

VERMONT

PROJECT

Hancock ER BRF 0174 (16)

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VERMONT

AGENCY OF TRANSPORTATION

PROPOSAL

STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2011 SHALL APPLY TO THIS CONTRACT
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SPECIAL PROVISIONS

SUPPLEMENTAL SPECIFICATIONS

SCHEDULE OF ITEMS

**ELECTRONIC BID BOND** to be submitted in the amount of 5% of the Contractor's bid.

**BIDDING PROCEDURE**

Bid Proposals will not be read unless accompanied by an electronic bid bond, and they may be rejected as irregular if they are not in compliance with Agency specifications.

**NOTE: All bid proposals shall be properly filled out and submitted electronically utilizing Bid Express services.**

## SPECIAL PROVISIONS AND SUPPLEMENTAL SPECIFICATIONS

Vermont Project Hancock ER BRF 0174 (16) in the town of Hancock.

The following provisions and supplemental specifications are included in this proposal and are effective for this contract.

Proposal holders are reminded of their responsibility to check the contents of this proposal against the following index. In the event that you suspect or determine the proposal is incomplete, notify the Agency's Contracts and Specifications Engineer immediately [(802)828-2641].

Proposal holders are also reminded of their other responsibilities to carefully examine all other information which affects the bidding process.

Required Contract Provisions for Federal-Aid Construction

Standard Federal EEO Specifications

Vermont Agency of Transportation Contractor Workforce Reporting Requirements

Workers' Compensation; State Contracts Compliance Requirement

General Special Provisions dated February 7, 2012

Bulletin 3.5 Compliance dated July 25, 2008

Special Provisions

Vermont Minimum Labor & Truck Rates

Disadvantaged Business Enterprise (DBE) Policy Contract Requirements

US Department of Labor Davis – Bacon Wage Rates

Asphalt Price Adjustment Provisions dated April 6, 2010

Stream Alteration Permit #HD-4-1015 dated April 26, 2012

Army Corp of Engineers Permit #NAE-2012-0603 dated April 19, 2012

Amendment to Army Corp of Engineers Permit #NAE-2012-0603 (#NAE-2012-0603-M1) dated June 5, 2012

Army Corp of Engineers Permit #NAE-2012-0603 expiration date clarification (e-mail) dated July 24, 2012

Work Plan for Research Investigation No. WP-2011-6 dated August 9, 2012

Certification for Federal-Aid Contracts

Schedule of Items

Contractor's EEO Certification Form

Debarment & Non-Collusion Affidavit

**REQUIRED CONTRACT PROVISIONS  
FEDERAL-AID CONSTRUCTION CONTRACTS**

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- I. General
- II. Nondiscrimination
- III. Nonsegregated 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. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

**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 (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).

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.

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). 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 bid proposal or request for proposal 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).

- 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.
- 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. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

## II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 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 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, 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 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, 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 230, 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 (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 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 35 and 29 CFR 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.
  - 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, 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 who 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.
  - 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, national origin, age or disability. The following procedures shall be followed:
- a. The contractor will conduct periodic inspections of project sites to insure 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. 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, 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, 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 there under. 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, 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 and 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. **Assurance Required by 49 CFR 26.13(b):**
- a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

- b. The contractor 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 contracting agency deems appropriate.

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 \$10,000 or more.

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, 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). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

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

- 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, Employment Standards Administration, 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 Wage and Hour Administrator for determination. The Wage and Hour 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

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

- 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 at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor 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 §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, 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 Regulations, 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 section 1001 of title 18 and section 231 of title 31 of the United States Code.
- 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

##### 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. 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.

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.
9. **Disputes concerning labor standards.** 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.**
  - 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

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.
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 of \$10 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.
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.
4. **Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (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.

## VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

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" 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:
    - (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.
2. 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. 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.
5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

## 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 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.

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 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).
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 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 1, 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

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.
2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

**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.

**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.
- 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.
- 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.
- 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 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee 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 grantee or subgrantee 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.
- 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.
- 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. 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 Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.
- 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.

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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) 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;
  - (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; 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.
- b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. **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)

- a. By signing and submitting this proposal, the prospective lower tier 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.
- 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 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 grantee or subgrantee 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 grantee or subgrantee 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.
- 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.
- 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 Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.
- 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.

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#### **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 is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.
- 2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

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#### **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 20).

- 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.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS**

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.

**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.

A Minority Group Member is:

...American Indian or Alaskan Native

consisting of all persons having origins in any of the original people of North American and who maintain cultural identification through tribal affiliations or community recognition.

...Black

consisting of all persons having origins in any of the Black racial groups of Africa.

...Asian or Pacific Islander

consisting of all persons having origins in any of the original people of the Far East, Southeast Asia, the Indian Sub-Continent or the Pacific Islands. This area includes China, India, Japan, Korea, the Philippines and Samoa.

...Hispanic

consisting of all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish culture or origin.

...Cape Verde an

consisting of all persons having origins in the Cape Verde Islands.

...Portuguese

consisting of all persons of Portuguese, Brazilian or other Portuguese culture or origin.

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 \$10,000.00 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 the 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 subcontract 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 make good faith efforts to achieve the Plan goals and timetables.
4. The Contractor shall implement the specific affirmative action standards provided in Paragraphs 7a through p of these specifications. The goals set for the Contractor in the solicitation from which this contract resulted are expressed as percentages in 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. The Contractor is expected to make substantially uniform progress toward 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 minority 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 non-working 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.
  - 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 notifications to the Regional Director when the union or unions, with which the Contractor has a collective bargaining agreement, have 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 Paragraph 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 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 on-site supervisory personnel such as Superintendents, Supervisors 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, and providing written notification to, and discussing the Contractor's EEO policy with, other Contractors and subcontractors with whom the Contractor 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 notifications 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 workforce.
  - 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 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 Contractor's obligations under these specifications are being carried out.
  - n. Ensure that all facilities and company activities are non-segregated 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 (Paragraph 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 Paragraph 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, reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and 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 non-compliance.
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 under-utilized).

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 or national origin.
11. The Contractor shall not enter into any subcontract with any person for 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, terminations 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 or 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).

**NOTICE OF REQUIREMENTS FOR AFFIRMATIVE ACTION TO ENSURE EQUAL  
EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)**

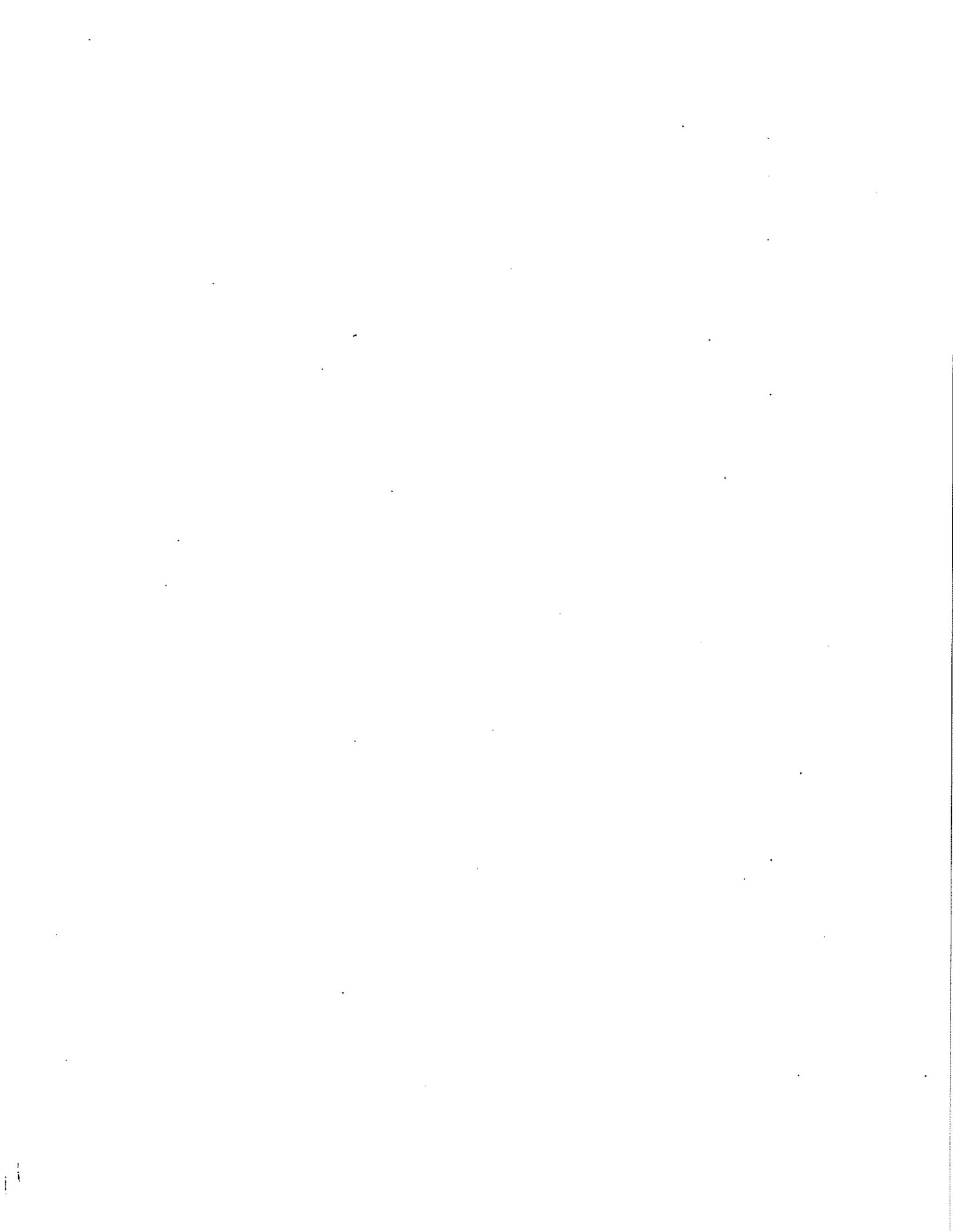
1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Economic Areas	Timetables	Goals for Minority participation for each trade (%)	Goals for Female Participation in each trade (%)
<b>Entire State of Vermont:</b>			
<u>Vermont</u> 003 Burlington, VT Non-SMSA Counties NH Coos; NH Grafton; NH Sullivan; VT Addison; VT Caledonia; VT Chittenden; VT Essex; VT Franklin; VT Grand Isle; VT Lamoille; VT Orange; VT Orleans; VT Rutland; VT Washington; VT Windsor	Indefinite	0.8	6.9
<u>Connecticut (Mass)</u> 006 Hartford - New Haven Springfield, CT-MA Non-SMSA Counties CT Litchfield; CT Windham; MA Franklin; NH Cheshire; VT Windham	Indefinite	5.9	
<u>New York</u> 007 Albany - Schenectady - Troy, NY Non-SMSA Counties NY Clinton; NY Columbia; NY Essex; NY Fulton; NY Greene; NY Hamilton; NY Schoharie; NY Warren; NY Washington; VT Bennington	Indefinite	2.6	

These goals are applicable to all the 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 non-federally involved construction.

The Contractor's compliance with the Executive Order and the regulation in CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the 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.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten working days of award of any construction subcontract in excess of \$10,000.00 at any tier for construction work under the contract resulting from this solicitation. The notifications shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; and the geographical area in which the subcontract is to be performed.
4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is (insert description of the geographical areas where the contract is to be performed giving the state, county and city, if any)

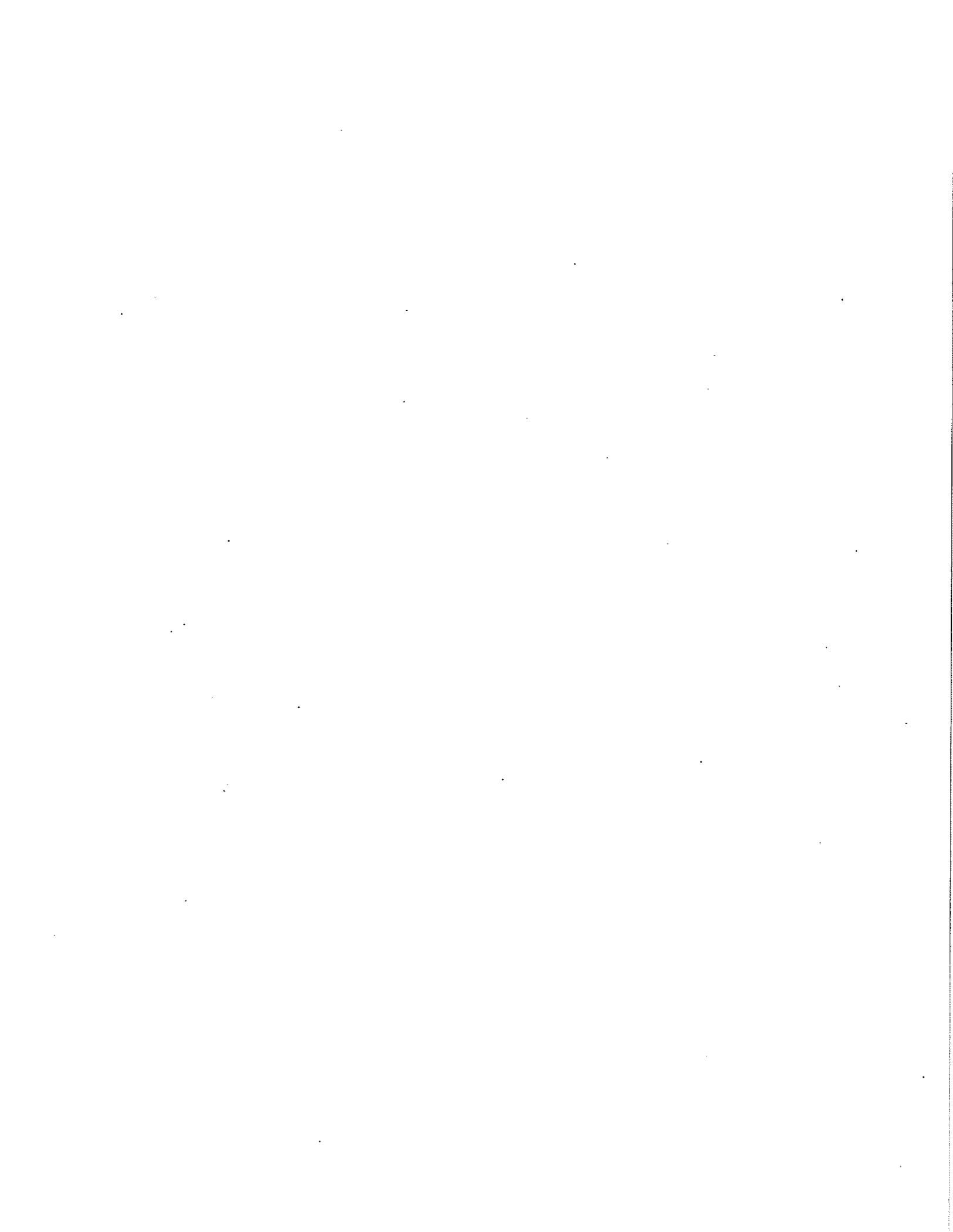


**VERMONT AGENCY OF TRANSPORTATION  
CONTRACTOR WORKFORCE REPORTING REQUIREMENTS**

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The Contractor/Subcontractor shall submit to the State Resident Engineer assigned to this project, monthly and cumulative workforce information, on reporting forms provided herein. The monthly and cumulative workforce information shall be listed by construction trade category with the percentage of minority and female project hours in each category indicated. Failure to provide this information to the Resident Engineer on a monthly basis will result in suspension of bi-weekly progress payments, or part thereof due under the contract, until such time as the Contractor or Subcontractor demonstrates compliance with these contract terms.

**Note:** In lieu of using the reporting forms provided herein, the Contractor may use U.S. Department of Labor form CC-257, "Monthly Employment Utilization Report".





INSTRUCTIONS FOR FILING  
MONTHLY EMPLOYMENT UTILIZATION REPORT

1. **PROJECT NAME AND NUMBER**  
Complete project name and number as assigned by the Vermont Agency of Transportation.
2. **CONTRACTOR'S NAME AND ADDRESS**  
Indicate the name and address of the *PRIME CONTRACTOR* with a construction contract funded in whole or in part with Federal funds.
3. **CURRENT GOALS**  
See section of contract regarding requirement for Affirmative Action (Executive Order 11246).
4. **REPORTING PERIOD**  
Monthly, beginning with the effective date of the contract.
5. **CONSTRUCTION TRADE CLASSIFICATION**  
Indicate only those classifications used on this contract.
6. **TOTAL NUMBER – ALL WORK HOURS OF EMPLOYEES BY TRADE**  
Indicate the total number of hours (male and female *combined*) worked by employees in each trade classification.
7. **BLACK,/HISPANIC/ASIAN/AMERICAN INDIAN/WHITE CATEGORIES**  
Indicate the total number of hours (male and female *separated*) worked by each specified ethnic group of employees in each classification.
8. **PERCENTAGE OF TOTAL WORK HOURS - MINORITY**  
Indicate the PERCENTAGE of total minority work hours (male and female *MINORITIES combined*) of all work hours (the sum of the BLACK, HISPANIC, ASIAN, and AMERICAN INDIAN columns divided by the sum of TOTAL NUMBER OF ALL WORK HOURS - just one figure for each construction trade.)
9. **PERCENTAGE OF TOTAL WORK HOURS - FEMALE**  
Divide the TOTAL NUMBER – ALL WORK HOURS OF EMPLOYEES BY TRADE for each classification by the total number of females reported in BLACK, HISPANIC, ASIAN, AMERICAN INDIAN and WHITE for each classification.
10. **TOTAL NUMBER OF EMPLOYEES**  
Indicate the total number of male employees and the total number of female employees working in each classification in the contractor's work force during the reporting period.
11. **TOTAL NUMBER OF MINORITY EMPLOYEES**  
Indicate the total number of male *MINORITY* employees and the total number of female *MINORITY (non-white)* employees working in each classification in the contractor's work force during the reporting period.
12. **COMPLETE THE FORM: SIGNATURE, TITLE, PHONE NUMBER, DATE, PAGE \_\_\_\_ OF \_\_\_\_.**
13. **AT THE END OF EACH MONTH, SUBMIT** the completed Monthly Employment Utilization Report Form to the State Resident Engineer on the project site. One of these forms should be completed for each month of the contract.



INSTRUCTIONS FOR FILING  
CUMULATIVE MONTHLY EMPLOYMENT UTILIZATION REPORT

[Using the Monthly Employment Utilization Reports collected from the subcontractors on the job, COMBINE all the information to complete the CUMULATIVE Monthly Employment Utilization Report Form and submit to the State Resident Engineer on the project each month.]

1. **PROJECT NAME AND NUMBER**  
Complete project name and number as assigned by the Vermont Agency of Transportation.
2. **CONTRACTOR'S NAME AND ADDRESS**  
Indicate the name and address of the *PRIME CONTRACTOR* with a construction contract funded in whole or in part with Federal funds.
3. **CURRENT GOALS**  
See section of contract regarding requirement for Affirmative Action (Executive Order 11246).
4. **REPORTING PERIOD**  
Monthly, beginning with the effective date of the contract.
5. **CONSTRUCTION TRADE CLASSIFICATION**  
Indicate only those classifications used on this contract.
6. **TOTAL NUMBER – ALL WORK HOURS OF EMPLOYEES BY TRADE**  
Indicate the total number of hours (male and female *combined*) worked by employees in each trade classification.
7. **BLACK,/HISPANIC/ASIAN/AMERICAN INDIAN/WHITE CATEGORIES**  
Indicate the total number of hours (male and female *separated*) worked by each specified ethnic group of employees in each classification.
8. **PERCENTAGE OF TOTAL WORK HOURS - MINORITY**  
Indicate the PERCENTAGE of total minority work hours (male and female *MINORITIES combined*) of all work hours (the sum of the BLACK, HISPANIC, ASIAN, and AMERICAN INDIAN columns divided by the sum of TOTAL NUMBER OF ALL WORK HOURS - just one figure for each construction trade.)
9. **PERCENTAGE OF TOTAL WORK HOURS - FEMALE**  
Divide the TOTAL NUMBER – ALL WORK HOURS OF EMPLOYEES BY TRADE for each classification by the total number of females reported in BLACK, HISPANIC, ASIAN, AMERICAN INDIAN and WHITE for each classification.
10. **TOTAL NUMBER OF EMPLOYEES**  
Indicate the total number of male employees and the total number of female employees working in each classification in the contractor's work force during the reporting period.
11. **TOTAL NUMBER OF MINORITY EMPLOYEES**  
Indicate the total number of male *MINORITY* employees and the total number of female *MINORITY (non-white)* employees working in each classification in the contractor's work force during the reporting period.
12. **COMPLETE THE FORM: SIGNATURE, TITLE, PHONE NUMBER, DATE, PAGE \_\_\_\_ OF \_\_\_\_.**
13. **AT THE END OF EACH MONTH, SUBMIT** the completed CUMULATIVE Monthly Employment Utilization Report Form to the State Resident Engineer on the project site. One of these forms should be completed for each month of the contract.





GENERAL SPECIAL PROVISIONS FOR ALL PROJECTS  
2011 STANDARD SPECIFICATIONS

SECTION 105 - CONTROL OF THE WORK

1. 105.03 PLANS AND WORKING DRAWINGS, part (b) Working Drawings, subpart (4) List of Working Drawings, is hereby modified by deleting the phrase "Roadway, Traffic, and Safety Engineer" and replacing it with the phrase "Construction Engineer" in the twenty-third row (beginning "641").
2. 105.14 SUNDAY AND HOLIDAY WORK, part (b) Holidays, is hereby corrected by deleting punctuation "," at the end of the paragraph and replacing it with punctuation ".".
3. 105.26 OPENING WASTE, BORROW, AND STAGING AREAS, part (f), is hereby corrected by deleting punctuation "." at the end of the paragraph.

SECTION 109 - MEASUREMENT AND PAYMENT

4. SECTION 109 - MEASUREMENT AND PAYMENT, is hereby corrected by deleting pages 1-141 and 1-142 in their entirety.

SECTION 203 - EXCAVATION AND EMBANKMENTS

5. 203.01 DESCRIPTION, is hereby modified by adding the phrase "performing test borings for the purpose of determining areas of roadway and embankment subsurface voids;" after the phrase "trimming and shaping of slopes;" in the first sentence of the first paragraph.
6. 203.01 DESCRIPTION, is hereby further modified by adding the following new part (1):
  - (1) Test Borings. Test Borings shall consist of an investigative and planned approach to determining areas of roadway and embankment subsurface voids and repairing bored areas.
7. 203.02 MATERIALS, is hereby modified by adding the following to the Subsection listing:

PVC Plastic Pipe.....710.06

8. 203.02 MATERIALS, is hereby further modified by adding the following paragraphs:

Concrete for backfilling subsurface voids shall meet the requirements of Controlled Density (Flowable) Fill of Section 541.

Bituminous concrete pavement shall conform to the requirements of Section 406 or 490, as applicable for the Contract, with the exception that the mix design submittal and plant inspection requirements set forth in Section 406 or 490 will not apply.

9. 203.03 GENERAL CONSTRUCTION REQUIREMENTS, is hereby modified by adding the following as the eighth paragraph:

Prior to the construction of Test Borings and the placement of Controlled Density (Flowable) Fill, the Contractor shall submit to the Engineer site-specific plans, detailing the schedule of work (for these two items), type and location of drilling, sleeve installation, pumping system, confirmatory boring operation, method of filling bore hole (with or without voids being encountered), and repair of the roadway section (sand, gravel, and pavement).

10. 203.11 EMBANKMENTS, is hereby modified by adding the following new part (e):

- (e) Test Borings. Test borings shall be performed at the approximate locations indicated in the Plans and/or as directed by the Engineer.

When used adjacent to culverts, test borings shall extend to a depth equal to the bottom of the culvert using casing advanced drilling methods. Alternate drilling equipment that provides a suitably clean, open hole may be submitted to the Engineer for approval.

If void(s) are encountered, Controlled Density (Flowable) Fill shall be placed to completely fill the void(s). Confirmatory borings shall be performed in these locations as directed by the Engineer.

The roadway surface at boring hole locations shall be backfilled and then patched using Bituminous Concrete Pavement.

11. 203.13 METHOD OF MEASUREMENT, is hereby modified by adding the following new part (e):

- (e) Test Borings. The quantity of Test Borings to be measured for payment will be the number of meters (linear feet) of test boring performed in the complete and accepted work.

12. 203.14 BASIS OF PAYMENT, is hereby modified by adding the phrase "and Test Borings" after the phrase "Shoulder Berm Removal" in the first sentence of the first paragraph.

13. 203.14 BASIS OF PAYMENT, is hereby further modified by adding the phrase "submitting site-specific plans as required, performing test borings, installing sleeves, backfilling, patching with bituminous concrete pavement," after the phrase "work specified," in the second sentence of the first paragraph.

14. 203.14 BASIS OF PAYMENT, is hereby corrected by adding a period at the end of the sixth paragraph.

15. 203.14 BASIS OF PAYMENT, is hereby still further modified by adding the following paragraph and pay item:

Filling of subsurface voids encountered in performing Test Borings will be paid for under Contract item 541.45.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
203.45 Test Borings	Meter (Linear Foot)

SECTION 406 - MARSHALL BITUMINOUS CONCRETE PAVEMENT

16. 406.03 COMPOSITION OF MIXTURE, part (f) Boxed Samples, is hereby corrected by adding the word "Engineer" to the end of the second (last) sentence.

SECTION 507 - REINFORCING STEEL

17. 507.01 DESCRIPTION, is hereby modified by adding the phrase "of the level specified" after the phrase "bar reinforcement".

18. 507.01 DESCRIPTION, is hereby further modified by adding the following paragraphs:

Levels and associated types of reinforcing steel are specified as follows:

- (a) Level I (Limited Corrosion Resistance). Level I reinforcing includes plain, low alloy, and epoxy coated reinforcing steel.
- (b) Level II (Improved Corrosion Resistance). Level II reinforcing includes stainless clad and dual-coated reinforcing steel.
- (c) Level III (Exceptional Corrosion Resistance). Level III reinforcing includes solid stainless reinforcing steel.

The location, level, and when specified, type of reinforcing shall be as indicated in the Plans. Reinforcing supplied shall meet the requirements of the level specified or any higher level. Only one type of reinforcing steel shall be used for each level for the Contract work, unless permitted in writing by the Engineer.

19. 507.02 MATERIALS, is hereby modified by deleting the sixth (final) entry in the Subsection listing.
20. 507.03 FABRICATION AND SHIPMENT, part (a) General, is hereby modified by adding the phrase "deformed bar" after the phrase "shall be" in the first paragraph.
21. 507.03 FABRICATION AND SHIPMENT, part (a) General, is hereby corrected by deleting punctuation "..." and replacing it with punctuation "." at the end of the first paragraph.

22. 507.04 PROTECTION OF MATERIAL, is hereby modified by adding the following as the second sentence in the first paragraph:

When multiple levels of reinforcing steel are used on a project, they shall be stored separately, including during transport in order that there is no direct contact between the bars.

23. 507.04 PROTECTION OF MATERIAL, is hereby further modified by deleting the phrase "The epoxy coating" and replacing it with the word "Coatings" in the third sentence of the third paragraph.

24. 507.04 PROTECTION OF MATERIAL, is hereby still further modified by deleting the phrase "as required for damaged areas" and replacing it with the phrase "per the coating manufacturer's recommendations and to the satisfaction of the Engineer" in the third sentence of the fifth (last) paragraph.

25. 507.04 PROTECTION OF MATERIAL, is hereby still further modified by adding the following paragraph:

All ends of Level II reinforcement where the mild steel core is exposed shall be capped in accordance with one of the following:

- (a) Heat-shrink cap applied in accordance with the cap manufacturer's instructions.
- (b) Neoprene cap adhered with silicone or epoxy sealant.
- (c) Stainless steel cap epoxied in place.
- (d) Stainless steel seal weld.

