	Compacted Roadway ⁽¹⁾ Core		750 tons	NHDOT B-8 AASHTO T 209
In Place Air Voids in total mix ^(5,6,7)	Compacted roadway ⁽¹⁾ core	401.3.17.2.2	750 tons	NHDOT B-8 AASHTO T 269
Ride Smoothness ⁽⁷⁾	Completion of surface course	Total project	0.1 lane mile	401.3.17.3.4
Cross Slope ⁽⁷⁾	Completion of surface course	Total project	1 per 5 full stations	401.3.17.3.5
Thickness ⁽²⁾⁽⁵⁾⁽⁷⁾	Compacted roadway ⁽¹⁾ core	Total project	750 tons	NHDOT B-8 ASTM D 3549

¹. Excluding bridge pavements.

². Measurements taken from full depth cores obtained for in place air voids determination.

³. For leveling course, samples to be taken at the plant.

⁴. Sampling and testing will not be performed for leveling course.

⁵. Not including leveling course.

⁶. When the Contractor is supplying mix to more than one paver simultaneously, Contractor's personnel shall keep a running total of tonnage supplied to each paver on each paver.

⁷. Tier 1 Item only.

3.18.3.2 Lot Size. For purposes of evaluating all acceptance test properties, a lot shall consist of the total quantity represented by each item listed under the lot size heading in the table above, up to 15,000 tons. For Items with quantities in excess of 15,000 tons, lot sizes will be determined at the pre-placement meeting. Each lot will be broken down into at least three (3) sublots.

The Contractor may request a change in the job mix formula. If the request is approved, all of the material produced prior to the change will be evaluated on the basis of available tests and a new lot will begin. Three sublots must be sampled and tested before a new lot may begin.

3.18.3.2.1 A lot for Gradation, Asphalt Content and In Place Air Voids shall be the total quantity represented by the job mix formula with the following exception; the shoulders will be evaluated as a separate lot for in place air voids.

3.18.3.3 Sublot Size. The quantity represented by each sample will constitute a sublot. The size of each sublot shall be as listed under the sublot size heading in Table 401-4. If there is insufficient quantity in a lot to make up at least three sublots of the designated size in Table 401-4, then the lot quantity will be divided into three equal sublots.

If there is less than one-half of a sublot remaining at the end, then it shall be combined with the previous sublot. If there is more than one-half of a sublot remaining at the end, then it shall constitute the last sublot and shall be represented by test results.

3.18.3.4 Test Results. The Engineer may calculate pay factors and pay adjustments at any time while a lot is being produced. This may be necessary for a partial estimate or to see if quality is falling to a point where immediate attention is required. Pay factors will be determined from all available acceptance tests for the lot being evaluated.

3.18.4 Acceptance Testing

3.18.4.1 Gradation and Asphalt Binder Content. Samples for gradation and asphalt binder content shall be obtained from behind the paver in conformance with NHDOT Test Procedure B-7 (see Appendix A) and taken from each pavement layer by the Contractor in the presence of the Engineer. The sample locations will be established by selecting a random location within each sublot in accordance with [Section 106](#). Sample locations (center of sample) will not be within 1 foot from an edge of pavement or within 4 feet from any structure. Sample locations falling within 4 feet from any structure will be relocated 4 feet from the structure along station at the same offset.

Where samples have been taken, new material shall be placed and compacted to conform to the surrounding area immediately after the samples are taken. Samples shall be accompanied by a sample tag containing the following information:

- a) Project name and number.
- b) Lot and sublot number.
- c) Material type.
- d) Date placed.
- e) Location in station and offset, tonnage
- f) Contract Administrator
- g) Sampler
- h) Item number

When the project exceeds 30 minutes travel time from the testing laboratory location, material samples will be taken and identified by Department project personnel and shall be transported before cooling by the Contractor and delivered to Department testing technicians at the testing Laboratory. Samples lost in transit will incur a penalty of 5% of the bid price for the entire sublot represented by that sample. Sublots with no test results due to a lost sample will not be evaluated and the total quantity represented by that sublot shall not be included in any positive pay factor.

3.18.4.1.1 Testing. Target values shall be as specified in the job mix formula. All sieve sizes specified in the job mix formula will be evaluated for gradation. The specification limits in Table 401-5 will be used for calculating pay factors for gradation and asphalt binder content.

Table 401-5 - Gradation and Asphalt Binder Specification Limits

Property	Maximum Aggregate Size				
	1"	3/4"	3/4" winter	1/2"	3/8"
	USL and LSL (Target +/- %)				
1 1/2"	0	0	0	0	0
1-1/4"	0	0	0	0	0
1"	8.0	0	0	0	0
3/4"	8.0	6.0	6.0	0	0
1/2"	7.0	6.0	6.0	5.0	0
3/8"	7.0	6.0	6.0	5.0	5.0
No. 4	4.5	4.5	4.5	4.0	4.5
No. 8	4.5	4.5	4.5	3.5	3.5
No. 16	2.5	2.5	2.5	2.5	2.5
No. 30	2.5	2.5	2.5	2.5	2.5
No. 50	2.5	2.5	2.5	2.5	2.5
No. 100	2.5	2.5	2.5	2.5	2.5
No. 200	1.0	1.0	1.0	1.0	1.0
Asphalt Binder	0.4	0.4	0.4	0.4	0.4

Any subplot with a gradation or asphalt binder content falling outside the ranges of the reject limits in Table 401-6 will be either removed and replaced at the expense of the Contractor or require corrective action to the satisfaction of the Engineer. After replacement or correction, new samples will be taken and the old test results from that subplot will be discarded.

Table 401-6 - Gradation and Asphalt Binder Content Reject Limits (Deviation from Target)

SIEVE SIZE	1"	3/4"	3/4" Winter	1/2"	3/8"
	Percent Passing By Weight – Combined Aggregate				
1-1/4"					
1"					
3/4"	±12	(1)	(1)		
1/2"	(1)	±10	±10	(1)	
3/8"	(1)	(1)	(1)	±10	(1)
No. 4	±9	±9	±9	±9	±9
No. 8	±7	±7	±7	±7	±7
No. 16	±6	±6	±6	±6	±6
No. 30	(1)	(1)	(1)	(1)	(1)
No. 50	(1)	(1)	(1)	(1)	(1)
No. 100	(1)	(1)	(1)	(1)	(1)
No. 200	±3	±3	±3	±3	±3
Asphalt Binder: % of Mix	±1.0	±1.0	±1.0	±0.8	±0.8

(1) Reject limits will be waived for these sieves.

The Contractor shall have the option of requesting a change in job mix formula (aim change) values used for calculating quality level to reflect actual production values after the placement of two sublots as long as no change in plant production values are made. A new lot is not needed for this change.

3.18.4.2 In Place Air Voids. In place air voids shall be determined in accordance with AASHTO T 269 using 6" diameter cores taken from each pavement layer by the Contractor in the presence of the Engineer. Core sampling shall be in conformance with ASTM D 5361 and NHDOT Test Procedure B-8 (see Appendix A). Full depth cores containing all new pavement layers shall be required. Core locations (center of core) will be established by selecting a random location within each subplot in accordance with [Section 106](#). When shoulders are overlaid, cores shall be collected solely for density information at a frequency of one core for every 750 tons of mix. Cores will not be located in the following areas:

- (a) Within 1 foot from an edge of pavement.
- (b) Within 4 feet from any structure. Core locations falling within this area will be relocated 4 feet from the structure along station at the same offset.
- (c) Within shoulders 4 feet or less in width.
- (d) Within 1 foot from any break in slope across the mat surface.

Cores shall be taken before opening pavement to traffic, except when location of core is within the last hour of that day's placement. Cores shall be taken within 24 hours after placement. Where cores have been taken, new material shall be placed and compacted to conform to the surrounding area the same day the samples are taken. Core samples shall be accompanied by a sample tag containing the following information:

- (a) Project name & number.
- (b) Lot and subplot number.
- (c) Material Type.
- (d) Date placed.
- (e) Date sampled.
- (f) Location in station and offset, and/or tonnage.
- (g) Plan thickness.
- (h) Contract Administrator
- (i) Sampler
- (j) Item number

The complete sample(s) (unseparated) shall be protected against damage, transported, and delivered by the Contractor within one working day to Department testing technicians at the Laboratory. Sublots where the core becomes lost or damaged will be resampled at the direction of the Engineer at the Contractor's expense.

The specification limits in Table 401-7 will be used for calculating pay factors for in place air voids for each lot:

Table 401-7 - In Place Air Voids Acceptance Limits

TARGET (%)	LSL	USL
Average of Samples	- 2.0% ¹	+2.0% ²

¹ But not less than 2.5%

² But not more than 9%

When a core is less than 80% of the nominal thickness, a new core will be taken in the same subplot at a random location for the determination of in place air voids.

A subplot with a test result less than 2.0% for in place air voids will be rejected and subject to removal and replacement.

3.18.4.2.1 Maximum Theoretical Density (MTD). MTD shall be determined in conformance with AASHTO T 209 once per subplot from the core obtained for determining in place air voids.

3.18.4.2.2 Disputed Cores. If a Contractor believes that a core result is invalid for whatever reason, the Contractor shall notify the Engineer of this in writing within 24 hours of being informed of the test result. After being informed of the disputed core result, the Engineer will select three random core locations, one in each three sections of the disputed subplot at the same offset as the disputed core. The Contractor shall cut the cores at the selected locations in the presence of the Engineer who shall place them in secured containers for delivery and testing at the Bureau of Materials and Research laboratory in Concord, NH. If there are 10 or more cores already tested to date, the pay factor for voids in the lot will be calculated (without using the result of the disputed core). If less than ten cores have been tested in the disputed lot, the three cores shall be held until ten cores have been tested or the lot is complete, whichever comes first, at which time the pay factor will be calculated.

If the pay factor for the lot that contains the disputed result is 0.95 or greater, and the disputed test result is outside three standard deviations from the mean value of the lot (calculated without using the result of the disputed core), the three cores shall be tested and the average value of the three will be calculated.

If any of these three cores falls outside three standard deviations from the mean value for the lot (calculated without using the result of the disputed core), the original core test value will stand. If the three cores fall within three standard deviations of the mean value the average of the three cores will be used as the core result for the disputed subplot.

If the three cores are not used, the Contractor shall pay for the cost of testing.

3.18.4.3 Pavement Thickness. The thickness requirements contained herein shall apply only when each pavement layer is specified to be a uniform thickness greater than 3/4". The thickness of each layer of hot asphalt mix will be measured in conformance to ASTM D 3549 to determine compliance with the acceptance tolerance. Measurements shall be obtained from cores taken for determining in place air voids of each pavement layer. A leveling course, or the first layer over a gravel or stone base, a milled surface or an existing surface, shall be excluded from thickness measurement.

3.18.4.3.1 Once each thickness measurement has been taken, a thickness index will be calculated. The thickness index is the actual deviation from target divided by the allowable tolerance. This will allow statistical comparisons to be made among measurements based on varying specified thickness. Thickness indexes will be established for the sole purpose of calculating pay factors. Thickness index shall be calculated under the following equation using the specification limits in Table 401-8.

$$TI = (M - ST)/T$$

where: TI = Thickness Index
ST = Specified Thickness
M = Measured Layer Thickness from Core
T = 15% x ST, but no less than 1/4"

Table 401-8 -Thickness Index Acceptance Limits

	TARGET	LSL	USL
Thickness Index	0.00	-1.00	+1.00

3.18.4.3.2 Disputed Thickness If a Contractor believes that a thickness result is invalid for whatever reason, the Contractor shall notify the Engineer of this in writing within 24 hours of being informed of the test result. After being informed of the disputed result, the Engineer will select three random core locations in the disputed subplot. In the presence of the Engineer, the Contractor shall cut the cores at the selected locations and place them in secured containers for testing. The Contractor shall deliver these cores to the Department testing technicians at the Laboratory. If there are 10 or more cores already tested to date, the pay factor for thickness in the lot will be calculated (without using the result of the disputed core). If less than ten cores have been tested in the disputed lot, the three cores shall be held until ten cores have been tested or the lot is complete, whichever comes first, at which time the pay factor will be calculated.

If the pay factor for the lot that contains the disputed result is 0.95 or greater, and the disputed test result is outside three standard deviations from the mean value of the lot (calculated without using the result of the disputed thickness), the three cores shall be measured and the average value of the three will be calculated.

If any of these three cores falls outside three standard deviations from the mean value for the lot (calculated without using the result of the disputed core), the original thickness test value will stand. If the three cores fall within three standard deviations of the mean value, the average of the three measurements will be used as the thickness for the disputed subplot.

If the three cores are not used, the Contractor shall pay for the cost of testing.

3.18.4.4 Ride Smoothness.

3.18.4.4.1 The Contractor shall furnish and have available a 10 ft., light weight metal straightedge with a rectangular cross section of 2" x 4" at the paver at all times during paving operations. All courses shall be tested with the straightedge laid parallel or perpendicular to the centerline and any variations from a true profile or cross slope exceeding 3/16" shall be satisfactorily eliminated. The finished surface of the pavement shall be uniform in appearance, free from irregularities in contour and shall present a smooth-riding surface.

3.18.4.4.2 A GM type profilometer will be furnished by the Department for determination of pavement smoothness. This device provides a Ride Number in both wheel paths that are averaged to produce a ride number for the surface tested. In the event the Engineer feels that there is a significant difference in the wheel path profiles, a Ride Number evaluation of the individual wheel paths will be made. The surface will be tested within 30 days after the surface course and pavement markings for each discrete section of the project are complete. Immediately before testing, the Contractor will ensure the surface is entirely free from any foreign matter that may affect the test results. No special considerations will be given to criteria such as degree of curve and vertical geometry. Ride Number will be calculated to the nearest one hundredth for each 0.1-mile segment.

3.18.4.4.3 Profilometer testing will include all mainline paving including bridges with lanes at least 11 feet wide. Testing will begin 20 feet after the approach joint and end 20 feet before the departure joint. The pavement will not be evaluated over bridge expansion joints, tapers, raised pavement markings, and sections less than 0.1 mile in lane length.

3.18.4.4.4 All areas with bumps or high points exceeding 0.3" in 25 feet shall be corrected by removal of a minimum of 1" of the full lane width by the length required (a minimum of 100 feet) and replaced at the Contractor's expense.

3.18.4.4.5 The Ride Number average of all sublots will be used to determine the final pay factor. The final pay factor shall not exceed 1.05 and will be computed as follows:

For Level 1 Projects: (Ride Number 4.20)
Pay Factor = $RN (0.5) - 1.1$

For Level 2 Projects: (Ride Number 4.14)
Pay Factor = $RN (0.5682) - 1.3523$

3.18.4.4.6 A final Ride Number shall be established after the surface course is completed and striped. Separate completed sections of a project will be evaluated before the entire surface course is completed. Any subplot with a ride number less than 3.7 shall be repaired or replaced.

3.18.4.4.6.1 Any subplot that has an individual wheel path ride number less than 3.7 shall be repaired or replaced. The repair treatment shall be for the full width of the lane. Sublots that have been repaired or replaced shall be reevaluated for ride smoothness and then averaged with all other sublots to determine the final project pay factor. Construction joints resulting from repairs or replacement will be included.

3.18.4.4.6.2 Level 1 will generally be all interstate and limited access highways with the following exception:

- (a) A single course overlay that has a before ride number average of less than 4.00.

3.18.4.4.6.3 Level 2 will generally be all other highways with the following exceptions:

- (a) Where the surface course must be constructed in short sections (< 3 sublots).
- (b) Projects shorter than one half mile in length.
- (c) Projects with a posted speed of 35 MPH or less.
- (d) Projects with many driveways and/or cross roads with constant traffic.
- (e) District resurfacing projects.

3.18.4.5 Cross Slope.

3.18.4.5.1 Cross slope will be measured once per subplot (see Table 401-4) behind the paver after final rolling of the surface course has taken place. Cross slope will only be evaluated when specific slopes and superelevations are shown on the plans for the entire project. Only travel lanes will be evaluated for cross slope. Measurements will be taken only in areas of normal tangent or full bank curves on even stations. Measurement shall take place utilizing one of the following methods, and shall be agreed upon by both parties: "digital read" level and 10 to 12 foot straightedge; "bubble" level, ruler, and 10 to 12 foot straightedge; transit; or electronic positioning equipment as approved by both Contractor and Department. If a straightedge is employed, perpendicularity shall be assured with the use of a right angle prism or other method acceptable to both parties. If a "bubble" or "digital read" level is employed, a second reading 180 degrees to the first shall be made and recorded, and the two shall be averaged for the test result. Measurement data shall be shared between parties within 24 hours of measurement.

3.18.4.5.2 Once a cross slope percentage has been measured, a cross slope index (CSI) will be calculated. The target cross slope shall be defined as the cross slope shown on the plans or as ordered to the nearest tenth of a percent. The CSI is the actual deviation from the target divided by **0.40** percent, which is the tolerance used for pay factor calculation only. This will allow statistical comparisons to be made among measurements based on varying specified cross slopes. The CSI will be established for the sole purpose of calculating pay factors. The CSI shall be calculated under the following equation using the specification limits in Table 401-10.

$$CSI = \frac{(M - SCS)}{T}$$

where: CSI = Cross Slope Index
SCS = Specified Cross Slope in percent
M = Measured Cross Slope in percent
T = 0.40

Table 401-10 - Acceptable Quality Level Limits

	TARGET	LSL	USL
Cross Slope Index	0.00	-1.00	+1.00

3.18.4.5.3 If three or more consecutive cross slope subplot measurements on the pavement lift used to calculate the pay factor deviate more than 0.5 (in percent) from the specified cross slope value at those locations, those sublots will be considered to exceed the engineering limit of 0.5%. The Contractor shall submit a corrective action plan for approval by the Engineer for cross slope sublots that exceed this limit.

3.18.4.5.4 After the approved corrective action plan is implemented, the sublots will be measured to ensure compliance, but will not be re-measured for the purpose of re-calculating pay factor. Alternatively, the Contractor may submit a written request for acceptance of the material at a negotiated price. The Engineer will determine whether the material may remain in place at the negotiated price.

3.18.4.6 Rejection of Material.

3.18.4.6.1 An Individual Sublot. For any sublots with any test results exceeding the specified reject limits, the Engineer will:

- (a) Require complete removal and replacement with hot asphalt mix meeting the Contract requirements at no additional expense to the department, or
- (b) Require corrective action to the satisfaction of the Engineer at no additional expense to the Department.

3.18.4.6.2 A Lot in Progress. The Engineer will shut down paving operations whenever:

- (a) The pay factor for any property drops below .90 and the Contractor is taking no corrective action, or
- (b) Three consecutive tests show that less than 50 percent by weight of the particles retained on the No. 4 sieve have at least one fractured face.

Paving operations shall not resume until the Engineer determines that material meeting the Contract requirements can be produced. Corrective action will be considered acceptable by the Engineer if the pay factor for the failing property increases. If it is determined that the resumption of production involves a significant change to the production process, the current lot will be terminated and a new lot will begin.

3.18.4.6.3 Remeasure and Retest. All requests to the Engineer to remeasure and retest a subplot shall be in writing.

Method of Measurement

4.1 Asphalt pavement mixture will be measured by the ton to the nearest 0.1 ton, and in accordance with 109.01. Batch weights will be permitted as a method of measurement only when the provisions of 3.8.3 are met, in which case, payment will be based on the cumulative weight of all the batches. The quantity will be the weight used in the accepted pavement, and no deduction will be made for the weight of asphalt binder or additives in the mixture.

4.1.1 No separate measurement will be made for lighting necessary or overtime required due to night operations at the plant or at the site.

4.1.2 Due to possible variations in the specific gravity of the aggregates, and to possible field changes in areas to be paved, the quantity used may vary from the proposal quantities, and no adjustment in Contract unit price will be made because of such variations.

4.2 Asphalt pavement, removed because of faulty workmanship or contamination by foreign materials, will not be included in the pay quantity.

4.3 Blank.

4.4 Joint adhesive will be measured by the linear foot for each lift of pavement to be placed, to the nearest foot of adhesive applied. If the Contractor chooses to pave in echelon in lieu of using joint adhesive, payment for the length of joint eliminated by the echelon paving will be made.

4.5 Echelon paving, when specified or approved, will be measured by the linear foot along the shared edge of the mats being simultaneously placed.

Basis of Payment

5.1 All work performed and measured as prescribed above will be paid for at the Contract unit price as provided in the respective sections for each type specified.

5.2 Tack coat material ordered under 3.10.5 will be paid as provided for in Section 410.

5.3 Blank.

5.4 Plant or project site lighting for hot bituminous pavement, machine or hand method, or overtime required due to night operations will be subsidiary to the paving items.

5.5 Asphalt cement additives will be subsidiary to the paving items.

5.6 Implementation of the Quality Control Plan and costs associated with obtaining core samples for acceptance testing shall be subsidiary. When items are to be accepted under Quality Assurance provisions, pay adjustment will be made in accordance with 106.03.2.4 as specified below.

5.6.1 Gradation composite pay factor (CPF). The total price for each lot will be adjusted by a composite pay factor (CPF) based on the gradation of the material after extraction using the pay factors for each sieve size and the sieve size weight factors in Tables 401-11, 11a & 11b.