26. 507.05 PLACING AND FASTENING REINFORCING STEEL, is hereby modified by deleting the sixth paragraph in its entirety and replacing it with the following:

Tie wires and supports used for installation of reinforcement shall be composed of the same material as any steel being contacted or shall be nonmetallic or coated with a dielectric (electrically insulated) material to prevent reactions between dissimilar metals. When forms are to be removed in their entirety, uncoated steel chairs equipped with snug-fitting, high-density, polyethylene tips which provide 3 mm (1/4 inch) clearance between the metal and any exposed surface may be used.

27. 507.10 METHOD OF MEASUREMENT, is hereby modified by deleting the phrase ", Epoxy Coated Reinforcing Steel, and Galvanized Reinforcing Steel" and replacing it with the phrase "of the type and size specified" in the first paragraph.

28. 507.10 METHOD OF MEASUREMENT, is hereby further modified by adding the phrase "of the type specified" at the end of the second paragraph (beginning "The quantity of Drilling and Grouting Dowels...").

29. 507.11 BASIS OF PAYMENT, is hereby modified by deleting the following pay items:

<u>Pay Item</u>	<u>Pay Unit</u>
507.15 Reinforcing Steel	Kilogram (Pound)
507.17 Epoxy Coated Reinforcing Steel	Kilogram (Pound)
507.18 Galvanized Reinforcing Steel	Kilogram (Pound)

30. 507.11 BASIS OF PAYMENT, is hereby further modified by adding the following pay items:

<u>Pay Item</u>	<u>Pay Unit</u>
507.11 Reinforcing Steel, Level I	Kilogram (Pound)
507.12 Reinforcing Steel, Level II	Kilogram (Pound)
507.13 Reinforcing Steel, Level III	Kilogram (Pound)

SECTION 516 - EXPANSION DEVICES

31. 516.01 DESCRIPTION, is hereby modified by adding the phrase ", or partially removing and modifying," after the word "installing".

32. 516.05A PARTIAL REMOVAL AND MODIFICATION, is hereby made a new Subsection of the Standard Specifications as follows:

516.05A PARTIAL REMOVAL AND MODIFICATION. The Contractor shall partially remove and modify the existing bridge joint at the locations indicated in the Plans and as directed by the Engineer.

Steel for new joint plates shall meet the requirements of Subsection 714.02.

The Contractor shall remove and dispose of existing joint plates, drain troughs, and associated hardware.

The Contractor shall grind existing steel plates and/or shoulder concrete to the configuration shown on the Plans. The final surface shall be to the satisfaction of the Engineer.

33. 516.06 METHOD OF MEASUREMENT, is hereby modified by adding the following paragraph:

The quantity of Partial Removal and Modification of Bridge Joint to be measured for payment will be the number of meters (linear feet) of bridge joint removed and modified in the complete and accepted work, measured along its centerline.

34. 516.07 BASIS OF PAYMENT, is hereby modified by adding the following paragraph and pay item:

The accepted quantity of Partial Removal and Modification of Bridge Joint will be paid for at the Contract unit price per meter (linear foot). Payment will be full compensation for partially removing and modifying the existing joint as specified and as detailed in the Plans, and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
516.20 Partial Removal and Modification of Bridge Joint	Meter (Linear Foot)

SECTION 540 - PRECAST CONCRETE

35. 540.02 MATERIALS, is hereby modified by deleting the fourteenth entry (beginning "Coated Bar Reinforcement...") in the Subsection listing.
36. 540.02 MATERIALS, is hereby further modified by adding the following as the twenty-eighth entry in the Subsection listing:

Sheet Membrane Waterproofing, Preformed Sheet.....726.11

37. 540.07 FABRICATION, part (e) Placing Concrete, is hereby modified by deleting the phrase "done with care" and replacing it with the phrase "performed in accordance with Subsection 501.10(f)" in the third (last) sentence.
38. 540.10 INSTALLATION, is hereby modified by adding the following new part (c):

- (c) Sheet Membrane Waterproofing. A reinforced asphalt, synthetic resin, or coal-tar based preformed sheet membrane shall be placed over the joints of precast concrete units in accordance with the Contract Documents. All work performed shall be in accordance with the manufacturer's recommendations.

Material for membrane shall meet the requirements of Subsection 726.11.

Waterproofing shall not be performed in wet weather or when the temperature is below 5°C (40°F), without the authorization of the Engineer.

The concrete surfaces that are to be waterproofed shall be reasonably smooth and free from projections or holes and shall be cleaned of dust and loose material. The surfaces shall be visibly dry prior to and during application of the membrane system.

39. 540.14 BASIS OF PAYMENT, is hereby modified by adding the following paragraph:

Furnishing and placing preformed sheet membrane waterproofing, including primer, mastic, polyurethane membrane sealant, and surface preparation, is considered incidental to the work for Precast Concrete Structure.

SECTION 541 - STRUCTURAL CONCRETE

40. 541.03 CLASSIFICATION AND PROPORTIONING, TABLE 541.03A (Metric) is hereby modified by adding the following as the eighth (bottom) row with the included footnote:

Controlled Density (Flowable) Fill	To be designed***	0.85	125 min.	15 ± 5	704.01 (Fine Aggregate)	90 max.	---
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\*\*\* A mineral admixture is required to replace a portion of the cement.

41. 541.03 CLASSIFICATION AND PROPORTIONING, TABLE 541.03A (English) is hereby modified by adding the following as the eighth (bottom) row:

Controlled Density (Flowable) Fill	To be designed***	0.85	6 min.	15 ± 5	704.01 (Fine Aggregate)	125 max.	---
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\*\*\* A mineral admixture is required to replace a portion of the cement.

42. 541.10 PLACING CONCRETE, part (c) Placement Limitations, is hereby modified by adding the following as the twelfth (last) paragraph:

Flowable fill shall be applied to voids and other locations as specified in the Contract Documents and as directed by the Engineer. Flowable fill shall be able to completely fill the existing voids.

43. 541.19 METHOD OF MEASUREMENT, is hereby modified by deleting the phrase "or LW" and replacing it with the phrase "LW, or Flowable Fill" in the first sentence of the first paragraph.

44. 541.20 BASIS OF PAYMENT, is hereby modified by adding the following pay item:

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
541.45 Controlled Density (Flowable) Fill	Cubic Meter (Cubic Yard)

SECTION 580 - STRUCTURAL CONCRETE REPAIR

45. 580.02 MATERIALS, is hereby modified by adding the following to the Subsection listing:

Polymer Concrete Repair Material.....780.05

46. 580.03 PROPORTIONING AND MIXING, is hereby modified by deleting the last sentence of the first paragraph in its entirety and replacing it with the following:

The product shall not be extended with sand or gravel, except for Rapid Setting Concrete Repair Material with Coarse Aggregate and Polymer Concrete Repair Material when mixed with approved aggregates in conformance with the manufacturer's recommendations.

47. 580.04 SURFACE PREPARATION FOR REPAIRS, OVERLAYS AND MEMBRANES, is hereby modified by adding the word "abrasive" after the phrase "shall be" and before the phrase "blast cleaned" in the first sentence of the third paragraph.
48. 580.04 SURFACE PREPARATION FOR REPAIRS, OVERLAYS AND MEMBRANES, is hereby further modified by adding the phrase ", or Polymer Concrete Repair Material," after the word "Aggregate" in the sixth paragraph.
49. 580.08 METHOD OF MEASUREMENT, is hereby modified by deleting the phrase "and not for new patches, which will be the responsibility of the Contractor" and replacing it with the phrase ", with no deductions made for areas of new patches" in the second sentence of the ninth paragraph.
50. 580.08 METHOD OF MEASUREMENT, is hereby further modified by adding the phrase ", and Polymer Concrete Repair Material" after the word "Aggregate" in the first sentence of the tenth paragraph.
51. 580.09 BASIS OF PAYMENT, is hereby modified by adding the phrase ", and Polymer Concrete Repair Material" after the word "Aggregate" in the seventh paragraph.
52. 580.09 BASIS OF PAYMENT, is hereby further modified by adding the following pay item:

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
580.21 Polymer Concrete Repair Material	Cubic Meter (Cubic Yard)

SECTION 608 - EQUIPMENT RENTAL

53. 608.02 GENERAL REQUIREMENTS, is hereby modified by adding the following new part (i):
- (i) Truck-Mounted Attenuator, Advanced Warning Vehicle/Protection Vehicle (AWV/PV). Truck-Mounted Attenuator, AWV/PV shall consist of a Truck-Mounted Attenuator meeting the requirements of Subsection 608.02(h) and be equipped with a Changeable Message Sign in accordance with the MUTCD. The Changeable Message Sign shall be mounted so as to be clearly visible to the traveling public and shall be capable of being controlled from inside the cab of the vehicle, with capable controls including but not limited to turning the sign on and off, changing between preset messages, and inserting new messages when approved by the Engineer. Phases of signing shall have the ability to change automatically when required.
54. 608.04 BASIS OF PAYMENT, is hereby modified by changing the word "item" to "items" and by adding the phrase "and Truck-Mounted Attenuator, AWV/PV" after the phrase "Truck-Mounted Attenuator" in the second (last) paragraph.

55. 608.04 BASIS OF PAYMENT, is hereby further modified by adding the following pay item:

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
608.50 Truck-Mounted Attenuator, AWV/PV	Hour

SECTION 613 - STONE FILL, RIPRAP, AND SLOPE PAVING

56. 613.02 MATERIALS, is hereby modified by adding the following to the Subsection listing:

Rock Fill for Gabions.....	706.06
Gabion Baskets.....	712.04

57. 613.04 PLACING, is hereby modified by adding the following new part (d):

(d) Rock Fill for Gabions. The furnishing and installing of gabion baskets shall be performed in accordance with the manufacturer's recommendations.

The Contractor should expect to perform some manual stone placement to minimize voids and to create a neat, flat vertical surface of gabions.

58. 613.05 METHOD OF MEASUREMENT, is hereby modified by adding the following paragraph:

The quantity of Gabion Wall to be measured for payment will be the number of cubic meters (cubic yards) of Rock Fill for Gabions placed in the complete and accepted work.

59. 613.06 BASIS OF PAYMENT, is hereby modified by adding the phrase "and Gabion Wall" after the word "specified" in the first sentence of the first paragraph.

60. 613.06 BASIS OF PAYMENT, is hereby modified by adding the phrase ", including gabion baskets," after the word "material" in the third (last) sentence of the first paragraph.

61. 613.06 BASIS OF PAYMENT, is hereby still further modified by adding the phrase "or rock" after the word "stone" in the first sentence of the second paragraph.

62. 613.06 BASIS OF PAYMENT, is hereby still further modified by adding the following paragraph:

Geotextile fabric and bedding material for Gabion Wall will be paid for under the appropriate Contract items.

- 63. 613.06 BASIS OF PAYMENT, is hereby still further modified by adding the following pay item:

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
613.25 Gabion Wall	Cubic Meter (Cubic Yard)

SECTION 616 - CURBS AND GUTTERS

- 64. 616.05 REPOINTING GRANITE BRIDGE CURB, is hereby made a new Subsection of the Standard Specifications as follows:

616.05 REPOINTING GRANITE BRIDGE CURB. The existing mortar bed and vertical curb joints shall be repointed as shown on the Plans. Mortar shall meet the requirements of Subsection 707.01.

- 65. 616.14 METHOD OF MEASUREMENT, is hereby modified by adding the following as the second paragraph:

The quantity of Repointing Granite Bridge Curb to be measured for payment will be the number of liters (gallons) of mortar applied in the completed and accepted work, measured to the nearest liter (gallon).

- 66. 616.14 METHOD OF MEASUREMENT, is hereby corrected by changing the word "portland" to "Portland" in the fifth (last) paragraph.

- 67. 616.15 BASIS OF PAYMENT, is hereby modified by adding the following as the second paragraph:

The accepted quantity of Repointing Granite Bridge Curb will be paid for at the Contract unit price per liter (gallon). Payment will be full compensation for furnishing, transporting, handling, and placing the material specified and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

- 68. 616.15 BASIS OF PAYMENT, is hereby corrected by changing the word "portland" to "Portland" in the fourth paragraph.

- 69. 616.15 BASIS OF PAYMENT, is hereby further modified by adding the following pay item:

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
616.225 Repointing Granite Bridge Curb	Liter (Gallon)

SECTION 621 - TRAFFIC BARRIERS

- 70. 621.01 DESCRIPTION, is hereby modified by adding the phrase "repairing," after the phrase "removing,".

- 71. 621.02 MATERIALS, is hereby modified by adding the following as the fifth entry in the Subsection listing:

Wire Rope or Cable.....713.03

72. 621.13 REPLACEMENT, ADJUSTMENT, REMOVAL, AND DISPOSAL OF GUARDRAIL OR GUIDE POSTS, is hereby modified by deleting the phrase "post assemblies and panel units" and replacing it with the phrase "guardrail components" in the second sentence of the first paragraph.

73. 621.13 REPLACEMENT, ADJUSTMENT, REMOVAL, AND DISPOSAL OF GUARDRAIL OR GUIDE POSTS, is hereby further modified by deleting the phrase "post assembly replacement or guardrail beam replacement occur" and replacing it with the phrase "guardrail component replacement occurs" in the fourth paragraph.

74. 621.13 REPLACEMENT, ADJUSTMENT, REMOVAL, AND DISPOSAL OF GUARDRAIL OR GUIDE POSTS, is hereby still further modified by adding the following as the sixth and seventh paragraphs:

Offset blocks designated for replacement shall be replaced in-kind. Materials shall be in conformance with the applicable requirements of Subsection 728.01 for either wood, steel, or alternative blockouts.

Cable guardrail repair shall be performed in accordance with VTrans Standard Drawing G-6 and as directed by the Engineer.

75. 621.14 METHOD OF MEASUREMENT, is hereby modified by adding the following as the fourth and fifth paragraphs of the Subsection text:

The quantities of Cable Guardrail J-Bolt, Galvanized and Cable Guardrail Splice Unit to be measured for payment will be the number of units installed in the complete and accepted work.

The quantity of Replacement of Guardrail Cable to be measured for payment will be the number of meters (linear feet) installed in the complete and accepted work.

76. 621.14 METHOD OF MEASUREMENT, is hereby further modified by adding the following as the eighth paragraph of the Subsection text:

The quantities of Steel Beam Guardrail Delineator and Steel Beam Guardrail Offset Block to be measured for payment will be the number of each component replaced in the complete and accepted work.

77. 621.15 BASIS OF PAYMENT, is hereby modified by adding the following as the second, third, and fourth paragraphs of the Subsection text:

The accepted quantities of Cable Guardrail J-Bolt, Galvanized and Cable Guardrail Splice Unit will be paid for at the Contract unit price for each.

The accepted quantity of Replacement of Cable Guardrail will be paid for at the Contract unit price per meter (linear foot).

The accepted quantities of Steel Beam Guardrail Delineator and Steel Beam Guardrail Offset Block will be paid for at the Contract unit price for each.

78. 621.15 BASIS OF PAYMENT, is hereby further modified by adding the phrase "removing and disposing of damaged guardrail component(s)," after the phrase "specified," in the first sentence of the tenth paragraph.

79. 621.15 BASIS OF PAYMENT, is hereby still further modified by adding the following pay items:

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
621.173 Cable Guardrail J-Bolt, Galvanized	Each
621.174 Cable Guardrail Splice Unit	Each
621.175 Replacement of Guardrail Cable	Meter (Linear Foot)
621.218 Steel Beam Guardrail Delineator	Each
621.219 Steel Beam Guardrail Offset Block	Each
621.726 Guardrail Approach Section, Galvanized 3 Rail Box Beam w/Curb	Each
621.735 Guardrail Approach Section, Steel Beam	Each
621.736 Guardrail Approach Section, Steel Beam w/2.4 m (8 feet) Posts	Each

SECTION 677 - OVERHEAD TRAFFIC SIGN SUPPORTS

80. 677.01 DESCRIPTION, is hereby modified by adding the phrase "and removing and disposing of existing overhead traffic sign supports," after the phrase "supports,".

81. 677.03 GENERAL, is hereby modified by adding the following paragraph:

Where existing overhead traffic sign supports are to be removed, the Contractor shall remove and dispose of the entire sign assembly, including concrete footings, to a depth of 450 mm (18 inches) below existing grade. Areas of ground disturbance shall be restored to the satisfaction of the Engineer.

82. 677.05 METHOD OF MEASUREMENT, is hereby modified by adding the following paragraph:

The quantity of Remove Existing Overhead Sign Assembly of the type specified to be measured for payment will be the number of each assembly removed in the complete and accepted work.

83. 677.06 BASIS OF PAYMENT, is hereby modified by adding the following paragraphs and pay items:

The accepted quantity of Remove Existing Overhead Sign Assembly of the type specified will be paid for at the Contract unit price per each. Payment will be full compensation for removing and disposing of assembly components, including concrete footings; for performing any excavation necessary; for restoring areas of ground disturbance; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

Costs associated with providing traffic control and/or flaggers for performing the work will be paid under the appropriate Contract item(s).

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
677.30 Remove Existing Overhead Sign Assembly, Cantilever	Each
677.35 Remove Existing Overhead Sign Assembly, Multi-Support	Each

SECTION 678 - TRAFFIC CONTROL SIGNALS

84. 678.01 DESCRIPTION, is hereby modified by adding the phrase ", and removing existing traffic control systems" after the word "system" in the first paragraph.

85. 678.11 INSTALLATION, sixteenth paragraph, part (a), is hereby modified by adding the following as the third sentence:

The Contractor shall remove any equipment to be salvaged or reused in such a manner that the equipment is not damaged.

86. 678.13 METHOD OF MEASUREMENT, is hereby modified by adding the following paragraph:

The quantity of Removal of Existing Traffic Control Signal System to be measured for payment will be for each traffic control signal system removed in the complete and accepted work.

87. 678.14 BASIS OF PAYMENT, is hereby modified by adding the phrase "all removal, disposal, and salvage and/or reuse of existing system equipment and components," after the phrase "Electrical Wiring," in the second sentence of the first paragraph.

88. 678.14 BASIS OF PAYMENT, is hereby further modified by adding the following paragraph and pay item:

The accepted quantity of Removal of Existing Traffic Control Signal System will be paid for at the Contract unit price per each. Payment will be full compensation for removing and handling the existing traffic control signal system components as specified in the Contract Documents and for furnishing all labor, materials, tools, equipment, and incidentals necessary to complete the work.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
678.45 Removal of Existing Traffic Control Signal System	Each

SECTION 700 GENERAL

89. 700.01 GENERAL STATEMENT, is hereby corrected by deleting punctuation "...," at the end of the first sentence of the fourth paragraph and replacing it with punctuation ".".

SECTION 713 - REINFORCING STEEL, WELDED WIRE REINFORCEMENT, AND  
REINFORCING STRAND

90. 713.01 BAR REINFORCEMENT, is hereby modified by deleting the phrase "conforming to AASHTO M 31M/M 31, including supplementary requirements" and replacing it with the phrase ", unless otherwise specified in the Contract Documents" in the first paragraph.
91. 713.01 BAR REINFORCEMENT, is hereby further modified by adding the following new parts (a)-(f) and associated paragraphs:
- (a) Plain Reinforcing Steel. Plain reinforcing steel shall conform to AASHTO M 31M/M 31, including supplementary requirements.
  - (b) Low Alloy Reinforcing Steel. Low alloy reinforcing steel shall conform to ASTM A 706/A 706M.
  - (c) Epoxy Coated Reinforcing Steel. Epoxy coated reinforcing steel shall have an electrostatically applied organic epoxy protective coating, which has been prequalified, fabricated, tested, and installed in accordance with AASHTO M 284M/M 284 or ASTM A 884.
  - (d) Stainless Clad Reinforcing Steel. Stainless clad reinforcing steel shall meet the requirements of AASHTO M 329M/M 329.
  - (e) Dual-Coated Reinforcing Steel. Dual-coated reinforcing steel shall meet the requirements of ASTM A 1055/A 1055M.
  - (f) Solid Stainless Reinforcing Steel. Solid stainless reinforcing steel shall meet the requirements of ASTM A 955/A 955M with one of the following UNS designations: S24100, S30400, S31603, S31653, S32101, S32201, S32205, or S32304. Different designations shall not be mixed within the same project.

Where no core steel requirements are specified in the above specifications, the steel core of the bar reinforcement shall meet the requirements of plain reinforcing steel.

Certification. A Type D Certification shall be furnished in accordance with Subsection 700.02. Certification for Epoxy Coated Reinforcing Steel shall include the coating and coating process.

92. 713.07 COATED BAR REINFORCEMENT, is hereby modified by being deleted in its entirety.

SECTION 726 - PROTECTIVE COATINGS AND WATERPROOFING MATERIALS

93. 726.10 CONCRETE STAINING AND SEALING SYSTEMS, is hereby made a new Subsection of the Standard Specifications as follows:

726.10 CONCRETE STAINING AND SEALING SYSTEMS. Approved Concrete Staining and Sealing Systems shall be one of the Concrete Staining and Sealing Systems on the Approved Products List on file with the Agency's Materials and Research Section.

94. 726.11 SHEET MEMBRANE WATERPROOFING, PREFORMED SHEET, is hereby made a new Subsection of the Standard Specifications as follows:

726.11 SHEET MEMBRANE WATERPROOFING, PREFORMED SHEET. Approved Preformed Sheet Membrane Waterproofing Systems shall be one of the Preformed Sheet Membrane Waterproofing Systems on the Approved Products List on file with the Agency's Materials and Research Section.

SECTION 731 - BEARING PADS FOR STRUCTURES

95. 731.03 ELASTOMERIC MATERIAL, is hereby modified by deleting the second and third paragraphs in their entirety and replacing them with the following:

Unless noted otherwise, elastomer shall have a design hardness of 50 points and a design shear modulus of 0.8 MPa (110 psi).

Testing of elastomeric material shall be waived for bearings that will be encased in concrete in the final work. All other bearings shall be tested in accordance with the following table:

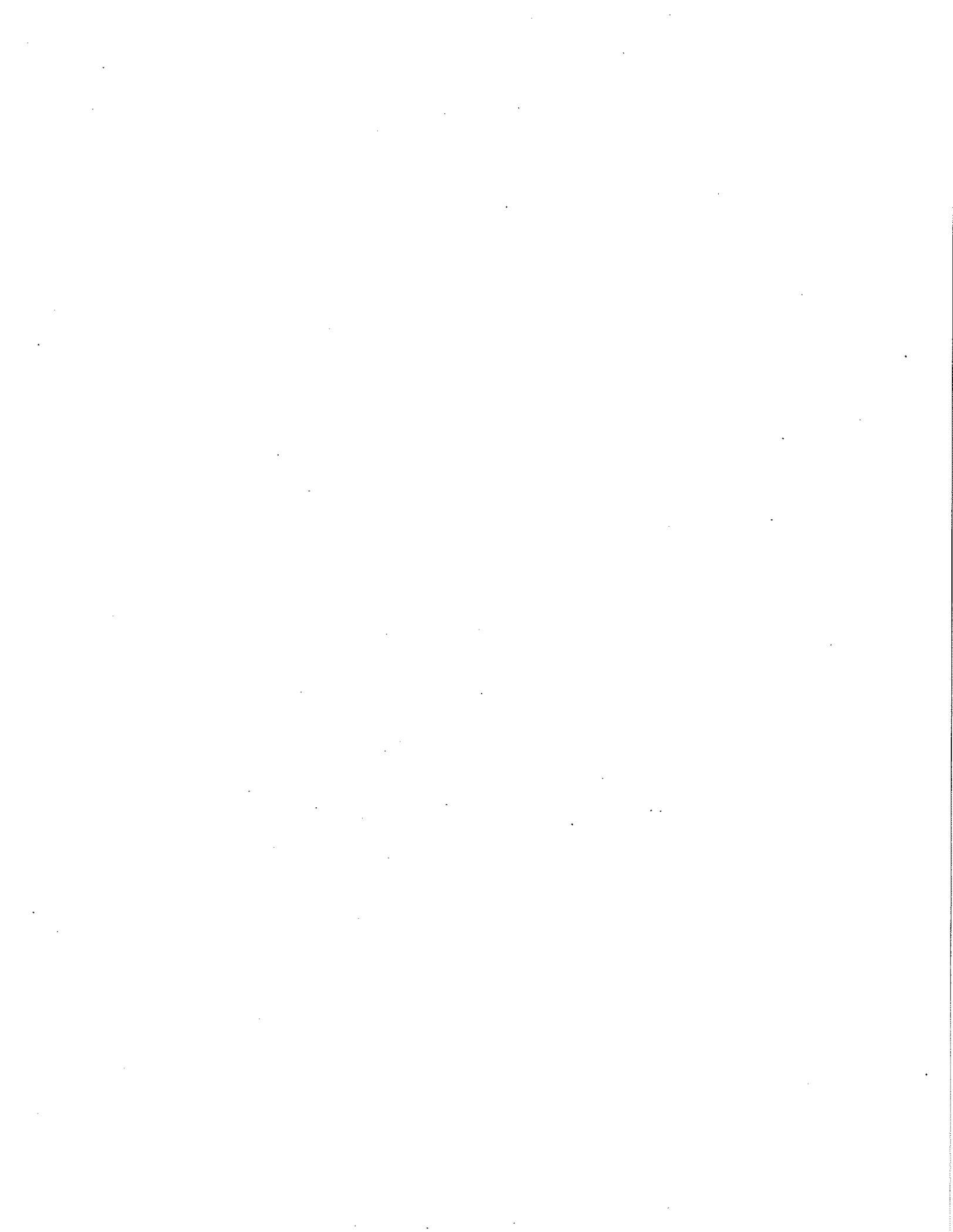
TABLE 731.03A - REQUIRED TESTS

Material Property	Test Method	Required Result
Hardness	ASTM D 2240	design hardness +/- 5 points
or		
Shear Modulus	ASTM D 412 with AASTHO M 251 Section 8.8.4	design shear modulus +/- 15%
Low Temperature Brittleness	ASTM D 746 Procedure B	Pass Grade 4 test
Shear Bond Strength	AASHTO M 251 Annex A2 or Appendix X2	Pass
Min Tensile Strength	ASTM D 412	15.6 MPa (2250 psi)
Min Ultimate Elongation	ASTM D 412	(650 - 5 X design hardness)%

SECTION 780 - CONCRETE REPAIR MATERIALS

96. 780.05 POLYMER CONCRETE REPAIR MATERIAL, is hereby made a new Subsection of the Standard Specifications as follows:

780.05 POLYMER CONCRETE REPAIR MATERIAL. Approved Polymer Concrete Repair Materials shall be one of the Polymer Concrete Repair Materials on the Approved Products List on file with the Agency's Materials and Research Section.



BULLETIN 3.5 COMPLIANCE

This specification contains provisions applicable to Vermont Agency of Transportation Construction Contracts as outlined in the Agency of Administration Bulletin No. 3.5, Contracting Procedures, dated July 15, 2008, that are not otherwise included in the Contract.

*The following provisions are based on, or adopted from, provisions found in Appendix II - Attachment C: Standard State Contract Provisions.*

1. ENTIRE AGREEMENT

This Contract represents the entire agreement between the parties on the subject matter. All prior agreements, representations, statements, negotiations, and understandings shall have no effect.

2. APPLICABLE LAW

This Contract will be governed by the laws, whether statutory or case law, of the State of Vermont.

3. APPROPRIATIONS

If this Contract extends into more than one fiscal year of the State (July 1 to June 30), and if appropriations are insufficient to support this Contract, the State may cancel the Contract at the end of the fiscal year, or otherwise upon the expiration of existing appropriation authority.

4. NO EMPLOYEE BENEFITS FOR CONTRACTOR

The Contractor understands that the State will not provide any individual retirement benefits, group life insurance, group health and dental insurance, vacation or sick leave, workers compensation or other benefits or services available to State employees, nor will the State withhold any state or federal taxes. The Contractor understands that all tax returns required by the Internal Revenue Code and the State of Vermont, including but not limited to income, withholding, sales and use, and rooms and meals, must be filed by the Contractor, and information as to Contract income will be provided by the State of Vermont to the Internal Revenue Service and the Vermont Department of Taxes.

5. INDEPENDENCE

The Contractor will act in an independent capacity and not as officers or employees of the State.

6. RECORDS AVAILABLE FOR AUDIT

The Contractor will maintain all books, documents, payroll papers, accounting records and other evidence pertaining to costs incurred under this Contract and make them available at reasonable times during the period of the Contract and for three years thereafter for inspection by any authorized representatives of the State or Federal Government. If any litigation, claim, or audit is started before the expiration of the three year period, the records shall be retained until all litigation, claims or audit findings involving the records have been resolved. The State, by any authorized representative, shall have the right at all reasonable times to inspect or otherwise evaluate the work performed or being performed under this Contract.

7. FAIR EMPLOYMENT PRACTICES

Contractor agrees to comply with the requirement of Title 21 V.S.A. Chapter 5, Subchapter 6, relating to fair employment practices, to the full extent applicable.

8. SET OFF

The State may set off any sums which the Contractor owes the State against any sums due the Contractor under this Contract, including any costs the State incurs due to the Contractor's noncompliance with this Contract; provided, however, that any set off of amounts due the State of Vermont as taxes shall be in accordance with the procedures more specifically provided hereinafter.

Any amount deducted from payment due to the Contractor shall be deemed to have been paid to the Contractor for purposes of payment obligations under Subsection 109.08 PARTIAL AND FINAL PAYMENTS.

9. TAXES DUE TO THE STATE

- a. Contractor understands and acknowledges responsibility for compliance with State tax laws, including income tax withholding for employees performing services within the State, payment of use tax on property used within the State, corporate and/or personal income tax on income earned within the State.
- b. By signing this Contract, the Contractor certifies under the pains and penalties of perjury that, as of the date the Contract is signed, the Contractor is in good standing with respect to, or in full compliance with, a plan to pay any and all taxes due the State of Vermont.
- c. Contractor understands that final payment under this Contract may be withheld if the Commissioner of Taxes determines that the Contractor is not in good standing with respect to or in full compliance with a plan to pay any and all taxes due to the State of Vermont.
- d. Contractor also understands the State may set off taxes (and related penalties, interest and fees) due to the State of Vermont, but only if the Contractor has failed to make an appeal within the time allowed by law, or an appeal has been taken and finally determined and the Contractor has no further recourse to contest the amounts due.

10. CHILD SUPPORT PAYMENTS

By signing the Contract the Contractor certifies, as of the date of the Contract is signed, that he/she is (a) not under any obligation to pay child support; or (b) is under such an obligation and is in good standing with respect to that obligation; or (c) has agreed to a payment plan with the Vermont Office of Child Support Services and is in full compliance with that plan. ~~If the Contractor is a sole proprietorship, the Contractor's statement applies only to the sole proprietor. If the Contractor is a partnership, the Contractor's statement applies to all the general partners with a permanent residence in Vermont. If the Contractor is a corporation, this provision does not apply.~~

11. NO GIFTS OR GRATUITIES

Contractor shall not give title or possession of any thing of substantial value (including property, currency, travel and/or education programs) to any officer or employee of the State during the term of this Contract.

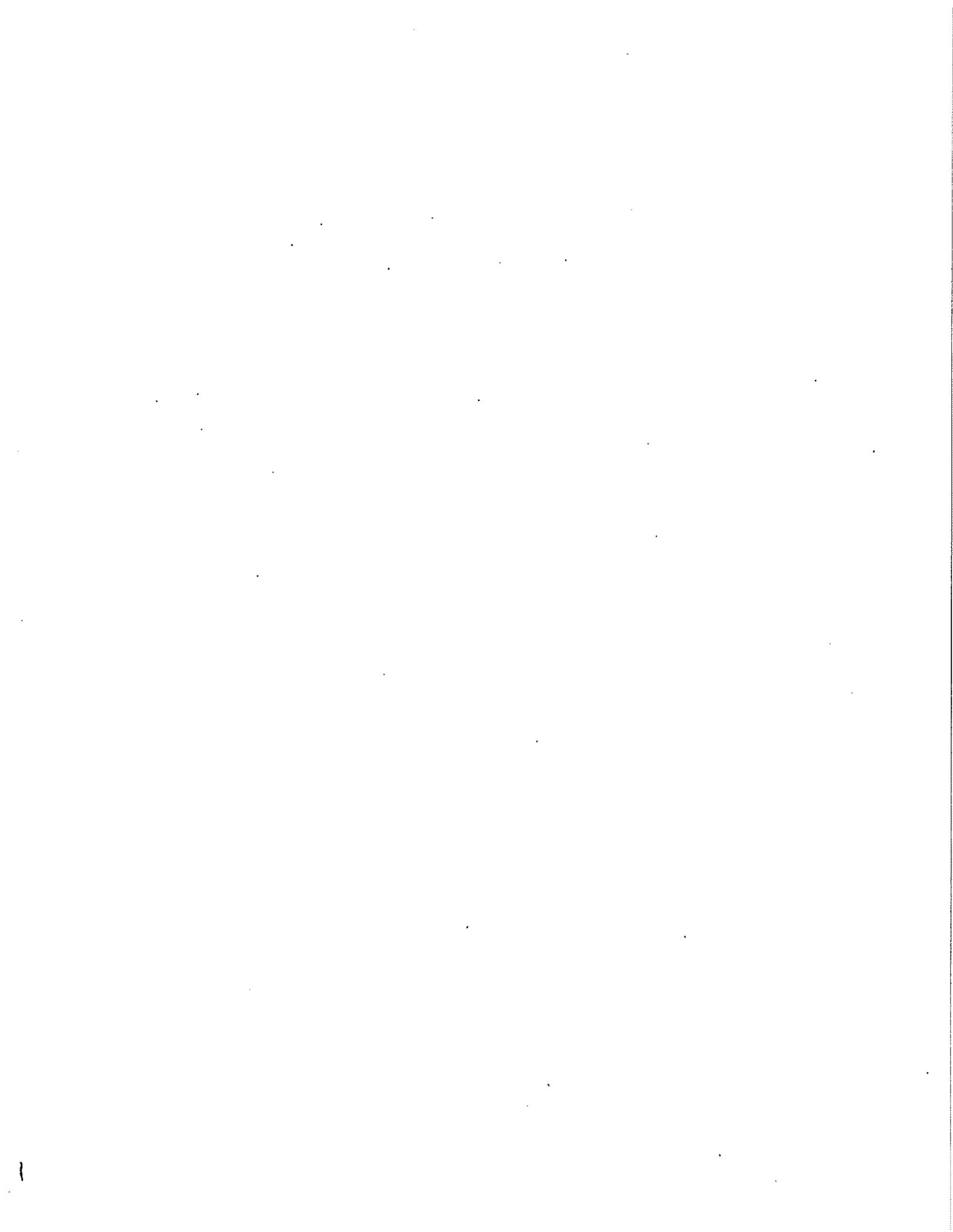
*The following provisions are based on, or adopted from, provisions found in Appendix II - Attachment D: Other Contract Provisions.*

12. AVAILABILITY OF FEDERAL FUNDS

If the Contract is funded in whole or in part by federal funds, and the federal funds supporting this Contract become unavailable or are reduced, the State may cancel this Contract immediately, and the State shall have no obligation to pay the Contractor from State revenues.

13. CONTRACTORS' LIENS

Contractor will discharge any and all Contractors' or mechanics' liens imposed on property of the State through the actions of subcontractors or suppliers.



Special Provisions for: Hancock ER BRF 0174(16)

1. LABOR SUPPLY. Available workers for this Contract may be obtained from Manager, Employment & Training, White River Junction, VT. The latest edition of the DBE Registry can be obtained from the Office of Civil Rights and Labor's Webpage at the following address: [www.aot.state.vt.us/CivilRights/default.htm](http://www.aot.state.vt.us/CivilRights/default.htm). Contractors that do not have access to the internet may obtain a copy from the Office of Contract Administration upon request.
2. CONTRACT COMPLETION DATE. This Contract shall be completed on or before August 16, 2013.
3. NOTICE TO BIDDERS. U.S. Department of Labor Davis-Bacon wage rates are applicable to this Contract. Copies of the applicable rates are included in this proposal.
4. CONTACT WITH THE AGENCY. From the time of advertising until the actual bid opening for this Contract, all prospective Contractors, subcontractors, and suppliers shall direct all inquiries related to this project solely to the Agency's Office of Contract Administration at (802) 828-2641. This number may also be accessed via the Agency's TTY/TDD Telecommunications Relay Service at 1-800-253-0191.

*The deadline for submitting inquiries related to this project to the Office of Contract Administration is 4:30 p.m. Eastern Standard Time on September 7, 2012. No exceptions will be made to this requirement.*

5. NOTICE TO BIDDERS. The Contractor is hereby notified that in the absence of the Engineer, the Agency's Safety Officer and the Agency's Hazardous Materials and Waste Coordinator shall each have the authority to suspend work when they determine that a serious safety or environmental violation exists on the job site. The period of time work is suspended due to a serious safety or environmental violation will not be justification for an extension of time.
6. NOTICE TO BIDDERS - RESEARCH EVALUATION WORK PLAN. The Contractor is hereby notified of a Research Evaluation Work Plan for this project. A copy of the Work Plan is included in this proposal. The Contractor shall comply with all of the requirements of the Work Plan during the construction of this project.

Compliance with the Work Plan includes the procurement, installation, and access to the Sterling Lloyd Eliminator Waterproofing Membrane System provided and installed in accordance with the Contract Documents.

Costs associated with complying with the requirements of the Work Plan will be considered incidental to Contract item 900.675 Special Provision (Membrane Waterproofing, Spray Applied).

7. STANDARD SPECIFICATIONS. The provisions of the 2011 STANDARD SPECIFICATIONS FOR CONSTRUCTION, as modified herein, shall apply to this Contract.
8. SUPPLEMENTAL SPECIFICATIONS AND CONTRACT REQUIREMENTS. The Contractor's attention is directed to the following specifications and contract requirements included in the Proposal form and effective for this Contract:

Required Contract Provisions for Federal-Aid Construction  
Standard Federal EEO Specifications  
VT Agency of Transportation Contractor Workforce Reporting Requirements  
Workers' Compensation; State Contracts Compliance Requirement  
General Special Provisions dated February 7, 2012  
Bulletin 3.5 Compliance dated July 25, 2008  
Vermont Minimum Labor & Truck Rates  
Disadvantaged Business Enterprise (DBE) Policy Contract Requirements  
U.S. Department of Labor Davis-Bacon Wage Rates  
Asphalt Price Adjustment Provisions dated April 6, 2010  
Stream Alteration Permit #HD-4-1015 dated April 26, 2012  
Army Corp of Engineers Permit #NAE-2012-0603 dated April 19, 2012  
Amendment to Army Corp of Engineers Permit #NAE-2012-0603 (#NAE-2012-0603-M1) dated June 5, 2012  
Army Corp of Engineers Permit #NAE-2012-0603 expiration date clarification (e-mail) dated July 24, 2012  
Work Plan for Research Investigation No. WP-2011-6 dated August 9, 2012  
Certification for Federal-Aid Contracts  
Contractor's EEO Certification Form  
Debarment & Non-Collusion Affidavit

9. NOTICE TO BIDDERS - ADDITIONAL CONTRACT REQUIREMENT. For construction and transportation projects over \$250,000.00, a payroll process by which during every pay period the Contractor collects from the subcontractors or independent contractors a list of all workers who were on the jobsite during the pay period, the work performed by those workers on the jobsite, and a daily census of the jobsite. This information, including confirmation that Contractors, subcontractors, and independent contractors have the appropriate workers' compensation coverage for all workers at the jobsite, and similar information for the subcontractors regarding their subcontractors shall also be provided to the Department of Labor and to the Department of Banking, Insurance, Securities, and Health Care Administration, upon request, and shall be available to the public.
10. NOTICE TO BIDDERS. All temporary construction signs shall meet the following requirements:
- A. Where sign installations are not protected by guardrail or other approved traffic barriers, all sign stands and post installations shall meet National Cooperative Highway Research Program (NCHRP) Report 350 or the AASHTO Manual for Assessing Safety Hardware (MASH). The appropriate resource shall be determined as described in the MASH publication. No sign posts shall extend over the top of the sign installed on said post(s). When anchors are installed, stub shall not be greater than 100 mm (4 inches) above existing ground.
  - B. As a minimum, roll up sign material shall have ASTM D 4956 Type VI fluorescent orange retroreflective sheeting.
  - C. All post-mounted signs and solid substrate portable signs shall have ASTM D 4956 Type VII, Type VIII, or Type IX fluorescent orange retroreflective sheeting.
  - D. All retroreflective sheeting on traffic cones, barricades, and drums shall be at a minimum ASTM D 4956 Type III sheeting.

- E. All stationary signs shall be mounted on two 4.5 kg/m (3 lb/ft) flanged channel posts or 51 mm (2 inch) square steel inserted in 57 mm (2 ¼") galvanized square steel anchors. No sign posts shall extend over the top edge of sign installed on said posts.
  - F. Prior to placing temporary work zone signs on the project, the Contractor must furnish for the Engineer's approval a detail for temporary work zone signs on steel posts showing stubs projecting a maximum of 100 mm (4 inches) above ground level and bolts for sign post.
  - G. Construction signs shall be installed so as to not interfere with nor obstruct the view of existing traffic control devices, stopping sight distance, and corner sight distance from drives and town highways.
  - H. Speed zones, if used, should be a maximum of 16 kph (10 mph) below existing posted speeds. Temporary speed limit certificates must be approved by the Director of Program Development.
11. NOTICE TO BIDDERS. All retroreflective sheeting on permanent signs (signs to remain after the project is completed) shall be at a minimum ASTM D 4956 Type III sheeting, unless otherwise shown on the Plans.
12. UTILITIES. Existing aerial facilities owned by Central Vermont Public Service Corp. and Telephone Operating Co. of VT LLC will be adjusted, as necessary, by employees or agents of the above companies in accordance with the approximate aerial utility relocation route shown on the Plans.

Contacts for the above listed companies are as follows:

Central Vermont Public Service Corp.: Bill Jakubowski - (802)747-5866  
Telephone Operating Co. of VT LLC: Andrew Rice - (802)747-1074

The Contractor is advised that the existing utility line will not be moved to the temporary relocation route until the detour bridge is in place. Once the detour bridge is in place, the aerial utilities can be moved to the temporary location and the temporary bridge may be removed to begin work. The utility line will be moved back to its original location after the bridge is complete and prior to the detour bridge being removed. All coordination with the utility companies shall be done through the Resident Engineer. Please note that sufficient notice needs to be given to the utility companies.

The Contractor is advised that exploratory excavation to locate existing underground facilities may be necessary to protect these facilities from damage. Where approved by the Engineer, these utilities shall be located and/or exposed by methods such as air/vacuum excavation and/or hand digging to determine their exact location. This exploratory work shall be classified as Trench Excavation of Earth, Exploratory and payment will be made under Contract item 204.22.

Employees or agents of the above listed companies are to be allowed free and full access within the project limits with the tools, materials, and equipment necessary to install, operate, maintain, place, replace, and remove their facilities.

There will be no extra compensation paid to the Contractor for any inconvenience caused by working around and with the companies or their facilities.

Act No. 86 of 1987 (30 VSA Chapter 86) ("Dig Safe") requires that notice be given prior to making an excavation. It is suggested that the Permit Holder or his/her contractor telephone 1-888-344-7233 at least 48 hours before, and not more than 30 days before, beginning any excavation at any location.

Should the Contractor desire additional adjustment of the utility facilities for his/her convenience, proper arrangements shall be made in conformance with Subsection 105.07 of the Standard Specification for Construction.

13. NOTICE TO BIDDERS - SALVAGED MATERIALS. The Contractor is hereby notified that the existing temporary bridge and appurtenances, and existing guardrail, removed under this project and deemed re-usable by the Agency shall remain the property of the State.

The Contractor shall remove these materials in such a manner that salvageable components are not damaged. Component materials not designated to be retained by the State shall be disposed of by the Contractor to the satisfaction of the Engineer.

All salvageable guardrail shall be disassembled to its basic component (rail, post, offset block, and end terminal) parts.

When the existing temporary bridge is no longer needed to maintain traffic on the project, as determined by the Engineer, the existing temporary bridge and appurtenances will be dismantled and delivered to the VTrans Maintenance Facility located in Middlesex, VT. The Contractor shall contact VTrans Bridge Maintenance Manager Bill Sargeant [Tel.: (802)828-2699] a minimum of two (2) weeks prior to beginning delivery to the designated location. All deliveries shall be made during normal Agency workdays between the hours of 7:00 a.m. and 3:30 p.m., and shall only be made if a District #6 representative is present at the maintenance facility. District personnel will offload the temporary bridge and appurtenance materials.

The Contractor shall supply a qualified field representative from Mabey Bridge & Shore, Inc. to be present at the de-launching and disassembly of the temporary bridge.

All temporary bridge parts shall be completely disassembled, pressure washed, and inspected prior to their delivery to the designated location. The inspection shall be performed by the Agency's Engineer and the Maybe Bridge & Shore, Inc. representative. The Engineer and Contractor shall clearly mark any damaged components with fluorescent paint for later inspection by State personnel. Major components shall be stacked together in accordance with the following requirements:

- (a) Panel - STD (MC200) - stacks of 6 with ends alternating.
- (b) Panel - High Shear (MC201) - same as above.
- (c) Deck Panels (MC360) - stacks of 8.
- (d) Transom - MC454 - HS20 - Special - stack so can be removed from truck or trailer one at a time.

- (e) Notwithstanding the above, no individual bundle or stack of components shall weigh more than 5000 pounds.

The bundles or stacks of components shall be supported and separated with 4 inch x 4 inch hardwood blocking to allow offloading with a front-end loader equipped with forks. All temporary bridge parts shall be transported on flatbed trucks or trailers to facilitate offloading. Small parts (including pins, clips, nuts, and bolts) shall be completely disassembled, cleaned, sorted by size and/or length, and placed in separate containers (buckets, boxes, bags, etc.).

All costs for loading and delivering these salvaged materials will be paid for under Contract item 900.645 Special Provision (Removal of Temporary Bridge and Approaches).

Final payment for Contract item 900.645 Special Provision (Removal of Temporary Bridge and Approaches) will not be made until all parts of the temporary bridge, and appurtenances, have been properly returned and approaches have been removed and restored to the satisfaction of the Engineer.

- 14. HIGHWAY PARKING RESTRICTIONS. Only such trucks and equipment as are necessary for the construction of this project will be permitted to stop or park on the shoulders or right-of-way of the highway or intersecting highways. All trucks or equipment so stopped or parked shall be at least 1.2 m (4 feet) from the edge of the thru traffic lanes. Parking or stopping on the traveled portion of the roadway will not be permitted unless authorized by the Engineer to meet field conditions.

Private automobiles of workers will not be permitted to stop or park on the shoulders or right-of-way of the highway or intersecting highways.

Each of the Contractor's trucks or equipment used for the construction of this project and permitted to park or stop as provided above shall be equipped with flashing light signals on the front and rear and the signals shall be operating at all times when parked or stopped on the highway unless otherwise authorized by the Engineer.

The flashing light signals shall be visibly distinct from and physically separate from the hazard warning system required by Federal and State motor vehicle laws and regulations. At least one of these flashing light signals shall be visible to traffic approaching from any angle at all times.

Qualified traffic control personnel shall be employed whenever the Contractor's vehicles or equipment (including that which belongs to the individual workers) enter or leave the traffic flow. All movement, in or out of the traffic flow, shall be with the flow of traffic.

15. SPECIAL CONSTRUCTION REQUIREMENTS.

- A. Unless otherwise permitted in writing by the Engineer, the Contractor shall not work during the holiday periods for Memorial Day, July Fourth, Labor Day, Columbus Day, Veterans Day, and Thanksgiving Day. The Engineer shall give a written order designating the time of observance of these holidays and of any additional holidays required by the season, anticipated traffic, and local custom. As specified in Subsection 105.14, construction operations shall not be performed on any Sunday without the specific authorization of the Engineer.

Designated holiday periods shall begin at 12:00 noon on the day before the weekend or holiday, whichever applies, and shall end at 7:00 a.m. on the day after the holiday or the weekend, as appropriate.

- B. The Contractor shall maintain a safe access to all drives and intersecting side roads at all times during the construction of this project.
- C. Two-way radios shall be provided by the Contractor when requested by the Engineer for use by traffic control personnel. All costs for furnishing and using two-way radios will not be paid for directly, but will be considered incidental to Contract item 900.645 Special Provision (Traffic Control, All-Inclusive).
- D. The Contractor shall have available on the project the current editions of the Manual on Uniform Traffic Control Devices (MUTCD) and the Standard Highway Signs and Markings (SHSM) Book. Information for obtaining these publications may be found at: <http://mutcd.fhwa.dot.gov/index.htm>.

ASPHALT PRICE ADJUSTMENT

16. SUPPLEMENTAL SPECIFICATION - ASPHALT PRICE ADJUSTMENT, dated April 6, 2010, is hereby made a new Subsection of the Specifications, superseding all previous editions and their modifications.
17. SUPPLEMENTAL SPECIFICATION - ASPHALT PRICE ADJUSTMENT, dated April 6, 2010, GENERAL REQUIREMENTS AND CONDITIONS, part (b) text, is hereby modified by being deleted in its entirety and replaced with text "NOT USED".

The index price for asphalt cement is \$607.00 per ton.

In addition to materials produced under Contract pay item(s) as allowed in GENERAL REQUIREMENTS AND CONDITIONS, part (a) of the Supplemental Specification, asphalt cement produced under Contract item 900.680 Special Provision (Bituminous Concrete Pavement, Small Quantity) will be included for adjustment.

If an emulsified asphaltic liquid is used in the Contract work under any Contract item subject to the Asphalt Price Adjustment provisions and that liquid is not included in the table under subpart (5) of PRICE ADJUSTMENT PROCEDURES of the Supplemental Specification, the ACEA as defined in subpart (5) for that liquid will be that as determined by averaging Contractor certified test results for the project.

SECTION 652 - EROSION PREVENTION & SEDIMENT CONTROL PLAN

18. SECTION 652 - EROSION PREVENTION & SEDIMENT CONTROL PLAN, is hereby made a new Section of the Specifications as follows:
19. 652.01 DESCRIPTION. This work shall consist of designing, furnishing, and submitting for acceptance modifications to the Contract Erosion Prevention & Sediment Control Plan (hereinto known as the EPSC Plan), becoming a co-permittee with the Agency of Transportation, State of Vermont on associated permits, monitoring the EPSC Plan using an On-Site Plan Coordinator, and maintaining the erosion prevention and sediment control measures to ensure the effectiveness of the EPSC Plan.
20. 652.02 MATERIALS. Materials required for the field work maintenance of the EPSC Plan shall meet all requirements of the appropriate Section of the VAOT Standard Specifications for Construction.

Materials including manuals, checklists, forms, and other supporting documentation necessary to meet the requirements of these provisions and maintain compliance with associated permits shall be made available to the Engineer by the Contractor and maintained on site by the Contractor. Supporting documents associated with the requirements of General Permit 3-9020 are available upon request to ANR or from the ANR Stormwater web page. The *VTrans Erosion Prevention and Sediment Control Plan Contractor Checklist* and *Low Risk Site Inspection Form* are available from the VTrans Construction Environmental Engineer.

21. 652.03 QUALIFICATIONS. Modifications to the EPSC Plan shall be prepared and signed by a Licensed Professional Civil Engineer registered in the State of Vermont or a qualified professional in erosion prevention and sediment control, certified by CPESC, Inc. or equivalent, hereinafter called the "Preparer."
22. 652.04 EROSION PREVENTION & SEDIMENT CONTROL PLAN. The EPSC Plan, developed using a combination of structural, non-structural, and vegetative practices to adequately prevent erosion and control sedimentation, and meeting the requirements of the *VTrans Erosion Prevention & Sediment Control Plan Designer Checklist (Non-Jurisdictional and Low Risk)* or the *Vermont Standards & Specifications for Erosion Prevention & Sediment Control* based on area of disturbance and risk, has been included in the Contract Documents.

The Contractor shall use the EPSC Plan included in the Contract and, at the onset of construction as well as throughout the duration of the project, modify it to describe changing conditions and illustrate how the criteria of the determined risk will be upheld. For Non-Jurisdictional and Low Risk projects, the Contractor shall use the *VTrans Erosion Prevention and Sediment Control Plan Contractor Checklist*. For Moderate Risk projects, the Contractor shall modify the Contract EPSC Plan in accordance with the General Permit 3-9020 Parts 4 through 6. If a modification to the EPSC Plan at a Low or Moderate Risk project alters any criteria of the determined risk, an updated Risk Evaluation shall be prepared.

The Contractor may use the Agency's EPSC Plan sheet(s) as a basis for necessary modifications; however, if necessary to convey the sequential nature and phases of construction activities and associated erosion prevention and sediment control measures, several plan sheets showing successive site conditions are recommended.

All work shown in the EPSC Plan shall be included in the Contractor's CPM Progress Schedule, as required by Subsection 108.03.

23. 652.05 SUBMITTALS. Three sets of the modified EPSC Plan as well as the updated Risk Evaluation, stamped and signed by the Preparer, shall be submitted to the Construction Engineer as Construction Drawings in accordance with Section 105. Submittals shall occur after award of the Contract but not later than the Pre-Construction Conference to allow time for review by the Agency. An Acceptance Memo or comments will be provided to the Contractor within 10 working days.

The Contractor shall respond to comments as soon as possible, but not more than 10 days after the date of VTrans initial correspondence. Agency review time for response to comments will be completed within an additional 10 working days. Modifications or additions to the EPSC Plan will not be considered as an acceptable delay of the work under Subsection 108.11.

All subsequent modifications to the EPSC Plan and updates to the Risk Evaluation will be reviewed and forwarded to the ANR by the Agency as appropriate.

Construction activities for EPSC Plan modifications that do not require authorization from the ANR shall commence only after the EPSC Plan has been accepted by the Agency. Construction activities for EPSC Plan modifications that do require authorization from the ANR shall commence only after that authorization has been granted.

24. 652.06 MONITORING EROSION PREVENTION & SEDIMENT CONTROL PLAN. The Contractor shall designate a person (On-Site Plan Coordinator) who is directly responsible for the on-site implementation of the EPSC Plan. This person shall generally be on-site on a daily basis during active construction and have the authority to halt construction activities if necessary. The On-Site Plan Coordinator shall have demonstrated experience in construction practices as they relate to erosion prevention and sediment control as well as a general understanding of State and Federal environmental regulations and permits pertaining to the National Pollutant Discharge Elimination System Construction Program. The On-Site Plan Coordinator shall be proficient at reading and interpreting engineering and EPSC plans. Preference will be given to a Licensed Professional Civil Engineer registered in the State of Vermont or a qualified professional in erosion prevention and sediment control, certified by CPESC, Inc. or equivalent. The qualifications of the On-Site Plan Coordinator shall be included in the EPSC Plan. The Engineer, if not satisfied with the performance of this individual, may at any time request a replacement.

During active construction and periods of inactivity, the On-Site Plan Coordinator shall be responsible for inspections and reporting.

- (a) Active Construction. Inspections shall occur once every seven calendar days and within 24 hours of the end of a storm event that results in a discharge of stormwater from the site. During the winter construction season (October 15<sup>th</sup> to April 15<sup>th</sup>, inclusive), inspections at all sites shall occur daily.

For Non-Jurisdictional and Low Risk projects, inspections shall be conducted using the Agency's *EPSC Plan Inspection Report (Non-Jurisdictional and Low Risk Projects)*.

For Moderate Risk projects, inspections shall be conducted using the *General Permit 3-9020 Inspection Report for Moderate Risk Projects* referenced in the Permit and available upon award of the Contract.