Table 401-11 - Sieve Size Weight Factors 1"

Property	Weight Factor "f"
1/2"	6
#30	4
Gradation (each sieve) #8 and #200 sieves	8
All other sieves (each)	2

Table 401-11a - Sieve Size Weight Factors 3/4"

Property	Weight Factor "f"
3/8"	6
#30	4
Gradation (each sieve) #8, and #200 sieves	8
All other sieves (each)	2

Table 401-11b - Sieve Size Weight Factors 1/2" and 3/8"

Property	Weight Factor "f"
No. 4	6
#30	4
Gradation (each sieve) #8, and #200 sieves	8
All other sieves (each)	2

$$\text{Composite Pay Factor (CPF)} = \frac{[f_1(PF_1) + f_2(PF_2) + \dots + f_j(PF_j)]}{\sum f}$$

5.6.2 Pay Adjustment. The pay adjustment for each measured characteristic will be determined by the following equation:

$$PA_j = (Pf_j - 1) \frac{f_j}{\sum f} (Q)(P)$$

where: PA = Pay adjustment payment in dollars for each characteristic.
Pf = Pay factor or composite pay factor for each characteristic.
f = Weight factor from Table 401-12 for each characteristic.
 $\sum f$ = Sum of weight factors.
Q = Quantity computed from all accepted delivery records for the lot.
P = Contract unit price per ton.

Table 401-12 – Tier 1 Weight Factors

Measured Characteristic	Weight Factor “f”
Gradation	0.15
Asphalt Binder Content	0.15
In Place Air Voids	0.20
Thickness	0.08
Cross Slope	0.12
Ride Smoothness	0.30

Table 401-13 – Tier 2 Weight Factors

Measured Characteristic	Weight Factor “f”
Gradation	0.25
Asphalt Binder Content	0.25
In Place Air Voids	0.5

5.6.3 Pay adjustment, Hot Bituminous Pavement QC/QA Items. The pay adjustment for gradation, cross slope, thickness, asphalt binder content, in place air voids, and ride quality (made up of the sum of all sublots) will be applied to Item 1010.3. Pay adjustments may be applied at the end of each month based on all available test results for each lot.

5.7 The accepted quantity of joint adhesive of type specified will be paid for at the Contract unit price per linear foot complete in place.

5.7.1 Recoating of the joint, as described in 3.13.5, shall be at the Contractor’s expense.

5.7.2 When echelon paving is used in lieu of joint adhesive and the item is not included in the contract, the accepted quantity will be paid for at the price of joint adhesive under Item 403.6.

5.8 The Material Transfer Vehicle (MTV) Item will be paid for at the Item Bid Price per ton for the tons of bituminous mixture actually transferred by the MTV.

5.9 The accepted quantity of echelon paving will be paid for at the Contract unit price per linear foot complete.

5.9.1 If the Contractor chooses to pave in echelon in lieu of pavement joint adhesive, and the item is not in the contract, echelon paving will be paid as stated in 5.7.

APPENDIX A

NHDOT Test Procedure B-7

Sampling Bituminous Paving Mixtures for Acceptance Testing

Sample shall be taken behind the paver after placement and before compaction.

Sample location will be randomly selected by the Contract Administrator.

When paving over aggregate base course or cold planed surface, use a rectangular metal plate no less than 12" each side. Center plate on sample location.

After paver passes over plate, measure back to sample location.

Locate the edges of the plate.

Using a flat-bottomed scoop large enough to obtain up to a 3000 gram sample, place scoop on plate and push across the mat (perpendicular to the center line), through the center of the plate, filling the scoop to obtain the sample size specified below.

Required Sample Size	
Base Courses	2000-3000 grams
Binder Courses	1500-3000 grams
Surface Courses	1000-3000 grams
Sand Courses	500-3000 grams

When sampling over an existing pavement, the plate is not required.

NHDOT Procedure B-8

Sampling and Testing

Procedure for In Place Air Voids

Cores will be taken at random locations selected by the Contract Administrator.

Cores shall be delivered intact by the Contractor to the Department's inspector at the Laboratory.

If Cores are lost or damaged, new cores shall be taken at the same location as the previous cores.

Cores shall be measured for thickness following ASTM D 3549.

Bulk specific gravity shall be determined by AASHTO T 166a.

Maximum Theoretical Density will be determined using the core by AASHTO T 209.

In Place Air Voids shall be determined by AASHTO T 2.

SUPPLEMENTAL SPECIFICATION

AMENDMENT TO SECTION 403 – HOT BITUMINOUS PAVEMENT

Purpose: To expand the HBP paving items to include the mix type in the in the item description (07/27/20 & 07/01/21). This update also to removes all references to night items and “percent wear” pay items (06/06/17).

Delete Section 1.3.

Amend Section 4.1.1 to read:

4.1.1 Hot Bituminous pavement transferred by the Material Transfer Vehicle (MTV) will be measured as prescribed in 401.4.

Amend Section 5.1.1 to read:

5.1.1 Blank.

Amend Section 5.2 to read:

5.2 Bridge surface course will be paid under machine method.

Replace Pay items and units with the following:

Key:

403. A B C D E

A Surface Type/Miscellaneous

- 1 Roadway
- 2 Bridge

B Placement Method

- 1 Machine Method Ton
- 2 Hand Method Ton
- 6 Pavement Joint Adhesive Linear Foot
- 8 Leveling Ton
- 9 Temporary Ton

C Asphalt Type

- 0 Standard (as specified by Special Provision)
- 8 Polymer Modified (as specified by Special Provision)
- 9 High Strength

D Mix Type

- 0 Special (as specified by Special Provision)
- 1 1” Base Mix
- 2 3/4” Binder Mix
- 3 3/4” Winter Binder Mix
- 4 1/2” Surface Mix
- 5 3/8” Surface Mix
- 6 #4 Surface Mix

E QC/QA Tier or Method		
1	Tier 1	
2	Tier 2	
3	Method	
3	Blank	
4	Material Transfer Vehicle (MTV)	Ton
5	Blank	
6	Echelon Paving	Linear Foot
7	Blank	
8	Blank	
9	Blank	

Examples:**Method**

403.11013	HBP-1" Base Mix, Machine Method	Ton
403.11023	HBP-3/4" Binder Mix, Machine Method	Ton
403.11033	HBP-3/4" Winter Binder Mix, Machine Method	Ton
403.11043	HBP-1/2" Surface Mix, Machine Method	Ton
403.11053	HBP-3/8" Surface Mix, Machine Method	Ton
403.12	HBP-Hand Method	Ton
403.x19x3	HBP-_____, Machine Method, High Strength	Ton
403.11963	HBP-#4 Surface Mix, Machine Method, High Strength	Ton
403.18	HBP-Leveling Course	Ton
403.19	HBP-Temporary	Ton
403.21053	HBP-3/8" Mix, Machine Method (Bridge Base)	Ton
403.29	HBP-Temporary (Bridge)	Ton

QC/QA

403.11011	HBP-1" Base Mix, Machine Method, QC/QA Tier 1	Ton
403.11012	HBP-1" Base Mix, Machine Method, QC/QA Tier 2	Ton
403.11021	HBP-3/4" Binder Mix, Machine Method, QC/QA Tier 1	Ton
403.11022	HBP-3/4" Binder Mix, Machine Method, QC/QA Tier 2	Ton
403.11031	HBP-3/4" Winter Binder Mix, Machine Method, QC/QA Tier 1	Ton
403.11032	HBP-3/4" Winter Binder Mix, Machine Method, QC/QA Tier 2	Ton
403.11041	HBP-1/2" Surface Mix, Machine Method, QC/QA Tier 1	Ton
403.11042	HBP-1/2" Surface Mix, Machine Method, QC/QA Tier 2	Ton
403.11051	HBP-3/8" Surface Mix, Machine Method, QC/QA Tier 1	Ton
403.11052	HBP-3/8" Surface Mix, Machine Method, QC/QA Tier 2	Ton
403.x18xx	HBP-_____, Machine Method, Polymer Modified, QC/QA Tier X	Ton
403.x19xx	HBP-_____, Machine Method, High Strength, QC/QA Tier X	Ton

Other

403.16	Pavement Joint Adhesive	Linear Foot
403.26	Pavement Joint Adhesive (Bridge Base)	Linear Foot
403.4	Material Transfer Vehicle (MTV)	Ton
403.6	Echelon Paving	Linear Foot
1010.3	Quality Control/Quality Assurance (QC/QA) for Asphalt	Dollar

SUPPLEMENTAL SPECIFICATION

AMENDMENT TO SECTION 411 – PLANT MIX SURFACE TREATMENT

The purpose of this Supplemental Specification is to:

- *Require the use of pneumatic tired rollers on all paving done under Section 411. (06/06/17)*
 - *Remove Pay Items 411.15 & 411.19 (04/01/18)*
- *Ensure Tack used for PMST and leveling course is a Pay Item (07/06/18)*

Add to Section 411.3.5.5:

3.5.5 Intermediate rolling shall be done by a pneumatic-tired roller.

Amend Section 411.5.1.1 to read:

5.1.1 Tack coat material required under 3.4.2 for the leveling course and plant mix surface treatment items will be paid for as specified in 410.5.2.

Replace Pay Items and units with the following:

Pay items and units:

411.1	Hot Bituminous Concrete Leveling Course	Ton
411.3	Plant Mix Surface Treatment (AC), Paver Shim	Ton
411.43	Plant Mix Surface Treatment(Asphalt Cement), 3/8 in	Ton
411.51	Plant Mix Surface Treatment, Paver Spot Drag Shim	Ton

SUPPLEMENTAL SPECIFICATION

AMENDMENT TO SECTION 603 -- CULVERTS AND STORM DRAINS

The purpose of this Supplemental Specification is to allow polypropylene pipe, clarify UV light requirements as well as Contractor's Option requirements.

Amend 2.3 to read:

2.3 Plastic Pipe.

2.3.1 Manufacturers of Polyvinyl Chloride (PVC) pipe, Polyethylene (PE) pipe and Polypropylene (PP) pipe must participate in and maintain compliance with the AASHTO National Transportation Product Evaluation Program (NTPEP) that audits producers of plastic pipe.

2.3.2 Polyvinyl chloride profile wall pipe shall conform to the requirements of AASHTO M 304. PVC pipe and associated fittings shall not be used in applications where it will be exposed to long term ultraviolet light .

2.3.3 Polyethylene pipe shall conform to the requirements of AASHTO M 252 or M 294, Type C, Type S, or Type D as specified on the plans. PE pipe and associated fittings shall be protected from ultraviolet light degradation by the inclusion of carbon black as specified in AASHTO M 294.

2.3.4 Polypropylene pipe shall conform to the requirements of AASHTO M 330, Type C, Type S, or Type D as specified on the plans. PP pipe and associated fittings shall be protected from ultraviolet light degradation by the inclusion of carbon black or ultraviolet light stabilizers as specified in AASHTO M 330.

2.3.5 Only soil tight pipefittings supplied or recommended by the manufacturer shall be used, unless otherwise specified.

2.3.6 When watertight joints are specified, watertight pipefittings supplied or recommended by the manufacturer shall be used and shall conform to ASTM D3212.

2.3.7 When the item description includes plastic pipe or plastic pipe material with the plastic material type not specified, either polyvinyl chloride, polyethylene, or polypropylene pipe shall be furnished meeting the requirements of 2.3.

Amend 2.6 to read:

2.6 Pipe for Slope Drainage.

2.6.1 Pipe for slope drain shall conform to the requirements of 2.3 and shall be limited to Type C.

2.6.2 The pipe coupler for plastic pipe shall consist of a plastic coupler and a minimum of 2 stainless steel or 3 plastic bands installed on the exterior corrugations. Slope pipe coupling bands shall engage a minimum of two full corrugations of each pipe section being joined, and shall be reinforced to meet the criteria for the "Downdrain Joint" category of Section 26 of the AASHTO LRFD Bridge Construction Specifications.

Amend 2.7 to read:

2.7 Pipe for Drives and Minor Approaches.

2.7.1 It shall be the Contractor's option to furnish reinforced concrete pipe or corrugated aluminized steel type 2 pipe, unless otherwise specified, for pipe for drives and minor approaches. Reinforced concrete pipe shall meet the requirements of 2.1. Corrugated aluminized steel pipe shall meet the requirements of 2.2. The strength or thickness shall meet the requirements of Table 3. Where cover is 2' or greater, and where load requirements can be met, polyethylene or polypropylene pipe, meeting the requirements of 2.3, may be used.

Add 2.13:

2.13 Contractor's Option. When the pipe material is not specified in the item description, pipe conforming to either 2.1 or 2.3 shall be supplied. Once selected, pipe of similar type shall be used for the entire pipe run.

Amend Table 3 to read:

Table 3 - Required Strength of Culvert Pipes

Material	Diameter	Strength Concrete	Thickness, in.	Pipe Stiffness Plastic
			"Specified" Steel	
Reinforced Concrete	All	2000 D		
Corrugated Metal	12"-18"		0.064	
	24"-30"		0.079	
	36"		0.109	
Plastic				Reference
(Polyethylene)	All			AASHTO M294
(Polypropylene)	All			AASHTO M 330

Amend .4 under Pay Items to read:

- .4 Pipe for Slope Drainage (Plastic only) Linear Foot
- B Material
- 0 Unspecified
- 1 Blank
- 2 Blank
- 3 Blank
- 4 Plastic
- C Type
- 0 Blank
- 1 Blank
- 2 Polyethylene (Type C)
- 3 Polypropylene (Type C)

Amend .8 under Pay Items to read:

.8 Plastic Pipe		Linear Foot
B	Materials	
0	Unspecified	
1	PVC	
2	Polyethylene	
3	Polypropylene	
C	Type	
1	Corrugated Interior (Type C)	
2	Smooth Interior, Double Wall (Type S)	
3	Smooth Interior, Triple Wall (Type D)	
4	Blank	
5	Corrugated Interior (Type C) (Watertight)	
6	Smooth Interior, Double Wall (Type S) (Watertight)	
7	Smooth Interior, Triple Wall (Type D) (Watertight)	

SUPPLEMENTAL SPECIFICATION**AMENDMENT TO SECTION 605 -- UNDERDRAINS**

The purpose of this Supplemental Specification is to once again allow polypropylene pipe.

Amend 605.2 to read:

Materials**2.1 Plastic Pipe.**

2.1.1 Manufacturers of plastic pipe must participate in and maintain compliance with, the AASHTO "National Transportation Product Evaluation Program" (NTPEP) that audits producers of plastic pipe.

2.1.2 Polyvinyl Chloride (PVC) Smooth-wall perforated and un-perforated polyvinyl chloride pipe, bends and cleanouts shall conform to AASHTO M 278. Perforated polyvinyl chloride profile wall pipe shall conform to AASHTO M 304.

2.1.3 Polyethylene (PE). Polyethylene drainage tubing 6" in diameter shall conform to AASHTO M 252, Type SP, with either Class 1 or Class 2 perforations. Perforated corrugated polyethylene pipe of nominal sizes 12 to 36" diameter shall conform to AASHTO M 294, with Class 1 perforations. Lengths for all sizes shall not exceed 20 ft.

2.1.4 Polypropylene (PP). Polypropylene corrugated perforated pipe shall conform to AASHTO M 330 for 12" or greater diameter pipe, or ASTM F2376 for 6" pipe. All sizes shall be Type SP.

2.2 Pipe Underdrain, Materials Per Contractor's Option.

2.2.1 When the item reads 6" pipe underdrain (Contractor's option), it shall be the Contractor's option whether he furnishes perforated polyvinyl chloride pipe or perforated corrugated polyethylene drainage tubing or polypropylene pipe.

2.3 Sand cushion shall be so graded that 90 to 100 percent by weight will pass a 1/2" sieve, and not more than 12 percent will pass a No. 200 sieve.

2.4 Underdrain backfill shall meet the requirements of 209.2.1.

2.5 Molded pull boxes for underdrain flushing basins shall conform to 614.2.6.

2.6 Aggregate for aggregate underdrain shall conform to Table 703-1, Standard Size #4.

2.7 Support membrane shall be non-woven geotextile and conform to Item 593.131 – Geotextile, Subsurface Drainage, Class 3, Non-woven.

Amend Pay items and units to read:

Pay items and units:

605.4_	_in Perforated Polyvinyl Chloride Pipe Underdrain	Linear Foot
605.5_	_in Perforated Corrugated Polyethylene Pipe Underdrain	Linear Foot
605.6	_in Perforated Corrugated Polypropylene Pipe Underdrain	Linear Foot
605.79	Underdrain Flushing Basins	Each
605.81A	_in Aggregate Underdrain Type 1	Linear Foot
605.82ABC	_in Aggregate Underdrain Type 2, With_____Pipe	Linear Foot
605.84015	1-1/2" PVC Plastic Horizontal Drains	Linear Foot
605.906	6" Pipe Underdrain (Contractor's Option)	Linear Foot

Notes:

A = Width of Underdrain

1 = 18" 2 = 24" 3 = 30" 4 = 36" 5 = 48" 6 = 16"

B = Type of Material

1 = Blank	
2 = Blank	
3 = Blank	
4 = Perforated Polyvinyl Chloride	
5 = Perforated Corrugated Polyethylene	
6 = Perforated Corrugated Polypropylene	

C = Diameter of Pipe

1 = 6" 2 = 12" 3 = 18" 4 = 24" 5 = 4" 8 = 8"

Examples:

605.82351	30" Aggregate Underdrain Type 2, with Perforated Corrugated Polyethylene 6" Pipe	Linear Foot
605.906	6" Pipe Underdrain. (Contractor's Option)	Linear Foot

SUPPLEMENTAL SPECIFICATION**AMENDMENT TO SUBSECTION 606 – GUARDRAIL**

The purpose of this Supplemental Specification is to:

- *Add specific references to AWWA Standards and modify preservation requirements for wooden guardrail posts (04/02/18)*
- *Update Preformed Expansion Joint Filler Requirements (04/02/18)*
 - *Update Corrosion Inhibitor Requirements (04/02/18)*

Amend 2.2 to read:

2.2 Preservative Treatment.

2.2.1 All wood posts, blocks and rails shall be pressure treated with preservative materials conforming to the requirements of AASHTO M 133, which includes AWWA Standards by reference.

2.2.2 The type of treatment shall be one of the following per AASHTO M 133 and AWWA:

Treatment
Type A
Pentachlorophenol
Water-Borne Preservative

2.2.3 All wood posts and rails shall be treated after sawing and drilling or retreated after drilling in accordance with AASHTO M 133 and AWWA.

Amend 2.6.5 to read:

2.6.5 Preformed Expansion Joint Filler shall conform to AASHTO M 153, Type III (self-expanding cork) AASHTO M 213 (non-extruding and resilient bituminous types), or ASTM D8139 (semi-rigid, closed cell polypropylene foam).

Amend 3.4 to read:

3.4 Wood rail. Wood rail shall be constructed as shown on the plans. Wood surfaces cut or damaged shall be brush treated with 2 applications using preservatives specified in AWWA M4.

Amend 3.7.1.5 to read:

3.7.1.5 Concrete shall contain corrosion inhibitor (calcium nitrate) admixture added at the rate of 2 gallons per cubic yard.

SUPPLEMENTAL SPECIFICATION**AMENDMENT TO SECTION 608 – SIDEWALKS**

The purpose of the Supplemental Specification is to

- *Update Detectable Warning Device requirements (04/02/18)*
- *Update Preformed Joint Filler requirements (04/02/18)*

Amend 2.4 to read:

2.4 Preformed Joint filler shall conform to AASHTO M 213 (non-extruding and resilient bituminous types) or ASTM D8139 (semi-rigid, closed cell polypropylene foam).

Amend 2.6 to read:

2.6 Detectable Warning Devices.

2.6.1 Detectable warning devices shall be gray cast iron conforming to AASHTO M105 (ASTM A48) Class 30 minimum.

2.6.2 Cast iron panels shall have no surface coating, and shall be allowed to transition to their natural patina.

2.6.3 Detectable Warning Panel Truncated Dome Geometry.

2.6.3.1 Detectable warning devices shall be in full compliance with ADA Accessibility Guidelines (ADAAG) (Title 49 CFR Transportation, Part 37.9 Standard for Accessible Transportation Facilities, Appendix A, Section 4.29.2 – Detectable Warning on Walking Surfaces).

2.6.3.2 Size and spacing for truncated domes shall be as follows: base diameter of nominal 0.9", top diameter of nominal 0.4", height of nominal 0.2", with a center to center spacing of nominal 2.35".

2.6.3.3 The truncated domes shall be arranged in a square or radial grid pattern and shall align properly from panel to panel.

SUPPLEMENTAL SPECIFICATION**AMENDMENT TO SECTION 609 – CURBS**

The purpose of this Supplemental Specification is to allow the substitution of PG 76-28 binder in lieu of fibers.

Amend 2.4 to read:

2.4 Bituminous curb shall meet the requirements of Section 401 except that the composition of the mixture shall conform to the limits of Table 609-2. The mixture shall extrude properly with a uniform, smooth appearance.

2.4.1 Polyester fibers, as included on the Qualified Products List, shall be uniformly incorporated in the dry mix in the proportion of approximately 1/4 percent of the total batch weight.

2.4.1.1 PG 76-28 binder may be used in lieu of polyester fibers, provided that the mix conforms to the limits of Table 411-1 and the asphalt content is 7.0%.

SUPPLEMENTAL SPECIFICATION

AMENDMENT TO SECTION 645 – EROSION CONTROL

The purpose of this Supplemental Specification is to:

- *Update erosion control requirements.*
- *Add Erosion Control Plans to list of items to furnish for SWPPP (1.2.1, 11/07/18)*
- *Update construction dates for allowable area of exposed, unstabilized soil (3.1.5, 11/07/18)*

Replace 1.1 with the following:

1.1 Erosion Control Products. This work shall consist of furnishing and placing hay mulch, bark mulch, “Rolled Erosion Control Products” (RECP), Hydraulic Erosion Control Products (HECP) or other material to provide soil stabilization and/or erosion control on slopes or in channels/ditches at locations shown on the plans or where ordered.

1.1.1 Temporary Slope Matting Type A (Not Currently Used)

1.1.2 Temporary Slope Matting Type B (Wildlife Friendly) shall be a biodegradable RECP specified for protection of slopes of 3:1 or flatter. These products shall maintain their functional integrity for a minimum of 3 months and then biodegrade.