Immediate action shall be taken to correct the discharges of sediment, including halting or reducing construction activities as necessary, until the discharge and/or the condition is fully corrected. Corrective actions shall be recorded on the monitoring reports and shown on the EPSC Plan. Each report shall be signed by the On-Site Plan Coordinator.

- (b) Inactive Construction. Periods such as shutdown during the winter season shall require inspection and reporting of erosion prevention and sediment control measures. The Contractor shall contact the Engineer prior to conducting any inspections. The inspections shall be conducted at least once every 30 days and within 24 hours of any storm or significant snow melt event that may cause stormwater runoff to leave the construction site. The Contractor shall provide, within 24 hours, the necessary personnel, equipment, and materials to repair or correct any deficiencies identified during inspection. All deficiencies and corrective measures taken shall be documented on the reports.

Copies of all reports shall be submitted to the Engineer within 24 hours of inspection or when corrective measures were taken. Copies of all reports shall be kept on site in the Contractor's project files.

25. 652.07 MAINTENANCE OF EROSION PREVENTION & SEDIMENT CONTROL PLAN. This work shall consist of providing all labor and equipment necessary for field maintenance of erosion prevention and sediment control items in the Contract, and providing materials and labor necessary for installing, monitoring, maintaining and, where necessary, removing additional measures needed to correct deficiencies that develop during construction that lessen the performance of the EPSC Plan. Erosion prevention and sediment control measures shall be maintained by the Contractor and removed when authorized by the Engineer. The Contractor shall establish vegetation in all areas disturbed during removal of the erosion prevention and sediment control measures.

Any maintenance required due to the failure of the Contractor to follow the EPSC Plan in its accepted form shall be performed at no additional cost to the Agency.

26. 652.08 METHOD OF MEASUREMENT. The quantity of EPSC Plan to be measured for payment will be on a lump sum basis in the complete and accepted work.

The quantity of Monitoring EPSC Plan will be measured to the nearest 1/4 hour for the actual number of authorized hours spent monitoring, reviewing, and reporting on the construction site(s), including waste, borrow and staging areas or other support activities, as it relates to the EPSC Plan. Travel time and other time not spent at the construction site(s) or time not authorized will not be measured for payment (i.e. travel expenses, clerical staff time, copying, miscellaneous expenses, overhead, etc.).

The quantity of Maintenance of EPSC Plan will be on a lump unit basis for all such field maintenance provided for in the Contract, excluding waste, borrow and staging areas or other support activities.

27. 652.09 BASIS OF PAYMENT. The accepted quantity of EPSC Plan will be paid for at the Contract lump sum price. Payment will be full compensation for the initial preparation of modifications, submittals, and all incidentals necessary to complete the work. Subsequent modifications to the EPSC Plan during Construction will be considered incidental to Contract item 652.10.

Partial payments will be made as follows:

- (a) The first payment of 50 percent of the lump sum price for the EPSC Plan will be paid for upon acceptance of the EPSC Plan for the entire project.
- (b) The second payment of 35 percent of the lump sum price for the EPSC Plan will be made on the first estimate following the completion of 50 percent of the project.
- (c) The third payment of 15 percent of the lump sum price for the EPSC Plan will be made when the project is substantially complete.

The accepted quantity of Monitoring EPSC Plan will be paid for at the Contract unit price per hour. Payment will be full compensation for performing the work specified. Payment will not be made unless a report for the monitoring is submitted to and accepted by the Engineer.

The accepted quantity of Maintenance of EPSC Plan will be paid for as specified for force account work in Subsection 109.06. Payments will be drawn against the Contract Lump Unit amount. To provide a common proposal for all bidders, the Agency has entered an amount in the proposal to become part of the Contractor's total bid. Maintenance related to material supply and disposal areas shall be performed in accordance with Subsection 105.29.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
652.10 EPSC Plan	Lump Sum
652.20 Monitoring EPSC Plan	Hour
652.30 Maintenance of EPSC Plan (N.A.B.I.)	Lump Unit

SECTION 900 - SPECIAL PROVISION ITEMS

HIGH PERFORMANCE CONCRETE, RAPID SET

28. DESCRIPTION. This work shall consist of designing, furnishing, and placing high performance portland cement concrete at the locations indicated in the Plans and as directed by the Engineer.

The work under this section shall be performed in accordance with these provisions, the Plans, and Section 501 of the Standard Specifications.

29. MATERIALS. Materials shall meet the requirements of Subsection 501.02 and the following:

High Early Strength Portland Cement.....701.04

30. MIX DESIGN CRITERIA. Concrete shall meet the following requirements:(a) Compressive Strength.

12 Hour Compressive Strength - 2500 psi

24 Hour Compressive Strength - 3500 psi

28 Day Compressive Strength - 5000 psi

(b) Permeability. 56 Day Permeability - 2500 Coulombs (The permeability may be tested prior to 56 days but results must still be 2500 Coulombs or less). Test shall be performed in accordance with Subsection 510.04 b(6)(f).(c) Air Content. 7 ± 1.5%(d) Slump/Spread. The mix shall not exhibit segregation at the slump/spread being used.(e) Alkali-Silica Reactivity (ASR). Test shall be performed in accordance with Subsections 510.04 b(6)(g) and 510.04 b(7).

## (f) The mix shall contain shrinkage-compensating admixtures such that there will be no separation of the closure pour concrete to the adjacent precast unit. The Contractor shall include results for the unrestrained shrinkage test method, ASTM C 157. The maximum shrinkage allowed shall be 0.04%.

## (g) A proprietary concrete mix design meeting the same performance requirements may also be considered for use.

31. SUBMITTALS. A minimum of fourteen (14) calendar days prior to placement (or prior to the pre-placement meeting, if one is required), the Contractor shall submit the mix design for approval. The mix design shall be submitted to the Agency's Materials and Research Laboratory, attention Structural Concrete Engineer. Concrete under this provision shall not be placed until the mix design has been approved.(a) Trial Batch. The Contractor shall produce and place a 2 cubic yard trial batch at a location agreed upon by the Contractor and the Engineer. The Engineer shall be given a minimum of seven (7) days notice prior to the trial batch pour. The trial batch shall be poured in the presence of the Engineer and the Structural Concrete Engineer. The trial batch shall be produced, poured, and cured in the same manner that will occur during construction. The Contractor shall provide qualified personnel to test slump, air content, and unit weight of the trial batch. Cylinders shall be cast to determine whether the concrete meets the strength requirements required for the project.32. CURING CONCRETE. Concrete shall be wet cured for a minimum of 24 hours. The method of wet curing used shall meet the requirements of Subsection 501.17.33. LOADING OF CONCRETE. After the concrete has been placed and the finishing operations concluded, it shall not be walked on or disturbed in any manner, including the removal of forms, for a minimum period of 12 hours.

The deck end closure pour shall obtain a strength of 3500 psi prior to being opened to traffic.

A portable compression testing machine shall be provided by the Contractor and available on-site for cylinder testing. All testing and equipment shall conform to ASTM C 39. This compression machine must be calibrated in accordance with the provisions of Section 5, ASTM C 39.

34. METHOD OF MEASUREMENT. The quantity of Special Provision (High Performance Concrete, Rapid Set) to be measured for payment will be the number of cubic meters (cubic yards) of concrete placed in the complete and accepted work, as determined by the prismoidal method using dimensions shown on the Plans or as directed by the Engineer, including the volume of precast concrete stay-in-place forms, but excluding the volume of steel or other stay-in-place forms and form filling materials. No deductions will be made for the volume of concrete displaced by steel reinforcement, structural steel, expansion joint material, scuppers, weep holes, conduits, tops of piles, scoring, chamfers or corners, inset panels of 38 mm (1 ½ inches) or less in depth, or any pipe less than 200 mm (8 inches) in diameter.

35. BASIS OF PAYMENT. The accepted quantity of Special Provision (High Performance Concrete, Rapid Set) will be paid for at the Contract unit price per cubic meter (cubic yard). Payment will be full compensation for performing the work specified, including designing the mix, satisfactory finishing and curing, and for furnishing all forms, materials, including joint filler and bond breaker, labor, tools, admixtures, equipment, including automatic temperature recording units, trial batches, and incidentals necessary to complete the work.

The cost of heating materials and protecting the concrete against cold weather, and any additional cost for cement, will not be paid for separately but will be considered incidental to Special Provision (High Performance Concrete, Rapid Set).

The cost of furnishing testing facilities and supplies at the batch plant and the setting of inserts, bench marks, and bridge plaques furnished by the Agency will not be paid for separately but will be considered incidental to Special Provision (High Performance Concrete, Rapid Set).

Costs for all materials, labor, and incidentals for steel or other stay-in-place forms and form filling materials will not be paid for separately, but will be considered incidental to Special Provision (High Performance Concrete, Rapid Set).

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
900.608 Special Provision (High Performance Concrete, Rapid Set)	Cubic Yard

OBSTRUCTION REMOVAL FOR DRIVING PILES

36. DESCRIPTION. This work shall consist of removing foundation materials that prohibit the driving of piles by augering, pre-boring, or some other means of excavation.

37. CONSTRUCTION REQUIREMENTS.

(a) Augering and Pre-boring. After the obstruction is removed, the hole shall be backfilled with soil meeting the classification requirements of AASHTO A-1, A-2, or A-3. Backfill material shall have a maximum top size of 2.5" and be approved by the Engineer. Backfill material may require testing to verify its classification.

The backfill material shall be placed prior to re-driving of the pile.

(b) Other Means of Excavation. After the obstruction is removed, backfill shall be placed in accordance with Section 203. Backfill material shall meet the requirements of Subsection 703.02.

The backfill material shall be placed prior to re-driving of the pile.

38. METHOD OF MEASUREMENT. The quantity of Special Provision (Obstruction Removal for Driving Piles) to be measured for payment will be the total number of linear feet (meters) of obstruction removal measured to the nearest linear foot (meter) from the elevation where the obstruction removal starts to the elevation where the obstruction removal ends.

39. BASIS OF PAYMENT. The accepted quantity of Special Provision (Obstruction Removal for Driving Piles) will be paid for at the Contract unit price per linear foot (meter). Payment will be full compensation for all excavation, backfilling, and materials testing; and for furnishing all labor, materials, tools, equipment, and incidentals necessary to complete the work.

Unless otherwise specified in the Contract, no payment will be made for Special Provision (Obstruction Removal for Driving Piles) unless at least one pile has been driven per substructure unit and the Engineer has pile load tests that confirm that the minimum pile length and nominal pile resistance cannot be achieved without damaging or overstressing the pile.

If an obstruction is encountered during pile driving, no additional compensation will be made for removing nor re-driving the pile.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
900.640 Special Provision (Obstruction Removal for Driving Piles)	Linear Foot

PRESTRESSED CONCRETE NEXT D BEAMS

40. DESCRIPTION. This work shall consist of manufacturing, transporting, and erecting precast prestressed concrete members.

The work under this Section shall be performed in accordance with these provisions, the Plans, and Section 510 of the Standard Specifications.

- 41. DESIGN AND DRAWINGS. All design details shall be in accordance with the AASHTO LRFD Bridge Design Specifications, the AASHTO LRFD Bridge Construction Specifications, and PCI Northeast's NEXT D Standards dated January, 2010.
- 42. METHOD OF MEASUREMENT. The quantity of Special Provision (Prestressed Concrete Next D Beams) to be measured for payment will be the number of meters (linear feet) of the specified type used in the complete and accepted work.
- 43. BASIS OF PAYMENT. The accepted quantity of Special Provision (Prestressed Concrete Next D Beams) will be paid for at the Contract unit price per meter (linear foot) for the type specified. Payment will be full compensation for detailing, fabricating, repairing, quality control testing, transporting, handling, and installing the materials specified, including the concrete, reinforcement, prestressing steel, transverse ties, enclosures for prestressing steel, anchorages, mortar, anchor rods, any other material contained within or attached to the members, for furnishing and implementing the erection plan, and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.  
Any grouting work for other than shear keys, such as fairing out unevenness between adjacent units and filling leveling screw holes, transverse anchor recesses, and dowel holes, is considered incidental to the work for Special Provision (Prestressed Concrete Next D Beams).

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
900.640 Special Provision (Prestressed Concrete Next D Beams)(NEXT 28 D)	Linear Foot

REMOVAL OF TEMPORARY BRIDGE AND APPROACHES

- 44. DESCRIPTION. This work shall consist of removing an existing temporary bridge, including abutments and roadway approaches, and associated items including but not limited to approach fill, stone fill, geotextile, sheet piling, guardrail, pavement, and line striping, within the limits indicated in the Plans and as directed by the Engineer.
- 45. REMOVAL OF EXISTING MABEY BRIDGE. Removal shall be performed in accordance with Subsection 529.04. Dismantling and salvaging of the temporary bridge components shall be performed in accordance with the Contract Documents.
- 46. METHOD OF MEASUREMENT. The quantity of Special Provision (Removal of Temporary Bridge and Approaches) to be measured for payment will be on a lump sum basis in the complete and accepted work.
- 47. BASIS OF PAYMENT. The accepted quantity of Special Provision (Removal of Temporary Bridge and Approaches) will be paid for at the Contract lump sum price. Payment will be full compensation for removing the temporary bridge and its approaches, and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
900.645 Special Provision (Removal of Temporary Bridge and Approaches)	Lump Sum

TRAFFIC CONTROL

48. DESCRIPTION. This work shall consist of establishing and maintaining traffic control measures to protect the traveling public and construction operations as indicated in the Plans and as directed by the Engineer.  
The work under this Section shall be performed in accordance with these provisions, the Plans, and Section 641 of the Standard Specifications.
49. SUBMITTALS. The Contractor shall submit to the Engineer for approval a site-specific traffic control plan in accordance with Subsection 105.03. The traffic control plan shall conform to the requirements of the MUTCD and all applicable Agency Standard Drawings. Where conflicts exist, the MUTCD will govern. Each phase of construction shall be included in the submitted traffic control plan. The Contractor shall allow the Agency 7 calendar days to review and approve the proposed traffic control plan before it is to be implemented.
50. TRAFFIC CONTROL DEVICES. Temporary traffic barrier shall meet the requirements of Section 621. Traffic control devices shall meet the requirements of Section 641. Temporary pavement markings and removal of existing pavement markings shall meet the requirements of Section 646. Temporary traffic signal systems shall meet the requirements of Section 678.
51. METHOD OF MEASUREMENT. The quantity of Special Provision (Traffic Control, All-Inclusive) to be measured for payment will be on a lump sum basis for providing traffic control in the complete and accepted work.  
  
The quantities for Flaggers will be measured separately in accordance with Section 630.
52. BASIS OF PAYMENT. The accepted quantity of Special Provision Traffic Control, All-Inclusive) will be paid for at the Contract lump sum price.

Partial payments will be made as follows:

- (a) The first 15% of the Contract lump sum price will be paid upon approval of the Contractor's traffic control plan.
- (b) The remaining 85% of the Contract lump sum price will be paid on a prorated basis for the estimated duration of the Contract work remaining.

Payment will be full compensation for preparing, implementing, inspecting, maintaining, and removing the applicable traffic control plan and required traffic control devices, including but not limited to temporary traffic barrier, temporary pavement markings, signing and message boards; and for furnishing all labor, tools, materials, equipment, and incidentals necessary to complete the work.

Flaggers will be paid for separately under Contract item 630.15.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
900.645 Special Provision (Traffic Control, All-Inclusive)	Lump Sum

BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY

53. DESCRIPTION. This work shall consist of constructing one or more courses of bituminous mixture on a prepared foundation in accordance with these specifications and the specific requirements of the type of surface being placed, and in reasonably close conformity with the lines, grades, thicknesses, and typical cross sections shown on the Plans or established by the Engineer.

The work under this Section shall be performed in accordance with these provisions, the Plans, and the appropriate provisions of Section 406 or Section 490 of the Standard Specifications.

54. APPLICABILITY. This specification applies to Contracts where the total quantity of bituminous concrete pavement to be paid for under this item is less than or equal to 2000 metric tons (tons) or the total roadway length, including approaches, is 0.80 kilometers (0.50 miles) or less.

55. MATERIALS. Materials shall meet the requirements of the following Subsections:

- Performance-Graded Asphalt Binder.....702.02
- Emulsified Asphalt, RS-1.....702.04
- Aggregate for Marshall Bituminous Concrete Pavement...704.10(a)
- Aggregate for Superpave Bituminous Concrete Pavement..704.10(b)

Aggregate shall meet requirements relating to Section 490 or 406, where so specified.

The grade of PG asphalt binder used to produce bituminous concrete pavement shall be 58-28. Substitutions will be accepted based on availability where the upper end temperature value is greater than 58°C (136°F) and/or the lower end is less than -28°C (-18°F).

56. DESIGN MIX TYPES. Design mix types may be substituted based on mix availability. Allowable mix type substitutions will be accepted on a one to one thickness relationship, except as listed in Tables A and B below.

TABLE A - ALLOWABLE 40 MM (1½") MIX TYPE IVS SUBSTITUTIONS<sup>(1)</sup>

Design ESALs (millions)	Design	Allowable Substitution	
	490.30 Superpave Bituminous Concrete Pavement	406.25 Bituminous Concrete Pavement*	406.27 Med. Duty Bituminous Concrete Pavement*
< 0.3	TYPE IVS	TYPE III	TYPE III
0.3 to < 10	TYPE IVS	TYPE III	-
> 10	TYPE IVS	-	-

<sup>(1)</sup>These table substitutions do not apply to bridge deck paving.  
\*Per Section 406.

TABLE B - ALLOWABLE 90 MM (3½") MIX TYPE IIS SUBSTITUTIONS

Design ESALs (millions)	Design	Allowable Substitution	
	490.30 Superpave Bituminous Concrete Pavement	406.25 Bituminous Concrete Pavement*	406.27 Med. Duty Bituminous Concrete Pavement*
< 0.3	TYPE IIS	TYPE I	TYPE I
0.3 to < 10	TYPE IIS	TYPE I	-
> 10	TYPE IIS	-	-

\*Per Section 406

57. COMPOSITION OF MIXTURE.

- (a) Gradation. Gradation shall meet the requirements of Section 406 or 490, as appropriate.
- (b) Design Criteria. Design Criteria shall meet the requirements of Section 406 or 490, as appropriate.
- (c) Mix Design. Standard mix design will be in accordance with Subsection 490.03 with an n value of 65 gyrations. Allowable substitutions based on pre-existing approved mix designs and/or n values for intended Contract suppliers are listed in Table C below. A request for substitutions must be submitted in writing to the Engineer a minimum of 10 working days prior to production. Any substitutions from the standard mix design or mix types as detailed in the Plans shall not result in any increase in cost to the Agency.

TABLE C - ALLOWABLE SPECIFICATION SUBSTITUTIONS

Design ESALs (millions)	Acceptable Specification Substitution		
	Superpave Bituminous Concrete Pavement (Gyrations)	Bituminous Concrete Pavement* (75 Blow)	Med. Duty Bituminous Concrete Pavement* (50 Blow)
< 0.3	50	✓	✓
0.3 to < 10	65 <sup>(1)</sup>	✓	-
10 to < 30	80	-	-
> 30	125	-	-

<sup>(1)</sup>Standard mix design specification.

\*Per Section 406

(d) Control of Mixtures.

The plant shall be operated so that no intentional deviations are made from the job-mix formula. The gradation of the actual mixture shall not vary from the job-mix formula by more than the following tolerances:

TABLE D - PRODUCTION TESTING TOLERANCES AND SPECIFICATION LIMITS

PRODUCTION TESTING TOLERANCES			SPECIFICATION LIMITS
Aggregate larger than 2.36 mm (No. 8) sieve	±	6.0 %	9.0 %
Aggregate passing the 2.36 mm (No. 8) sieve and larger than the 75 µm (No. 200) sieve	±	4.0 %	6.0 %
Aggregate passing 75 µm (No. 200) sieve	±	1.0 %	1.5 %
Temperature of Mixture <sup>(3)</sup>	±	11°C (20°F)	15°C (30°F)
Air Voids	=	4.0 ± 1.0%	4.0 ± 1.5%
VMA	=	JMF <sup>(1)</sup> ± 1.0%	JMF <sup>(1)</sup> ± 1.5%
VFA <sup>(4)</sup>	=	JMF <sup>(1)</sup> ± 5.0% <sup>(2)</sup>	JMF <sup>(1)</sup> ± 7.0% <sup>(2)</sup>

<sup>(1)</sup> JMF stands for the most current Job-Mix Formula value as approved by the Engineer or the Engineer's designee.

<sup>(2)</sup> The VFA value shall not be allowed to exceed 80.0% at any time.

<sup>(3)</sup> Mix temperatures shall not exceed 180°C (355°F).

<sup>(4)</sup> The VFA requirements only apply to Superpave Bituminous Concrete Pavement.

(e) Quality Acceptance.

- (1) General. Acceptance sampling and testing will be conducted in accordance with the Agency's Quality Assurance Program as approved by FHWA. Bituminous concrete mixtures designated under these specifications will be sampled a minimum of once per day of production or 500 metric tons (tons) and evaluated by the Agency for each mix type (each mix design) in accordance with the following acceptance guidelines.
- (2) Acceptance Guidelines. Temperature of the bituminous mixture shall be tested using the Verified Thermometer test method and PG Asphalt Binder content determined from the batch slip. Gradation shall be tested in accordance with AASHTO T 30. Mixture volumetric properties (air voids, VMA, and VFA) shall be calculated in accordance with Subsections 406.03(b) or 490.03(b), as appropriate.
- (3) Non-Compliant Material.
  - a. 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 Agency. Any such new material will be sampled, tested, and evaluated for acceptance.
  - b. For any non-compliant material outside the production testing tolerances but within the specification limits as identified in Table D, payment shall be assessed a mixture pay factor, PF(mix), of (-0.10).
  - c. For any non-compliant material outside the specification limits as identified in Table D, payment shall be assessed a mixture pay factor, PF(mix), of (-0.50), or can be removed and replaced at no cost to the Agency.

- (f) Boxed Samples. If Agency plant inspectors are not available for daily testing and inspection functions, then box samples will be taken by the Engineer at the project site to afford verification of mixture volumetrics/properties. Boxed samples will be processed and results reported to the Engineer within ten working days of being received at the Agency Central Laboratory in Berlin, Vermont. Gradation shall be tested in accordance with AASHTO T 30. Maximum Specific Gravity shall be tested in accordance with AASHTO T 209.

58. COMPACTION. Special Provision (Bituminous Concrete Pavement, Small Quantity) will be analyzed for density according to the procedure specified below.

The density of the compacted pavement shall be at least 92.0%, but not more than 97.0%, of the corresponding daily average maximum specific gravity for each mix type (each mix design) of bituminous mix placed during each day. For material that falls outside of this range, payment will be made by adjusting the daily production totals in accordance with Table E:

TABLE E - DENSITY PAY FACTORS

AVERAGE DENSITY	DENSITY PAY FACTOR, PF(d)
90.5% - 91.9%	- 0.100
92.0% - 97.0%	0.000
97.1% - 98.5%	- 0.100

When the Contract allows for a pay adjustment for mat density and the Agency elects to not take cores of any pavement course, the Density Pay Factor (PF(d)) will be considered equal to 0.000.

Bridges with a length equal to or greater than 6 meters (20 feet) will be cored for analyzing density of the bridge deck pavement. The minimum number of cores taken shall be 2, or as directed by the Engineer. Bridges with a length less than 6 meters (20 feet) will not be cored.

Bridge deck core areas shall be repaired to the satisfaction of the Engineer at no additional cost to the Agency.

The cores taken for acceptance testing will be the final cores taken for determination of densities.

When the Contract does not allow for a pay adjustment for mat density the Contractor shall, prior to performing any construction operations, submit to the Engineer for approval the proposed rolling pattern and compaction equipment to be used on the project. Random investigative cores will be taken by Agency personnel on the first day's production of any pavement course, with the exception of leveling course, to verify effectiveness of the proposed rolling pattern and equipment.

Pending results of the investigative cores, necessary adjustments to the proposed rolling pattern and/or equipment shall be made by the Contractor to achieve densities as directed by the Engineer.

59. METHOD OF MEASUREMENT. The quantity of Special Provision (Bituminous Concrete Pavement, Small Quantity) to be measured for payment will be the number of metric tons (tons) for a lot of mixture (each type) complete in place in the accepted work (Q) as determined from the weigh tickets.

The quantities of all applicable Pay Adjustments calculated for the project will be determined as specified below.

When applicable, and when the mixture pay factor, PF(mix), for a lot of Special Provision (Bituminous Concrete Pavement, Small Quantity) is less than 0.000, the measured quantity of Special Provision (Bituminous Concrete Pavement, Small Quantity) placed will be multiplied by such pay factor to determine a Mixture Pay Adjustment, (PA(mix)), to the accepted tonnage placed (Q) for that lot based on the Contract bid price (B), as follows:

$$PA(mix) = PF(mix) \times Q \times B$$

When boxed samples are taken to determine mix properties, test results will determine PF(mix) as outlined in COMPOSITION OF MIXTURE, Quality Acceptance, Non-Compliant Material of this Section.

When applicable, and when the density pay factor, PF(d), for a lot of Special Provision (Bituminous Concrete Pavement, Small Quantity) is less than 0.000, the measured quantity of Special Provision (Bituminous Concrete Pavement, Small Quantity) placed that day will be multiplied by such pay factor to determine a Mat Density Pay Adjustment, (PA(d)), to the accepted tonnage placed (Q) for that lot based on the Contract bid price (B), as follows:

$$PA(d) = PF(d) \times Q \times B$$

60. BASIS OF PAYMENT. The measured quantity of Special Provision (Bituminous Concrete Pavement, Small Quantity) will be paid for at the Contract unit price per metric ton (ton). Payment shall be full compensation for furnishing, mixing, hauling, and placing the material specified and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

Payment for Pay Adjustments shall be debited against the Contract prices (Lump Units) bid for the Pay Adjustment items.

The cost of repairing bridge deck core areas will not be paid for separately, but will be considered incidental to Special Provision (Bituminous Concrete Pavement, Small Quantity).

The costs of furnishing testing facilities and supplies at the plant will be considered included in the Contract unit price of Special Provision (Bituminous Concrete Pavement, Small Quantity).

The costs of obtaining, furnishing, transporting, and providing the straightedges required by Subsection 406.16 or Subsection 490.16, as appropriate, will be paid for under the appropriate Section 631 pay item included in the Contract.

The costs associated with obtaining samples for acceptance testing will be incidental to the cost of Special Provision (Bituminous Concrete Pavement, Small Quantity).

When not specified as items in the Contract, the costs of cleaning and filling joints and cracks, sweeping and cleaning existing paved surfaces, the emulsified asphalt applied to tack existing and new paved surfaces, and tacking of manholes, curbing, gutters, and other contact surfaces will not be paid for directly, but will be incidental to Special Provision (Bituminous Concrete Pavement, Small Quantity).

Special Provision (Bituminous Concrete Pavement, Small Quantity) mixture approved by the Engineer for use in correcting deficiencies in the base course constructed as part of the Contract will not be paid for as Special Provision (Bituminous Concrete Pavement, Small Quantity), but will be incidental to the Contract item for the specified type of base course.

Special Provision (Bituminous Concrete Pavement, Small Quantity) mixture used to correct deficiencies in an existing pavement or to adjust the grade of a bituminous concrete surface completed under the Contract will be paid for at the Contract unit price for Special Provision (Bituminous Concrete Pavement, Small Quantity).

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
900.650 Special Provision (Mat Density Pay Adjustment, Small Quantity)(N.A.B.I.)	Lump Unit
900.650 Special Provision (Mixture Pay Adjustment) (N.A.B.I.)	Lump Unit
900.680 Special Provision (Bituminous Concrete Pavement, Small Quantity)	Metric Ton

MEMBRANE WATERPROOFING, SPRAY APPLIED

61. DESCRIPTION. This work shall consist of furnishing and installing a spray applied membrane waterproofing system to serve as a waterproof barrier between the concrete deck and the bituminous concrete surface pavement.

The work under this Section shall be performed in accordance with these provisions, the Plans, and Work Plan for Research Investigation No. WP-2011-6 - *Assessment of the Sterling Lloyd Eliminator Waterproofing Membrane System* included in the Contract Documents.

62. METHOD OF MEASUREMENT. The quantity of Special Provision (Membrane Waterproofing, Spray Applied) to be measured for payment will be the number of square meters (square yards) of the specified type used in the complete and accepted work. Measurement will be based on the horizontal distance between the face of curbs plus vertical surfaces as shown on the Plans and the horizontal length of the membrane installed.

63. BASIS OF PAYMENT. The accepted quantity of Special Provision (Membrane Waterproofing, Spray Applied) will be paid for at the Contract unit price per square meter (square yard). Payment will be full compensation for furnishing, transporting, handling, and placing the waterproofing system specified, including primer, membrane, and tack coat; surface preparation; submittals; quality control testing; and for furnishing all materials, labor, tools, equipment, and incidentals necessary to complete the work.

Providing, placing, and removing protection board, where required, will not be paid for separately but will be considered incidental to Special Provision (Membrane Waterproofing, Spray Applied).

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
900.675 Special Provision (Membrane Waterproofing, Spray Applied)	Square Yard

**STATE OF VERMONT  
AGENCY OF TRANSPORTATION  
MONTPELIER**

FOR OTHER THAN FEDERAL-AID. In accordance with the provisions of Title 19, VSA, Section 18, the following minimum rate for labor shall apply to this project:

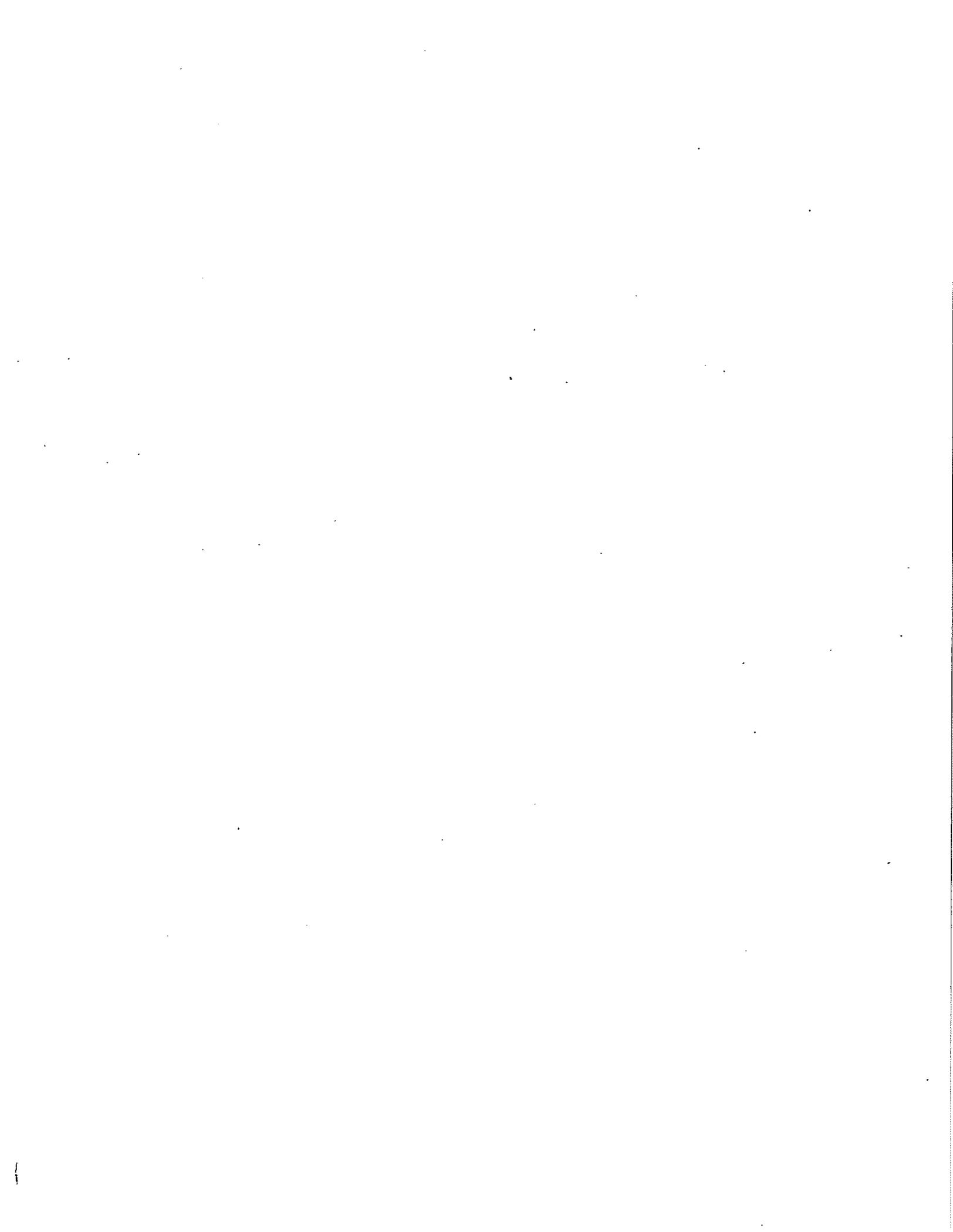
The minimum wage for common labor will not be less than the State or Federal minimum wage, whichever is higher.

ON FEDERAL-AID PROJECTS ONLY.

The minimum rates for labor for Federal-Aid Projects shall be those set in the Wage Determination Decision of the U.S. Secretary of Labor for each project in accordance with the Federal-Aid Highway Act of 1956. When such wage rates are required they shall be included in the proposal. In the event these rates are lower than the Vermont rates, the Vermont rates shall prevail.

TRUCK RATES. In accordance with the provisions of Title 19, VSA, Section 18, the following minimum rates for trucks shall apply to this project:

<u>Trucks, not Including Driver Water Level Body Capacity</u>	<u>Minimum Rates Per YD per Hr.</u>
Trucks, Equipment Loaded	\$1.25



**DISADVANTAGED BUSINESS ENTERPRISE (DBE) POLICY  
CONTRACT REQUIREMENTS**

**Disadvantaged Business Enterprise (DBE) Policy.** It shall be the policy of the Vermont Agency of Transportation (VTrans) to ensure nondiscriminatory opportunity for Disadvantaged Business Enterprises (DBEs) 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 USDOT that DBEs as defined in 49 Code of Federal Regulation (CFR) Part 26 shall have the maximum opportunity to participate in the performance of contracts financed in whole or in part with Federal funds. Consequently, the DBE requirements of 49 CFR Part 26 and 23 CFR, Chapter 1, Part 230, Subpart b apply to this contract.
2. **DBE Obligation.** The State and its Contractors agree to ensure that DBEs as defined in 49 CFR Part 26, have the maximum opportunity to participate in the performance of contracts and subcontracts financed in whole or in part with Federal funds. **Each subcontract the prime contractor signs with a subcontractor must include this assurance:** *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 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 VTrans deems appropriate.*
3. **Sanctions for Noncompliance.** 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 the notification of the Vermont Agency of Transportation, Secretary of Transportation, may result in termination of this contract by the State or such remedy as the State deems necessary.
4. **Inclusion in Subcontracts.** The Contractor shall insert in each of its subcontracts this Disadvantaged Business Enterprise (DBE) Policy and also a clause requiring its subcontractors to include this same Policy in any lower tier subcontracts which they may enter into, together with a clause requiring the inclusion of the Policy in any further subcontract that may in turn be made. This Policy shall not be incorporated by reference.

**Disadvantaged Business Enterprise (DBE) Program Goals.** The Vermont Agency of Transportation (VTrans) 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 DBEs who submitted bids and quotes for transportation related projects, compared as a percentage of all available contractors who submitted bids and quotes 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 VTrans website at: <http://www.aot.state.vt.us/CivilRights/DBEGoals.htm> .

VTrans currently utilizes a race/gender neutral policy to fulfill its overall DBE goals, and relies on the voluntary participation of contractors to utilize certified DBEs on every project sufficient to obtain the Agency's overall DBE goal. In order for this practice to continue, contractors must be proactive and solicit bids and quotes from certified DBEs for use when submitting their own bids, and employ certified DBEs when participating on transportation related projects. Otherwise, VTrans may have to implement specified contract goals on projects to ensure the overall DBE goals are met. VTrans may include specific DBE contract goals in certain cases to ensure DBE participation, if failure to obtain the project DBE goal would negatively impact the Agency's overall DBE goal because of the size of the contract.

**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 purposes of this definition:

- (1) "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 the Small Business Administration pursuant to Section 3 of the Small Business Act.
- (2) "Owned and controlled" means a business which is:
  - a. A sole proprietorship legitimately owned and controlled by an individual who is a disadvantaged person.
  - b. A partnership, joint venture or limited liability company in which at least 51% of the beneficial ownership interests legitimately is held by a disadvantaged person(s).
  - c. A corporation or other entity in which at least 51% of the voting interest and 51% of the beneficial ownership interests legitimately are 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 percentage of ownership. Disadvantaged participation in a joint venture must also be based on the sharing of real earnings, as above. If the disadvantaged group ownership interests are real, substantial and continuing and not created solely to meet the requirements of the program, a firm is considered a bona fide DBE.

**Certified DBE Directory.** The current Vermont Unified Disadvantaged Business Enterprise (DBE) Directory is available online at: <http://www.aot.state.vt.us/CivilRights/DBEDirectory.htm>. This directory contains all currently certified DBEs available for work in Vermont, and is updated continuously. Only firms listed in this directory are eligible for DBE credit on Vermont Federal-aid projects. If you have questions about DBE certification, or do not have access to the Internet, please call the DBE Program Manager at (802) 828-5858 for assistance.

**Counting DBE Participation Towards 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:

- 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;
- The DBE must perform work commensurate with the amount of its contract;
- 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;
- The DBE must exercise responsibility for at least fifty percent of the total cost of its contract with its own workforce;
- 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;
- 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;
- The DBE owner must hold necessary professional or craft license(s) or certification(s) for the type of work he/she performs on the project;
- 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 DBE Prime Contractor: Count 100% of the value of the work performed by own forces, equipment and materials towards the DBE goals.
- 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.
- A DBE owner-operator of construction equipment: Count 100% of expenditures committed.
- 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 Contractor.
- 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.
- 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.
- A DBE renter of construction equipment to a contractor: Count 20% of expenditures committed, with or without operator.

- 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.
- A trucking, hauling or delivery operation: Count 100% of expenditures committed 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 expenditures committed 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.
- Any combination of the above.

**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 VTrans DBE Program Manager or VTrans Chief of Civil Rights.

**Federal-aid projects which specify a DBE contract goal.** The provisions of the Vermont Agency of Transportation Supplemental Specification – Disadvantaged Business Enterprise (DBE) Utilization (CA 160) shall apply to all VTrans Federal-aid projects which specify a DBE contract goal.

**Compliance With Prompt Payment Statute.** In accordance with Vermont's Prompt Payment Act and VTrans Standard Specifications for Construction, Section 107.01(g), the Contractor shall fully comply with the provisions of 9 V.S.A. Chapter 102, also referred to as Act No. 74 of 1991 or the Prompt Payment Act, as amended.

**Subcontractor Payments.** In accordance with VTrans Standard Specifications for Construction, Section 107.01(h), on all federal-aid and state funded contracts, the Contractor, during the life of the Contract and on a monthly basis, shall submit electronically, a listing of payments to subcontractors on the form specified by the State and made available at: <http://apps.vtrans.vermont.gov/dbe/>. Electronic reports shall be filed with the Agency Office of Civil Rights by an authorized representative and received in the Agency Office of Civil Rights on or before the tenth working day after month end. Contractors without access to the internet shall obtain and submit manual reports to the Agency Office of Civil Rights. Manual reports shall be signed by an authorized representative, sent to the Agency Office of Civil Rights, and postmarked on or before the tenth working day after month end. There shall be no direct compensation allowed the Contractor for this work, but the cost thereof shall be included in the general cost of the work. In accordance with 9 V.S.A. Section 4003, notwithstanding any contrary agreement, payments made to subcontractors after seven days from receipt of a corresponding progress payment by the State to the Contractor, or seven days after receipt of a subcontractor's invoice, whichever is later, violate this agreement. Violations shall be reported to the Agency Office of Civil Rights for review. Failure to resolve disputes in a timely manner may result in a complaint made to the Agency Pre-qualification Committee. In this Committee's judgment, appropriate penalties may be involved for failure to comply with this specification. Penalties may include suspension, reduction or revocation of the Contractor's pre-qualification rating. This clause shall be included in the prime Contractor's Contract made with all if its subcontractors.

General Decision Number: VT120034 04/13/2012 VT34

Superseded General Decision Number: VT20100062

State: Vermont

Construction Type: Highway

County: Addison County in Vermont.

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels; building structures in rest areas; railroad construction; bascule, suspension & spandrel arch bridges; bridges designed for commercial navigation; bridges involving marine construction; and other major bridges)

Modification Number	Publication Date
0	01/06/2012
1	04/13/2012

\* SUVT2011-019 09/14/2011

	Rates	Fringes
CARPENTER, Includes Form Work....	\$ 17.11	1.79
CEMENT MASON/CONCRETE FINISHER...	\$ 25.34	0.00
ELECTRICIAN, Includes Installation of Traffic Signals.....	\$ 23.32	0.00
GUARDRAIL INSTALLER.....	\$ 12.93	0.00
IRONWORKER, REINFORCING.....	\$ 16.03	2.39
IRONWORKER, STRUCTURAL.....	\$ 21.15	15.54
LABORER: Common or General Includes Asphalt Raker and Concrete Work.....	\$ 13.18	2.52
LABORER: Flagger.....	\$ 11.05	2.20
LABORER: Landscape.....	\$ 12.31	1.03
LABORER: Screedman.....	\$ 16.30	4.23
LABORER: Sign Erector/Installer.....	\$ 14.31	4.70
OPERATOR: Asphalt Roller.....	\$ 18.27	5.16
OPERATOR: Backhoe.....	\$ 18.99	1.64
OPERATOR: Bobcat/Skid Steer/Skid Loader.....	\$ 18.03	0.00
OPERATOR: Broom.....	\$ 16.88	3.72

OPERATOR: Bulldozer.....	\$ 19.18	2.56
OPERATOR: Cold Planer/Milling Machine.....	\$ 18.66	0.00
OPERATOR: Crane.....	\$ 20.00	2.13
OPERATOR: Excavator.....	\$ 18.99	1.36
OPERATOR: Grader/Blade.....	\$ 18.44	3.50
OPERATOR: Loader.....	\$ 19.20	4.35
OPERATOR: Mechanic.....	\$ 20.45	0.00
OPERATOR: Paver.....	\$ 17.55	4.44
OPERATOR: Pounder.....	\$ 18.11	0.00
OPERATOR: Roller excluding Asphalt.....	\$ 16.94	5.34
OPERATOR: Screed.....	\$ 17.52	3.99
OPERATOR: Sweeper.....	\$ 24.44	12.24
PAINTER (Parking Lot and Highway Striping Only).....	\$ 16.39	3.56
TRUCK DRIVER, Includes all axles including Dump Trucks.....	\$ 16.07	2.80
TRUCK DRIVER: Distributor Truck.....	\$ 17.89	0.00
TRUCK DRIVER: Semi/Trailer Truck.....	\$ 14.72	4.39

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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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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)).

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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 union or non-union.

#### Union Identifiers

An identifier enclosed in dotted lines beginning with characters other than "SU" denotes that the union classification and rate have found to be prevailing for that classification. Example: PLUM0198-005 07/01/2011. The first four letters, PLUM, indicate the international union and the four-digit number, 0198, that follows 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. The date, 07/01/2011, following these characters is the effective date of the most current negotiated rate/collective bargaining agreement which would be July 1, 2011 in the above example.

Union prevailing wage rates will be updated to reflect any changes in the collective bargaining agreements governing the rate.

#### Non-Union Identifiers

Classifications listed under an "SU" identifier were derived from survey data by computing average rates and are not union rates; however, the data used in computing these rates may include both union and non-union data. Example: SULA2004-007 5/13/2010. SU indicates the rates are not union rates, LA indicates the State of Louisiana; 2004 is the year of the survey; and 007 is an internal number used in producing the wage determination. A 1993 or later date, 5/13/2010, indicates the classifications and rates under that identifier were issued as a General Wage Determination on that date.

Survey wage rates will remain in effect and will not change until a new survey is conducted.

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#### 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 Regional Office for the area in which the survey was conducted because those Regional Offices have 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.

=====

END OF GENERAL DECISION

SUPPLEMENTAL SPECIFICATION  
ASPHALT PRICE ADJUSTMENT

GENERAL REQUIREMENTS AND CONDITIONS

- (a) This specification contains price adjustment provisions for asphalt cement and emulsified asphalt used on Vermont Agency of Transportation (Agency) construction projects and produced under Sections 303, 404, 406, 415, and 490 of the Standard Specifications, or as otherwise designated in the Contract Documents. This price adjustment clause is being inserted in this Contract to provide for either additional compensation to the Contractor or a payment to the Agency, depending upon an increase or decrease in the average price of asphalt cement during the construction of this project.
- (b) Emulsified asphalt shall be subjected to a correction factor of 0.45, applied to the quantity of material supplied. This corrected quantity shall be used for Asphalt Price Adjustment as specified and computed herein.
- (c) These provisions apply to this Contract only as specified in the procedures provided herein. No further asphalt cement and/or emulsified asphalt price adjustments will be allowed under this Contract.
- (d) It is understood by the Contractor that a price adjustment increase may cause the Agency to decrease the quantities of the Contract pay items subject to adjustment under these provisions. Provisions providing for decreased quantities and item cancellation in this paragraph are separate and take precedence, notwithstanding any other provisions of this Contract.
- (e) No price adjustment will be allowed beyond the Contract Completion Date or any applicable interim completion dates.
- (f) Any increase in the total Contract amount due to price adjustment under these provisions will not be justification for an extension of time under Subsection 108.11.
- (g) The Contractor hereby agrees that its bid prices for this Contract include no allowances for any contingencies to cover increased costs for which adjustment is provided herein.

PRICE ADJUSTMENT PROCEDURES

- (1) Prior to advertising for bids, an Index Price for asphalt cement will be established by the Agency upon consideration of the New York State DOT average monthly price for asphalt cement, or other monthly index deemed appropriate by the Director of Finance and Administration. The Index Price will be set monthly on or about the last day of the month. The Contract Index Price will be the most recent Index Price set by the Agency at the time of advertising for bids. This price will be as specified in the Special Provisions and will be the base from which price adjustments are computed.
- (2) For the duration of the Contract, Posted Prices for a metric ton (ton) of asphalt cement will be established monthly by the Agency. The Posted Prices will be established in the same manner as the Index Price.

- (3) A Price Adjustment will be paid or credited for asphalt cement only when the Posted Price of asphalt cement increases or decreases over its respective Index Price.
- (4) The Price Adjustment will be based upon the quantity of asphalt cement (QAC) and quantity of emulsified asphalt (QEA) incorporated in the work, determined as follows:
  - a. Batch Plants. QAC is determined using the cumulative actual binder content for each applicable item as reported on the batch ticket, excluding any percent of asphalt cement from Recycled Asphalt Pavement (RAP).
  - b. Drum-Mix Plants. QAC is determined based upon the metric tons (tons) of mix placed, multiplied by the actual binder content reported on the demand tickets, as verified by Agency personnel. In the event of multiple binder contents, the accepted quantity of mix at each binder content shall be determined, and the total QAC used shall be calculated accordingly. The accumulated asphalt cement total on the plant automation may be checked and verified by Agency personnel for each mix.
  - c. Emulsified Asphalt. QEA is as determined in accordance with Subsection 404.11.

(5) The Price Adjustment to be paid shall be computed as follows:

$$PA = [(QAC + (ACEA \times 0.001 \times QEA)) \times (PP - IP)] \text{ [Metric]}$$

$$PA = [(QAC + (ACEA \times 0.05 \times QEA)) \times (PP - IP)] \text{ [English]}$$

where:

- PA = Price Adjustment (LU in \$)
- IP = Index Price (\$/metric ton) or (\$/ton)
- PP = Posted Price on date of work (\$/metric ton) or (\$/ton)
- QAC = Quantity of Asphalt Cement (metric tons) or (tons)
- QEA = Quantity of Emulsified Asphalt (kilograms) or (CWT)
- ACEA = Asphalt Content of Emulsified Asphalt as follows:

Emulsified Asphalt Type	ACEA
CSS-1h	0.57
MS-1	0.55
RS-1	0.55
CRS-1p	0.63
CSS-1h Fog	0.28

- (6) The Contract bid prices for the applicable pay items will be paid separately under the Contract. The price adjustment will be calculated and paid in the same bi-weekly estimate as the applicable Contract work.
- (7) Payments for Price Adjustment, Asphalt Cement shall be debited or credited against the Contract price (Lump Unit) bid for Price Adjustment, Asphalt Cement.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
406.50 Price Adjustment, Asphalt Cement (N.A.B.I.)	Lump Unit



STATE OF VERMONT

AGENCY OF NATURAL RESOURCES

Department of Fish and Wildlife  
Department of Forests, Parks & Recreation  
Department of Environmental Conservation

**STATUTORY AUTHORITY:**  
This approval is issued under Title  
19 V.S.A. Chapter 1, Section 10(12)

Department of Environmental Conservation  
Water Quality Division  
Barre Regional Office  
5 Perry Street Suite 80  
Barre, VT 05641  
Telephone (802) 476-2679

James Brady, Environmental Specialist  
Vermont Agency of Transportation  
Program Development Division  
National Life Building  
Montpelier, Vermont 05633-5001  
Phone: 802-828-3985

RE: HD-4-1015, Royalton, Vermont Route 125 Bridge 23 over the Hancock Branch  
{VTrans ER BRF 0174(16)}

Dear Mr. Brady:

This letter constitutes approval of the above referenced project, which involves the replacement of bridge 23 on Vermont Route 125 in Hancock, Vermont. The in-stream project work will include new abutments, stone fill protection and related appurtenances. A temporary bridge will also be required during construction. The work on this structure is due to T.S. Irene flood damage. The project is subject to the following conditions:

1. A) The project shall be constructed as defined in the VTrans environmental email letter dated 3/30/2012 and VTrans plans dated 2/29/2012. B) Any amendment to the plans which in any way affects surface waters and/or riparian corridors shall be reviewed by this office and approval received by VTrans prior to construction. C) Any construction modifications that deviate from the approved plans which in any way affects surface waters and/or riparian corridors shall be reviewed by this office and approval received by VTrans prior to the construction activity..
2. That the contractor's schedule of accomplishment of water quality related work to be submitted prior to the start of construction, and as required under general specification #105.23(a) shall include site-specific methods of operation. Temporary construction fills, check dams, silt barriers and other erosion control works shall be described and shown on pertinent plans.
3. That the Vermont Agency of Transportation general specification #105.23 addressing the control of erosion and siltation be carefully adhered to in order to minimize turbidity and other adverse impacts.
4. That the Vermont Agency of Transportation general specification #105.24 addressing pollution control be carefully followed in order to limit, if not prevent altogether, the discharge of fuel, grease, oil, raw concrete, paint, chemicals, and debris to any waters of the state.
5. An on-site pre-construction conference between the contractor, VTrans Resident Engineer and the River Management Engineer shall be held prior to commencement of any in-stream construction. Please call *Patrick Ross at 802-279-1143* to schedule the conference.

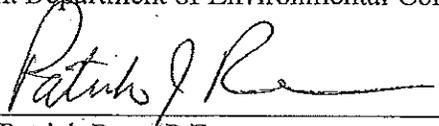
6. Approved in-stream working dates on this project are from June 1<sup>st</sup> to October 1<sup>st</sup>. Contractor proposals for construction activities in or adjacent to flowing water during the restricted period must be isolated from stream flow and must receive prior approval from the River Management Engineer.
7. The provisions of this approval shall be made a part of the construction contract.

Based on information provided in the application for approval under 19 V.S.A. Section 10(12), public notice of which is given by the posting of this permit by the town clerk, it is certified that there is reasonable assurance that the proposed work will be conducted in the manner consistent with applicable conditions of the Federal Pollution Control Act Amendment of 1972, Public Law 92-500.

**Recent litigation involving the public trust doctrine raises concern that agency permits for stream alterations; dams or water quality certificate may be challenged for lack of jurisdiction or authority. We want to alert you to the possibility that litigation or legislative action may modify or retroactively affect the agency's actions.**

If the project is constructed as you have described, as shown on the above referenced approved plans and according to the above conditions, there is no reason to expect any violation of Vermont Water Quality Standards.

David K. Mears, Commissioner  
Vermont Department of Environmental Conservation

By:  Dated: 4/26/12  
Patrick Ross, P.E.  
River Management Program

c: Rich Kirn, District Fisheries Biologist (e-copy)  
Gary Ulrich, Environmental Enforcement Officer (e-copy)  
Marty Abair, U.S. Army Corps of Engineers (e-copy)  
Project File

**VERMONT AGENCY OF NATURAL RESOURCES  
DEPARTMENT OF ENVIRONMENTAL CONSERVATION - WATER QUALITY DIVISION**

**STREAM ALTERATION PERMIT APPLICATION 19 V.S.A. CHAPTER 1, SECTION 10(12)  
AND SECTION 401 WATER QUALITY CERTIFICATION**

NAME OF APPLICANT: Vermont Agency of Transportation - John T. Narowski AGENCY USE \_\_\_\_\_  
 MAILING ADDRESS: Program Development Division - Environmental Section PROJ. # \_\_\_\_\_  
1 National Life Drive, Montpelier, VT 05633-5001 REC'D: \_\_\_\_\_  
 TELEPHONE: HOME: N/A BUSINESS: 802-828-3978

VTRANS PROJECT NUMBER: Hancock BR BRF 0174(16)  
 PROJECT LOCATION: TOWN: Hancock WATERWAY: Robbins Branch / Hancock Cr.  
 NEARBY TOWN HIGHWAY OR STATE ROUTE # VT 125; 2.2 miles west of VT 100 \*\*ATTACH MAP\*\*

TYPE OF PROJECT (check all that apply):

<input type="checkbox"/> Gravel Removal Cubic Yards <input type="checkbox"/> Streambank Stabilization Work <input type="checkbox"/> Stream Channel Relocation <input type="checkbox"/> Gold Dredging/Mineral Prospecting <input type="checkbox"/> Other (Describe below)	<input type="checkbox"/> Temporary Diversion of Stream <input checked="" type="checkbox"/> Bridge/Culvert Construction <input type="checkbox"/> Utility Crossing (water, sewer) <input type="checkbox"/> Water/Sewer Outfall/Intake
--	--

PROJECT PURPOSE & NEED: The purpose of the project is to replace the existing bridge damaged by Tropical Storm Irene and to provide a safe highway crossing for VT 125 (Hancock) over Robbins Branch that is capable of supporting all of the anticipated vehicular loads.

The need for the project is due to the deteriorated condition of the existing bridge. A mabey bridge currently spans the existing damaged bridge. Any further deterioration could restrict the channel and cause further damage to the travel way.

PROJECT DESCRIPTION: Construction will consist of the replacement of the existing bridge with a new bridge on the existing alignment with necessary roadway and channel work. A temporary bridge is planned for the upstream side of the existing bridge.

MAGNITUDE (Length, volume, etc.): Project will include 475 feet of roadway and bridge work.

CONSTRUCTION PROCEDURE: TBD by the contractor

EROSION/SEDIMENT/WATER CONTROL PROCEDURE: Under development by VTrans Structures design squad

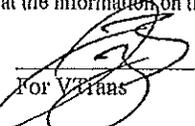
ATTACH LAYOUT PLAN, TYPICAL OR SURVEYED CROSS SECTIONS, STREAM PROFILE & OTHER PERTINENT HYDRAULIC/HYDROLOGIC INFORMATION.