1.1.3 Temporary Slope Matting Type C (Not Currently Used)

1.1.4 Temporary Slope Matting Type D (Wildlife Friendly) shall be a biodegradable RECP specified for protection of slopes of 2:1 or flatter. These products shall maintain their functional integrity for a minimum of 12 months and then biodegrade.

1.1.5 Permanent Channel Matting Type A shall be a RECP specified for protection of vegetated channels/ditches with a slope profile of 5% or less. These products are considered to be permanent and shall be non-degradable.

1.1.6 Permanent Channel Matting Type B (Not Currently Used)

1.1.7 Temporary Channel Matting Type A (Wildlife Friendly) shall be an extended term RECP specified for protection of vegetated channels/ditches with a slope profile of 3% or less. These products are considered temporary and shall have a functional longevity of 24 months.

1.1.8 Temporary Channel Matting Type B shall be a long term RECP specified for protection of vegetated channels/ditches with a slope profile of 3% to 5%. These products are considered temporary and shall have a functional longevity of 36 months.

1.1.9 Stabilized Mulch Matrix (SMM) shall be a moderate term HECP, specified for temporary erosion control on slopes of 3:1 or flatter. These products shall have a functional longevity of at least 3 months.

1.1.10 Bonded Fiber Matrix (BFM) shall be an extended term HECP, specified for temporary erosion control on slopes of 2:1 or flatter. These products shall have a functional longevity of at least 6 months.

1.1.11 Fiber Reinforced Matrix (FRM) shall be a long term HECP, specified for temporary erosion control on slopes of 2:1 or flatter. These products shall have a functional longevity of at least 12 months.

Amend 1.2.1 to read:

1.2.1 The Department will furnish the following data to the Contractor:

- Specific reproducible plan sheets and cross-sections of the project, as requested.
- Drainage calculations and plans (drainage area size and characteristics; runoff volume; type, size, and slope of pipes; invert elevations; and outlet velocities), as available.
- Geotechnical Report including soil boring logs, soil types, and test pit data, as available.
- Permits and certifications obtained for the project.
- A list of environmental commitments.
- A copy of the NHDOT's Notice of Intent application.
- A copy of the NHDOT's Acknowledgement letter from EPA.
- Documentation of permit eligibility related to federally listed threatened and endangered species.
- NHDES Wetlands Permit "Plan of Record".
- Erosion Control Plans

Add to 2.1:

2.1.4 Hydraulic Erosion Control Products (HECP) shall be temporary, biodegradable, pre-packaged fibrous mulch products mixed with water and applied as a slurry in conjunction, with, or without Turf Establishment without Mulch (Item 646.2). Hydraulic Erosion Control Products (HECP) selected for use shall be from those listed on the Qualified Products List.

Amend 3.1.5 to read:

3.1.5 For the construction period from October 15th through May 1st the area of exposed, unstabilized soil shall be limited to one acre. The allowable area of exposed soil may be increased provided a winter construction plan shows adequate provisions to control erosion and sediment, provided the additional area of disturbance is necessary to meet the Contractors Critical Path Method schedule (CPM), and the Contractor can demonstrate there are adequate resources available (equipment & manpower) to respond to multiple events simultaneously and is reviewed and approved by the Department.

Add to 3.3:

3.3.6 Hydraulic Erosion Control Products (HECP).

3.3.6.1 The Contractor shall only use personnel or subcontractors trained in the use of the product.

3.3.6.2 Hydraulic Erosion Control Products (HECP) shall be mixed and applied in accordance with the manufacturer's specifications.

3.3.6.3 Apply HECPs to the soil surface from at least two opposing directions, to achieve an even coverage of all exposed soil surfaces. Do not apply either BFM or SMM within 24 hours of a predicted rain event, or under saturated soil conditions. FRM does not require a cure time and is effective immediately; and FRM may be applied immediately before, during, or after a “typical” rainfall event. Avoid installing FRM during high intensity rainfall events.

3.3.6.4 Inspection and Maintenance: Reapplication will be required if the HECP treated soils are disturbed or turbidity or water quality testing shows the need for an additional application within the functional longevity of the product.

Add to 4.1:

4.1.2 Hydraulic Erosion Control Products (HECP) will be measured by the pound based upon the delivery slips and tags furnished to the Engineer, but not to exceed the rate specified or ordered. If reapplication is required due to damage caused by the Contractor’s negligence or inappropriate installation, retreated areas will not be measured for payment.

Amend 5.1 to read:

5.1 The accepted quantities of erosion control work will be paid for at the Contract unit price, complete in place.

Replace the Pay Items with the following:

Pay items and units:

645.11	Mulch	Acre
645.111	Mulch	Square Yard
645.12	Temporary Mulch	Acre
645.15__	Bark Mulch __in. Deep	Square Yard
645.3	Erosion Stone	Ton
645.42	Temporary Slope Matting Type B (Wildlife Friendly)	Square Yard
645.44	Temporary Slope Matting Type D (Wildlife Friendly)	Square Yard
645.45	Permanent Channel Matting Type A	Square Yard
645.471	Temporary Channel Matting Type A (Wildlife Friendly)	Square Yard
645.472	Temporary Channel Matting Type B	Square Yard
645.48	Erosion Control Mix	Cubic Yard
645.51	Hay Bales for Temporary Erosion Control	Each
645.52	Ryegrass for Temporary Erosion Control	Pound
645.531	Silt Fence	Linear Foot
645.532	Silt Fence with Support Fence	Linear Foot
645.611	Bonded Fiber Matrix	Pound
645.612	Fiber Reinforced Matrix	Pound
645.613	Stabilized Mulch Matrix	Pound
645.7	Storm Water Pollution Prevention Plan	Unit
645.71	Monitoring SWPPP and Erosion and Sediment Controls	Hour

SUPPLEMENTAL SPECIFICATION
AMENDMENT TO SECTION 702– BITUMINOUS MATERIALS

The purpose of this Supplemental Specification is to adopt new AASHTO specifications for emulsions.

Amend Section 702 to read:

Table 702-1 – Anionic Asphalt Emulsion

Grade	Rapid-Setting						Medium Setting						Test Method
	RS-1h		RS-1		RS-2		HFMS-2		MS-4		MS-5		
Tests on emulsified asphalt:	min	max	min	max	min	max	min	max	min	max	min	max	T59
	20	100	20	100					50	500	50	500	
					75	400	100 see (d)						
		1.0		1.0		1.0		1.0		1.0		1.0	
	60		60		60								
Coating ability and water resistance													
Coating, dry aggregate							good	75%		75%			T59
Coating, after spraying							fair	see (e) (f)		see (e) (f)			
Coating, wet aggregate							fair						
Coating, after spraying							fair						
Sieve test, % ^{a,b}	0.10		0.10		0.10		0.10		0.10		0.10	0.10	
Distillation													
Oil distillate, %									2.0	7.0	0	3.0	
Residue, % ^c	55		55		65		65		65		65		
Tests on residue from distillation:													
Penetration, 25°C (77°F), 100 g, 5 s, 0.1 mm	40	90	90	150	90	150	90	250	200		150	250	T49
Ductility, 25°C (77°F), 5 cm/min, cm	40		40		40		40						T51
Ash content, %		1.0		1.0		1.0		1.0					T111
Float test, 60°C (140°F), s							1200		50		100		T50

Table 702-2 -- Cationic Asphalt Emulsion

Type	Rapid-Setting				
Grade	CRS-1h		CRS-1		
	min	max	min	max	Test Method
Tests on emulsified asphalt:					T59
Viscosity, Saybolt Furol at 50°C (122°F), s ^a	20	100	20	100	
Storage stability test, 24-h, % ^{a,b}		1		1	
Sodium dioctyl sulfosuccinate, % ^a	40		40		
Particle charge test	Positive		Positive		
Sieve test, % ^{a,b}		0.10		0.10	
Distillation:					
Oil Distillate by volume of emulsified asphalt, %		3		3	
Residue, % ^c	60		60		
Tests on residue from distillation:					
Penetration, 25°C (77°F), 100 g, 5 s, 0.1 mm	40	90	90	150	T49
Ductility, 25°C (77°F), 5 cm/min, cm	40		40		T51
Ash content, %		1		1	T111

Footnotes:

- This test requirement and associated specification limits are waived for emulsified asphalt products following dilution
- This test requirement on representative samples may be waived if successful application of the material has been achieved in the field.
- For emulsions that are diluted, the percent residue requirements must be adjusted accordingly.
- 50 + when material is used for sealing.
- Wet Coating:** Weigh 100 ± 0.5 g of aggregate, 20 to 30 mesh (0.85 to 0.60 mm) standard Ottawa sand, into a 600 mL glass beaker and add soft tap water, approximately twice the volume of that of sand. Weigh into the beaker containing the sand and water 8 ± 0.2 g of the emulsion at room temperature and mix for two minutes with a stiff spatula. Cover the mixture with approximately twice its own volume of tap water and pour the water off without further mixing. Repeat this process. After the second rinse, at least 75 percent of the sand shall remain coated.
- Stripping:** After evaluating the wet coating, place the mixture into a clear 600 mL glass beaker, cover the mixture with tap water, let stand for 1 to 16 hours, and examine. At least 75 percent of the sand shall remain coated.
- The coating and stripping tests may be waived when MS-5 is used for sand sealing.

Section F

FEDERAL DOCUMENTS

Wage Rates – Federal Aid Projects Document

FY 2019 National Defense Authorization Act (NDAA)

Special Attention – Build America, Buy America

Special Attention – Shipping

Special Attention – Convict Produced Material

Special Attention – Lobbying

Special Attention – Contract Affidavit – Certification Regarding Debarment
Suspension

Special Attention – Summary of Requirements for Federal Aid Projects

Special Attention – DBE Policy

Special Provision – Section 107 (Bulletin Board Requirements) with Diagram

Supplemental Specification – Measurement and Payment

FHWA 1273 (13 pages)

Special Provision - Training

Affirmative Action Req. (Source 41 CFR 60-4.2 & CFR 60-4.3)

Federal Highway Administration Civil Rights Assurance

Notice to All Bidders – Affirmative Action

Notice to All Bidders – Bid Rigging

TE/CMAQ – Construction Proposal (Contract Affidavit Form)

06/24/08

SSD: 9/11/06, 12/5/90

WAGE RATES
FEDERAL AID PROJECTS

This proposal contains minimum wage determinations as specified by the U.S. Secretary of Labor. Copies of the attached wage determination(s) shall be posted on the bulletin board at the work site and furnished to employees upon request. Furthermore, the wage determination(s) shall be incorporated into all subcontract agreements.

If the Contractor, any subcontractor or lower-tier contractor intend to employ a classification of labor not listed in the attached determination(s), it shall submit a Request for Additional Work Classification(s) to the New Hampshire Department of Transportation, Labor Compliance Office at (603) 271-2467. The Contractor is responsible for ensuring that a Request is submitted for any additional classification of work to be employed by itself, any subcontractor or lower-tier contractor 3-4 weeks before the classification is utilized.

This contract is subject to the Work Hours Act of 1962, P.L. 87-581 and implementing regulations.

"General Decision Number: NH20230040 01/06/2023

Superseded General Decision Number: NH20220040

State: New Hampshire

Construction Type: Highway

County: Rockingham County in New Hampshire.

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	<ul style="list-style-type: none">◆ Executive Order 14026 generally applies to the contract.◆ The contractor must pay all covered workers at least \$16.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2023.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	<ul style="list-style-type: none">◆ Executive Order 13658 generally applies to the contract.◆ The contractor must pay all covered workers at least \$12.15 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours performing on that contract in 2023.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number Publication Date
0 01/06/2023

SUNH2019-009 11/22/2022

Rates Fringes

CARPENTER (Form Work Only).....\$ 24.02	2.82
CARPENTER, Excludes Form Work....\$ 26.09	2.51
CEMENT MASON/CONCRETE FINISHER...\$ 22.44	0.00
ELECTRICIAN.....\$ 28.08	2.78
FENCE ERECTOR (Chain Link Fence).....\$ 19.59	0.00
HIGHWAY/PARKING LOT STRIPING: Painter.....\$ 21.63	0.00
INSTALLER - GUARDRAIL.....\$ 31.12	9.72
IRONWORKER, REINFORCING.....\$ 22.71	8.19
IRONWORKER, STRUCTURAL.....\$ 34.45	17.20
LABORER: Asphalt, Includes Raker, Shoveler, Spreader and Distributor.....\$ 18.30	2.75
LABORER: Common or General.....\$ 19.15	2.60
LABORER: Landscape.....\$ 18.06	0.00
LABORER: Pipelayer.....\$ 19.66	5.28
OPERATOR: Auger.....\$ 26.07	3.42
OPERATOR: Backhoe/Excavator/Trackhoe.....\$ 26.98	6.50
OPERATOR: Bobcat/Skid Steer/Skid Loader.....\$ 21.54	7.11
OPERATOR: Broom/Sweeper.....\$ 25.73	0.00
OPERATOR: Bucket.....\$ 30.00	0.00
OPERATOR: Bulldozer.....\$ 25.99	6.75
OPERATOR: Crane.....\$ 29.56	3.29
OPERATOR: Grader/Blade.....\$ 27.77	6.79
OPERATOR: Loader.....\$ 25.69	6.28
OPERATOR: Mechanic.....\$ 24.53	8.36
OPERATOR: Milling Machine.....\$ 28.55	6.88
OPERATOR: Paver (Asphalt, Aggregate, and Concrete).....\$ 25.32	6.23
OPERATOR: Pounder.....\$ 36.82	10.41
OPERATOR: Roller.....\$ 23.35	5.98
PAINTER: Spray.....\$ 27.29	6.95
TRAFFIC CONTROL: Flagger.....\$ 13.17 **	1.37

TRUCK DRIVER: Dump Truck.....\$ 19.47 3.22

TRUCK DRIVER: Lowboy Truck.....\$ 22.76 5.07

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

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** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 (\$16.20) or 13658 (\$12.15). Please see the Note at the top of the wage determination for more information.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing

the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described

in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISIO"

SPECIAL ATTENTION

FY 2019 National Defense Authorization Act (NDAA)

**Prohibition of Certain Telecommunications and Video Surveillance Services and
Equipment from Specific Producers**

The United States Department of Transportation (USDOT)/Federal Highway Administration (FHWA) continues to monitor suppliers and equipment to ensure that the safety and security of equipment and the ITS network can be maintained. The Contractor shall be aware that the Department has received notification from USDOT/FHWA that per 2 CFR 200.216, 2 CFR 200.471, and Section 889(b) of the FY 2019 NDAA, that no equipment shall be purchased by manufacturers, or known associates of manufacturers, as shown on the Department's *Restricted Equipment Manufacturer List* (www.nhtmc.com/forms/index.html). The Department reserves the right to reject previously approved equipment submissions for any equipment throughout the life of the contract if a manufacturer or their equipment is added to the restricted list.

10/26/22

Supersedes Spec. Attn. dated 3/9/90, 12/5/90, 4/4/92, 2/22/93, 4/24/95 & 6/5/98, 06/02/10

SPECIAL ATTENTION**BUILD AMERICA, BUY AMERICA**

On November 15, 2021, the Infrastructure Investment and Jobs Act (IIJA) was signed into law (the Bipartisan Infrastructure Law, or BIL), which includes the Build America, Buy America Act (BABA). Pub. L. No. 117-58. BABA strengthens existing Buy America regulations and specifically states that no Federal funds made available for infrastructure may be obligated for a project unless all of the iron, steel, manufactured products, and construction materials permanently incorporated into the project are produced in the United States. Any project within the scope of a finding, determination, or decision under the National Environmental Policy Act (NEPA), regardless of the funding source for the individual project, are subject to BABA regulations if at least one contract within the scope of the NEPA decision is funded Federally. This project is subject to BABA, and will require certification in the following item categories (an article, material, or supply should only be classified into one of the categories below):

- a) Iron and Steel: All iron and steel permanently incorporated into the project must be produced in the United States. The only exception to this requirement is the production of pig iron and the processing, pelletizing, and reduction of iron ore, which may occur in another country. This means all manufacturing processes, from the initial melting stage through the application of coatings, must occur in the United States.
 - Steel products include, but are not limited to, structural steel, piles, reinforcing steel, structural plate, steel culverts, guardrail, steel supports for signs, signals (mast arms), and luminaires.
 - Iron products include, but are not limited to, cast iron frames and grates.
- b) Manufactured Products*: All manufactured products permanently incorporated into the project must be produced in the United States. This means the manufactured product must be manufactured in the United States, and the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States must be greater than 55 percent of the total cost of all components of the manufactured product, unless another standard for determining the minimum amount of domestic content of the manufactured product has been established under applicable law or regulation.

**The FHWA has a longstanding Buy America nationwide General Applicability Waiver for Manufactured Products. As of the date of this Special Attention, FHWA has not modified the waiver, and the waiver continues to apply to manufactured products that are not predominantly steel and iron. Manufactured products that are predominantly steel or iron remain subject to Buy America and now BABA certification.*
- c) Construction Materials: All construction materials permanently incorporated into the project must be manufactured in the United States. This means the final manufacturing process and the immediately preceding manufacturing stage for the construction material must occur in the United States.

10/26/22

Supersedes Spec. Attn. dated 3/9/90, 12/5/90, 4/4/92, 2/22/93, 4/24/95 & 6/5/98, 06/02/10

- Construction Materials include an article, material, or supply that is or consists primarily of:
 - i. Non-ferrous metals;
 - ii. Plastic and polymer-based products (including polyvinylchloride, composite build materials, and polymers used in fiber optic cables);
 - iii. Glass (including optic glass);
 - iv. Lumber; or
 - v. Drywall.
- Construction Materials do not include:
 - i. Items of primarily iron or steel;
 - ii. Manufactured Products;
 - iii. Cement and cementitious materials;
 - iv. Aggregates such as stone, sand, or gravel; or
 - v. Aggregate binding agents or additives.

Items that consist of two or more of the listed materials that have been combined through a manufacturing process, and items that include at least one of the listed materials combined through a manufacturing process with a material that is not listed, should be treated as manufactured products, rather than as construction materials. Equipment, tools, and temporary items are not required to meet the BABA requirements.

A Certificate of Compliance, conforming to the requirements of Section 106.04, shall be furnished for all above materials, regardless of item category. The form for this certification is entitled "Certificate of Compliance" and can be found at www.NHDOT.com.

For steel and iron materials and for manufactured products produced predominantly of steel or iron, records to be maintained by the Contractor for compliance with this Special Attention shall include a signed mill test report and a signed certification by each supplier, distributor, fabricator, and manufacturer that has handled the materials affirming that every process, including the application of a coating, performed on the steel or iron has been carried out in the United States of America, except as allowed by this Special Attention. The lack of these certifications will be justification for rejection of the material provided.

Manufacturer's certificate of compliance for construction materials must identify where the construction material was manufactured and attest specifically to compliance with BABA.

The requirements of said law and regulations do not prevent a minimal use of foreign steel and iron materials if the cost of such materials used does not exceed one-tenth of one percent (0.1%) of the total contract price or \$2,500.00, whichever is greater.

Upon completion of the project, the Contractor shall certify in writing as to compliance with BABA and also provide the total project delivered cost of all foreign steel and iron, provided under this requirement, that are permanently incorporated into the project. The form for this certification is entitled "Build America, Buy America Certificate of Compliance" and can be found at www.NHDOT.com.

SPECIAL ATTENTION**SHIPPING**

In accordance with the **Title 46 - Shipping** requirements of the Federal regulations (46 CFR 381.7), contractors must comply with the Cargo Preference Act (CPA) requirements and implementation regulations for all Federal-aid projects awarded after February 15, 2016. **Title 46 - Shipping** reads as follows:

Title 46 - Shipping

Volume: 8

Date: 2014-10-01

Original Date: 2014-10-01

Title: Section 381. 7 - Federal Grant, Guaranty, Loan and Advance of Funds Agreements.

Context Title 46 - Shipping. CHAPTER II - MARITIME ADMINISTRATION, DEPARTMENT OF TRANSPORTATION. SUBCHAPTER J - MISCELLANEOUS. PART 381 - CARGO PREFERENCE-U.S.FLAG VESSELS.

§ 381.7 Federal Grant, Guaranty, Loan and Advance of Funds Agreements.

In order to insure a fair and reasonable participation by privately owned United States-flag commercial vessels in transporting cargoes which are subject to the Cargo Preference Act of 1954 and which are generated by U.S. Government Grant, Guaranty, Loan and/or Advance of Funds Programs, the head of each affected department or agency shall require appropriate clauses to be inserted in those Grant, Guaranty, Loan and/or Advance of Funds Agreements and all third party contracts executed between the borrower/grantee and other parties, where the possibility exists for ocean transportation of items procured, contracted for or otherwise obtained by or on behalf of the grantee, borrower, or any of their contractors or subcontractors. The clauses required by this part shall provide that at least 50 percent of the freight revenue and tonnage of cargo generated by the U.S. Government Grant, Guaranty, Loan or Advance of Funds be transported on privately owned United States-flag commercial vessels. These clauses shall also require that all parties provide to the Maritime Administration the necessary shipment information as set forth in § 381 .3. A copy of the appropriate clauses required by this part shall be submitted by each affected agency or department to the Secretary, Maritime Administration, for approval no later than 30 days after the effective date of this part. The following are suggested acceptable clauses with respect to the use of United States-flag vessels to be incorporated in the Grant, Guaranty, Loan and/or Advance of Funds Agreements as well as contracts and subcontracts resulting therefrom:

(a) Agreement Clauses. Use of United States-flag vessels:

(1) Pursuant to Pub. L. 664 (43 U.S.C. 1241(b)) at least 50 percent of any equipment, materials or commodities procured, contracted for or otherwise obtained with funds granted, guaranteed, loaned, or advanced by the U.S. Government under this agreement, and which may be transported by ocean vessel shall be transported on privately owned United States-flag commercial vessels, if available.