NAME OF EXCAVATION CONTRACTOR: tbd PHONE # \_\_\_\_\_

CONSULTANT/PROJECT SUPERVISOR: tbd PHONE # \_\_\_\_\_

EXPECTED WORKING DATES: START July 2012 COMPLETION November 2012 # DAYS WORK ~150

CERTIFICATION: I hereby certify that the information on this application is, to the best of my knowledge, true and accurate.

SIGNATURE OF APPLICANT:  DATE 03-30-2012

APPROVAL IS GRANTED BY CONDITIONS:

HD-4-1015

SIGNED: Patrick Ross, P.E.  
 TITLE: River Management Engineer

NOTE: A PERMIT MAY BE REQUIRED FROM THE US ARMY CORPS OF ENGINEERS. For information contact: US Army Corps of Engineers, VT Project Office, 8 Carmichael Street Suite 205, Essex Jct VT 05452, Telephone: 802-872-2893





DEPARTMENT OF THE ARMY  
NEW ENGLAND DISTRICT, CORPS OF ENGINEERS  
696 VIRGINIA ROAD  
CONCORD, MASSACHUSETTS 01742-2751

REPLY TO  
ATTENTION OF

Regulatory Division  
CENAE-R-PEC-61  
Permit Number: NAE-2012-0603

APR 19 2012

Mr. Glenn Gingras  
Transportation Biologist  
Vermont Agency of Transportation  
One National Life Drive  
Montpelier, Vermont 05633-5001

received  
4.23.12

Dear Mr. Gingras:

We have reviewed your application to place fill in about 1615 sq. ft. (0.037 acre) of Robins Branch of the White River in conjunction with the replacement of Bridge #23 on VT Route 125 in Hancock, Vermont. The work is shown on the attached plans, on six sheets, entitled "HANCOCK ER BRF 0174(16), and dated "09-MAR-2012".

Based on the information you have provided, we have determined that the proposed activity, which includes a discharge of dredged or fill material into waters or wetlands, will have only minimal individual or cumulative environmental impacts on waters of the United States, including wetlands. Therefore, this work is authorized as a Category 2 activity under the attached Federal permit known as the Vermont General Permit (GP). This work must be performed in accordance with the terms and conditions of the GP.

You are responsible for complying with all of the GP's requirements. Please review the attached GP carefully, in particular the GP conditions beginning on Page 8, to familiarize yourself with its contents. You should ensure that whoever does the work fully understands the requirements and that a copy of the permit document AND THIS AUTHORIZATION LETTER ARE at the project site throughout the time the work is underway.

This authorization expires on December 5, 2012, unless the GP is modified, suspended or revoked. You must complete the work authorized herein by December 5, 2012. If you do not, you must contact this office to determine the need for further authorization before continuing the activity. We recommend you contact us *before* this permit expires to discuss a time extension or permit reissuance.

If you change the plans or construction methods for work in our jurisdiction, please contact us immediately to discuss modification of this authorization. This office must approve any changes before you undertake them.

This authorization requires you to 1) notify us before beginning work so we may inspect the project, and 2) submit a Compliance Certification Form. You must complete and return the enclosed Work Start Notification Form(s) to this office at least two weeks before the anticipated starting date. You must complete and return the enclosed Compliance Certification Form within one month following the completion of the authorized work and any required mitigation (but not mitigation monitoring, which requires separate submittals).

This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law, as listed on Page 2 of the GP. Performing work not specifically authorized by this determination or failing to comply with any special condition(s) provided above or all the terms and conditions of the GP may subject you to the enforcement provisions of our regulations.

We continually strive to improve our customer service. In order for us to better serve you, we would appreciate your completing our Customer Service Survey located at [http://www.nae.usace.army.mil/reg/Customer\\_Service\\_Survey.pdf](http://www.nae.usace.army.mil/reg/Customer_Service_Survey.pdf).

Please contact Marty Abair of my staff at (802) 872-2893 if you have any questions.

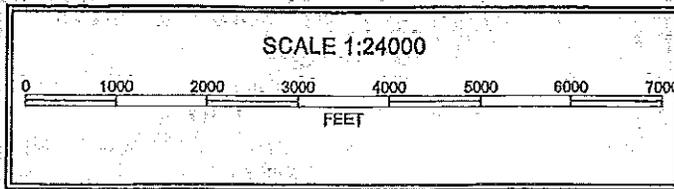
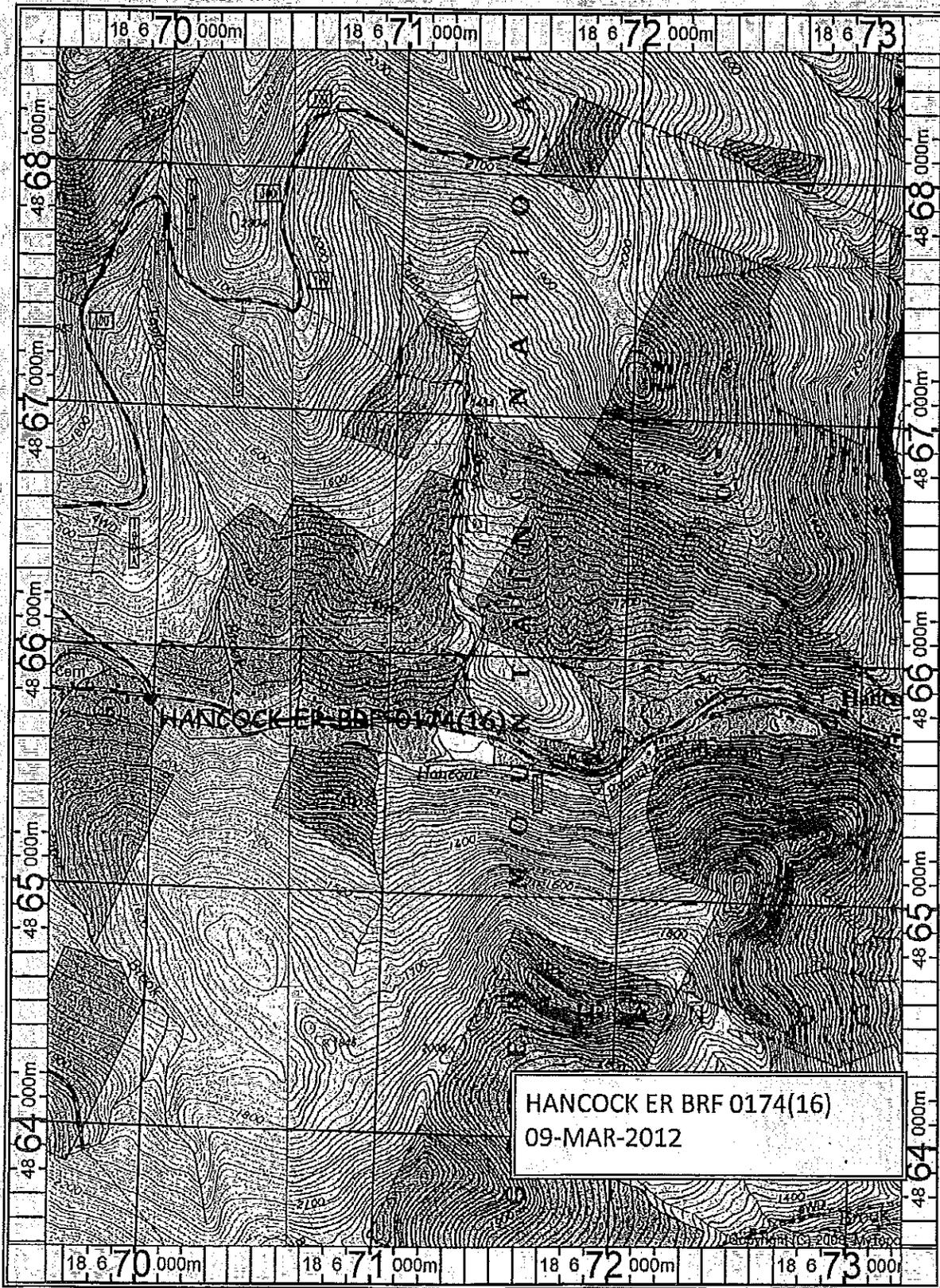
Sincerely,

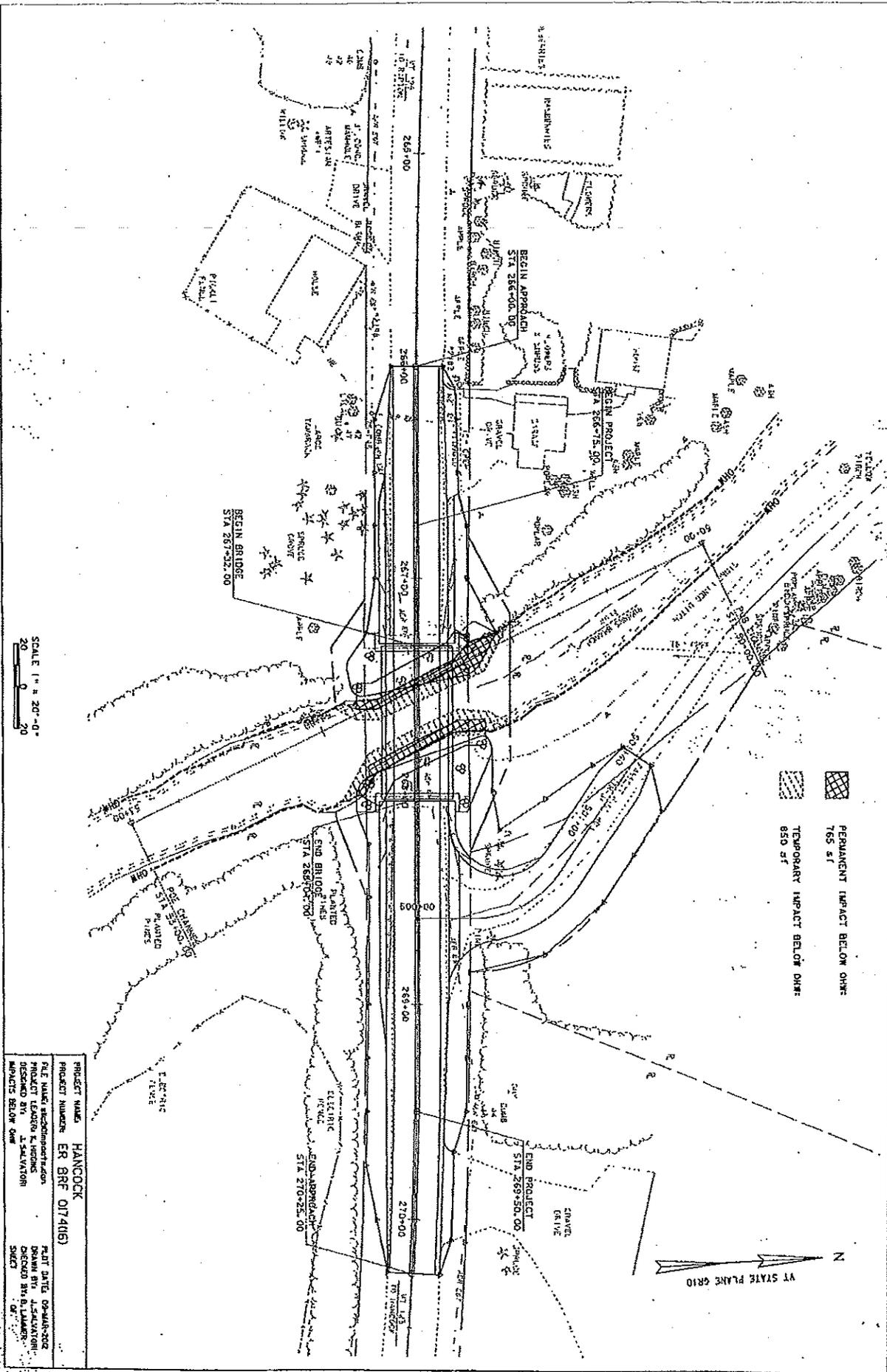
108  
Frank J. DeGiudice  
Chief, Permits & Enforcement Branch  
Regulatory Division

Attachments

Copy furnished:  
Mr. Patrick Ross  
VT Agency of Natural Resources  
River Management Program  
5 Perry Street, Suite 80  
Barre, VT 05641







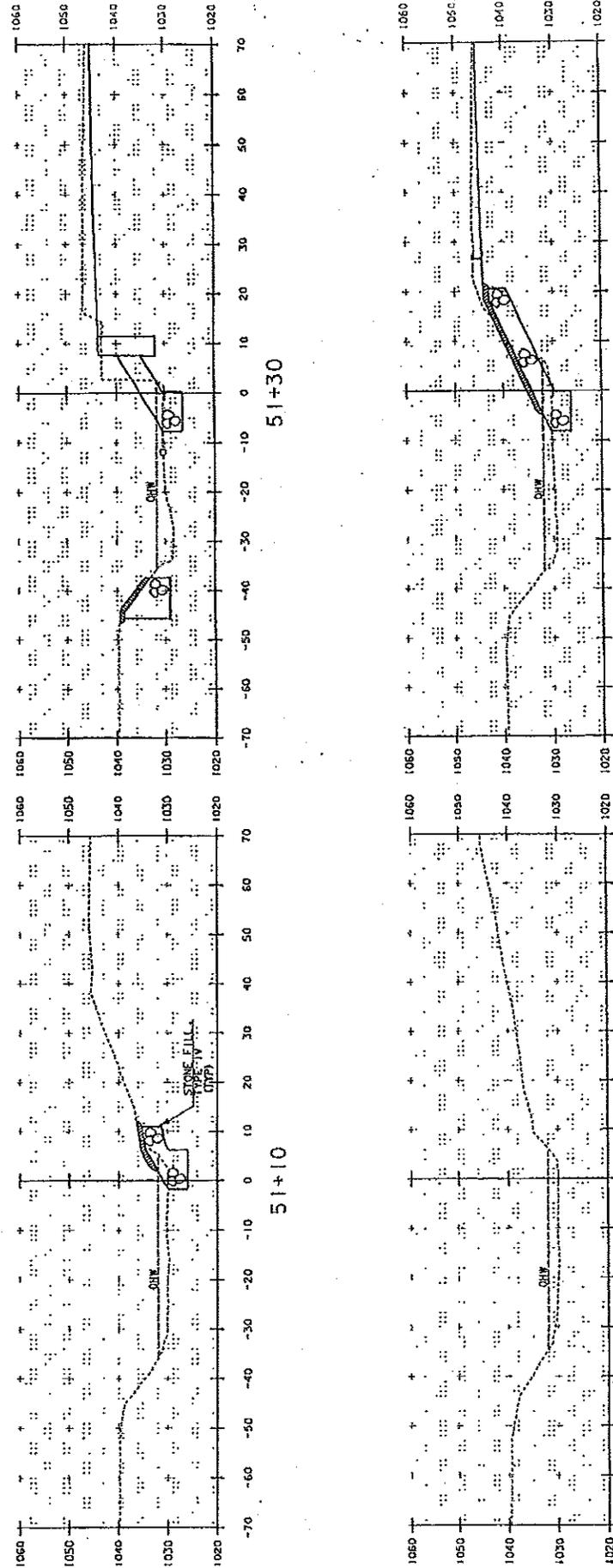
SCALE 1" = 20'-0"  
 20  
 0  
 20

PROJECT NAME: HANCOCK  
 PROJECT NUMBER: ER BRG 0174163  
 FILE NAME: scd000part1.dwg  
 PROJECT LEADER: K. HERRON  
 DESIGNED BY: J. SALVATORE  
 IMPACTS BELOW OHR:  
 PLAT DATE: 09-24-2002  
 DRAWN BY: J. SALVATORE  
 CHECKED BY: B. BLUMBERG  
 SHEET: 01

STA 51+28 RT (ASP) 31  
END GRUBBING MATERIAL

STA 51+30 LT (ASP) 23  
BEGIN CHANNEL EXCAVATION  
BEGIN STONE FILL UNDER STONE FILL  
BEGIN STONE FILL TYPE IV  
BEGIN GRUBBING MATERIAL

STA 51+05 RT (ASP) 10  
BEGIN CHANNEL EXCAVATION  
BEGIN STONE FILL UNDER STONE FILL  
BEGIN STONE FILL TYPE IV  
BEGIN GRUBBING MATERIAL



51+30

51+10

51+20

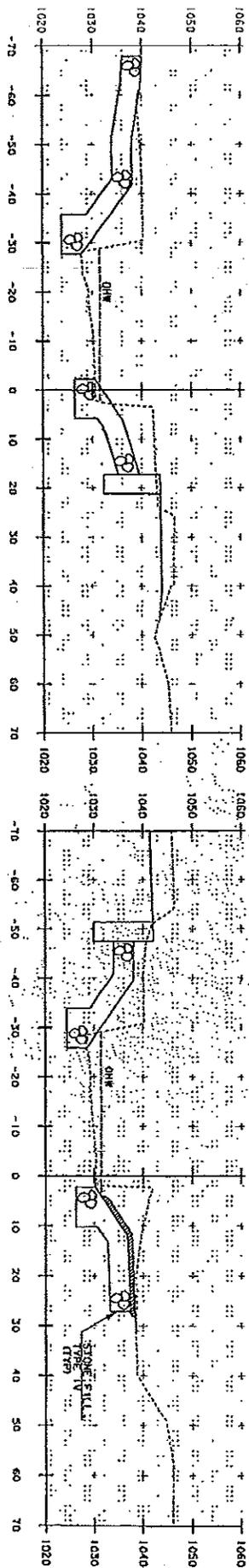
51+00

PROJECT NUMBER	HANCOCK
PROJECT NUMBER	ER BR 0174(16)
FILE NAME	channel.dwg
PLOT DATE	08-MAR-2002
DRAWN BY	J. SALVATORI
CHECKED BY	J. SALVATORI
SHEET	4 OF 5

STA. 51+00 TO STA. 51+30

CHANNEL SECTIONS

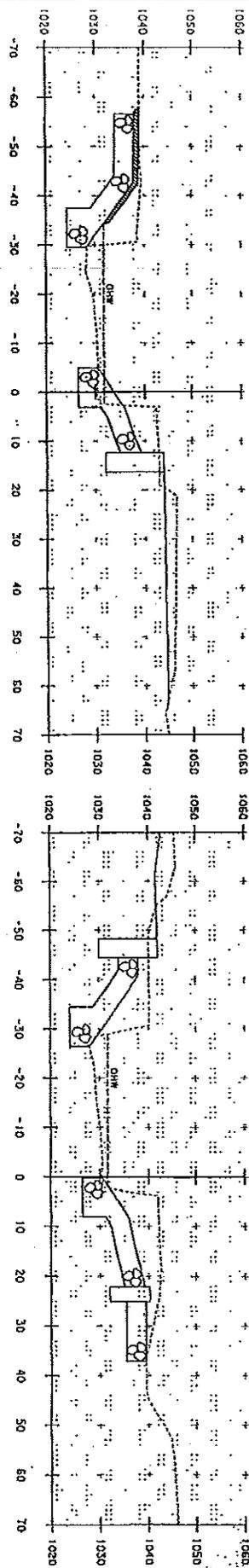
STA 51+40 TO 100%  
 BEGIN GRABBING MATERIAL



51+50

51+70

STA 51+67 TO 40%  
 BEGIN GRABBING MATERIAL

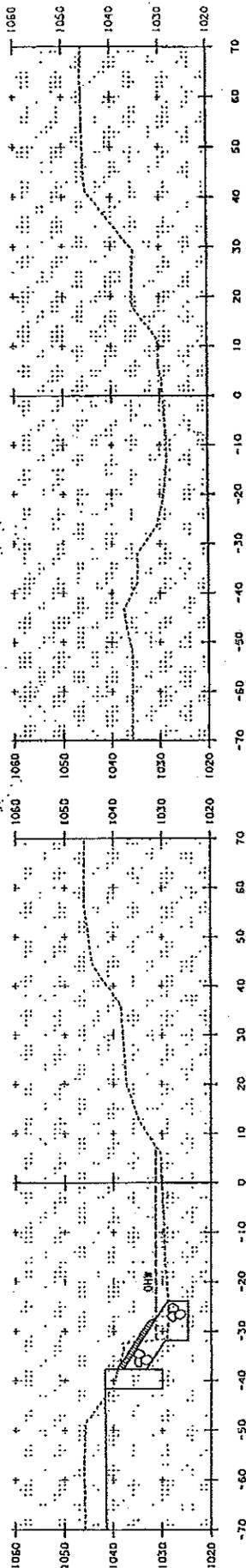


51+40

51+60

STA 51+40 TO STA 51+70

PROJECT NAME: HANCOCK  
 PROJECT NUMBER: ER BRP 01741(S)  
 FILE NAME: 400044400  
 PROJECT LEADER: A. WIGGINS  
 DESIGNED BY: J. SALVADORI  
 CHANNEL SECTIONS  
 PLOT DATE: 09-MAR-2002  
 DRAWN BY: J. SALVADORI  
 CHECKED BY: K. LAMBER  
 SHEET: 5 OF 8

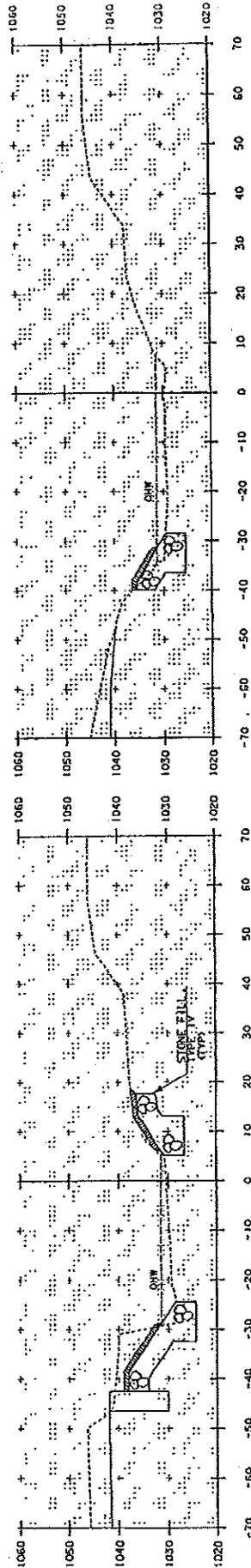


51+90

STA 51+73 LT (88P2)  
 BEGIN GRABBING MATERIAL

STA 51+30 RT (88P1)  
 END CHANNEL EXCAVATION  
 END GROUT FILL UNDER STONE FILL  
 END STONE FILL, TYPE IV  
 END GRABBING MATERIAL

STA 52+00 LT (88P2)  
 END CHANNEL EXCAVATION  
 END GROUT FILL UNDER STONE FILL  
 END STONE FILL, TYPE IV  
 END GRABBING MATERIAL



51+80

52+00

PROJECT NAME:	HANCOCK
PROJECT NUMBER:	ER BRP 0174(6)
FILE NAME:	ERBRP0174
DESIGNED BY:	J. SALVADORI
CHECKED BY:	W. LAMMER
DRAWN BY:	J. SALVADORI
DATE:	09-MAR-2012
SHEET:	C OF 11

STA. 51+80 TO STA. 52+25

## **DEPARTMENT OF THE ARMY GENERAL PERMIT STATE OF VERMONT**

The New England Division of the U.S. Army Corps of Engineers (Corps) hereby issues this General Permit (GP) that expedites review of minimal environmental impact work associated with the aquatic environment of navigable and inland waters and wetlands within the State of Vermont. This general permit for Vermont is known as the Vermont General Permit.

### **I. GENERAL CRITERIA:**

Activities with **minimal impacts**, as specified by this GP's terms (Pages 1-7), general conditions (Pages 8-16) and Appendix A - Definition of Categories, qualify for authorization under the GP in either Category 1 or Category 2.

Proponents should first review Appendix A - Definition of Categories to see if a project meets either:

- Category 1: Non-reporting.  
Projects meeting Category 1 criteria and which are in full compliance with the general conditions may be authorized under this GP without notifying the Corps.
- Category 2: Reporting.  
An application to and written authorization from the Corps is required for these projects.

If you determine that your project is eligible for Category 1 as defined in Appendix A, you must then ensure that your project is in full compliance with this GP's terms and general conditions. If any of these terms and conditions are not met, your project must be reviewed in the Category 2 or the Individual Permit category. The Individual Permit thresholds are defined in Appendix A and the Individual Permit procedures are briefly described on Page 7. This GP does not affect the Corps Individual Permit review process or activities exempt from Corps regulation.

### **II. ACTIVITIES COVERED:**

- Work and structures that are located in or over any navigable water of the United States<sup>1</sup>, the excavating from or depositing of material in such waters, or the accomplishment of any other work affecting the course, location, condition, or capacity of such waters (regulated by the Corps under Section 10 of the Rivers and Harbors Act of 1899); and
- The discharge of dredged or fill material into waters of the U.S.<sup>1</sup> [regulated by the Corps under Section 404 of the Clean Water Act (CWA)]. This GP also covers secondary impacts, which are effects on an aquatic ecosystem that are associated with a discharge of dredged or fill materials, but do not result from the actual placement of the dredged or fill material. The Corps does not regulate secondary impacts unless there is an actual placement of dredged or fill material. See GC 3 on Page 8 and Appendix A, Endnote 4 for more information on secondary impacts.

<sup>1</sup> Waters of the U.S., inland waters and wetlands, and navigable waters of the U.S. are defined at Appendix A, Endnotes/Definitions.

### III. PROCEDURES:

#### A. State Approvals

Applicants are responsible for applying for and obtaining any of the required State approvals (see General Condition 1). Federal and State jurisdictions may differ in some instances. State permits may be required for specific projects regardless of the general permit category.

i. In order for authorizations under this GP to be valid, when any of the following state approvals or statutorily-required reviews is also required, the approvals must be obtained prior to the commencement of work in Corps jurisdiction.

- (1) Vermont Agency of Natural Resources (VT ANR) approval of a Conditional Use Determination under the Vermont Wetland Rules;
- (2) VT ANR approval of a Stream Alteration Permit under Title 10, Chapter 41, Subchapter 2;
- (3) VT ANR approval of a Lake Encroachment Permit under Title 29, Chapter 11, Management of Lakes and Ponds;
- (4) VT ANR approval of a Dam Construction Permit under Title 10, Chapter 43, Dams;
- (5) Vermont Department of Fish and Wildlife (VT F&W) approval of a Stream Obstruction Permit under Title 10, Chapter 111, Section 4607.
- (6) VT ANR, Water Quality Division, issuance of a Water Quality Certification (WQC) under Section 401 of the CWA (33 USC 1341). Section 401(a)(1) of the CWA requires applicants to obtain a WQC or waiver from the state water pollution control agency (VT ANR) to discharge dredged or fill materials into waters of the U.S. The VT ANR has granted WQC for GP Category 1 activities provided that the applicant obtains the required approvals listed above and the project fully complies with all terms and conditions of this GP. The VT ANR reserves the authority to enforce any violation of the Vermont Water Quality Standards that results from any Category 1 activity. Therefore, a separate 401 WQC application is not required for activities involving fill in waters of the U.S. authorized under Category 1 of this GP. However, all stream crossings at locations with drainage areas of one square mile or greater that would otherwise qualify for Category 1 of the VT GP are granted a WQC subject to the following:
  - The crossing is a temporary installation consistent with "Acceptable Management Practices for Maintaining Water Quality on Logging Jobs in Vermont," or
  - The crossing has received written approval from the VT ANR, or
  - More than 21 calendar days elapse without a response from the date of receipt by the VT ANR of complete information describing the crossing location and design.