(2) Within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (a)(1) of this section shall be furnished to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

(b) *Contractor and Subcontractor Clauses.* Use of United States-flag vessels: The contractor agrees

(1) To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

(2) To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b) (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills--of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

(3) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

SPECIAL ATTENTION**CONVICT PRODUCED MATERIAL**

In accordance with the requirements of the Federal regulations (23 U.S.C. 114(b)(2), 23 CFR 635.417), essentially all convict produced material is prohibited from Federal-aid highway construction projects. More specifically, materials produced after July 1, 1991, by convict labor, may only be incorporated in a Federal-aid construction projects if: 1) such materials have been produced by convicts who are on parole, supervised release, or probation from a prison; or 2) such material has been produced in a qualified prison facility, e.g., prison industry, with the amount produced during any 12-month period, for use in Federal-aid projects, not exceeding the amount produced, for such use, during the 12-month period ending July 1, 1987*.

* Because the Department, Federal Highway Administration, nor New Hampshire Correctional Industries can produce documents to meet condition 2 above, this condition cannot be met for New Hampshire convict produced material.

1/2001
Supersedes 3/90
ALL FA PROJECTS

SPECIAL ATTENTION

LOBBYING

UNITED STATES DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION

SUBJECT: LIMITATION ON USE OF GRANT OR CONTRACT FUNDS FOR LOBBYING

The lobbying restrictions were established by Section 319 of Public Law 101-121 (Department of the Interior and Related Agencies Appropriations Act for Fiscal Year 1990).

The law prohibits Federal funds from being expended by the recipient or any lower tier subrecipients of a Federal contract, grant, loan, or cooperative agreement to pay any person for influencing or attempting to influence a Federal agency or Congress in connection with the awarding of any Federal contract, the making of any Federal grant or loan, or the entering into of any cooperative agreement. The extension, continuation, renewal, amendment or modification of any Federal contract, grant, loan, or cooperative agreement is also covered.

Federal-aid contractors, and consultants, as well as lower tier subcontractors and subconsultants are also subject to the lobbying prohibition. To assure compliance, a certification provision is included in all Federal-aid construction solicitations and contracts, and consultant agreements exceeding \$100,000 in Federal funds.

The Contractor shall be aware that by signing and submitting this proposal, he or she is attesting to the requirements of the certification provisions.

During the period of performance of a grant or contract, recipients and subrecipients must file disclosure form (Standard Form LLL) at the end of each calendar year quarter in which there occurs any event that requires disclosure or that materially affects the accuracy of the information contained in any previously filed disclosure form.

Lower tier certifications should be maintained by the next tier above (i.e., prime contractors will keep the subcontractors' certification on file, etc.). Copies of Standard Form LLL will be included in the subcontract package for distribution to successful bidders.

December 24, 1998
Supersedes Spec. Attn. dated 3/29/88 & 12/5/90

FHWA Projects

SPECIAL ATTENTION

**CONTRACT AFFIDAVIT - CERTIFICATION REGARDING DEBARMENT
SUSPENSION**

The separate form entitled, CONTRACT AFFIDAVIT (As Required by Section 112(c) of Title 23 USC) has been deleted from this proposal.

Bidders are advised that the last page of the bidding proposal has been revised to include the same reference, **IN BOLD PRINT**, relative to the non-collusion statement included on the discontinued form.

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The Contractor is advised that 49 CFR 29.510, Appendix A, requires that the Contractor, including all principals, certify that they are not currently under debarment or suspension or have not been under debarment or suspension within the past three years. (For certification instructions see next page).

The certification has been added, **IN BOLD PRINT**, onto the next to the last page of the bidding proposal.

The Contractor is further advised that Appendix B of 49 CFR 29.510 regarding certification of lower tier transactions has been added to Form FHWA-1273.

Appendix A - Certification regarding Debarment, Suspension, and other Responsibility Matters -
Primary Covered Transactions.

Instruction for Certification

1. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.
2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such person from participation in this transaction.
3. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause of default.
4. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if at any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
5. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is being submitted for assistance in obtaining a copy of these regulations.
6. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.
7. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
8. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
9. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
10. Except for transactions authorized under paragraph 6 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

SPECIAL ATTENTION

SUMMARY OF REQUIREMENTS FOR FEDERAL-AID PROJECTS

1. Subletting on Federal-aid Contracts:

- a. On Federal-Aid projects, the following documents are required to be incorporated in and made a part of, every subcontract agreement; including lower-tier subcontract agreements, and companies, and/or independent contractors that perform testing, monitoring, inspection services such as ground penetrating radar, erosion control monitoring, video inspection, SWPPP, POP, environmental testing/monitoring or vibration monitoring, require subcontractor approval:

- [NHDOT Subcontracting Procedure](#) and Forms:
 - Updated [Annual Assurances](#) (annual requirement). Contractors will not be approved or authorized to work until all OFC's Annual Assurance requirements have been fulfilled.
 - OFC Form 15 - Transmittal Request
 - OFC Form 14 - Contractor Acknowledgment Certification
 - OFC Form 26 - Work Certificate
- A signed written contract

A valid Certificate of Insurance, listing NHDOT as the Certificate holder. Office of Federal Compliance (OFC) staff will verify coverage with the NH Department of Labor (NHDOL). Workers Compensation Insurance needs to be on the [National Council on Compensation Insurance \(NCCI\)](#) database and company must be in good standing with [NH Secretary of State](#).

Per NH RSA 228:4-b, Workers' Compensation Insurance must cover all individuals performing work on site and shall remain in effect for the duration of the contractor's work on the project. No excluded individual, owner, or officer may perform work on site without exception. All persons working on site must have Workers' Compensation coverage on file with the NHDOL.

Attention of the Contractor is called to [NHDOT Standard Specifications 107.02](#) and [NH RSA 293- A:15.01](#) which, among other provisions, requires that all Contractors, including those based out-of state, register their business name with the [NH Secretary of State's Office](#) and remain active or in good standing throughout the period of participation.

- Required Contract Provisions (FHWA-1273)
- Disadvantaged Business Enterprise (DBE) Program Requirements (Standard Specification 103.06)
- Prompt Payment to Subcontractors ([Standard Specification 109.09](#))

- [41 CFR 60-4 Affirmative Action Requirements](#)
 - Applicable only to contracts or subcontracts in excess of \$10,000
- U.S. Department of Labor (USDOL) wage rates entitled “GENERAL WAGE DECISION” (as contained in the contract)
 - Does not apply to companies performing Davis-Bacon exempt work (such as testing, monitoring, and inspection services).
- b. Prime Contractors shall submit consent to sublet packages to the NHDOT **at least 5** working days prior to said subcontractor (or lower-tier subcontractor) performing work on site. On LPA projects, the Prime Contractor shall also provide a courtesy copy to the town or the town’s consultant, if applicable.
- c. LPA Projects Only: OFC is the sole approval authority for all LPA construction project sub approvals. Consents to sublet shall be submitted directly to the OFC.

2. FHWA Form 1273, Required Contract Provisions:

- a. The Prime Contractor shall insert in each subcontract all the stipulations contained in the Required Contract Provisions. Primes shall further require their inclusion in any lower-tier subcontract or purchase order that may in-turn be made. The Required Contract Provisions shall not be incorporated by reference in any case.
- b. In accordance with Section I, Paragraph 1, the Prime Contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. This shall include any unpaid wages found to be owed that is not paid by a subcontractor or lower-tier subcontractor.
- c. In accordance with Section I, Paragraph 3, “A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension/debarment or any other action determined to be appropriate by the contracting agency and FHWA.”

3. Certified Payrolls and Time Sheets:

- a. Submission Format: Payrolls, as required by FHWA Form 1273, shall be submitted electronically (email) as a pdf document to the NHDOT Contract Administrator, consistently named in the following format: Contractor’s name (abbreviated is acceptable) followed by the “week ending” date (yyyy/mm/dd). The Contractor’s and each Subcontractor’s payroll shall be submitted as separate, individual files.
Example: Plow Brothers Inc 2017-12-09
- b. Multiple Counties/States or Categories (Highway/Building/Heavy): Whenever contracts have multiple wage determinations, contractors shall indicate, on each payroll submission, which wage determination is applicable to the work. In the instance that there are multiple counties within the contract the payroll shall indicate which county the work was performed.
- c. Project Specific: Except for weekly gross pay, deductions, and weekly net pay, all information shown on certified payrolls shall be project specific. Please reference FHWA Form 1273 for additional payroll requirements and limitations.

- d. Time Sheets: Every contractor shall create and maintain time sheets for every worker performing work on the project. This includes salaried employees who perform work in a classification, either intermittently or full time. Time sheets shall record all work performed during the work week, both Federal and non-Federal, shop time, travel time considered work time, including any time considered “hours worked” as described under the Fair Labor Standards Act, Part 785. When requested, Contractors shall provide copies of time sheets to the OFC in support of certified payroll report information being provided. Time sheets, payroll records, and other basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of three years from final invoice for all laborers and mechanics working at the site of work.

4. Sign-In Sheets:

- a. State Managed Projects: The use of daily sign-in sheets is required for subcontractors performing asbestos abatement. The OFC may also direct the use of daily sign-in sheets on other State managed projects for any contractor who does not accurately report all workers performing work on site on their payrolls. The sign-in sheets shall be administered as described below.
- b. LPA Projects: The use of daily sign-in sheets is **mandatory** on all LPA projects. Every worker must sign in, on a daily basis, prior to performing work on site. The OFC Form 20- Daily Sign-In Record shall be used for this purpose. The Prime Contractor is responsible to ensure all sign-in sheet requirements are met and that sign-in sheets are turned in to the Contract Administrator on a daily basis. Contract Administrators shall review and initial sign-in sheets daily; cross matching what employees have indicated for their specific work classification and what employers are indicating on certified payroll reports, and also verifying employers of workers signing in have been approved to work by the NHDOT. Sign-in sheets shall be co-located with certified payrolls and filed in a 3-ring binder; newest sign-in sheets on top. Sign-in sheets are an inspection item.

5. Requesting Work Classifications, Classifying Workers, and/or Payment of Wages.

- a. The Prime Contractor is required to submit an additional request to the NHDOT for any classification of labor/equipment that they or their subcontractors shall be utilizing under the contract that is not contained in the Proposal’s Federal General Decision.
- b. Conformance submissions shall be in accordance with U.S. Department of Labor Memorandum No. 213, dated March 22, 2013. A copy of the Memorandum can be found at <http://www.wdol.gov/aam/aam213.pdf>.
- c. Unless otherwise instructed by the OFC, a SF 1444 shall be used for this purpose.
- d. Requests must be submitted to the NHDOT prior to any work being performed in the classification(s).
- e. Contractors who do not receive a USDOL conformance decision from the OFC within 45 days of submission should follow-up with the OFC.

- f. Once a decision is received from the USDOL, the OFC will notify the Prime Contractor. In cases when the USDOL stipulates a higher rate of pay than the one proposed by the Contractor, and the Contractor elects not to submit an appeal, restitution, if due, shall be paid to employees within 10 calendar days of being notified by the OFC. Restitution requirements of the NHDOT shall apply.
- g. Appeals shall be filed with the USDOL within 30 calendar days and a courtesy copy forwarded to the OFC at the same time. Restitution, if applicable, does not need to be paid during the time the appeal is under review by the USDOL.
- h. Contractors shall immediately inform the OFC whenever appeal decisions (including reconsideration requests) are received from the USDOL.
- i. In cases when a contractor indicates to the OFC he/she plans to appeal the USDOL decision but fails to provide the OFC proof of submission within 30 calendar days, the contractor shall comply with the original USDOL decision. The OFC will subsequently notify the Contractor that proof of an appeal was not received within 30 days and restitution, if applicable, must be paid to workers within 10 calendar days. Contractors who fail to provide restitution will be deemed “in non-compliance.”
- j. OFC payment release authorization letters (Okay to Pay letters) cannot be accomplished until all wage conformances have been deemed closed (USDOL responses have been received), any pending contractor wage appeals have been finalized, with restitution paid if applicable, and all Prompt Pay requirements have been met.
- k. Job Classifications Descriptions (Laboring Category): While most of skilled and unskilled crafts appearing in Wage Determinations are self-explanatory, the below classifications (not all inclusive) have been described by the NHDOT and are consistent with USDOL requirements. Questions involving correct classification of workers should be addressed prior to performing work on the project. Workers performing in these classifications, according to the description, will be classified by contractors accordingly:
 - 1) Asbestos Abatement: All work associated with asbestos abatement shall be classified as “Laborer,” unless said work involves piping that will be reinsulated. In these cases, “Asbestos Abatement Worker” shall be used.
 - 2) Blaster: Supervises and assists in locating, loading, and firing blast holes with explosives to break up hard materials. This work includes any of the following duties on-site: determining the spacing and depth of drilled holes; determining the amount of explosives, timing and placement of detonators; handling blasting materials in the work area; loading holes with detonators, primers and explosives; tamping and stemming holes; directing the placement of blasting mats or other flyrock controls; and detonating the charges.
 - 3) Brick Mason (also called Brick Layers): Builds and repairs walls, floors, paths/sidewalks, partitions, fireplaces, chimneys, and other structures with brick, pavers, precast masonry panels, concrete block, and other masonry materials, with or without mortar.
 - 4) Carpenter (Form Work Only): Formwork carpenters build the molds that retain wet concrete in the construction of bridges, foundations and other

concrete structures. This also includes pre-manufactured forms made of steel, wood or heavy plastic. Work under this class also includes bracing required to hold the forms in place.

- 5) Carpenter (Excluding Form Work): Involves all carpentry work not directly related to the pouring of concrete. This includes, without limitation, scaffolding, safety rail, platforms, walkways, stairs, demo containment, buildings, and bracing that is not in direct contact with concrete.

Note 1: Any work to dismantle where workers can simply “tear it apart” and where no safety concerns are present can be performed by Common or General Laborers.

Note 2: Questions involving these classes should be addressed prior to performing work on the project.

- 6) Drill Operator: Unless a hand-held tool, which can then be classified and performed as a Common/General Laborer, all drill work shall be performed in the “Drill Operator” classification. Conformances, if needed, shall be consistent with this requirement.
- 7) Guardrail Installer: Except for the “pounder,” each person performing guardrail installation work shall be classified as “Guardrail Installer.”
- 8) Ironworker (Reinforcing): Positions and secures steel bars to placement of reinforced concrete; determines number, size, shape, and location of reinforcing rods from plans, specifications, sketches and/or oral instructions; places and ties reinforcing steel using wire and pliers, sets rods in place, spaces and secures reinforcing rods. May bend steel rods with hand tools or operate a rod-bending machine; may reinforce concrete with wire mesh; may perform other related duties.
- 9) Ironworker (Structural): Performs any combination of the following duties to set beams, hang diaphragms, install bolts, torque bolts, test bolts, raise, place and unite girders, columns and other structural steel members to form completed structures or structure frameworks, working as a member of a crew; sets up hoisting equipment for raising and placing structural steel members; fastens steel members to cable of hoist using chain, cable or rope; signals worker operating hoisting equipment to lift and place steel members. Guides member using guy line (rope) or rides on member to guide it into position. Reads plans; rigs, assembles and erects structural members requiring riveting or welding. May perform other related duties.
- 10) Lead Abatement Worker: All work associated with lead abatement shall be classified as “Lead Abatement Worker”.
- 11) Stone Mason: Builds stone walls, as well as set stone exteriors and floors, lays/sets all cut stone, marble, slate, or stone, with or without mortar. They work with natural cut stone, such as marble, granite, limestone and artificial stone made of concrete, marble chips, or other masonry materials.
- 12) Sweeper/Broom Operators: Whenever Sweeper or Broom does not appear in the Wage Determination, contractors may use the Truck Driver classification for this service if the equipment used is of the over the road type (only). However, anytime the contract has an established classification/rate for

“Sweeper or “Broom,” this classification must be used and the minimum rate, as it appears in the contract, shall apply.

- 13) **Traffic Coordinator**: Performs sign placement and maintenance, including proper set up and relocation of construction sign packages and message boards; designs lane closures in accordance with local, state, and Federal requirements. Please do not confuse this classification with Flagger.

6. Prompt Pay to subcontractors and material suppliers: Prompt pay requirements are outlined in the [NHDOT Standard Specifications Section 109.09](#). Submissions are due to OFC at laborcompliance@dot.nh.gov no later than the 10th calendar day of each month.

- a. **State managed projects**: Contractors may use the OFC Form 18 or utilize their own document that contains the same required information unless otherwise instructed by the OFC.
- b. **LPA projects**: Contractors shall use the OFC Form 12.

Contractors may use the OFC Form 18 or utilize their own document that contains the same required information unless otherwise instructed by the OFC.

If no payments were made for a State managed or LPA project during the reporting period, contractors shall submit the appropriate certification form or email indicating “no payments made to subcontractors.”

7. Mandatory Training: Prime Contractors who fail to obtain an annual average (based on the calendar year) of at least 60% “Satisfactory” ratings on all OFC Compliance Field Audit Reports may be required to attend a mandatory 4-hour Contractor Compliance Training Class each spring (as scheduled by the OFC). A principal owner or executive officer of the company, and his/her payroll accountant shall attend.

- a. Compliance ratings will be averaged over all projects if a Prime Contractor has multiple projects.
- b. The OFC has at least two Contractor Compliance Training Seminars each year. Every contractor participating on Federal-aid construction projects is encouraged to attend.

8. Restitution: If required, restitution shall be performed in accordance with the OFC guidelines. The OFC Form 8 - Restitution Worksheet and Affidavit shall be used.

9. Corrective Action Plan

- a. Any Contractor, Subcontractor, or Lower-tier Subcontractor found to be in violation of Required Contract Provisions, made part of its contract may be suspended to work on existing or future projects and/or required to provide a Corrective Action Plan (CAP). Other sanctions may be imposed by the Department as appropriate.

Corrective action will include, but not limited to, the submission of certified payrolls or other records and reports necessary to verify compliance with the Provisions.

- b. Any Contractor, regardless of the tier, found to have repeatedly violated the Required Contract Provisions, may be required to complete 4-hours of Contractor Compliance Training conducted by the Department. When mandated, a principal owner and/or company executive and his/her payroll accountant shall attend Contractor Compliance Training must be completed before participation on future projects is authorized. This requirement does not relieve the Contractor of its obligations under the prime contract, nor does it prevent the Department from seeking other remedies or enforcement actions, as provided by the governing Rules and Laws and Federal Regulations.
- c. Companies will be notified of violations in writing. Actions the company must take to have participation privileges restored will be clearly indicated. Companies will also be advised that if a satisfactory response is not received within 7 days of the requested CAP, the company will be considered “non-responsive.” In cases where lower tier companies are non-responsive, matter will then be deferred to the Prime Contractor for payment of outstanding payments as provided in Required Contract Provisions.

10. Right to Withhold Payment: The Department may withhold payments claimed by the Contractor on account of:

- a. Failure of the Contractor to make payments to Subcontractors for materials or labor.
- b. Regulatory non-compliance or enforcement.
- c. Failure to comply with OFC Field Audit Report requirements.
- d. Failure to comply with monthly reporting requirements, as applicable.
- e. For projects with an On-The-Job Training (OJT) requirement, failure to submit OJT Form 1 - On-The-Job Training Acknowledgement and Statement of Intent within 30 days of the project start date.
- f. Failure to submit closeout documentation.
- g. All other causes that the Department reasonably determines negatively affect the State's interest.

11. Final Payment Release: Once final project records are transferred to the OFC, a final review shall be performed to determine compliance with the Federal provisions. Release of any final payment shall not be made to the Contractor until the OFC issues a payment release letter (Okay to Pay) certifying:

- a. All required payrolls, labor, and Equal Employment Opportunity (EEO) documentation have been received and deemed complete and correct.
- b. DBE requirements stipulated in the Contract and/or the Required Contract Provisions have been fulfilled.

12. Deposits in Escrow: Every attempt is made to complete compliance actions and resolve any disputes before the project is completed and final payments are made. Sometimes, however, corrective actions or disputes continue after completion and provisions must be made to ensure that funds are available to pay any wage restitution that is ultimately found due. In these cases, the project can proceed to final closing provided the Prime Contractor, from payments already provided him/her, provides written evidence a deposit of an amount equal to the potential liability for wage restitution and liquidated damages, if applicable, has been deposited in an escrow account. When a final decision is rendered, the Prime Contractor makes disbursements from the account in accordance with the decision. Deposit/escrow accounts are established for one or more of the following reasons:

- a. Where the parties have agreed to amounts of wage restitution that are due but the employer has not yet furnished evidence that all the underpaid workers have received their back wages. The deposit is equal to the amount of restitution due to workers lacking payment evidence. As proper documentation is received, an amount corresponding to the documentation is returned to the depositor. Amounts for any workers who cannot be located are held in the escrow account for three (3) years. Amounts remaining in the account not disbursed by the end of this three-year period shall be returned to the Prime Contractor.
- b. Where underpayments are suspected or alleged and an investigation has not yet been completed. The deposit is equal to the amount of wage restitution and liquidated damages, if applicable, that is estimated to be due. If the final determination of wages due is less than the amount estimated and placed in the escrow account, the escrow will be reduced to the final amount and the difference will be returned to the depositor. If the parties agree to the investigative findings, the amounts due to workers will be disbursed from the escrow account in accordance with the schedule of wages due. Amounts for unfound workers will be retained for a period of three (3) years and subsequently disbursed to the depositor as described above in Paragraph 12a.
- c. Where the parties are waiting for the outcome of an administrative hearing that has been or will be filed contesting a final determination of wages due. The deposit shall be equal to the amount of wage restitution and liquidated dates, if applicable, that have been determined to be due. Once the final decision is rendered, disbursements from the escrow account are made in accordance with the decision.

Please direct questions relating to any information in this document to the OFC at laborcompliance@dot.nh.gov . See the [OFC website](https://www.nh.gov/dot/org/administration/ofc/documents.htm) (<https://www.nh.gov/dot/org/administration/ofc/documents.htm>) for forms, documents, and other helpful material.

SPECIAL ATTENTION

Disadvantaged Business Enterprise (DBE)

Disadvantaged Business Enterprise (DBE) Policy. It shall be the policy of the New Hampshire Department of Transportation (NHDOT) to ensure nondiscriminatory opportunity for Disadvantaged Business Enterprises (DBE's) to participate in the performance of all contracts and subcontracts financed with Federal funds as specified by the regulations of the United States Department of Transportation (USDOT), Federal Highway Administration and as set forth below.

1. Policy. It is the policy of the United States Department of Transportation to ensure nondiscriminatory opportunity for disadvantaged business enterprises, as defined in 49 Code of Federal Regulation (CFR) Part 26, to participate in the performance of contracts and subcontracts financed in whole or in part with Federal funds. Consequently, the DBE requirements of 49 CFR Part 26 applies to this contract.

2. Disadvantaged Business Enterprise (DBE) Obligation. The State and its Contractor agree to ensure nondiscriminatory opportunity for disadvantaged business enterprises, as defined in 49 CFR Part 26, to participate in the performance of contracts and subcontracts financed in whole or in part with Federal funds. **Prime Contractors and subcontractors who further sublet must include this assurance in every subcontract:** *The Contractor, sub recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of USDOT-assisted contracts. Failure by any contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this Contract or such other remedy, as the NHDOT deems appropriate.*

3. Sanctions of Non-Compliance. The Contractor is hereby advised that failure of the Contractor, or any Subcontractor performing work under this Contract, to carry out the requirements set forth in paragraphs 1 and 2 above shall constitute a breach of contract and, after notification of the United States Department of Transportation, may result in termination of this Contract or such remedy as the State deems appropriate.

Overall Statewide DBE Goals. The NHDOT currently employs a race/gender neutral DBE policy to attain its overall statewide DBE goals. This means that unless otherwise stated in the Contract, the NHDOT relies on the voluntary cooperation of all contractors to utilize DBE's on every project, sufficient to meet or exceed the current statewide DBE goal. Although the majority of statewide DBE goals are currently voluntary, failure of the NHDOT to meet or exceed the overall statewide DBE goal as required by the Federal Highway Administration (FHWA), could necessitate placement of mandatory DBE participation requirements on all future statewide projects.

Disadvantaged Business Enterprise (DBE) Program Goals. The New Hampshire Department of Transportation is required to set an overall DBE goal for participation in all transportation related Federal-aid projects. The goal is determined following guidelines set forth in 49 CFR 26.45, and based on the availability of ready, willing and able DBE's who submitted bids for transportation related projects, compared as a percentage of all available contractors who submitted bids for transportation related projects during the same time period. The DBE goal may be adjusted to take into account other factors impacting DBE utilization, in an effort to narrowly tailor the overall DBE goal. The detailed goal setting methodology and current overall DBE goal may be viewed on the NHDOT website at www.nh.gov/dot.

Disadvantaged Business Enterprise (DBE) Definition. A DBE is defined as a business that is owned and controlled by one or more socially and economically disadvantaged person(s). For the purpose of this definition:

- A. “Socially and economically disadvantaged person” means an individual who is a citizen or lawful permanent resident of the United States and who is a Woman, Black, Hispanic, Portuguese, Native American, Asian American, or a member of another group, or an individual found to be disadvantaged by an individual determination of social disadvantage as described in 49 CFR 26 appendix E, determinations of social and economic disadvantage.
- B. “Owned and controlled” means a business which is:
 - (1) A sole proprietorship legitimately owned and controlled by an individual who is a disadvantaged person.
 - (2) A partnership, joint venture or limited liability Company in which at least 51% of the beneficial ownership interests is legitimately held by a disadvantaged person(s).
 - (3) A corporation or other entity in which at least 51% of the voting interest and 51% of the beneficial ownership interests are legitimately held by a disadvantaged person(s).

The disadvantaged group owner(s) or stockholder(s) must possess control over management, interest in capital, and interest in earnings commensurate with the percentage of ownership. Disadvantaged participation in a joint venture must also be based on the sharing of real economic interest and must include proportionate control over management, capital, and earnings, as above. If the disadvantaged group ownership interests are real, substantial and continuing and not created solely to meet the requirements of this program, a firm is considered a bona fide DBE.

Certified DBE Directory. The current New Hampshire Unified Disadvantaged Business Enterprise (DBE) Directory is available online at www.nh.gov/dot. This directory contains all currently certified DBE's available for work in New Hampshire, and is updated monthly. Only firm's listed in this directory are eligible for DBE credit on NH Federal-aid projects. If you have questions about DBE certification, or do not have access to the Internet, please call the DBE Coordinator at (603) 271-6612 for assistance.

Counting DBE Participation For Project Goals. In order for payments made to DBE contractors to be counted toward DBE goals, the DBE contractors must perform a commercially useful function (CUF). The DBE must be responsible for execution of the work of the contract and must carry out its responsibilities by actually performing, managing, and supervising the work involved, consistent with standard industry practices. This means that:

- A. The DBE must also be responsible for ordering its own materials and supplies, determining quantity and quality, negotiating price, installing (where applicable) and paying for the material itself;
- B. The DBE must perform work commensurate with the amount of its contract;
- C. The DBE's contribution cannot be that of an extra participant or a conduit through which funds are passed in order to obtain the appearance of DBE participation;
- D. The DBE must exercise responsibility for at least fifty percent of the total cost of its contract with its own work force;
- E. None of the DBE's work can be subcontracted back to the Prime Contractor, nor can the DBE employ the prime's, or other subcontractor's supervisors currently working on the project;

7/29/2013

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- F. The DBE's labor force must be separate and apart from that of the Prime Contractor or other subcontractors on the project. Transferring crews between primes, subcontractors, and DBE contractors is not acceptable;
- G. The DBE owner must hold a Public Works license and any other professional or craft licenses required for the type of work he/she performs on the project;
- H. The DBE may rent or lease, at competitive rates, equipment needed on the project from customary leasing sources or from other subcontractors on the project.

Allowable credit for payments made to DBEs for work performed. A contractor may take credit for payments made to a certified DBE that satisfies (CUF) requirements at the following rate.

- A. A DBE Prime Contractor; count 100% of the value of work performed by own forces, equipment and materials count towards DBE goals.
- B. An approved DBE subcontractor; count 100% of the value of work performed by the DBE's own forces, equipment and materials, excluding the following:
 - The cost of materials/supplies purchased from a non-DBE Prime Contractor.
 - The value of work provided by non-DBE lower tier subcontractors, including non-DBE trucking to deliver asphalt to a DBE contractor.
- C. A DBE owner-operator of construction equipment; count 100% of expenditures committed.
- D. A DBE manufacturer; count 100% of expenditures committed. The manufacturer must be a firm that operates or maintains a factory or establishment that produces on the premises the materials or supplies obtained by the Prime Contractor.
- E. A regular DBE dealer/supplier; count 60% of expenditures committed.
A regular dealer/supplier is defined as a firm that owns, operates, or maintains a store, warehouse or other establishment, in which the materials or supplies required for the performance of the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business. A person may be a dealer in such bulk items as petroleum products, steel, cement, gravel, stone or asphalt without owning, operating or maintaining a place of business, if the person both owns and operates distribution equipment for the products, by the means of a long term agreement, and not by a contract by contract basis.
- F. A DBE Broker; count for DBE credit only the fees or commissions charged for assistance in the procurement, and, fees and transportation charges for the delivery of materials or supplies required at the job site, but not the cost of materials procured. A broker is defined as any person(s) or firm who arranges or expedites transactions for materials or supplies, and does not take physical possession of the materials or supplies at their place of business for resale.
- G. A DBE renter of construction equipment to a contractor; count 20% of expenditures committed, with or without operator.
- H. A bona fide DBE service provider; count 100% of reasonable fees or commissions.
Eligible services include professional, technical, consultant, or managerial, services and assistance in the procurement of essential personnel, facilities, equipment, materials or supplies required for the performance of the contract. Eligible services also include agencies providing bonding and insurance specifically required for the performance of the contract.
- I. A trucking, hauling or delivery operation, count 100% of payments when trucks are owned, operated, licensed and insured by the DBE and used on the contract and, if applicable, includes the cost of the materials and supplies. 100% of payments when the DBE leases trucks from another DBE firm including an owner-operator. 100% of reasonable fees, or commissions, the DBE receives as a result of a lease arrangement for trucks from a non-DBE, including an owner-operator.
- J. Any combination of the above.

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Reporting Requirements for Payments Made To DBE's: On all Federal-aid projects, the Prime Contractor is required to report payments made to DBE's during the life of the contract, on a quarterly basis, for the periods covering January 1st–March 31st, April 1st–June 30th, July 1st–September 30th and October 1st–December 31st. The NHDOT will provide the Prime Contractor with a quarterly DBE payments report, detailing all DBE's subcontracted by the Prime Contractor, per project. The Prime Contractor shall report any payments made to DBE's during the requested reporting period. This documentation shall be submitted to the Office of Federal Compliance within the time period stated on the NHDOT quarterly request. Failure of the Prime Contractor to submit this information may result in the Department withholding progress payments.

Removal of Approved DBE From Transportation Related Project: Contractors may not terminate for convenience, any approved DBE subcontractor and perform the work with their own forces, without prior written consent from the NHDOT.

MUNICIPAL PROJECTS ONLY: Timely submission of invoices to Municipalities: Prime Contractors must submit all invoices received for satisfactorily completed work, from any subcontractor/lower-tier subcontractor/material supplier, to Municipalities for payment within 30 days of receipt.

03/21/22
SSD: 03/01/16

SPECIAL PROVISION

SECTION 107 -- LEGAL RELATIONS AND RESPONSIBILITIES TO PUBLIC

SUBSECTION 107.01 – LAWS TO BE OBSERVED

The intent of this Special Provision is to clarify Bulletin Board requirements.

Add to 107.01's third paragraph titled *Bulletin Board Requirements* the following:

New Hampshire Department of Transportation Bulletin Board Diagram

(Revision 3-8-2022)

NHDOT PROJECT: (PROJECT NAME) (PROJECT NUMBER)

Federal Posters				State Posters			
1 Equal Employment Opportunity (EEO) is The Law (OFCCP-1420) Rev. 11/09	2 "EEO is the Law" Poster Supplement 9/15	3 NOTICE Federal-Aid Project (FHWA-1022) Rev. 5/15	4 Employee Rights Under the Davis Bacon Act (WH-1321) [substitute for FHWA-1495] Rev. 10/17	9 Protective Legislation Law (Pay Day Notice) Rev. 2-1-18	10 The Whistleblowers' Protection Act (RSA 275-E Requirement) Rev. 2-1-18	11 The Workers' Right to Know (Toxic Substances) Rev. 2-1-18	12 Unemployment Notice (NH Employment Security Office) Rev. 1/12
5 Employee Rights and Responsibilities Under the Family & Medical Leave Act (WH-1420) Rev. 4/16	6 Employee Polygraph Protection Act (WH-1462) Rev. 7/16	7 Your Rights Under Uniformed Services Employment & Reemployment Rights Act (USERRA) Rev. 4/17	8 Job Safety & Health It's the Law (OSHA-3165) <small>Minimum Size: 8 1/2 X 14</small> Rev. 2019	13 Workers' Compensation (from Insurance Provider) Rev. 2-1-2018	14 Criteria to Establish an Employee or Independent Contractor Rev. 2-1-2018	15 Equal Pay RSA 275:37 Rev. 6-25-18	
Other Required Postings							
16 24-Hour Emergency Contact Information	17 Contractor's EEO Officer Appointment Letter (must have all contact information)	18 Contractor's EEO & Harassment Policy Statement	19 NHDOT Federal Compliance Officer Contact Information (OFC Poster 1)	20 Davis-Bacon Wage Rates	21 Additionally Approved Wage Rates		

SUPPLEMENTAL SPECIFICATION

AMENDMENT TO SUBSECTION 109 – MEASUREMENT AND PAYMENT

*The purpose of this Supplemental Specification is to amend the
Rental Rate Blue Book for Construction Equipment requirements.*

Amend 109.04.4.4 to read:

109.04.4.4 Equipment and Plant.

For any Contractor-owned machinery or special equipment (other than small tools), the use of which is approved by the Engineer, the hourly rate will not exceed that determined from the Rental Rate Blue Book online at “equipmentwatch.com” used in the following manner:

- a. The hourly equipment rental rate R will be determined by formula as follows:

$$R = (A \times B \times C) + D$$

Where A = Monthly rate divided by 176. The listed weekly, hourly, and daily rates will not be used.

B = Regional adjustment factor for New Hampshire.

C = Model year adjustment for the year of equipment manufacture.

D = Estimated operating costs per hour.

This formula is equal to the **FHWA Rate** that is shown in the Rental Rate Blue Book at “equipmentwatch.com”.

- b. The number of hours to be paid for will be the number of hours that the equipment or plant is actually used on a specific Force Account activity and, in addition, shall include the time required to move the equipment to the location of such Force Account activity and return it to the original location or to another location requiring no more time than that required to return it to its original location, except that moving time will not be paid for if the equipment is used during the move on work other than the specific Force Account activity.
- c. The “Rate Effective Date” to be selected online will be the actual date that the work was performed.
- d. Overtime shall be charged at the same rate indicated in subparagraph (a) above.
- e. The estimated operating costs per hour will be used for each hour that the equipment or plant is in operation on the Force Account work. Operating costs are not reimbursable for the time the equipment is idle.
- f. The maximum rental period to be paid for per day shall not exceed eight hours unless the equipment operates for eight or more hours.
- g. If equipment is idled solely due to the responsibility of the Department, then the Contractor may be compensated for such idle equipment at 50% of the rate defined in “A” above (monthly rate divided by 176).
- h. The rates established above shall include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs, overhauls, and maintenance of any kind, depreciation, storage, field and home office overhead, profits, insurance, and all incidentals.

The Contractor shall provide the Engineer with the following: the manufacturer’s name, equipment type, year of manufacture, model number, type of fuel used, horsepower rating, attachments required, together with their size or capacity, and any further information necessary to ascertain the proper rate. Unless otherwise specified, manufacturer’s ratings and manufacturer approved modifications shall be used to classify equipment for the determination of applicable rental rates. Equipment which has no direct power unit shall be powered by a unit of at least the minimum rating recommended by the manufacturer. The Contractor is not required to purchase an online subscription, as the equipment rental rates will be provided by the Department.

Equipment used by the Contractor shall be in good working condition and shall be of suitable size and suitable capacity required for the work to be performed. The rate for the basic equipment with the appropriate attachments shall include only the rate for the combined equipment necessary to perform the Extra Work. In case the Contractor elects to use equipment of a higher rental value than that suitable for the work, payment will be made at the rate applicable to the suitable equipment. The equipment actually used and the suitable equipment to be paid for will be recorded as a part of the record for Force Account work. The Engineer will determine the suitability of the equipment. If there is a differential in the rate of pay of the operator of oversize or higher rate equipment, the rate paid for the operator will likewise be that for the suitable equipment.

Payable time periods will not include:

- (1) time elapsed while equipment is inoperative due to breakdowns,
- (2) time spent repairing equipment, or
- (3) time elapsed 24 hours after the Engineer has advised the Contractor that the equipment is no longer needed.

If a piece of equipment is needed that is not listed in the above stated rental rate guide, a rate will be established by the Engineer in writing before the equipment is used. The Contractor may furnish any cost data which might assist the Engineer in the establishment of such rate.

If the Contractor does not own a specific type of equipment or if the Department orders the Contractor to utilize a specific type of equipment and the equipment must be obtained by rental, the Contractor shall inform the Contract Administrator of the need to rent the equipment and of the rental rate for that equipment before using it on the work. Provided that the rate is reasonable, the Contractor will be paid the actual rental cost for the equipment for the time that the equipment is actually used to accomplish the work, plus the cost of moving the equipment onto and away from the job. A 5 percent mark-up will be added to the actual rental cost, provided the total cost does not exceed the *Rental Rate Blue Book for Construction Equipment* rate (in accordance with 109.04.4.4(a)). The Contractor shall provide a copy of the paid receipt or canceled check for the rental expense incurred.

Transportation charges for each piece of equipment, whether owned or rented, moved to and from the site of the work will be paid provided:

- (1) the equipment is obtained from the nearest approved source,
- (2) the return charges do not exceed the delivery charges,
- (3) haul rates do not exceed the established rates of licensed haulers,
- (4) charges are restricted to those units or equipment not already available and not on or near the Project, and
- (5) equipment is not used elsewhere on the project.

REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Non-segregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
- XI. Certification Regarding Use of Contract Funds for Lobbying
- XII. Use of United States-Flag Vessels:

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work

performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (see 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action

within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide

sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants /

Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment:

The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurances Required:

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

- (1) Withholding monthly progress payments;
- (2) Assessing sanctions;
- (3) Liquidated damages; and/or
- (4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than \$10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway

Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages (29 CFR 5.5)

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program. Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding (29 CFR 5.5)

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics,

including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records (29 CFR 5.5)

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency.

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or

subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under 29 CFR 5.5(a)(3)(ii), the appropriate information is being maintained under 29 CFR 5.5(a)(3)(i), and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 231.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees (29 CFR 5.5)

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State

Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the

corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

9. Disputes concerning labor standards. As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor

set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility (29 CFR 5.5)

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph 1 of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph 1 of this section, in the sum currently provided in 29 CFR 5.5(b)(2)* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1 of this section. 29 CFR 5.5.

* \$27 as of January 23, 2019 (See 84 FR 213-01, 218) as may be adjusted annually by the Department of Labor; pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990).

3. Withholding for unpaid wages and liquidated damages.

The FHWA or the contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 2 of this section. 29 CFR 5.5.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs 1 through 4 of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1 through 4 of this section. 29 CFR 5.5.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" in paragraph 1 of Section VI refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
- (2) the prime contractor remains responsible for the quality of the work of the leased employees;
- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
- (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or

equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance

with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of \$150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.326.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders

or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.326.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

1. Instructions for Certification – First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant

who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov/>). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;.

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

3. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is

submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contractor). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov/>), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(a) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(b) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(c) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier

subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

XII. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.
2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS
PREFERENCE FOR APPALACHIAN DEVELOPMENT
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS
ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B)**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

Training Special Provisions

This Training Special Provision supersedes subparagraph 7b of the Special Provision entitled “Specific Equal Employment Opportunity Responsibilities”, and is in implementation of 23 U.S.C. 140(a).

As part of the Contractor's Equal Employment Opportunity Affirmative Action Program, training shall be provided as follows:

The Contractor shall provide on-the-job training aimed at developing full journeymen in the type of trade or job classification involved.

The number of trainees to be trained under the special provisions will be ____ (amount to be filled in by State highway department).

In the event that a contractor subcontracts a portion of the contract work, he shall determine how many, if any, of the trainees are to be trained by the subcontractor, provided, however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also insure that this training special provision is made applicable to such subcontract. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.

The number of trainees shall be distributed among the work classifications on the basis of the contractor's needs and the availability of journeymen in the various classifications within a reasonable area of recruitment. Prior to commencing construction, the contractor shall submit to the State highway agency for approval the number of trainees to be trained in each selected classification and training program to be used. Furthermore, the contractor shall specify the starting time for training in each of the classifications. The contractor will be credited for each trainee employed by him on the contract work who is currently enrolled or becomes enrolled in an approved program and will be reimbursed for such trainees as provided hereinafter.

Training and upgrading of minorities and women toward journeymen status is a primary objective of this Training Special Provision. Accordingly, the contractor shall make every effort to enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent that such persons are available within a reasonable area of recruitment. The contractor will be responsible for demonstrating the steps that he has taken in pursuance thereof, prior to a determination as to whether the contractor is in compliance with this Training Special Provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which he has successfully completed a training course leading to journeyman status or in which he has been employed as a journeyman. The contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used the contractor's records should document the findings in each case.

The minimum length and type of training for each classification will be as established in the training program selected by the contractor and approved by the State highway agency and the Federal Highway Administration. The State highway agency and the Federal Highway Administration shall approve a program if it is reasonably calculated to meet the equal employment opportunity obligations of the contractor and to qualify the average trainee for journeyman status in the classification concerned by the end of the training period. Furthermore, apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved but not necessarily sponsored by the U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training shall also be considered acceptable provided it is being administered in a manner consistent with the equal employment obligations of Federal-aid highway construction contracts. Approval or acceptance of a training program shall be obtained from the State prior to commencing work on the classification covered by the program. It is the intention of these provisions that training is to be provided in the construction crafts rather than clerk-typists or secretarial-type positions. Training is permissible in lower level management positions such as office engineers, estimators, timekeepers, etc., where the training is oriented toward construction applications. Training in the laborer classification may be permitted provided that significant and meaningful training is provided and approved by the division office. Some offsite training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

Except as otherwise noted below, the Contractor will be reimbursed 80 cents per hour of training given an employee on this contract in accordance with an approved training program. As approved by the engineer, reimbursement will be made for training persons in excess of the number specified herein. This reimbursement will be made even though the contractor receives additional training program funds from other sources, provided such other does not specifically prohibit the contractor from receiving other reimbursement. Reimbursement for offsite training indicated above may only be made to the contractor where he does one or more of the following and the trainees are concurrently employed on a Federal-aid project; contributes to the cost of the training, provides the instruction to the trainee or pays the trainee's wages during the offsite training period.