The VT ANR conditionally granted WQC for GP Category 2 activities listed in Appendix A of this GP provided (1) the applicant obtains the required approvals listed above and (2) the Corps notifies the VT ANR and the VT ANR finds that the activity is reasonably likely to have minimal or no impact on water quality. The VT ANR retains the right to require an Individual WQC for any Category 2 activity. The VT ANR will respond within the same response times required of the Federal resource agencies.

ii. The State of Vermont also requires project proponents to obtain the following authorizations from the State when applicable:

- (7) VT ANR approval of a 1272 Order under Title 10, Chapter 47;
- (8) VT National Flood Insurance Program (NFIP) confirmation that the proposed project is in compliance with the minimum NFIP regulations consistent with 24 VSA 4424.
- (9) VT ANR approval of a threatened and endangered species permit, 10 VSA Chapter 123, administered by VT F&W.

## **B. Corps Authorizations**

General permit authorizations consist of both Category 1 and 2 activities (see Appendix A). The thresholds outlined in this document are intended to ensure that the GP results in no more than a minimal impact to the aquatic environment. The Corps will coordinate review of all Category 2 activities with Federal resource agencies and the State of Vermont and may require project modifications or mitigation to minimize impacts.

### **Category 1 (Non-reporting)**

**Eligibility** - Activities in Vermont that are:

- Subject to Corps jurisdiction;
- Meet the definition of Category 1 in Appendix A - Definition of Categories; and
- Meet the general conditions of this GP (Pages 8-16)

may proceed without application or notification to the Corps provided the required Federal, State, and local authorizations are obtained (See page 2).

Although Category 1 projects are non-reporting, the Corps reserves the right to require either an Individual Permit (see GC 4) or Category 2 review if there are concerns for the aquatic environment or any other factor of the public interest. Secondary impacts must be accounted for (see GC 3).

Project proponents seeking Category 1 authorizations are not relieved of the obligation to comply with this GP's general conditions (Pages 8-16) and other Federal laws such as the National Historic Preservation Act, the Endangered Species Act and the Wild and Scenic Rivers Act. Therefore, consultation with the Corps and/or agencies such as the Vermont Division for Historic Preservation (VT DHP) (see Page 17) is required when there is a high likelihood of the presence of resources of concern. Secondary impacts must be included when determining if a project qualified for Category 1 (see GC 3). Fill area includes all temporary and permanent fill.

**Enforcement cases.** This GP does not apply to any existing or proposed activity in Corps jurisdiction associated with an on-going Corps or EPA enforcement action until such time as the enforcement action is resolved or the Corps determines that the activity may proceed independently without compromising the enforcement action. The Corps may choose not to accept applications or issue permits to any applicant with outstanding violations.

### **Category 2 (Reporting/Screening)**

#### **Eligibility**

Activities in Vermont that are:

- Subject to Corps jurisdiction;
- Meet the definition of Category 2 in Appendix A; and
- Meet the general conditions of this GP (Pages 8-16)

require written approval from the Corps. These projects will be reviewed through interagency screening to determine whether such activities may be authorized under this GP. To be eligible and subsequently authorized, an activity must result in no more than a minimal impact to the aquatic environment as determined by the Corps in coordination with the interagency review team (Page 5), in addition to meeting the criteria listed above. Mitigation may be required to compensate for unavoidable impacts to ensure net effects of a project are minimal.

To ensure compliance with this GP's general conditions, consultation with the Corps, other Federal or State resource agencies, or independent consultants, may be necessary. This includes consultation with the VT DHP (Page 17) to ensure compliance with GC 7 and the VT ANR to comply with applicable general conditions. Also, note the review thresholds under Category 2 apply to single and complete projects only (see GC 5).

### **Application Procedures**

Applicants must apply directly to the Corps at the Vermont Project Office (VPO), and are encouraged to simultaneously apply to the VT ANR for any related permits. Upon receipt of an application for a Category 2 activity, the Corps will determine if it:

- (1) Requires additional information;
- (2) Is appropriate for screening with the Federal resource agencies and State agencies (see Screening Procedures);
- (3) Is ineligible under the terms and/or conditions of this general permit;
- (4) Requires project modification, mitigation or other special conditions to minimize impacts and protect the aquatic environment to be eligible for this GP; or
- (5) Requires Individual Permit review regardless of whether the terms and conditions of this GP are met, based on concerns for the aquatic environment or any other factor of the public interest (see GC 4 on Discretionary Authority).

### **Information Typically Required**

In order to consider an application complete and review it with the interagency review team, the applicant must submit complete information. Please see [www.nae.usace.army.mil](http://www.nae.usace.army.mil) for a more comprehensive checklist. Select "Regulatory/Permitting," "Forms" and then "Application and Plan Guideline Checklist." This information includes, but is not limited to:

- Plans that illustrate the proposed work in reference to the limits of Corps jurisdiction as applicable. Plans should be on 8.5" x 11" paper and contain all other appropriate information.
- A description of the proposed work, project purpose and location, including a locus map and photographs, if applicable.
- Data sheets to support wetland delineations. See GC 2.
- A narrative description of the habitat(s) including dominant plant community(ies) present, soil type and relevant existing and adjacent land uses.
- A demonstration that there will be no more than minimal direct and indirect impacts to the aquatic resource(s) resulting from the project. Consideration should be given to impacts associated with expected hydrologic changes, effects on riparian habitat, forest fragmentation, impacts to headwater and ephemeral streams (Endnote 17), stormwater discharges and other potential water quality and wetland habitat impacts. See GC 3.
- Information on Federal endangered and threatened species and critical habitat, and State endangered and threatened species that occur or may occur in the project area. See GC 9. VT ANR, Department of Fish & Wildlife, Nongame and Natural Heritage program contact info is provided on Page 17. Refer to Additional References on Page 18 for additional information.
- Identification and description of potential impacts to essential fish habitat. See GC 10.
- Identification of potential discharges of pollutants to waters, including potential impacts to impaired waters, in the project area. See GC 22. Refer to Additional References on Page 18.
- Identification, quantification, and description of potential impacts to aquatic resources, including delineation of wetlands, special aquatic sites, special wetlands and vernal pools. See GC 27.

### Federal/State Screening Procedures

The Corps, Federal resource agencies [U.S. Fish and Wildlife Service (USFWS), U.S. Environmental Protection Agency (EPA), and National Marine Fisheries Service (NMFS)] and VT ANR will comprise the interagency review team. The Corps will also coordinate with VT DHP as to potential impacts of a project on historic properties.

Screening of Category 2 projects will be either through email, fax, mail or at interagency screening meetings at the Corps VPO. Projects are coordinated on a regular basis or as necessary to facilitate prompt decision making. The Corps and the Federal resource agencies, at the branch chief or equivalent level, may agree on certain activities that do not need to be coordinated at these meetings. The Corps, VT ANR and VT DHP will review/screen complete applications for Category 2 activities with impacts between 3,000 square feet (SF) and 5,000 SF. The Corps will review/screen all complete applications for Category 2 projects with impacts greater than 5,000 SF with the interagency review team and VTDHP.

The Corps may determine on its own or in consultation with the interagency review team, if applications for Category 2 work:

- Are eligible under the GP as proposed;
- Are ineligible under the terms and/or conditions of this GP;
- Require additional information;
- Will require project modification, mitigation or other special conditions to avoid or minimize adverse environmental impacts and protect the aquatic environment to be eligible for authorization under this GP; or
- Require Individual Permit review irrespective of whether the terms and general conditions of this GP are met, based on concerns for the aquatic environment or any other factor of the public interest (see GC 4).

The Federal resource agencies, the VT ANR, and VT DHP must provide verbal comments to the appropriate Corps project manager in the VPO within 10 business days of receiving the Determination of Eligibility (DOE) from the Corps. These verbal comments may consist of a request for additional information, recommendations for modification, mitigation, or special conditions to avoid or minimize adverse environmental impacts associated with the aquatic environment, and to ensure the terms and general conditions of the GP are met, a request for a site visit; or a "kickout" to Individual Permit review.

Federal resource agency additional information requests shall be within their area of expertise, commensurate to the level of impact, and agreed upon by the Corps. If additional information is requested, the agencies are allowed an additional 10 business days after receipt of this information to provide modifications, mitigation or special conditions, or provide a written Individual Permit request to the Corps.

Unless additional information is requested, the verbal notice must be confirmed with a written response to the appropriate Corps project manager at the VPO within an additional 10 working days from the date of the verbal comment. The Corps will begin its Individual Permit review procedures at the written request of the Federal resource agencies if an agency within 10 business days of either the screening date or receiving additional information expresses a concern within their area of expertise, states the resource or species that could be impacted by the project, and describes the impacts that, either individually or cumulatively, will be more than minimal. This must be directed to the appropriate Corps project manager at the VPO. Written responses must be signed by the Federal resource agency field supervisor or branch chief, as appropriate, and must identify the affected resource within their area of expertise.

The Corps may contact the applicant either by phone or in writing if there are concerns. If the applicant is unable to resolve the concerns or modify the project, the Corps may determine that a project is ineligible under this GP, "kickout" the project to the Individual Permit review category, and begin its Individual Permit review procedures. The Corps will send a "Kickout Letter" to the applicant and copy the VT ANR and the commenting Federal resource agency on any written correspondence to the applicant. The Corps may reinstate a project's eligibility under the GP provided the Federal agencies' concerns are satisfied.

The VT ANR within 10 business days of the date the project information is received from the Corps may require an Individual 401 WQC review for any Category 2 project. This 10-day notice may be verbal and is not required to be fully documented, but must be directed to the appropriate Corps Project Manager at the VPO. It must be confirmed with a written response to the appropriate Corps project manager within an additional 10 working days from the date of the verbal comment. If the VT ANR does not notify the Corps as outlined herein, WQC is conditionally granted for the project. In order for the Corps GP authorization to be valid, the WQC must be obtained or waived prior to the commencement of work.

If the Corps and Federal resource agencies determine that the activity is eligible for the GP, the Corps will send an authorization letter directly to the applicant. The Corps will generally issue an eligibility determination within 60 days from the date of a complete application. If the Corps determines that the activity is not eligible under the GP or that additional information is required, the Corps will notify the applicant in writing and will send a copy of this notification to VT ANR.

### **Emergency Situations**

Emergency situations are limited to sudden, unexpected occurrences that could potentially result in an unacceptable hazard to life, a significant loss of property, or an immediate, unforeseen, and significant economic hardship if corrective action requiring a permit is not undertaken within a time period less than the normal time needed to process an application under standard procedures. If an emergency situation requires action in less than 30 days after the occurrence, it qualifies for the amended notification procedures described below.

Notification Procedures for Emergency Situations: The Federal resource agencies, VT ANR and the VT DHP will each designate an alternate to be contacted in the event the regular contact is unavailable. The VT ANR, VT Emergency Management (VTEM) or FEMA will notify the Corps within 24 hours of the occurrence of a disaster and advise the Corps of the nature of the occurrence and any known remedial and/or protective measures. The Corps will notify agency representatives that a disaster has occurred within one working day of being notified by the VT ANR, VTEM or FEMA.

When an application for Category 2 work is received that the Corps Vermont Project Office (VPO) determines is an "emergency" as defined above, the Corps will fax a copy of the plans and Determination of Eligibility (DOE) to the agency representatives and their alternates. The resource agencies would then have sixteen working hours to notify the Corps if they have any comments on authorization of the project under the GP. Objections to the Corps determination of an "emergency" situation will not be accepted. If no response is received at the VPO within 16 working hours, the Corps will proceed with a decision on the application. If the resource agencies have comments on the proposal, they will have 16 working hours to put their comments in writing. If written comments from the Federal agencies are not received at the VPO within 16 working hours, the Corps will proceed with a decision on the application.

If a Federal agency requests that an Individual Permit be required for a project or requests modifications to the project based on concerns within their area(s) of expertise, the Corps will notify the applicant within 8 working hours of receipt of that request that the project as proposed does not qualify for authorization under the GP and that an Individual Permit will be required. In any event, the Corps will notify the applicant within 48 working hours of commencement of the screening process as to whether the project may proceed under the GP.

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#### **IV. INDIVIDUAL PERMIT**

Work that is in the Individual Permit category as listed in Appendix A, or that does not meet the terms and conditions of this GP, will require an application for an individual permit from the Corps of Engineers (see 33 CFR 325.1). The applicant should submit the appropriate application materials (including the Corps application form) at the earliest possible date to expedite the permit review process. General information and application forms can be obtained at our web site or by calling us (see Page 17). An Individual 401 WQC will be required from the appropriate VT resource agency(ies). Filing an Individual Permit application does not relieve the applicant from their obligation to obtain all necessary State approvals from the appropriate Vermont resource agency(ies) or any applicable local approvals.

## **V. GENERAL CONDITIONS (and supporting general information):**

The following conditions apply to activities authorized under this GP, including all Category 1 (non-reporting) and Category 2 (reporting/ screening) activities:

### **General Requirements:**

1. **Other Permits.** Authorization under this general permit does not obviate (i.e., to make unnecessary) the need to obtain other Federal, state, or local authorizations required by law.
2. **Federal Jurisdictional Boundaries.** Applicability of this GP shall be evaluated with reference to Federal jurisdictional boundaries. Applicants are responsible for ensuring that the boundaries used satisfy the Federal criteria defined at 33 CFR 328-329. These sections prescribe the policy, practice and procedures to be used in determining the extent of jurisdiction of the Corps concerning “waters of the U.S.” and “navigable waters of the U.S.” Wetland boundaries shall be performed in accordance with the January 1987 Corps of Engineers Wetlands Delineation Manual located at [www.nae.usace.army.mil/reg/1987 Wetland Delineation Manual.pdf](http://www.nae.usace.army.mil/reg/1987%20Wetland%20Delineation%20Manual.pdf) and applicable regional supplements. Refer to Additional References on Page 18.
3. **Minimal Effects, Secondary (Indirect) and Cumulative Impacts.** (a) Projects authorized by this GP shall have no more than minimal individual and cumulative environmental impacts as determined by the Corps. Applicants must demonstrate that there will be no more than minimal direct and indirect impacts to the aquatic resource(s) resulting from the project. See Information Typically Required, Page 4. Mitigation may be required to offset unavoidable impacts. (b) Secondary impacts to waterway and/or wetland areas, (e.g., areas drained, flooded, cleared, excavated or fragmented) shall be added to the total fill area when determining the project review category (Category 1, 2 or Individual Permit review). Secondary and cumulative impacts are defined at Appendix A, Endnote 4.
4. **Discretionary Authority.** Notwithstanding compliance with the terms and general conditions of this GP, the Corps retains discretionary authority to require either a Category 2 or an Individual Permit review based on concerns for the aquatic environment or for any other factor of the public interest (33 CFR 320.4(a)). This authority is invoked on a case-by-case basis whenever the Corps determines that the potential impacts of the proposal warrant either a Category 2 or an Individual Permit review based on the concerns stated above. This authority may be invoked for projects with cumulative environmental impacts that are more than minimal or if there is a special resource or concern associated with a particular project that is not already covered by the remaining conditions of the GP and that warrants greater review. Whenever the Corps notifies an applicant that either a Category 2 or Individual Permit review is required, authorization under this GP is void and no work may be conducted until the Corps issues the required authorization or until the Corps notifies the applicant that further review has demonstrated that the work may proceed under this GP.
5. **Single and Complete Projects.** This GP shall not be used for piecemeal work and shall be applied to single and complete projects. All components of a single project and/or all planned phases of a multi-phased project shall be treated together as constituting one single and complete project, unless the Corps determines that a component has independent utility. For linear projects, such as power lines or pipelines with multiple crossings, the “single and complete project” (i.e., single and complete crossing) will apply to each crossing of a separate water of the U.S. (i.e., single waterbody) at that location; except that for linear projects crossing a single waterbody several times at separate and distant locations, each crossing is considered a single and complete project, and may be reviewed for Category 1 eligibility. (However, individual channels in a braided stream or river, or individual arms of a large, irregularly-shaped wetland

or lake, etc., are not separate waterbodies.) If any crossing requires a Category 2 activity, then the entire linear project shall be reviewed as one project under Category 2 provided that the impact thresholds in Appendix A are met. Also, this GP shall not be used for any activity that is part of an overall project for which an Individual Permit is required, unless the Corps determines the activity has independent utility. Note that modifications to State permits do not constitute a separate project. Modifications which involve Corps jurisdiction will be screened at the regular screening in order to ascertain compliance with the GP. Keep in mind that a linear project normally qualifying as a non-reporting Category 1 project will trigger a Corps review if the impacts exceed this GP's general conditions.

**6. Permit On-Site.** For Category 2 projects, the permittee shall ensure that a copy of this GP and the accompanying authorization letter are at the work site (and the project office) authorized by this GP whenever work is being performed, and that all personnel with operation control of the site ensure that all appropriate personnel performing work are fully aware of its terms and conditions. The entire permit authorization shall be made a part of any and all contracts and sub-contracts for work that affects areas of Corps jurisdiction at the site of the work authorized by this GP. This shall be achieved by including the entire permit authorization in the specifications for work. The term "entire permit authorization" means this GP and the authorization letter (including its drawings, plans, appendices and other attachments) and also includes permit modifications. If the authorization letter is issued after the construction specifications, but before receipt of bids or quotes, the entire permit authorization shall be included as an addendum to the specifications. If the authorization letter is issued after receipt of bids or quotes, the entire permit authorization shall be included in the contract or sub-contract as a change order. Although the permittee may assign various aspects of the work to different contractors or sub-contractors, all contractors and sub-contractors shall be obligated by contract to comply with all environmental protection provisions contained within the entire GP authorization, and no contract or sub-contract shall require or allow unauthorized work in areas of Corps jurisdiction.

#### **General Conditions Related to National Concerns:**

**7. Historic Properties.** Any activity authorized by this GP shall comply with Section 106 of the National Historic Preservation Act. Information on the location and existence of historic resources can be obtained from the VT DHP (See page 17) and the National Register of Historic Places. Project proponents shall apply to the Corps for all projects that would otherwise qualify for Category 1 if there is the potential for an effect on a historic property within the permit area or any known historic property that may occur outside the permit area. Historic properties include those that are eligible for inclusion, but not necessarily listed on the National Register. If the permittee, during construction of work authorized herein, encounters a previously unidentified archaeological or other cultural resource within the area subject to Corps jurisdiction that might be eligible for listing in the National Register of Historic Places, he/she shall stop work and immediately notify the Corps and the VT DHP.

**8. National and Corps Lands.** Activities authorized by this GP shall not impinge upon the value of any National Wildlife Refuge, National Forest, National Park or any other area administered by the U.S. FWS, U.S. Forest Service, or National Park Service. No Category 1 work is allowed on Corps properties and Corps-controlled easements (see Appendix A, Endnote 8).

#### **9. Federal and State Endangered Species.**

- a. No activity may be authorized under this GP which:
- May affect a threatened or endangered species, a proposed species, designated critical habitat, or proposed critical habitat as identified under the Federal Endangered Species Act (ESA),
  - Would result in a "take" of any Federally listed threatened or endangered species of fish or wildlife, or

- Would result in any other violation of Section 9 of the ESA protecting threatened or endangered species of plants.
- b. Proponents for Category 1 and 2 projects shall ensure there are no impacts to Federally-listed threatened or endangered species or critical habitat and should ensure that there are no impacts to State threatened or endangered species.
- c. Proponents for Category 1 and 2 projects shall notify the Corps if any of the actions in 9a may occur and if any Federally listed threatened or endangered species or critical habitat, or proposed species or critical habitat, is in the project area or may be impacted by the project. For Category 1 projects, the Corps may then notify the proponent that the project will be reviewed under the Category 2 or Individual Permit procedures and if so the proponents shall not begin work until the Corps issues a written authorization.
- d. Applicants should also provide information on state threatened and endangered species. The Information Typically Required section on Page 4 provides guidance. Contact information for the VT ANR, Department of Fish & Wildlife, Nongame and Natural Heritage program is provided on Page 17, and more information is provided at Additional References, Page 18.

**10. Essential Fish Habitat (EFH).** As part of the GP screening process, the Corps will coordinate with the NMFS in accordance with the 1996 amendments to the Magnuson-Stevens Fishery, Conservation and Management Act (MSFCMA) to protect and conserve the habitat of marine, estuarine and anadromous finfish, mollusks, and crustaceans. This habitat is termed EFH and is broadly defined to include “those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity.” Any work in the following streams in the Connecticut River watershed that are stocked with Atlantic salmon shall not be authorized under Category 1 of this GP and must be screened for potential impacts to EFH. For additional EFH information and/or locations, see 50 CFR 600 ([www.nmfs.noaa.gov](http://www.nmfs.noaa.gov)), [www.nero.nmfs.gov/RO/DOC/appguide1.html](http://www.nero.nmfs.gov/RO/DOC/appguide1.html) or contact NMFS (see Page 17).

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|--|-----------------------|------------------|
| • Black River (from its mouth in<br>Springfield to its headwaters) | • Ompompanoosuc River | • Stevens River  |
| • Connecticut River  | • Ottauquechee River  | • Wells River    |
| • Deerfield River  | • Passumpsic River    | • West River     |
| • Nulhegan River   | • Paul Stream         | • White River    |
|  | • Saxtons River       | • Williams River |

**11. Wild and Scenic Rivers.** Currently there are no designated Wild and Scenic Rivers or rivers designated as Study Rivers in the State of Vermont.

**12. Federal Navigation Project.** Any structure or work that extends closer to the horizontal limits of any Corps navigation project than a distance of three times the project's authorized depth shall be subject to removal at the owner's expense prior to any future Corps dredging or the performance of periodic hydrographic surveys.

**13. Navigation.** (a) There shall be no unreasonable interference with navigation by the existence or use of the activity authorized herein, and no attempt shall be made by the permittee to prevent the full and free use by the public of all navigable waters at or adjacent to the activity authorized herein. (b) The permittee understands and agrees that if future operations by the U.S. require the removal, relocation or other alteration of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps, to remove, relocate or alter the structural work or obstructions caused thereby, without expense to the U.S. No claim shall be made against the U.S. on account of any such removal or alteration.

**14. Federal Liability.** In issuing this GP, the Federal Government does not assume any liability for the following: (a) damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes; (b) damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the U.S. in the public interest; (c) damages to persons, property or to other permitted or unpermitted activities or structures caused by the activity authorized by the GP; (d) design or construction deficiencies associated with the permitted work; (e) damage claims associated with any future modification, suspension or revocation of this permit.

### **Minimization of Environmental Impacts:**

**15. Avoidance, Minimization and Mitigation.** Discharges of dredged or fill material into waters of the U.S. and any secondary impacts shall be avoided and minimized to the maximum extent practicable. Mitigation of unavoidable direct and indirect impacts may be required on a case-by-case basis.

**16. Heavy Equipment in Wetlands.** Heavy equipment other than fixed equipment (drill rigs, fixed cranes, etc.) working in wetlands shall not be stored, maintained or repaired in wetlands, unless it is less environmentally damaging otherwise, and as much as possible shall not be operated there. Where construction requires heavy equipment operation in wetlands, the equipment shall either have low ground pressure (typically <3 psi), or shall not be located directly on wetland soils and vegetation; it shall be placed on swamp/construction mats or corduroy roads (defined at Appendix A, Endnote 16) that are adequate to support the equipment in such a way as to minimize disturbance of wetland soil and vegetation. Swamp mats are to be placed in the wetland from the upland or from equipment positioned on swamp mats if working within a wetland. Dragging swamp mats into position is prohibited. Other support structures that are less impacting and are capable of safely supporting equipment may be used with written Corps authorization. Similarly, not using mats during frozen, dry or other conditions may be allowed with written Corps authorization. (See GC 17 below.) An adequate supply of spill containment equipment shall be maintained on site. Corduroy roads and swamp/construction mats are considered as fill whether they're installed temporarily or permanently.

**17. Temporary Fill.** No temporary fill shall be placed in waters of the U.S., including wetlands, unless a) it is specifically authorized in writing by the Corps, or b) the project qualifies for the non-reporting Category 1 (the combined temporary and permanent fill totals less than 3,000 SF, it meets the Appendix A Category 1 definition, and it's in compliance with this GP's terms and general conditions).

- All temporary fill shall be stabilized to prevent its eroding into portions of waters of the U.S. where it is not authorized.
- Waters of the U.S. where temporary fill was discharged shall be restored (see GC 18).
- Unconfined temporary fill authorized for discharge into waters of the U.S. shall consist of material that minimizes impacts to water quality (e.g. sandbags or clean, gravel and/or stone).
- Temporary fill authorized for discharge into wetlands shall be placed on geotextile fabric laid on the pre-construction wetland grade. (Swamp and timber mats are excluded from this requirement.)
- Temporary fill shall be removed as soon as it is no longer needed, and it shall be disposed of at an upland site and suitably contained to prevent its subsequent erosion into waters of the U.S.
- Swamp/construction mats and corduroy roads (see GC 16 above) are considered as temporary fill when they are removed immediately upon work completion. The areas must be restored in accordance with GC 18.
- If temporary fill is staged and then returned to its original location, e.g., sewer projects through wetlands, the original location shall be restored.

## **18. Work Site Restoration.**

- Upon completion of construction, all disturbed wetland areas (the disturbance of these areas must be authorized) shall be properly stabilized. Any seed mix shall contain only plant species native to New England and shall not contain any of the plant species listed in the "Mitigation Guidance for New England District Mitigation Plan Checklist," provided at [www.nae.usace.army.mil/reg/Mitigation%20Plan%20Checklist%20Guidance.pdf](http://www.nae.usace.army.mil/reg/Mitigation%20Plan%20Checklist%20Guidance.pdf) and referenced in the Planting Plan section. This list may be updated periodically.
- The introduction of non-native invasive and noxious species in disturbed areas is prohibited and any spread of such invasive plant species shall be controlled. See Additional References on Page 18. The Corps lists these species in the above mentioned checklist in the Invasive and Noxious Species section.
- In areas of authorized temporary disturbance, if trees are cut they shall be cut at ground level and not uprooted in order to prevent disruption to the wetland soil structure and to allow stump sprouts to revegetate the work area, unless otherwise authorized.
- Wetland areas where permanent disturbance is not authorized shall be restored to their original condition and elevation, which under no circumstances shall be higher than the pre-construction elevation. Original condition means careful protection and/or removal of existing soil and vegetation, and replacement back to the original location such that the original soil layering and vegetation schemes are approximately the same, unless otherwise authorized.

**19. Bank Stabilization.** Projects involving construction or reconstruction/maintenance of bank stabilization structures within Corps jurisdiction should be designed to minimize environmental effects, effects to neighboring properties, scour, etc. to the maximum extent practicable. Applicants must use the least intrusive method to stabilize the bank, following this sequential minimization process: avoidance, diversion of overland flow, vegetative stabilization, stone-sloped surfaces, and walls. Vertical walls/bulkheads must only be used in situations where reflected wave energy can be tolerated. This generally eliminates bodies of water where the reflected wave energy may interfere with or impact on harbors, marinas, or other developed shore areas. Refer to Additional References on Page 18.

**20. Sedimentation and Erosion Control.** Adequate sedimentation and erosion control management measures, practices and devices, such as phased construction, vegetated filter strips, geotextile silt fences or other devices, shall be installed and properly maintained to reduce erosion and retain sediment on-site during and after construction. Such measures shall be capable of preventing erosion, of collecting sediment, suspended and floating materials, and of filtering fine sediment. The temporary devices shall be removed upon completion of work and the disturbed areas shall be stabilized. The sediment collected by these devices shall be removed and placed at an upland location, in a manner that will prevent its later erosion into a waterway or wetland. All exposed soil and other fills shall be permanently stabilized at the earliest practicable date.