No payment shall be made to the Contractor if either the failure to provide the required training, or the failure to hire the trainee as a journeyman, is caused by the contractor and evidences a lack of good faith on the part of the contractor in meeting the requirements of this Training Special Provision. It is normally expected that a trainee will begin his training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project as long as training opportunities exist in his work classification or until he has completed his training program. It is not required that all trainees be on board for the entire length of the contract. A contractor will have fulfilled his responsibilities under this Training Special Provision if he has provided acceptable training to the number of trainees specified. The number trained shall be determined on the basis of the total number enrolled on the contract for a significant period.

Trainees will be paid at least 60 percent of the appropriate minimum journeyman's rate specified in the contract for the first half of the training period, 75 percent for the third quarter of the training period, and 90 percent for the last quarter of the training period, unless apprentices or trainees in an approved existing program are enrolled as trainees on this project. In that case, the appropriate rates approved by the Departments of Labor or Transportation in connection with the existing program shall apply to all trainees being trained for the same classification who are covered by this Training Special Provision.

The Contractor shall furnish the trainee a copy of the program he will follow in providing the training. The contractor shall provide each trainee with a certification showing the type and length of training satisfactorily completed.

The contractor will provide for the maintenance of records and furnish periodic reports documenting his performance under this Training Special Provision.

[40 FR 28053, July 3, 1975. Correctly redesignated at 46 FR 21156, Apr. 9, 1981]

NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION POLICY

Failure to complete the Training Special Provision requirement: When a Contractor fails to complete this Training Special Provision requirement and fails to make and document good faith efforts to fulfill the requirements of this provision, the New Hampshire Department of Transportation Office of Federal Compliance (OFC) shall notify the Prequalification Committee in writing. The Prequalification Committee will inform the Contractor of the OFC notification and require the Contractor to submit a Corrective Action Plan to the OFC. Failure to provide an acceptable Corrective Action Plan could lead to partial or full suspension consistent with the prequalification rules.

41 CFR 60-4 Affirmative Action Requirements

41 CFR 60-4.2 Solicitations

Notice of Requirement for Affirmative Action To Ensure Equal Employment Opportunity (Executive Order 11246)

The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.

The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

	Goals for minority participation for each trade	Goals for female participation in each trade
<u>STANDARD METROPOLITAN STATISTICAL AREAS (SMSA)</u>		
SALEM-PLAISTOW	4.0	6.9
MANCHESTER-NASHUA	0.7	6.9
<u>NON-SMSA COUNTIES</u>		
COOS, GRAFTON, SULLIVAN	0.8	6.9
BELKNAP, MERRIMACK, CARROLL, STRAFFORD	3.6	6.9
CHESHIRE	5.9	6.9
ROCKINGHAM	4.0	6.9
HILLSBOROUGH	0.7	6.9

These goals are applicable to all contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The Contractor's compliance with Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

The Contractor shall provide written notification to the Director of the Office of Federal contract compliance programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation addressed as follows:

Director
Federal Contract Compliance Program
US Department of Labor
JFK Building, Room 1612-C
Boston, MA 02203

The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed as noted within in the Contract Special Provisions for Affirmative Action to ensure Equal Employment Opportunity.

STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246)

1. As used in these specifications:

a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;

b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;

c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

d. "Minority" includes:

(i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);

(ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);

(iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and

(iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7 a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

Source 41 CFR 60-4.3 Equal Opportunity Clauses

b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.

d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.

f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and

Subcontractors with whom the Contractor does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR part 60-3.

l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and

Source 41 CFR 60-4.3 Equal Opportunity Clauses

timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).

10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, sexual orientation, gender identity, or national origin.

11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

(b) The notice set forth in 41 CFR 60-4.2 and the specifications set forth in 41 CFR 60-4.3 replace the New Form for Federal Equal Employment Opportunity Bid Conditions for Federal and Federally Assisted Construction published at 41 FR 32482 and commonly known as the Model Federal EEO Bid Conditions, and the New Form shall not be used after the regulations in 41 CFR part 60-4 become effective.

[43 FR 49254, Oct. 20, 1978; 43 FR 51401, Nov. 3, 1978, as amended at 45 FR 65978, Oct. 3, 1980; 79 FR 72995, Dec. 9, 2014]

The United States Department of Transportation (USDOT)
Standard Title VI/Non-Discrimination Assurances
DOT Order No. 1050.2A

APPENDIX A

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration (FHWA), as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.
3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.
4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the FHWA to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the FHWA, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the FHWA may determine to be appropriate, including, but not limited to:
 - a. withholding payments to the contractor under the contract until the contractor complies; and/or
 - b. cancelling, terminating, or suspending a contract, in whole or in part.
6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment,

The United States Department of Transportation (USDOT)

Standard Title VI/Non-Discrimination Assurances

DOT Order No. 1050.2A

unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the FHWA may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

The United States Department of Transportation (USDOT)
Standard Title VI/Non-Discrimination Assurances
DOT Order No. 1050.2A

APPENDIX E

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

Pertinent Non-Discrimination Authorities:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures Non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of Limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

NOTICE TO ALL BIDDERS

In accordance with the Section "NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)", the New Hampshire Department of Transportation has the authority and responsibility to notify the Office of Federal Contract Compliance Program of the United States Department of Labor if they become aware of any possible violations of Executive Order 11246 and 41 Code of Federal Regulation Chapter 60.

The Office of Federal Contract Compliance Programs is the sole authority for determining compliance with Executive Order 11246 and 41 Code of Federal Regulation Chapter 60 and the Contractor should contact them regarding related compliance issues.

NOTICE TO ALL BIDDERS

To report bid rigging activities call:

1-800-424-9071

To the U.S. Department of Transportation (DOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., Eastern Time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

TE/CMAQ Program
Construction Proposal

It is proposed:

To execute the Contract and begin work within 10 days from the date specified in the "Notice to Proceed" and to prosecute said work so as to complete the _____ and its appurtenances on or before _____.

To furnish a Contract Bond in the amount of 100 per cent of the Contract award, as security for the construction and completion of the _____ and its appurtenances in accordance with the Plans, Specifications and Contract. The Contractor's attention is called to Section 103.05 of the NHDOT Standard Specifications for road and bridge construction which provides the following guidance: unless specifically waived in the Proposal, upon execution of the Contract, the successful Bidder shall furnish the Agency a surety bond or bonds equal to the sum of the Contract amount. The form of the bond(s) shall be acceptable to the Agency and the bonding Company issuing the bond(s) shall be licensed to transact business in the State of New Hampshire, and...

To certify that the Bidder, in accordance with the requirements of 103.06 and 108.01, intends to sublet, assign, sell, transfer or otherwise dispose of one or more portions of the work and (1) has contacted the appropriate listed disadvantaged businesses and afforded such disadvantaged businesses equal consideration with non-disadvantaged business for all work the Bidder currently proposes to sublet, assign, sell, transfer or otherwise dispose of, (2) may contact additional appropriate disadvantage businesses and will afford such businesses equal consideration with non-disadvantaged businesses for all work the Bidder in the future proposes to sublet, assign, sell, transfer or otherwise dispose of, and (3) will complete enclosed "DISADVANTAGED BUSINESS ENTERPRISE COMMITMENT FORM" and Letters of Intent for each disadvantaged business. The name of the person in the Bidder's organization who has been designated as the liaison officer to administer the disadvantaged business enterprise program is:

(To be completed by the Bidder)

To guarantee all of the work performed under this Contract to be done in accordance with the Specifications and in good and workmanlike manner, and to renew or repair any work which may be rejected, due to defective materials or workmanship, prior to final completion and acceptance of the project.

Enclosed herewith find certified check or bid bond in the amount of _____ dollars (\$ _____), made payable to the Agency as a proposal guarantee which it is understood will be forfeited in the event the Contract is not executed, if awarded by the Agency to the undersigned.

Certification Regarding Debarment, Suspension, and Other Responsibility Matters – Primary Covered Transactions.

(1). The prospective primary participant certifies to the best of its knowledge and belief, that it and all its principals: (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency; (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or Local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property; (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or Local) with commission of any of the offenses enumerated in Paragraph (1) (b) of this certification and (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or Local) terminated for cause or default. (2). Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Contract Affidavit

I/We declare under penalty of perjury under the laws of the United States and the State of New Hampshire that, in accordance with the provisions of Title 23 USC, Section 112(c), have not either directly or indirectly entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this Proposal.

Dated: _____

(If a firm or individual)

Signature of Bidder _____

By _____

Address of Bidder _____

Names and Addresses of Members of the Firm:

(If a Corporation)

Signature of Bidder _____

Title _____

By _____

Business Address _____

Incorporated under the laws of the State of _____

Names of Officers:

President _____

Name

Address

Secretary _____

Name

Address

Treasurer _____

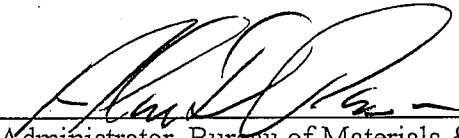
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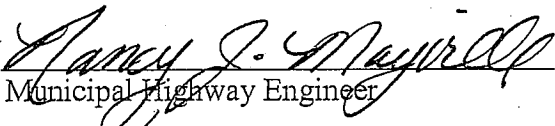
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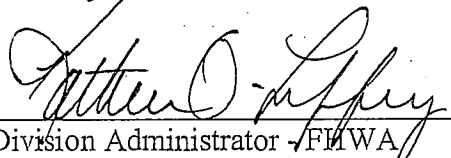
APPENDIX A

QUALITY ASSURANCE PROGRAM FOR MUNICIPALLY MANAGED NHDOT PROJECTS

**NHDOT Quality Assurance Program for
Municipally Managed Federal-aid Projects**

Submitted by:  11-19-10
Administrator, Bureau of Materials & Research Date

Submitted by:  11-19-10
Municipal Highway Engineer Date

Approved by:  11-24-10
Division Administrator - FHWA Date

NHDOT Quality Assurance Program Municipally Managed Federal-aid Projects

The legislation establishing the Federal-aid Highway program, Title 23 United States Code, requires that Federal-aid projects not on the National Highway System be constructed in accordance with State construction standards (23 U.S.C. 109(p)). The New Hampshire Department of Transportation (NHDOT) has established this quality assurance program to address the materials portion of this requirement for Federal-aid Municipally Managed projects.

This document refers to items by numbers used in the NHDOT Standard Specifications for Road and Bridge Construction and it is intended that Municipally Managed projects use these specifications unless the NHDOT approves an equivalent specification.

It is the policy of NHDOT to provide assurance that the materials and workmanship incorporated into Municipally Managed highway projects conform, or substantially conform, to the requirements of the plans and specifications including approved changes. To accomplish this, the quality assurance program provides for an acceptance program, an independent assurance program, a laboratory qualification program, and a materials certificate as follows:

1. DEFINITIONS

- Acceptance Samples and Tests – All of the samples and tests performed by qualified testing personnel used for determining the quality and acceptability of materials and workmanship which have been or are being incorporated into the project. Acceptance tests determine the conformance of the material to the correct specifications. The results are used to determine acceptance or rejection and may be used to adjust the level of pay for the material.
- Independent Assurance Program – Independent samples and tests, or observation of test procedures, performed by Materials and Research (M&R) personnel who do not normally have direct responsibility for quality control or acceptance sampling and testing. These tests are used for the purpose of making independent checks of the reliability of the results obtained in acceptance sampling and testing and not for determining the quality or acceptability of the materials and workmanship directly.
- Method Specifications - Specifications that direct the contractor to use specified materials in definite proportions and specific types of equipment and methods to place the material. Each step is usually directed by the Municipality.
- QC/QA Specifications - A combination of end result specifications and materials and methods specifications. The contractor is responsible for QC (process control), and the municipality is responsible for acceptance of the product. QA specifications are statistically based specifications that use methods such as random sampling and lot-by-lot testing that let the contractor know if the operations are producing an acceptable product and establish the pay for the item. This program includes sampling and testing requirements for QC/QA hot mix

asphalt and concrete items that use random sampling and testing to determine if specified properties are met and to establish the final pay.

- Quality Control – This constitutes the inspection of equipment and the material sampling and testing done by the Contractor to control his operations.
- Qualified Laboratories – A laboratory that provides calibrated equipment for the required test methods and has been accredited by AASHTO.
- Qualified Sampling and Testing Personnel – For soil and asphalt materials, qualified personnel are those who have been certified in the sampling and testing to be performed by the NorthEast Transportation Training & Certification Program (NETTCP) or a person working under the direct supervision of an NETTCP technician certified in the appropriate test. For concrete materials, qualified personnel are those who have been certified in the concrete sampling and testing to be performed by either the American Concrete Institute (ACI) or the NETTCP or a person working under the direct supervision of an ACI or NETTCP certified technician.
- Verification Tests – Samples tested to verify certified properties.

2. SAMPLING AND TESTING PROGRAM

- When the term Municipality or NHDOT is used, it is understood that an authorized firm working on behalf of the NHDOT or the Municipality may perform the action.
- Administration and coordination of the sampling and testing program is the responsibility of the Municipality. All acceptance sampling and testing shall be the responsibility of the municipality managing the construction project.
- The Municipality shall develop a Quality Assurance Program for each project, based on this document, and submit it to NHDOT for documentation prior to the contractor starting construction work. The program shall include the quantity of each item in the project that requires sampling and testing, the number of acceptance tests required, an anticipated schedule for testing, the name and contact information for the party conducting the acceptance tests, and it shall also indicate sources of materials including production plants for ready mix concrete, hot mix asphalt (HMA), precast concrete, and structural steel. See Appendix A for a sample documentation format.
- The municipality must contact NHDOT when work is planned on any item requiring NHDOT independent assurance sampling and testing. Contact the following individuals two weeks in advance of the start of work to establish communication with NHDOT and to provide contact information for the project and the Town:
 - Soils and Concrete Items – Concrete and Soils Supervisor 271 -1656
 - Asphalt Items – Bituminous Supervisor 271-1663
- All acceptance tests shall be performed by qualified sampling and testing personnel at the site using calibrated equipment or at a qualified laboratory.
- It shall be the responsibility of the municipality to request and verify that the sampling and testing personnel are NETTCP, ACI or PCI certified as appropriate for the tests being performed.

- All equipment used for acceptance testing shall have been calibrated within the period prescribed by the respective AASHTO or ASTM method as demonstrated by documentation.
- All acceptance test reports shall include the test locations to allow further testing, if necessary. The required frequency of testing is as shown in the tables in this document.
- The sampling location of the acceptance testing shall be as shown in the tables contained in this document.
- All Independent Assurance sampling and testing shall be the responsibility of NHDOT. The NHDOT conducts a system-based Independent Assurance Program, meaning that each acceptance tester must participate in at least one IA test per calendar year for each material test performed (see tables). The IA test will be done during or prior to the project work. If an acceptance tester has already participated in an Independent Assurance test for a material property in the current calendar year on another project, then the testing program for a project does not have to include an Independent Assurance test for that property. The acceptance tester must be present when Independent Assurance sampling is performed.
- The municipality shall provide a project materials test summary that includes test designation number, the number of tests performed, the name of the acceptance testers, the testers' certification numbers and date of IA test for each tester for each performed test. See Quality Assurance Program Information sheet. This document will become part of the project final records.
- The Independent Assurance personnel shall make a prompt comparison of test results and thereafter investigate, resolve, and document the source of any discrepancies between the results of the assurance and acceptance tests, which are outside the acceptable deviations. See the table of acceptable deviations in Appendix B.
- HMA quantities of less than 500 tons used on roadways will be accepted by field inspection of the work and certification from the producer that it is a NHDOT approved mix design, that it meets the appropriate NHDOT specification, and that it is from a NHDOT certified hot mix asphalt (HMA) plant. No acceptance sampling and testing is required. The municipality is responsible for obtaining the certifications and the certifications for tack coat and crack sealant.
- All HMA quantities used on trails and sidewalks will be accepted by field inspection of the work and certification from the producer that it is a NHDOT approved mix design, that it meets the appropriate NHDOT specification, and that it is from a NHDOT certified hot mix asphalt (HMA) plant. No acceptance sampling and testing is required. The municipality is responsible for obtaining the certifications.
- All structural concrete mix designs shall be approved NHDOT mix designs and the material shall be produced at a NHDOT approved concrete plant and delivered in NHDOT approved mixing trucks.
- All precast concrete items and structures less than or equal to 20' in span along the centerline of roadway, except full depth deck slabs, will be accepted based on the manufacturer's certification that a NHDOT approved mix design was used, that it meets the appropriate NHDOT specification, and that it is from a NHDOT approved plant. The municipality is responsible for obtaining these certifications.

- All items, except natural materials, not in the Materials Frequency of Sampling and Testing Tables in this document will be accepted either:
 - Based on the contractor's or producer's certification that it meets the appropriate NHDOT specification, or
 - Based on inclusion in the NHDOT Qualified Products List & Certificate of Compliance, whichever is required by Specifications.
 - In addition to the certification, plastic pipe shall be supplied by a National Transportation Products Evaluation Program compliant manufacturer.

It is the responsibility of the municipality to obtain the necessary certifications.

- All natural materials, such as granite, fieldstone, and mulch, not requiring testing or certification in the NHDOT specifications will be accepted based on the municipality's field inspection.
- Contractors are responsible for their own quality control. This includes maintaining production equipment in good working order and all sampling and testing necessary to confirm that all material being produced meets specifications.
- Non-NHDOT laboratories, if used in dispute resolution sampling and testing, shall be accredited in the testing to be performed by the AASHTO Accreditation Program.
- The municipality shall prepare a Materials Certificate and submit it to the NHDOT for each Federal-aid municipally-managed construction project (See Appendix C for sample Certificate).

Frequency of Sampling & Testing – Soil Items Method Specifications

Item	Description	Property	Test Method	Test Location & Frequency	
				Acceptance	Independent Assurance
203	Embankment	Compaction	AASHTO T191, AASHTO T310, or Test Strip	In place 1/2,000 CY	*
209	Granular Backfill, Bridge	Compaction	AASHTO T191, AASHTO T310, or Test Strip	In Place 2/Abutment or Substructure Location	*
		Gradation	AASHTO T27	In Place 1/Structure/Source	None Required
304.1 through 304.6	Select Materials	Compaction	AASHTO T191, AASHTO T310, or Test Strip	In Place 1/1,200 CY	*
		Gradation	AASHTO T27	In Place 1/4,000 CY	*
		Wear	AASHTO T 96, Grading A	1/Source	None Required
306	Reclaimed Stabilized Base	Compaction	Control Strip	In Place 1/2,000 SY	*
		Gradation	AASHTO T27	In Place 1/4,000 SY	*
508	Structural Fill	Compaction	AASHTO T191 or AASHTO T310	In Place 1/Two Lifts/ Location	*
		Gradation	AASHTO T27	In Place 1/Structure/Source	None Required

* Except if completed on another project during the current calendar year, the materials program for a project must include the acceptance tester's participation in one Independent Assurance test for each material test performed.

**Frequency of Sampling & Testing
Asphalt Items, Method Specification**

Item	Description	Property	Test Method	Test Location and Frequency		
				Acceptance	Independent Assurance	Verification Test**
403	Asphalt Cement HMA > 500 Tons Placed on Roadway*	Relevant AASHTO	AASHTO M320		None Required	Asphalt Plant 1/Project
	HMA > 500 Ton Quantity Placed on Roadway*	Compaction	AASHTO T166	In Place 2 Cores/ Lane Mile	None Required	
		Gradation	AASHTO T30 and T164	At Plant 1/750 Tons	***	
		Asphalt Content	AASHTO T164	At Plant 1/750 Tons	***	
	Emulsified Asphalt	Relevant AASHTO	AASHTO M320		None Required	Asphalt Plant 1/Project
410	Tack Coat	Relevant AASHTO	Certification		None Required	
413	Crack Sealant	Relevant AASHTO	Certification		None Required	

* If the project HMA method specification quantity placed on a roadway is ≤ 500 tons, then the AC content and HMA are accepted by certification. If the HMA method specification quantity is not used on a roadway, then the AC content and HMA are accepted by certification.

** The municipality shall take samples and furnish them to the NHDOT laboratory in Concord for testing

*** Except if completed on another project during the current calendar year, the materials program for a project must include the acceptance tester's participation in one Independent Assurance test for each material test performed.

**Frequency of Sampling & Testing
Concrete Items, Method Specifications**

Item	Description	Property	Test Method	Test Location and Frequency	
				Acceptance	Independent Assurance*
520, 608, 615, 616	Structural Concrete, All Classes	Strength	AASHTO T22 & T23	2/200 CY Min. 2/Placement	From Any Class
		Air Content	AASHTO T152	1/50 CY	From Any Class
		Slump	AASHTO T119	1/50 Cy	From Any Class
All	Non- Stressed Precast \leq 20' Span	Strength	AASHTO T22 & T23	None Required Accepted by Certification	None Required
		Air Content	AASHTO T152		
		Slump	AASHTO T119		
All	Precast $>$ 20' Span & All Deck Slabs & Prestressed Precast	Strength	AASHTO T22 & 23	2/Member, Bed, or Lot	None Required
		Air Content	AASHTO T152	1/Member, Bed, or Lot	None Required
		Slump	AASHTO T119	1/Member, Bed, or Lot	None Required
	Deck Slabs & Prestressed Precast Items	Rapid Chloride Permeability	AASHTO T277	1/Member, Bed, or Lot	None required

*Except if completed on another project during the current calendar year, the materials program for a project must include the acceptance tester's participation in one Independent Assurance test for each material test performed.

Structural Steel Inspection

Item	Description	Structural Steel Fabrication Inspection
550	Structural Steel	An inspection program shall be developed and implemented that includes all the provisions in the current section 550 of the NHDOT Standard Specifications for Road and Bridge Construction pertaining to shop inspection and non-destructive testing of welds.

Frequency of Sampling & Testing
Asphalt & Concrete Items, QC/QA Specifications

Item	Description	Property	Test Method	Test Location and Frequency		
				Acceptance	Independent Assurance	Verification Test*
403	Asphalt Cement	Relevant AASHTO	AASHTO M320		None Required	Asphalt Plant 1/Project
	QC/QA HMA	Compaction	AASHTO T166	In Place 1 Core/750 Tons	None Required	
		Gradation	AASHTO T30 & T164	In Place 1/750 Tons	**	
		Asphalt Content	AASHTO T164	In Place 1/750 Tons	**	
520	QC/QA Structural Concrete Class A	Strength	AASHTO T22 & T23	Minimum 3 Tests/ Lot, 50 CY Maximum Sublot	None Required	
		Air Content	AASHTO T152		From Any Class	
		Rapid Chloride Permeability	AASHTO T277		None Required	
	QC/QA Structural Concrete Class AA	Strength	AASHTO T22 & T23	Minimum 3 Tests/ Lot, 50 CY Maximum Sublot	From Any Class	
		Air Content	AASHTO T152		From Any Class	
		W/C Ratio	NHDOT Microwave		From Any Class	
		Rapid Chloride Permeability	AASHTO T277		None Required	
	Fine & Coarse Aggregate	Gradation	AASHTO T27	None Required	*	

* The municipality shall take samples and furnish them to the NHDOT laboratory in Concord for testing

** Except if completed on another project during the current calendar year, the materials program for a project must include the acceptance tester's participation in one Independent Assurance test for each material test performed.

Quality Assurance Program Information

At the beginning of project, submit to:

NHDOT Bureau of Materials & Research

P.O. Box 483, 5 Hazen Drive

Concord, NH 03302-0483

ATTN: Chief of Materials Technology

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

Project Name & Number:				
Project Description:				
Construction Schedule:				
Contact Information:				
Municipal:		Phone:		
Project Manager:		Phone:		
Testing Firm:		Phone:		
Material Suppliers:				
Redi-mix Concrete:		Phone:		
Precast Concrete:		Phone:		
Hot Mix Asphalt:		Phone:		
Project Materials Test Summary:				
Complete during the project and submitted to NHDOT Materials & Research at completion.				
	Total Project Quantity	Acceptance Test Method & Required No.	Name of Acceptance Tester	IA Test Dates from This or Other Project
Redi-mix Concrete:				
Precast Concrete:				
Hot Mix Asphalt:				
Select Bases:				

Appendix B
Independent Assurance / Acceptance Test
Acceptable Deviations

Type of Test	% Deviation
Sieve Analysis – All Items	
#4 (4.75mm) Sieve and Larger	± 5%
Smaller than #4 (4.75mm) Sieve (Sand Portion)	± 4%
Compaction testing – All Items	± 2.5%
Bituminous Mix Evaluation	
#4 (4.75) Sieve to ¾"	± 3%
Smaller than #4 (4.75mm) Sieve (Total Sample)	± 2%
Asphalt Content	± 0.4%
Portland Cement Concrete	
Air Content	± 0.8%
Water/Cement	0.03

Appendix C

Sample Materials Certification for
Municipally Managed NHDOT Project

Date:

Project Name & Number:

This is to certify that:

The results of the tests used in the acceptance program indicate that the materials incorporated in the construction work, and the construction operations controlled by the sampling and testing, were in conformity with the approved plans and specifications. Exceptions to the above statement are explained in the attachment to this certification.

Duly Authorized Municipal Official

Date

Resident Engineer

Date

APPENDIX B

PERMITS

CATEGORICAL EXCLUSION

NO HISTORIC PROPERTIES AFFECTED MEMO

CULTURAL RESOURCES EFFECT MEMO

WETLAND PERMIT

ALTERATION OF TERRIAN PERMIT

SHORELAND PERMIT

STATE OF NEW HAMPSHIRE INTER-DEPARTMENT COMMUNICATION

DATE March 10, 2023

FROM Kevin T. Nyhan
Administrator

AT (OFFICE) Department of
Transportation

SUBJECT **Environmental Commitments Memo #2**

EXETER
X-A004(406)
40436
Kingston Road bicycle route

TO Tony Puntin
Project Manager
Bureau of Planning & Community Assistance

Bureau of
Environment

This Environmental Commitments Memo supersedes the one issued on January 19, 2018 as a result of a NEPA re-evaluation.

Pursuant to 23 CFR 771.129 and Stipulation VI.B. of the *Programmatic Agreement* executed by the Department and the Federal Highway Administration on 05/07/2021, an environmental re-evaluation has been prepared for the subject project. A copy of this memorandum and the environmental re-evaluation are available on the v:\drive at: V:\Towns\Exeter\40436\Environment 40436Commits2.pdf and 40436Env Re-Eval.pdf respectively. *In addition, this memorandum has been uploaded to the project "Document Center" in ProMIS.*

This project continues to qualify for processing programmatically as a *Categorical Exclusion*. In documenting this CE, the Department has identified the applicable CE action number (#18), ensured that any constraints or conditions are met, verified that unusual circumstances do not apply, and has addressed any and all other environmental approvals. This project continues to qualify for use of the *Programmatic Wetlands Finding*, and the *Programmatic Flood Plains Finding*, and includes a *de minimis* Section 4(f) impact determination. **As such, this concludes the NEPA process.**

The NEPA process for this project began on or about 08/01/2016, and was completed on 01/19/2018, as re-evaluated on 03/10/2023.

Updated environmental commitments have been made as noted on page 7 of the re-evaluation; and as detailed below.

1. The project will not modify the tree line nor impact mature trees, stone walls and other existing features at 33 Kingston Road and 64 Kingston Road, as requested by NHDHR. (Town of Exeter)
2. The contractor shall prepare a Stormwater Pollution Prevention Plan (SWPPP), file a Notice of Intent, and Notice of Termination in accordance with the EPA's Construction General Permit (CGP) requirements. (Town of Exeter)
3. The project area has not been reviewed for invasive plant species. All work, including daily removal of plant material from construction equipment, shall be conducted in accordance with the Department publication Best Management Practices for the Control of Invasive and Noxious Plant Species. (Town of Exeter)

4. When installing new or replacing existing permanent lights, downward-facing, full cut-off lens lights with same intensity or less for replacement lighting) shall be used. If using the BUG system developed by the Illuminating Engineering Society, lighting shall be as close to 0 for all three ratings with a priority of "uplight" of 0 and "backlight" as low as practicable. (Town of Exeter)
5. The Northern Long-Eared Bat Flyer shall be shared with all operators, employees, and contractors working on the project and operators, employees, and contractors shall be made aware of all applicable environmental commitments. (Town of Exeter)
6. All necessary permits from the NH Department of Environmental Service shall be obtained prior to the commencement of work within jurisdictional wetlands and protected shoreland of the Little River. (Town of Exeter)
7. An Alteration of Terrain permit will be obtained from NH Department of Environmental Services. (Town of Exeter)
Best management practices shall be used during construction to protect water quality in areas of construction. (Town of Exeter)
Access to all properties, including access to Brickyard Park, shall be maintained. (Town of Exeter)

Project classification is contingent upon successful implementation of these environmental commitments.

Please be advised, if project changes occur this bureau should be consulted to determine if a follow-up review of environmental impacts is required.

KTN:ktn

Encl.

c.c. B. Schutt, via E-mail
 J. Evans, via E-mail
 S. Labonte, via E-mail
 D. Rae, via E-mail
 J. Sikora, via E-mail
 A. Puntin, via E-mail

\\dot.state.nh.us\data\Environment\PROJECTS\EXETER\40436\ReEval_Commits2.docx

Please mail 2 copies of the completed form and required material to:

Cultural Resources Staff
Bureau of Environment
NH Department of Transportation
7 Hazen Drive
Concord, NH 03302

RECEIVED DEC 21 2022

DHR Use Only	8012
R&C #	
Log In Date	12/21/22
Response Date	___/___/___
Sent Date	___/___/___

**Request for Project Review by the
New Hampshire Division of Historical Resources
for **Transportation** Projects**

- ☐ This is a new submittal.
☒ This is additional information relating to DHR Review and Compliance (R&C)#: 8012

GENERAL PROJECT INFORMATION

DOT Project Name & Number Exeter 40436
Brief Descriptive Project Title Kingston Road TAP Project
Project Location Kingston Rd. from Westside Dr. to Pickpocket Rd.
City/Town Exeter
Lead Federal Agency and Contact (if applicable) FHWA
(Agency providing funds, licenses, or permits) Permit Type and Permit or Job Reference # X-A004(406)
DOT Environmental Manager (if applicable)

PROJECT SPONSOR INFORMATION

Project Sponsor Name Town of Exeter c/o Jennifer Mates, Assistant Town Engineer
Mailing Address 13 Newfields Rd. Phone Number (603) 418-6431
City Exeter State NH Zip 03833 Email jmates@exeternh.gov

CONTACT PERSON TO RECEIVE RESPONSE

Name/Company Jason Beaudet, P.E., CMA Engineers, Inc.
Mailing Address 1 Sundial Ave Suite 510N Phone Number (603) 627-0708
City Manchester State NH Zip 03103 Email jbeaudet@cmaengineers.com

RECEIVED
BUREAU OF ENVIRONMENT
DEC 20 2022
NH DEPARTMENT
OF TRANSPORTATION

This form is updated periodically. Please download the current form at <http://www.nh.gov/nhdhr/review>. Please refer to the Request for Project Review for Transportation Projects Instructions for direction on completing this form. Submit 2 copies of this project review form for each project for which review is requested. Include 1 self-addressed stamped envelope to expedite review response. Project submissions will not be accepted via facsimile or e-mail. This form is required. Review request form must be complete for review to begin. Incomplete forms will be sent back to the applicant without comment. Please be aware that this form may only initiate consultation. For some projects, additional information will be needed to complete the Section 106 review. All items and supporting documentation submitted with a review request, including photographs and publications, will be retained by the DOT and the DHR as part of its review records. Items to be kept confidential should be clearly identified. For questions regarding the DHR review process and the DHR's role in it, please visit our website at: <http://www.nh.gov/nhdhr/review> or contact the R&C Specialist at marika.s.labash@dnrcr.nh.gov or 603.271.3558.

PROJECTS CANNOT BE PROCESSED WITHOUT THIS INFORMATION

Project Boundaries and Description

- ☒ Attach the Project Mapping **indicating the proposed area of potential effects (APE)**. (See RPR for Transportation Projects Instructions and R&C FAQs for guidance. Note that the APE is subject to approval by lead federal agency and SHPO.)
- ☒ Attach a detailed narrative description of the proposed project.
- ☒ Attach current engineering plans with tax parcel, landscape, and building references, and areas of proposed excavation, if available.
- ☒ Attach photos of the project area/APE with mapped photo key (overview of project location and area adjacent to project location, and specific areas of proposed impacts and disturbances.) (Blank photo logs are available on the DHR website. Informative photo captions can be used in place of a photo log.)
- ☒ A DHR records search must be conducted to identify properties within or adjacent to the APE. Provide records search results via EMMIT or in **Table 1**. (Blank table forms are available on the DHR website.) EMMIT or in-house records search conducted on 11/14/2022.*

**The DHR recommends that all survey/National Register nomination forms and their Determination of Eligibility (green) sheets are downloaded or copied for your use in project development.*

Architecture

Are there any buildings, structures (bridges, walls, culverts, etc.) objects, districts or landscapes within the APE? ☒ Yes ☐ No

If no, skip to Archaeology section. If yes, submit all of the following information:

- ☒ Attach completed **Table 2**.
- ☒ Photographs of **each** resource or streetscape located within the APE. Add to the mapped photo key and photo log noted above. (Digital photographs are accepted. All photographs must be clear, crisp and focused.)
- ☐ Copies of National Register boundary (listed or eligible) mapping, and add National Register boundaries for listed and eligible properties to project mapping/engineering plans (if applicable).

Archaeology

Does the proposed undertaking involve ground-disturbing activity? ☒ Yes ☐ No

If yes, submit all of the following information:

- ☒ Description of current and previous land use and disturbances.
- ☐ Available information concerning known or suspected archaeological resources within the project area (such as cellar holes, wells, foundations, dams, etc.)

Please note that for many projects an architectural and/or archaeological survey or other additional information may be needed to complete the Section 106 process.

AGENCY COMMENT

This Space for DOT and Division of Historical Resources Use Only

Sent to DHR; Authorized DOT Signature: Jill Edelman Date: 12/20/2022

- ☐ Insufficient information to initiate review.
- ☐ Additional information is needed in order to complete review.

Comments: No archaeological concerns.

Noted that project as described in 2017 still avoids impacts to 18th-19th c. properties in the APE and minimizes impacts to most other properties older than 50 yrs. Note that the 1966 property at 8 Kingston Rd with ROW impacts does not appear to be stylistically significant for the period and is unlikely to be NR eligible. However, be aware of age/impact in relation to Sect 4(F). Also note additional properties have become 50 yrs since 2016. No inventory appears necessary.

If plans change or resources are discovered in the course of this project, you must contact the Division of Historical Resources as required by federal law and regulation. due to minimal impacts and/or alterations.

Authorized DHR Signature: Laura Black Date: Dec 21, 2022

Section 106 Cultural Resources Effect Memo
(Project NOT directly managed by NHDOT)

RECEIVED
JAN 12 2023

Project Town: **Exeter**

Date: **1/10/2023**

State No.: **40436**

Federal No. (as applicable): **X-A004(406)**

Lead Federal Agency: **Federal Highway Administration**

Submitted by: **Jason Beaudet, P.E.**
(Project Manager/Sponsor)

Email address: **jbeaudet@cmaengineers.com**

Pursuant to meetings on and/or the Request for Project Review signed on 12/21/2022, and for the purpose of compliance with the regulations of National Historic Preservation Act and the Advisory Council on Historic Preservation's *procedures for the Protection of Historic Properties* (36 CFR 800), and NH RSA 227-C the NH Division of Historical Resources and, when applicable, the NH Division of the Federal Highway Administration or the US Army Corps of Engineers have coordinated the identification and evaluation of cultural resources relative to:

RECEIVED
BUREAU OF ENVIRONMENT

This Cultural Resources Effect Memo supersedes the previous memo dated 6/13/2017.

FEB 2 2023

Over five years have passed since the original memo (6/13/2017) was signed, and it was requested that the Area of Potential Effect receive an updated review. The only changes identified within the APE since the original RPR was reviewed in September 2016 is that a new residential house was built at 54 Kingston Road in 2020. While some properties have become 50 years old since the previous review, the project impacts remain minimal.

The proposed project involves improvements to enhance pedestrian and bike safety on Kingston Road. The proposed project begins at Pickpocket Road and continues to the east along Kingston Road to the west abutment of the bridge over the Little River. The project is being locally administered under the NHDOT's Transportation Alternatives Program (TAP).

The proposed project will widen the shoulders along both sides of Kingston Road (NH Route 111) between the bridge over the Little River and Pickpocket Road (approximately 1 mile), include improvements at Brickyard Park, and enhanced pedestrian crossings. Shoulder widening will involve removal of existing features (such as existing curbing and gravel shoulders) and installation of sub-base, pavement, and side slopes, as well as modifying/replacing existing drainage pipes and structures, reconstructing driveways, clearing trees and vegetation (where they conflict with proposed work or restrict sight distances), erecting signage, and modifying utilities, as may be required. A 5 ft bituminous sidewalk is proposed along the southern side of Kingston Road (NH Route 111) from the bridge over the Little River to Tamarind Lane (approximately 3,000 ft). The sidewalk will be separated from the road by a 5 ft grass panel.

The proposed improvements of this project are anticipated to fall within previously disturbed areas and avoid/minimize impacts to existing tree lines and adjacent properties to the greatest extent practicable. Mature trees, stone walls, and other existing features at 33 Kingston Road and 64 Kingston Road will not be disturbed by the proposed project.

Please describe all public outreach efforts (see 36 CFR800.2-3) that have been done to-date. Identify Consulting Parties and include any public feedback (if applicable, attached pages if necessary):

Three public meetings were held for this project, a Local Concerns Meeting (8/17/16), a Proposed Action Meeting (09/28/16), and a public meeting with the Board of Selectman (01/17/17). The meetings were presented jointly by CMA Engineers, Inc. and the Town of Exeter. Meetings were publicly advertised, broadcast on ExeterTV, streamed on the internet Town Hall Streams and direct mailings were sent to abutters. The project was positively supported by the public.

Based on a review of the project, as presented to date, it has been determined that:

Section 106 Effect Determination	<input checked="" type="checkbox"/> No Historic or Archaeological Properties will be Affected
	<input type="checkbox"/> There will be No Adverse Effect on Historic or Archaeological Properties
	<input type="checkbox"/> There will be an Adverse Effect on Historic or Archaeological Properties or Resources
	Additional comments, please explain <i>why</i> the undertaking has resulted in the above effect: Click here to enter text.

In accordance with the Advisory Council's regulations, we will continue to consult, as appropriate, as this project proceeds.

Section 4(f) (to be completed by FHWA)	There Will Be:	<input type="checkbox"/> No 4(f);	<input type="checkbox"/> Programmatic 4(f);	<input type="checkbox"/> Full 4 (f); or
	<input type="checkbox"/> A finding of <i>de minimis</i> 4(f) impact as stated: In addition, with NHDHR concurrence of no adverse effect for the above undertaking, and in accordance with 23 CFR 774.3, FHWA intends to, and by signature below, does make a finding of <i>de minimis</i> impact. NHDHR's signature represents concurrence with both the no adverse effect determination and the <i>de minimis</i> findings. Parties to the Section 106 process have been consulted and their concerns have been taken into account. Therefore, the requirements of Section 4(f) have been satisfied.			

Lead Federal Agency (date)
(if applicable)

 1/10/2023
NHDOT Cultural Resources Program

The NH State Historic Preservation Officer concurs with these findings:

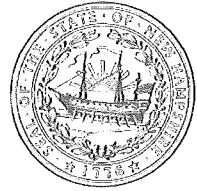
 DS/HPO
NH Division of Historical Resources
1/24/23

cc: FHWA NHDHR ACOE (← as applicable ↑)



The State of New Hampshire
Department of Environmental Services

Robert R. Scott, Commissioner



September 19, 2019

Jennifer Mates
Public Works Dept.
Town of Exeter
13 Newfields Road
Exeter, NH 03833

RE: NHDES Wetlands Bureau File 2019-02544, Kingston Road, Exeter Tax Maps 74, 80, 81 & 97

Dear Ms. Mates:

Attached please find Wetlands Permit 2019-02544 to: Impact 2,265 square feet of palustrine wetlands to widen the shoulders of Kingston Road (Route 111) to improve safety for pedestrians, bicyclist, and motorists.

The decision to approve this application was based on the following findings:

1. This is a minimum impact project per Administrative Rule Env-Wt 303.04(f) Projects involving alteration of less than 3,000 square feet in swamps or wet meadows that are not in prime wetlands or do not meet the requirements of Env-Wt 303.02(k), provided that no previous department permit has placed restrictions on the property of the applicant.
2. The applicant has provided evidence which demonstrates that this proposal is the alternative with the least adverse impact to areas and environments under the department's jurisdiction per Env-Wt 302.03.
3. The applicant has demonstrated by plan and example that each factor listed in Env-Wt 302.04(b) Requirements for Application Evaluation, has been considered in the design of the project.
4. The application included NH Natural Heritage Bureau (NHB) Datacheck Results Letter NHB19-2075 stating, "We currently have no recorded occurrences for sensitive species near this project area."
5. The Exeter Conservation Commission signed the application waiving their right to intervene pursuant to RSA 482-A:11.

Any person aggrieved by this decision may appeal to the New Hampshire Wetlands Council (the Council) by filing an appeal that meets the requirements specified in RSA 482-A:10, RSA 21-O:14, and the rules adopted by the Council, Env-WtC 100-200. The appeal must be filed **directly with the Council within 30 days** of the date of this decision and must set forth fully **every ground** upon which it is claimed that the decision complained of is unlawful or unreasonable. Only those grounds set forth in the notice of appeal can be considered by the Council. Information about the Council, including a link to the Council's rules, is available at <http://nhwc.nh.gov/> (or more directly at <http://nhwc.nh.gov/wetlands/index.htm>.) Copies of the rules also are available from the New Hampshire Department of Environmental Services (NHDES) Public Information Center at (603) 271-2975.

Your permit must be signed, and a copy must be posted in a prominent location on site during construction. If you have any questions, please contact our office at (603) 271-2147.

Sincerely,

Eben M. Lewis
Wetlands Inspector
NHDES Wetlands Bureau

cc: Jason Beaudet, CMA Engineers, Inc.
Exeter Conservation Commission



The State of New Hampshire
Department of Environmental Services

Robert R. Scott, Commissioner



**NOTICE TO RECIPIENTS OF
MINIMUM IMPACT NH WETLANDS PERMITS**

Your permit was approved by the New Hampshire Wetlands Bureau as a minimum impact project, and your project is automatically approved under the Army Corp's New Hampshire Programmatic General Permit.

For the purpose of the NH PGP, Minimum Impact Projects do not include new construction of:

- Dams;
- Dikes;
- Water withdrawal of diversion projects which require fill in wetlands or surface waters;
- Wetlands restoration projects, or any projects which involve work in other than low flow conditions (July 1 – September 30);
- Any projects involving more than 3,000 square feet of a water body or wetland fill and secondary impacts.

Also, not included under Minimum Impact Projects are those projects that include the reconstruction or replacement of currently unserviceable structures/fills. The projects must be reviewed through the screening procedures of minor impact projects. The activities in section 10 waters not regulated by the Wetlands Bureau formerly authorized under the Nationwide Permit Program and listed in Appendix A of this document are designated non-reporting activities.

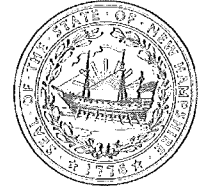
These approvals do not relieve you from obtaining any necessary local permits that may be required by your town.

If you have any questions, feel free to give us a call at 603-271-2147.

This notice was sent with minimum impact permit.



The State of New Hampshire
Department of Environmental Services



Robert R. Scott, Commissioner

WETLANDS AND NON-SITE SPECIFIC PERMIT 2019-02544 PAGE 1 OF 2

PERMITTEE: TOWN OF EXETER-PUBLIC WORKS DEPT NOTE CONDITIONS
13 NEWFIELDS ROAD
EXETER NH 03833

PROJECT LOCATION: KINGSTON ROAD, EXETER TAX MAPS 74, 80, 81 & 97

WATERBODY: UNNAMED WETLANDS

APPROVAL DATE: SEPTEMBER 19, 2019

EXPIRATION DATE: SEPTEMBER 19, 2024

Based upon review of the above referenced application, in accordance with RSA 482-A and RSA 485-A:17, a Wetlands Permit and Non-Site Specific Permit was issued by the New Hampshire Department of Environmental Services (NHDES). This permit shall not be considered valid unless signed as specified below.

PERMIT DESCRIPTION: Impact 2,265 square feet of palustrine wetlands to widen the shoulders of Kingston Road (Route 111) to improve safety for pedestrians, bicyclist, and motorists.

THIS APPROVAL IS SUBJECT TO THE FOLLOWING PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with plans by CMA Engineers, Inc. dated July 2019 as received by the NH Department of Environmental Services (NHDES) on September 17, 2019.
2. This permit is not valid until the applicant obtains construction easements on abutting parcels or written permission from abutting property owners if work is beyond the right-of-way (ROW). The permittee shall submit a copy of each recorded easement to the NHDES prior to construction.
3. If any work associated with the project authorized by this permit will encroach on an abutter's property or occur within 20 feet of the property line outside the ROW, then prior to starting work the permittee shall (1) obtain temporary construction easements or other written agreements from the owner of the abutting property, and (2) submit a copy of each agreement to NHDES.
4. Any further alteration of areas on this property that are subject to RSA 482-A jurisdiction will require further permitting.
5. No person undertaking any activity shall cause or contribute to, or allow the activity to cause or contribute to, any violations of the surface water quality standards in RSA 485-A and Env-Wq 1700.
6. Work shall be done during low flow and in the dry only.
7. Appropriate siltation and erosion controls shall be in place prior to construction, shall be maintained during construction, and shall remain until the area is stabilized. Temporary controls shall be removed once the area has been stabilized.
8. Appropriate turbidity controls shall be installed prior to construction, shall be maintained during construction such that no turbidity escapes the immediate dredge area and shall remain until suspended particles have settled and water at the work site has returned to normal clarity.
9. The contractor responsible for completion of the work shall use techniques described in the New Hampshire Stormwater Manual, Volume 3, Erosion and Sediment Controls During Construction (December 2008).
10. Extreme precautions shall be taken within riparian areas to prevent unnecessary removal of vegetation during construction. Areas cleared of vegetation must be revegetated with like native species within three days of the completion of the disturbance.
11. Prior to commencing work on a substructure located within surface waters, the permittee or permittee's contractors shall construct a cofferdam to isolate the substructure work area from the surface waters.

www.des.nh.gov

29 Hazen Drive • PO Box 95 • Concord, NH 03302-0095

NHDES Main Line: (603) 271-3503 • Subsurface Fax: (603) 271-6683 • Wetlands Fax: (603) 271-6588

TDD Access: Relay NH 1 (800) 735-2964

12. Discharge from dewatering of work areas shall be to sediment basins that are: a) located in uplands; b) lined with hay bales or other acceptable sediment trapping liners; c) set back as far as possible from wetlands and surface waters, with a preferred undisturbed vegetated buffer of at least 50 feet and a minimum undisturbed vegetative buffer of 20 feet.
13. Dredged materials, whether to be stockpiled or disposed of, shall be dewatered in sedimentation basins lined with siltation and erosion controls, and located outside of areas subject to RSA 482-A jurisdiction.
14. Construction equipment shall be inspected daily for leaking fuel, oil, and hydraulic fluid prior to entering surface waters or wetlands or operating in an area where such fluids could reach groundwater, surface waters, or wetlands.
15. The permittee's contractor shall maintain appropriate oil/diesel fuel spill kits on site that are readily accessible at all times during construction, and shall train each operator in the use of the kits.
16. All refueling of equipment shall occur outside of surface waters or wetlands during construction. Machinery shall be staged and refueled in upland areas only.
17. Within three days of final grading or temporary suspension of work in an area that is in or adjacent to wetlands or surface waters, all exposed soil areas shall be stabilized by seeding and mulching during the growing season, or if not within the growing season, by mulching with tackifiers on slopes less than 3:1 or netting and pinning on slopes steeper than 3:1.

GENERAL CONDITIONS THAT APPLY TO ALL NHDES WETLANDS PERMITS:

1. A copy of this permit shall be posted on site during construction in a prominent location visible to inspecting personnel;
2. This permit does not convey a property right, nor authorize any injury to property of others, nor invasion of rights of others;
3. The NHDES Wetlands Bureau shall be notified upon completion of work;
4. This permit does not relieve the applicant from the obligation to obtain other local, state or federal permits, and/or consult with other agencies as may be required (including US EPA, US Army Corps of Engineers, NH Department of Transportation, NH Division of Historical Resources (NH Department of Cultural Resources), NHDES Alteration of Terrain, etc.);
5. Transfer of this permit to a new owner shall require notification to and approval by NHDES;
6. This project has been screened for potential impacts to **known** occurrences of protected species and exemplary natural communities in the immediate area. Since many areas have never been surveyed, or have only received cursory inventories, unidentified sensitive species or communities may be present. This permit does not absolve the permittee from due diligence in regard to state, local or federal laws regarding such communities or species;
7. Review enclosed sheet for status of the US Army Corps of Engineers' federal wetlands permit.

APPROVED:



Eben M. Lewis
Wetlands Bureau
Land Resources Management

BY SIGNING BELOW I HEREBY CERTIFY THAT I HAVE FULLY READ THIS PERMIT AND AGREE TO ABIDE BY ALL PERMIT CONDITIONS.

OWNER'S SIGNATURE (required)

CONTRACTOR'S SIGNATURE (required)



The State of New Hampshire
Department of Environmental Services

Robert R. Scott, Commissioner



August 8, 2019

Ms. Jennifer Mates
Town of Exeter, Public Works Dept.
13 Newfields Road
Exeter, NH 03833

Permit: AoT-1660

Re: Kingston Rd TAP Project
Tax Map 74, 80, 81 and 97 – Exeter, NH

Dear Ms. Mates:

Based upon the plans and application, approved on August 8, 2019, we are hereby issuing RSA 485-A:17 Alteration of Terrain Permit AoT-1660. As part of the processing of this application, DES waived specific requirements of Env-Wq 1504.09 relative to drainage area plans, Env-Wq 1504.13 relative to infiltration feasibility report, Env-Wq 1507.03, relative to Stormwater treatment requirements, Env-Wq 1507.04 relative to groundwater recharge requirements, Env-Wq 1507.05 relative to channel protection requirements, and Env-Wq 1507.06 relative to peak runoff control requirements. Granting these waivers will not have an adverse impact on the environment, public health, public safety, or abutting properties, and granting the request is consistent with the intent and purpose of the rules waived. Additional documentation relative to the waiver is contained within the file. The permit is subject to the following conditions:

PROJECT SPECIFIC CONDITIONS:

1. The plans in the file, last revision date August 2, 2019, are a part of this approval.
2. **This permit expires on August 8, 2024.** No earth moving activities shall occur on the project after this expiration date unless the permit has been extended by the Department. If an extension is required, the request must be received by the department before the permit expires. The Amendment Request form is available at: <http://des.nh.gov/organization/divisions/water/aot/categories/forms.htm>

GENERAL CONDITIONS:

1. Activities shall not cause or contribute to any violations of the surface water quality standards established in Administrative Rule Env-Wq 1700.
2. You must submit revised plans for permit amendment prior to any changes in construction details or sequences. You must notify the Department in writing within ten days of a change in ownership.
3. You must notify the Department in writing prior to the start of construction and upon completion of construction. Forms can be submitted electronically at: <https://forms.nh.gov/onlineforms/>. Paper forms are available at that same web page or at: <http://des.nh.gov/organization/divisions/water/aot/categories/forms.htm>.
4. All stormwater practices shall be inspected and maintained in accordance with Env-Wq 1507.07. All record keeping required by the I&M Manual shall be maintained by the identified responsible party, and be made available to the department upon request.
5. This permit does not relieve the applicant from the obligation to obtain other local, state or federal permits that may be required (e.g., from US EPA, US Army Corps of Engineers, etc.). Projects disturbing over 1 acre may

require a federal stormwater permit from EPA. Information regarding this permitting process can be obtained at:
<http://des.nh.gov/organization/divisions/water/stormwater/construction.htm>.

6. In accordance with Env-Wq 1503.21 (c)(1), a written notice signed by the permit holder and a qualified engineer shall be submitted to DES stating that the project was completed in accordance with the approved plans and specifications. If deviations were made, the permit holder shall review the requirements in Env-Wq 1503.21(c)(2).
7. No activity shall occur in wetland areas until a Wetlands Permit is obtained from the Department. Issuance of this permit does not obligate the Department to approve a Wetlands Permit for this project.
8. This project has been screened for potential impact to known occurrences of protected species and exemplary natural communities in the immediate area. Since many areas have never been surveyed, or have not been surveyed in detail, unidentified sensitive species or communities may be present. This permit does not absolve the permittee from due diligence in regard to state, local or federal laws regarding such communities or species.

Sincerely,



Bethann McCarthy, P.E.
Alteration of Terrain Bureau

cc: Exeter Planning Board
Jason Beaudet, CMA Engineers (via email)



The State of New Hampshire
Department of Environmental Services

Robert R. Scott, Commissioner



November 03, 2022

RECEIVED NOV 08 2022

NILS LARSON
13 NEWFIELDS RD
EXETER NH 03833

Re: Accepted Shoreland Permit by Notification (RSA 483-B)
NHDES File Number: 2022-03100
Subject Property: Kingston Rd, Exeter, Tax Map #81, Lot #48

Dear Applicant:

On November 02, 2022, the New Hampshire Department of Environmental Services (NHDES) Shoreland Program received the above-referenced Shoreland Permit by Notification (SPBN). In accordance with RSA 483-B:5-b, I and Env-Wq 1406.19, on November 3, 2022, the NHDES accepted the SPBN. The enclosed SPBN form is your permit. Any individual conducting work under this permit is advised to post a copy of the enclosed SPBN form on site in a prominent location, visible to inspecting personnel, at all times during construction.

Only the impacts shown on the submitted plans and accepted by NHDES as part of the SPBN are authorized under RSA 483-B. Any and all impacts not shown on the accepted plans or permitted through another SPBN or Shoreland Permit Application will render this SPBN invalid and will be in violation of RSA 483-B.

Please note that this SPBN cannot be amended. Prior to any change to the size or location of the proposed impacts, please contact me at Alexander.D.Feuti@des.nh.gov or (603) 271-0872 to determine the appropriate method to obtain any additional approval under RSA 483-B:5-b as may be required. Please do not hesitate to contact me as noted above if you have additional questions.

Sincerely,

Alexander Feuti
Shoreland/Shoreline Specialist, Shoreland Program
Wetlands Bureau, Land Resources Management
Water Division

Enclosure

cc: Jason Beaudet
Municipal Clerk



SHORELAND PERMIT BY NOTIFICATION (PBN)

NOTIFICATION FORM

Water Division/Land Resources Management

Shoreland Program

Check the Status of your PBN



RSA/Rule: RSA 483-B/Env-Wq 1400

	Administrative Use Only	<input checked="" type="checkbox"/> PBN Accepted, Expires: 11/03/2027	Reviewer's Initials: AF	
		<input type="checkbox"/> PBN Rejected		
		File No.: 2022-03100		Admin's Initials: RS
		Check No.: 59198		Amount: \$400.00

This form requests authorization to excavate, fill, or construct new structures within the protected shoreland, which is 250 feet landward of the reference line of public waters, as regulated under RSA 483-B. Refer to the cover sheet to determine your eligibility to use this form in lieu of the standard Shoreland Permit Application. **Please note:** Notification packages missing required components will be rejected and the fee will not be returned.

SECTION 1 - PROPERTY OWNER (RSA 483-B:5-b; Env-Wq 1406.17)

LAST NAME, FIRST NAME, M.I.: Larson, Nils

MAILING ADDRESS: 13 Newfields Road

TOWN/ CITY: Exeter

STATE: NH

ZIP CODE: 03833

PHONE: 603-772-1345

EMAIL: nlarson@exeternh.gov

SECTION 2 - PROJECT LOCATION (RSA 483-B:5-b; Env-Wq 1406.17)

ADDRESS: Kingston Road

TOWN/ CITY: Exeter

STATE: NH

ZIP CODE: 03833

WATERBODY NAME: Little River

TAX MAP/ LOT: 81-48

SECTION 3 - CONTRACTOR OR AGENT (Env-Wq 1406.17)

LAST NAME, FIRST NAME, M.I.: Beaudet, Jason, J.

MAILING ADDRESS: 1 Sundial Ave, Suite 510N

TOWN/ CITY: Manchester

STATE: NH

ZIP CODE: 03103

PHONE: 603-627-0708

EMAIL: jbeaudet@cmaengineers.com

SECTION 4 - PROJECT DESCRIPTION (Env-Wq 1406.17)

Provide a **brief** description of the proposed project including square footage of impacts and dimensions of new structures.

The Town of Exeter, New Hampshire, in conjunction with the New Hampshire Department of Transportation (NHDOT), is planning to widen the roadway shoulders to a 5-foot minimum width along Kingston Road (Route 111) on both sides of the road between the bridge over the Little River and Pickpocket Road, a distance of approximately 1.1 miles. Sidewalk will be extended westerly from the bridge over the Little River to Tamarind Lane on the south side of the road. The project is partially located within the protected shoreland of the Little River and has an approximate shoreline frontage of 62 linear feet.

TOTAL SQUARE FEET OF IMPACT: 23,393 TOTAL SQUARE FEET OF NET CHANGE IN IMPERVIOUS AREA: 1,466

Total impact area is determined by the sum of all areas disturbed by excavation, fill, and construction. Examples include, but are not limited to: constructing new driveways, constructing new structures, removing or replacing structure foundations, grading, and installing a new septic system or well.

shoreland@des.nh.gov or (603) 271-2147

NHDES Shoreland Program, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095

www.des.nh.gov

SECTION 5 - PBN CRITERIA (RSA 483-B:5-b; Env-Wq 1406.05)

Check one of the following project type criteria.

- ☐ 1. This project impacts less than 1,500 square feet in total, with a net increase in impervious area, if any, of no more than 900 square feet. *PBN Impact Limit: 1,500 square feet/ Fee: \$400.*
- ☐ 2. This project is proposed for the purpose of stormwater management improvements, erosion control, or environmental restoration or enhancement. *PBN Impact Limit: None/ Fee: \$200.*
- ☒ 3. The project is for the maintenance, repair, and improvement of public utilities, public roads, and public access facilities. *PBN Impact Limit: None/ Fee: \$400.*
- ☐ 4. The project consists of geotechnical borings, test wells, drinking water wells or is a site remediation project and meets the requirements of Env-Wq 1406.05. *PBN Impact Limit: None / Fee: \$400.*

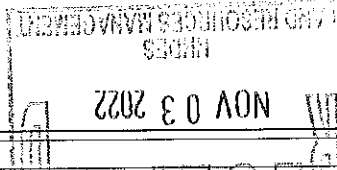
SECTION 6 - FEE (RSA 483-B:5-b; Env-Wq 1406.16)Consult Section 5 to determine fee. Make checks and money orders payable to "Treasurer - State of NH". Undated checks **cannot** be accepted. TOTAL FEE: \$400**SECTION 7 - PHOTOS (RSA 483-B:5-b; Env-Wq 1406.16)**

- ☒ Dated photographs of each area proposed to be impacted are required for all projects.

SECTION 8 - PLAN REQUIREMENTS (RSA 483-B:5-b; Env-Wq 1406.16)

Check YES or NO to all statements, and review the applicable plan requirements. If your plans do not include the information that is required, your notification will be rejected.

<input checked="" type="checkbox"/> YES	Required for all projects: A clear and detailed plan of work depicting, at a minimum, all impact areas, the <u>reference line</u> , and property lines. Plans that are not to scale must show all relevant dimensions and distances from the reference line and dimensions.	
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	This project proposes an increase in <u>impervious</u> (i.e. non-permeable) area. Plans must include the dimensions and locations of all existing and proposed impervious surfaces on the lot that are within 250 feet of the reference line. Decks are typically considered impervious.	
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	< 20%	This project proposes an increase in impervious area, and the total post-construction impervious area on the lot within 250 feet of the reference line will not exceed 20%.
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	20 – 30%	This project proposes an increase in impervious area such that the total impervious area of the lot within 250 feet of the reference line will be greater than 20% but less than 30%. Plans must include a <u>stormwater management system</u> that will infiltrate increased stormwater runoff from development per <u>RSA 483-B:9, V(g)(2)</u> and in accordance with <u>Env-Wq 1500</u> .
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	> 30%	This project proposes an increase in impervious area such that the total impervious area on the lot within 250 feet of the reference line will be greater than 30%. Plans must include a <u>stormwater management system</u> designed and certified by a professional engineer to account for all new development, and plans must demonstrate how the vegetation point score is met per <u>RSA 483-B:9, V(g)(1,3)</u> .
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	This project proposes impacts within 50 feet of the reference line. Plans and photos must show each area of the <u>waterfront buffer</u> that will be impacted, including groundcover, and calculate the tree and sapling point scores in accordance with the <u>Vegetation Management Fact Sheet</u> .	
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	This project proposes impacts between 50 and 150 feet of the reference line. Plans must depict the 25% area of the woodland buffer to be designated and maintained as natural woodland. See the <u>Vegetation Management Fact Sheet</u> .	



<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	This project proposes to install or expand an accessory structure, such as a patio or shed, within 50 feet of the reference line. All plans <i>must</i> demonstrate that the height, size, and setback limitations for accessory structures will be met. These limitations are described within the <u>Accessory Structure Fact Sheet</u> . The <u>shoreland frontage</u> on this lot is: 62 linear feet. <input type="checkbox"/> N/A – There is no direct frontage on this lot.
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	This project proposes a pervious (i.e. permeable) surface technology. Plans must include the location and type of the surface and a cross-section depicting the construction method, materials, and specifications as to how this surface will be maintained as a pervious technology. The notification must also include a maintenance plan describing how the surfaces will be maintained pervious.

SECTION 9 - CONDITIONS (Env-Wq 1406.20; RSA 483-B:9, V, (d))

Initial each of the required conditions below.

- ML* 1. Erosion and siltation control measures shall: be installed prior to the start of work; be maintained throughout the project; and remain in place until all disturbed surfaces are stabilized.
- ML* 2. Erosion and siltation controls shall be appropriate to the size and nature of the project and to the physical characteristics of the site, including slope, soil type, vegetative cover, and proximity to wetlands or surface waters.
- ML* 3. No person undertaking any activity in the protected shoreland shall cause or contribute to, or allow the activity to cause or contribute to, any violations of the surface water quality standards established in Env-Ws 1700 or successor rules in Env-Wq 1700.
- ML* 4. Any fill used shall be clean sand, gravel, rock, or other suitable material.
- ML* 5. For any project where mechanized equipment will be used, orange construction fence shall: be installed prior to the start of work at the limits of the temporary impact area as shown on the plans approved as part of a permit or accepted as part of the permit by notification; be maintained throughout the project; and remain in place until all mechanized equipment has been removed from the site.

SECTION 10 - CERTIFICATIONS (Env-Wq 1406.18)

Initial each of the required certifications below.

- ML* 1. The property owner shall sign the notification form below.
- ML* 2. The signature(s) shall constitute certification that: the information provided is true, complete, and not misleading to the knowledge and belief of the signer; the signer understands that any permit by notification obtained based on false, incomplete, or misleading information is not valid; the project as proposed complies with the minimum standards established in RSA 483-B:9, V and will be constructed in strict accordance with the proposal; the signer accepts the responsibility for understanding and maintaining compliance with RSA 483-B and these rules; the signer understands that an accepted shoreland permit by notification shall not exempt the work proposed from other state, local, or federal approvals; the signer understands that incomplete notifications shall be rejected and the notification fee shall not be returned; and the signer is subject to the applicable penalties in RSA 641, *Falsification In Official Matters*.
- ML* 3. The signature of the property owner certifies that the property owner has authorized the agent to act on the property owner's behalf for purposes of the notification. (☐ Not Applicable)

SECTION 11 - REQUIRED SIGNATURE (RSA 483-B:5-b; Env-Wq 1406.18)

SIGNATURE (OWNER): <i>Nils Larson</i>	PRINT NAME LEGIBLY: Nils Larson	DATE: <i>October 28, 2022</i>
SIGNATURE (AGENT, IF APPLICABLE): <i>Jason J. Beaudet</i>	PRINT NAME LEGIBLY: Jason Beaudet	DATE: October 19, 2022