## **21. Waterway/Wetland Work and Crossings**

- (a) All temporary and permanent crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed to withstand and to prevent the restriction of high flows, to maintain existing low flows, and to not obstruct the movement of aquatic life indigenous to the waterbody beyond the actual duration of construction.
- (b) No activity may substantially disrupt the necessary life-cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water.
- (c) To meet the objective of aquatic organism passage in (a) and (b) above, all temporary and permanent crossings of rivers, streams, brooks, etc. (hereon referred to as "streams") shall meet the following performance standards in order to qualify for Category 1 (refer to Additional References on Page 18):

- i. Design the structure to maintain a streambed composition and form throughout the culvert similar to and continuous with the adjacent reaches. To do this:
    - o Design and install streambed material and bedforms if not adequately supplied and developed naturally,
    - o Design profile and alignment through structure similar to those of adjacent stream reaches,
    - o Design culvert elevation to remain embedded for the life of the structure and in consideration of future channel conditions.
  - ii. Maintain velocities, turbulence and depths within the structure similar to those found in adjacent stream reaches across a range of desired flows.
- (d) The requirements to comply with the performance standards in (c) above in order to proceed as a Category 1 project do not apply to the following:
- i. Temporary crossings in place for less than 90 days (the requirements in (a) do apply). Temporary culverts must be embedded unless they're installed during low flow (Jul. 15 – Oct. 1) and it's placed on geotextile fabric laid on the stream bed to ensure restoration to the original grade;
  - ii. Constructed drainage systems designed primarily for the conveyance of storm water or irrigation. Also, non-tidal drainage and irrigation ditches excavated on dry land are not Federally-regulated.
- (e) Applicants proposing new crossings, or maintenance or replacement of serviceable crossings should refer to the Guidelines for the Design of Stream/Road Crossings for Passage of Aquatic Organisms in Vermont when the State finalizes these guidelines. Refer to Additional References on Page 18.
- (f) Applicants shall use the least intrusive and environmentally damaging method to construct the stream crossing, following this sequential minimization process: bridge spans, open bottom arches or embedded culverts. Refer to Additional References, Page 18.
- (g) Culverts at waterbody crossings shall be installed in such a manner as to preserve hydraulic connectivity, at its present level, between the wetlands on either side of the road. The permittee shall take necessary measures to correct wetland damage due to lack of hydraulic connectivity.
- (h) Projects using retrofit methods increasing flow velocity or slip lining (retrofitting an existing culvert by inserting a smaller diameter pipe) are not allowed in Category 1, either as new or maintenance activities.
- (i) No projects involving open trench excavation in flowing waters, except riprap installation, are allowed under Category 1. Open trench excavation projects may qualify for Category 1 provided (1) the work doesn't occur in flowing waters (requires using management techniques such as temporary flume pipes, culverts, cofferdams, etc.) and (2) normal flows are maintained within the stream boundary's confines (see Appendix A, Endnote 5). Projects utilizing these management techniques must meet the other Category 1 requirements (see Appendix A, Page 1) and all of this GP's terms and general conditions.
- (j) For projects that otherwise meet the terms of Category 1, in-stream (e.g., rivers, streams, brooks, etc.) construction work shall be conducted only during the low flow period of July 15 to October 1 in any year. Projects that are conducted outside that time period are ineligible for Category 1 and shall be reviewed under Category 2, regardless of the waterway and wetland fill and/or impact area.
- (k) Work impacting upstream or downstream flood profiles must be reviewed under Category 2.

**General Information for GC 21:**

For stream crossing projects, see Page 2, III(A)(i)(6) for VT ANR WQC Category 1 qualifications.

**22. Discharge of Pollutants.**

(a) All activities involving a discharge into waters of the U.S. authorized under this GP shall be consistent with applicable water quality standards, effluent limitations, standards of performance, prohibitions, and pretreatment standards and management practices established pursuant to the CWA (33 USC 1251) and applicable State and local laws. If applicable water quality standards, limitations, etc., are revised or modified during the term of this GP, the authorized work shall be modified to conform to these standards within six months of the effective date of such revision or modification, or within a longer period of time deemed reasonable by the Corps in consultation with the EPA.

(b) All projects authorized by this GP shall be designed, constructed and operated to minimize or

eliminate the discharge of pollutants. Category 2 projects will be reviewed to determine if a project may result in a discharge of relevant pollutants to an impaired water. See the Additional Information Required section on Page 4.

(c) Unless otherwise notified by the VT ANR, applicants may presume that the Section 401 WQC for this GP constitutes the Section 401 WQC for their Section 404 activity, provided the terms and conditions of this GP are met.

### **23. Floodplain Work.**

(a) In order to qualify for authorization under Category 1 of this GP, projects shall result in no more than a minimal decrease in natural valley storage, and shall not result in an increase in the base flood elevation (where hydraulic information necessary to make this determination is available).

(b) There shall be no Category 1 projects located within a FEMA designated Special Flood Hazard Area as shown on the most current flood insurance studies and maps published by FEMA and adopted by the municipality within which the proposed project is located.

(c) Any project located within a FEMA designated Special Flood Hazard Area shall comply with minimum NFIP regulations, or local Flood Hazard Area regulations if more restrictive.

Note: Refer to Page 2, III(A)(i)(8) and Additional References, Page 18.

**24. Spawning and Breeding Areas.** Discharges of dredged or fill material, and/or suspended sediment producing activities in fish and shellfish spawning or nursery areas, or amphibian and migratory bird breeding areas, during spawning or breeding seasons shall be avoided. Impacts on these areas shall be minimized to the maximum extent practicable during all times of year.

**25. Storage of Seasonal Structures.** Seasonal or recreational structures such as pier sections, floats, etc., that are removed from the waterway for a portion of the year shall be stored in an upland location, located above ordinary high water and not in a wetland.

**26. Environmental Functions and Values.** (a) The permittee shall make every reasonable effort to carry out the construction or operation of the work authorized herein in a manner that minimizes adverse impacts on fish, wildlife and natural environmental values. (b) The introduction of invasive plant species identified by any Federal agency in disturbed areas is prohibited and any spread of such invasive plant species shall be controlled. Refer to GC 18 and Additional References on Page 18.

### **27. Protection of Special Aquatic Sites and Special Wetlands, including Vernal Pools.**

Special Aquatic Sites (SAS): Projects with any temporary or permanent fill in SAS (Endnote 7), or that could adversely affect SAS, whether directly or indirectly, do not qualify for the non-reporting Category 1. This does not apply to "inland wetlands," but does apply to the other SAS types listed at Endnote 7.

Special Wetlands: When jurisdiction is triggered (see Activities Covered, Page 1), projects in or that could adversely affect Special Wetlands (Endnote 8), whether directly or indirectly, do not qualify for the non-reporting Category 1. Special wetlands are vernal pools, bogs, fens, and wetlands which provide habitat for threatened or endangered species as designated by the State of Vermont Natural Heritage Program. See Additional References on Page 18 for additional references.

Vernal Pools (VP): These are a type of special wetland (Endnote 8). Category 1 excludes projects in or within 200' of a VP on the property when jurisdiction is triggered. The applicant must minimize surrounding upland impacts to the greatest extent practicable, with the effort to minimize impacts being commensurate with the value of the pool. Impact minimization should be in accordance with *Best Development Practices: Conserving pool-breeding amphibians in residential and commercial development in the northeastern U.S.*, Calhoun and Klemens, 2002; and *Science and Conservation of Vernal Pools in Northeastern North America*, Calhoun and deMaynadier, 2008, specifically Chapter 12, Conservation Recommendations section, Page 241. (See Additional References, Page 18). For example,

site clearing, grading and construction activities should be limited to <25% of the VP terrestrial habitat, and roads and driveways should be excluded from the VP envelope. For Category 2 projects, the applicant shall delineate all VPs on the property (see GC 2). The Corps may waive this requirement on a case-by-case basis.

**28. Fluvial Geomorphic Processes.** (a) Wherever practicable, projects should be designed to accommodate the natural tendencies of the fluvial system. This should greatly enhance the likelihood of long-term success of the project and minimize the chance of exacerbating an otherwise undesirable physical adjustment process. Recognition of these processes requires assessment of physical parameters and characteristics of the watershed, the water and sediment regimes, the channel and floodplain, the anthropogenic influences and constraints on the reach concerned and to what extent sediment transport continuity in the reach can be attained. (b) Applicants should consult with the VT River Management Program Stream Alteration Engineer for assistance in compliance with this condition.

Note: Refer to Additional References on Page 19 for additional information.

### **Procedural Conditions:**

**29. Inspections.** The permittee shall allow the Corps to make periodic inspections at any time deemed necessary in order to ensure that the work is being or has been performed in accordance with the terms and conditions of this permit. The Corps may also require post-construction engineering drawings for completed work, and post-dredging survey drawings for any dredging work.

**30. Maintenance.** (a) The permittee shall maintain the work authorized herein in good condition and in conformance with the terms and general conditions of this permit. Permittees must contact the Corps if maintenance will not take place or if they want to modify the existing project design. (b) The requirement to maintain the authorized work does not include maintenance of dredging projects. Maintenance dredging is subject to the review thresholds in Appendix A and/or any special conditions included in a written Corps authorization. Note: Refer to Additional References on Page 19 for information on maintaining stream restoration projects.

**31. Property Rights.** This GP does not convey any property rights, either in real estate or material, or any exclusive privileges, nor does it authorize any injury to property or invasion of rights or any infringement of federal, state, or local laws or regulations.

**32. Modification, Suspension, and Revocation.** This GP may be either modified, suspended, or revoked in whole or in part pursuant to the policies and procedures of 33 CFR 325.7. Any such action shall not be the basis for any claim for damages against the U.S.

**33. Restoration.** The permittee, upon receipt of a notice of revocation of authorization under this GP, shall restore the wetland or waterway to its former conditions without expense to the U.S., and as directed by the Secretary of the Army or his authorized representative. If the permittee fails to comply with such a directive, the Secretary or his designee may restore the wetland or waterway to its former condition, by contract or otherwise, and recover the cost from the permittee.

**34. Special Conditions.** The Corps may impose other special conditions on a project authorized pursuant to this GP that are determined necessary to minimize adverse navigational and/or environmental effects or based on any other factor of the public interest. Failure to comply with all conditions of the authorization, including special conditions, constitutes a permit violation and may subject the permittee to criminal, civil or administrative penalties and/or restoration.

**35. False or Incomplete Information.** If the Corps makes a determination regarding the eligibility of a project under this GP, and subsequently discovers that it has relied on false, incomplete, or inaccurate information provided by the permittee, the GP authorization shall not be valid and the U.S. Government may institute legal proceedings.

**36. Abandonment.** If the permittee decides to abandon the activity authorized under this GP, unless such abandonment is merely the transfer of property to a third party, he/she may be required to restore the area to the satisfaction of the Corps.

**37. Transfer of GP Verifications.** If the permittee sells the property associated with a GP verification, the permittee may transfer the GP verification to the new owner by submitting a letter to the Corps (see Page 17 for address) to validate the transfer. A copy of the GP verification must be attached to the letter and the letter must contain the following statement and signature: "When the structures or work authorized by this GP are still in existence at the time the property is transferred, the terms and conditions of this GP, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this GP and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

**38. Enforcement cases.** This GP does not apply to any existing or proposed activity in Corps jurisdiction associated with a Corps or EPA enforcement action, until such time as the enforcement action is resolved or the Corps or EPA as appropriate determines that the activity may proceed independently without compromising the enforcement action.

### **Duration of Authorization/Grandfathering:**

**39. Duration of Authorization.** Activities authorized under this GP that have commenced (i.e., are under construction) or are under contract to commence before this GP's expiration date have:

- For Category 1 projects, 12 months after this GP's expiration date to complete the work in Corps jurisdiction.
- For Category 2 projects, until the project-specific date that the Corps provides to the permittee in the GP authorization letter to complete the work in Corps jurisdiction.

Activities authorized and completed under Category 1 or 2 of this GP will continue to remain authorized after this GP's expiration date. The permittee must be able to document that the project was under construction or contract by the appropriate date.

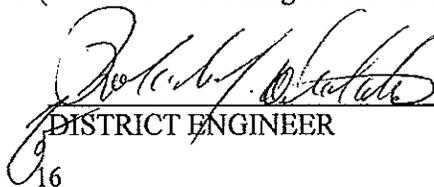
GP activities will remain authorized as specified above unless:

- The GP is either modified or is revoked, or
- Discretionary authority has been exercised on a case-by-case basis to modify, suspend or revoke the authorization in accordance with 33 CFR 325.2(e)(2).

### **40. Previously Authorized Activities.**

(a) Projects that received written authorization from the Corps and that were completed under the previous GP's, nationwide permits, regional general permits or letters of permission, shall remain authorized as specified in each authorization letter.

(b) Activities authorized pursuant to 33 CFR 330.3 ("Activities occurring before certain dates") are not affected by this GP.

  
DISTRICT ENGINEER

12/5/07  
DATE

## VI. CONTACTS FOR VERMONT GENERAL PERMIT:

**U.S. Army Corps of Engineers**  
New England District, Regulatory Division  
Vermont Project Office  
8 Carmichael Street, Suite 205  
Essex Junction, Vermont 05452  
(802) 872-2893, (802) 879-7638 fax  
[www.nae.usace.army.mil/reg/index.htm](http://www.nae.usace.army.mil/reg/index.htm)

**U.S. Environmental Protection Agency**  
New England Region  
Wetland Protection Program Unit – OEP/CWP  
JFK Federal Building 1 Congress Street, Suite 1100  
Boston, MA 02114-2023  
(617) 918-1399

**Federal Endangered Species:**  
U.S. Fish and Wildlife Service  
Federal Activities/Endangered Species  
70 Commercial Street, Suite 300  
Concord, New Hampshire 03301-5087  
(603) 223-2541  
[www.fws.gov/northeast/newenglandfieldoffice.htm](http://www.fws.gov/northeast/newenglandfieldoffice.htm)

**Essential Fish Habitat:**  
National Marine Fisheries Service  
Habitat Conservation Division (HCD)  
One Blackburn Drive  
Gloucester, Massachusetts 01930  
(978) 281-9300

**National Park Service**  
National Park Service  
North Atlantic Region  
15 State Street  
Boston, Massachusetts 02109  
(617) 223-5191

Historic Resources  
**Division for Historic Preservation**  
National Life Building  
Drawer 20  
Montpelier, Vermont 05620-0501  
(802) 828-3211

### Vermont Agency of Natural Resources

**Department of Environmental Conservation**  
Water Quality Division – Wetlands Section  
103 South Main Street  
Waterbury, Vermont 05671-0408  
(802) 241-3770

**Department of Environmental Conservation**  
Water Quality Division - River Management Section  
103 South Main Street  
Waterbury, Vermont 05671-0408  
(802) 241-3770

**Department of Environmental Conservation**  
Water Quality Division – Lakes and Ponds  
103 South Main Street  
Waterbury, Vermont 05671-0408  
(802) 241-3777

**Department of Environmental Conservation**  
Facilities Engineering Division - Dam Safety Program  
103 South Main Street  
Waterbury, Vermont 05671-0407  
(802) 241-3737

**Vermont Department of Fish and Wildlife**  
103 South Main Street  
Waterbury, Vermont 05671-0501  
(802) 241-3700

State endangered species  
**Vermont Department of Fish and Wildlife**  
Nongame and Natural Heritage Program  
103 South Main Street  
Waterbury, Vermont 05671-0501  
[www.vtfishandwildlife.com/wildlife\\_nongame.cfm](http://www.vtfishandwildlife.com/wildlife_nongame.cfm)

## VII. ADDITIONAL REFERENCES:

**Page 4: Application.** Refer to [www.nae.usace.army.mil](http://www.nae.usace.army.mil) for a more comprehensive checklist. Select "Regulatory/Permitting," "Forms" and then "Application and Plan Guideline Checklist."

### **Page 4 & GC 9: Threatened and Endangered Species.**

The VT F&W provides information on Federal and State species:

[www.vtfishandwildlife.com/wildlife\\_nongame.cfm](http://www.vtfishandwildlife.com/wildlife_nongame.cfm).

The VT ANR Environmental Interest Locator provides an interactive web based GIS map with documented locations:

[http://maps.vermont.gov/imf/sites/ANR\\_NATRESViewer/jsp/launch.jsp](http://maps.vermont.gov/imf/sites/ANR_NATRESViewer/jsp/launch.jsp).

The U.S. Fish and Wildlife Service (U.S. FWS) provides information on Federal endangered species:

[www.fws.gov/northeast/newenglandfieldoffice/EndangeredSpec-Consultation\\_Project\\_Review.htm](http://www.fws.gov/northeast/newenglandfieldoffice/EndangeredSpec-Consultation_Project_Review.htm).

### **Page 4 and GC 22: Discharge of Pollutants - Impaired Waters and Stormwater Impaired Waters:**

The VT ANR lists and shows impaired waters and stormwater impaired waters at:

[www.vtwaterquality.org/planning.htm](http://www.vtwaterquality.org/planning.htm).

### **GC 2: Federal Jurisdictional Boundaries.**

Corps Wetlands Delineation Manual:

[www.nae.usace.army.mil/reg/1987 Wetland Delineation Manual.pdf](http://www.nae.usace.army.mil/reg/1987%20Wetland%20Delineation%20Manual.pdf).

U.S. FWS 1988 National List of Plant Species that Occur in Wetlands: [www.nwi.fws.gov](http://www.nwi.fws.gov).

The Natural Resources Conservation Service (NRCS) hydric soil definition, criteria and lists:

<http://soils.usda.gov/use/hydric/>.

Field Indicators for Identifying Hydric Soils in N.E.:

[www.neiwpc.org/hydricsoils.asp](http://www.neiwpc.org/hydricsoils.asp).

**GCs 18 and 26: Invasive Species.** See the Invasive Species section on the Corps website for control methods: [www.nae.usace.army.mil/reg/index.htm](http://www.nae.usace.army.mil/reg/index.htm).

### **GC 19: Bank Stabilization.**

Corps Coastal Engineering Manual: Select "Products/Services" and then "Publications." Part 5, Chapter 7-8, a(2)c is particularly relevant. <http://chl.erdc.usace.army.mil>.

### **GC 21: Waterway/Wetland Work and Crossings**

21(c): Performance standards in GC 21 are taken from Section 8 - Alternative Designs, in the document "Guidelines for the Design of Stream/Road Crossings for Passage of Aquatic Organisms in Vermont." These Guidelines are located at [www.vtfishandwildlife.com/library.cfm](http://www.vtfishandwildlife.com/library.cfm), "Reports and Documents." This document should be referenced when designing and constructing stream crossing projects to help ensure compliance with GC 21 (a) - (c).

21(f): In general, bridges have greater longevity and overall success, and are easier to design for and more effective at aquatic life passage [see GC 21(a) and (b)].

**GC 23: Flood Hazard Management.** [www.anr.state.vt.us/dec/waterq/rivers/htm/rv\\_floodhazard.htm](http://www.anr.state.vt.us/dec/waterq/rivers/htm/rv_floodhazard.htm).

### **GC 27: Special Wetlands.**

Refer to the VT ANR Environmental Interest Locator, which provides an interactive web based GIS map with locations of significant (wetland) natural communities. At the Locator select map layers, fish and wildlife, and then significant natural communities:

[http://maps.vermont.gov/imf/sites/ANR\\_NATRESViewer/jsp/launch.jsp](http://maps.vermont.gov/imf/sites/ANR_NATRESViewer/jsp/launch.jsp). Some wetlands are more valuable and sensitive to fragmentation, non-point source runoff, and other secondary impacts. Upland buffers are especially essential to protect their functions.

The document *Best Development Practices: Conserving Pool-Breeding Amphibians in Residential and Commercial Development in the Northeastern U.S.*, Calhoun and Klemens, 2002, is available for purchase at [www.maineaudubon.org/resource/index.shtml](http://www.maineaudubon.org/resource/index.shtml).

The document *Science and Conservation of Vernal Pools in Northeastern North America*, Calhoun and deMaynadier, 2008, is available for purchase via the internet. Chapter 12 is available at [www.nae.usace.army.mil/reg/index.htm](http://www.nae.usace.army.mil/reg/index.htm) under Useful Links and Documents.

**GC 28: Fluvial Geomorphic Processes.** Consult with the VT River Management Program Stream Alteration Engineer for assistance in compliance with GC 28. Refer to information provided at: [www.anr.state.vt.us/dec/waterq/rivers/htm/rv\\_management.htm](http://www.anr.state.vt.us/dec/waterq/rivers/htm/rv_management.htm).

**GC 30: Maintenance.** River restoration projects that are designed to accommodate the natural dynamic tendencies of the fluvial system are maintained in accordance with the project's design objectives (Category 1) or the Corps authorization letter (Category 2). These projects are generally designed to support and implement channel assessment and management practices that recognize a stream's natural dynamic tendencies.

## APPENDIX A: DEFINITION OF CATEGORIES

<p><b>I. WATERS OF THE U.S. (INCLUDES WETLANDS) (other than Lake Champlain, Lake Memphremagog, Wallace Pond)</b></p>	<p><b>Waters of the U.S.<sup>1</sup> are comprised of Inland Waters of the U.S.<sup>2</sup> &amp; Navigable Waters of the U.S.<sup>3</sup></b> Navigable waters in Vermont are those designated as navigable by Congress (33 CFR 329). This section excludes the following navigable waters: Lake Champlain, Lake Memphremagog, Wallace Pond &amp; wetlands adjacent to these waterbodies (See II. Navigable Waters below).</p> <p>Projects not meeting Category 1 must apply/report to the Corps as either a Category 2 or Individual Permit project. All Category 1 and 2 projects must comply with all of this GP's applicable terms (Pages 1 – 7) and general conditions (Pages 8 – 16).</p>	
<p><b>(a) NEW FILL/ EXCAVATION DISCHARGES</b></p>	<p><b>CATEGORY 1</b></p> <p>&lt;3,000 SF of waterway and/or wetland fill and secondary impacts<sup>4</sup>, (e.g., areas drained, flooded, fragmented, mechanically cleared or excavated). Fill area includes all temporary and permanent fill, and certain excavation discharges (except for incidental fallback<sup>5</sup>). Swamp/construction mats and corduroy roads are considered as fill [see General Condition (GC) 16].</p> <p><u>Provided:</u></p> <ul style="list-style-type: none"> <li>• In-stream (e.g., rivers, streams, brooks, etc.) work limited to Jul 15-Oct 1 (see GC 21).</li> </ul> <p>This category excludes:</p> <ul style="list-style-type: none"> <li>• Fills in Athens, Brookline, Chester, Dummerston, Grafton, Newfane, Putney, Rockingham, Springfield, Townshend, or Westminster, VT.</li> <li>• Fills below OHW in EFH waters (see GC 10).</li> <li>• Activities excluded in GC 21, i.e., dams, dikes, or activities involving water diversions<sup>6</sup> (other than dry hydrants used exclusively for firefighting activities with no stream impoundments); and sliplining.</li> <li>• Work in special aquatic sites (SAS)<sup>7</sup> other than wetlands.</li> <li>• Work in special wetlands<sup>8</sup> including work in vernal pools (VP) or within 200' of the VP's edge when jurisdiction is triggered.</li> <li>• Work on Corps properties &amp; Corps-controlled easements<sup>9</sup></li> </ul>	<p><b>CATEGORY 2</b></p> <p>3,000 SF to 1 acre waterway and/or wetland fill and secondary<sup>4</sup> impacts, (e.g., areas drained, flooded, fragmented, mechanically cleared or excavated). Fill area includes all temporary and permanent fill &amp; certain excavation discharges (except for incidental fallback<sup>5</sup>). Swamp/ construction mats and corduroy roads are considered as fill (see GC 16).</p> <p>Swamp mats filling ≥3,000 SF (see GCs 16 &amp; 17).</p> <p>Projects sponsored by a Federal or State agency with proactive restoration<sup>10</sup> as a primary purpose and impacts of any size ≥3,000 SF. Net impacts must not be greater than minimal.</p> <p>Restoration and/or enhancement approved for use by a Corps-approved In-Lieu Fee program or Corps-approved mitigation bank, with impacts of any size ≥3,000 SF</p> <p>Specific activities with impacts ≥3,000 SF required to affect the containment, stabilization, or removal of hazardous or toxic waste materials performed, ordered or sponsored by a government agency with established legal or regulatory authority. Wetlands must be restored in place.</p> <p>Work in special wetlands<sup>8</sup>, including work in VPs or within 200' of the VP's edge when jurisdiction is triggered on the property.</p> <p>The applicant shall delineate all special wetlands<sup>8</sup> including VPs on the property using Federal delineation methods (see GC 2). The Corps may</p>
		<p><b>INDIVIDUAL PERMIT</b></p> <p>≥1 acre waterway and/or wetland fill &amp; secondary impacts<sup>4</sup> (e.g., area drained, flooded, fragmented, mechanically cleared or excavated). Fill area includes all temporary and permanent fill and certain excavation discharges (except for incidental fallback<sup>5</sup>). Swamp/ construction mats and corduroy roads are considered as fill (see GC 16).</p>

			waive these delineation requirements on a case-by-case basis. Wetland fill and/or secondary impacts (e.g., site clearing, grading and construction activities) should be limited to <25% of the VP habitat. Where practicable, roads & driveways should be excluded from the VP envelope <sup>8</sup> .	
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(b) BANK STABILIZATION PROJECTS	Inland bank stabilization <100 linear FT and an average of <1 CY of fill per linear FT below ordinary high water (OHW) <ul style="list-style-type: none"> <li>In-stream work limited to Jul 15-Oct 1.</li> <li>No work in VPs<sup>8</sup> or within 200' of the VP's edge.</li> <li>No work in SAS<sup>7</sup></li> <li>No work in EFH waters (see GC 10).</li> <li>No work in Rivers of Concern<sup>11</sup>.</li> <li>No work on Corps properties and Corps-controlled easements<sup>9</sup>.</li> </ul>	Inland bank stabilization ≥100 linear FT, and/or an average of ≥1 CY of fill per linear foot below OHW.	
(c) RIVER/ STREAM/ BROOK WORK & CROSSINGS and WATERWAY/ WETLAND CROSSINGS	<ol style="list-style-type: none"> <li>In-stream (e.g., rivers, streams, brooks, etc.) work limited to Jul 15 - Oct 1 (see GC 21).</li> <li>All stream crossings conform with the performance standards in GC 21. Note: Page 2, III(A)(i)(6) for VT ANR WQC Category 1 qualifications.</li> <li>Bridge spans, open bottom arches or embedded culverts are required.</li> <li>Culverts at waterbody crossings shall preserve hydraulic connectivity, at its present level, between any wetlands on either side of the road.</li> </ol> <p><u>Work in this category excludes:</u></p> <ul style="list-style-type: none"> <li>Projects using retrofit methods increasing flow velocity or slip lining (only for 1 – 3 above).</li> <li>Work in SAS<sup>7</sup>.</li> <li>Open trench excavation in flowing waters except for riprap projects. (See GC 21.)</li> </ul>	Projects with proactive restoration <sup>10</sup> as a primary purpose with impacts of any area exceeding Category 1. Net impacts must not be greater than minimal.	

<p>(d) REPAIR, REPLACEMENT IN KIND &amp; MAINTENANCE OF AUTHORIZED FILLS</p>	<p>Repair/maintenance/replacement in kind of existing, currently serviceable, authorized fills with no expansion or change in use.</p> <ul style="list-style-type: none"> <li>• Conditions of the original authorization apply.</li> <li>• Minor deviations in fill design allowed<sup>1</sup>, except for stream crossings or dams.</li> <li>• No fills in special wetlands.</li> <li>• No fills in SAS<sup>6</sup> &amp; EFH waters (see GC 10).</li> </ul>	<p>Repair/maintenance/replacement in kind of existing, currently serviceable, authorized fills with expansion or a change in use &lt;1 acre.</p> <p>Replacement of non-serviceable authorized fills, including expansion or a change in use, totaling &lt;1 acre.</p>	<p>Repair/maintenance of existing, currently serviceable, authorized fills with expansion or a change in use &gt;1 acre.</p> <p>Replacement of non-serviceable authorized fills, including expansion or a change in use, totaling ≥ 1 acre.</p>
<p>(e) MISC.</p>	<p>Oil spill clean-up discharges.</p> <p>Fish and wildlife harvesting such as duck blinds.</p> <p>Temporary scientific measurement devices and survey activities, e.g., exploratory drilling, surveying, and sampling.</p> <p>Monitoring wells.</p> <p>Recreational gold mining.</p> <p>Does not include oil/gas exploration and fills for roads or construction pads</p>	<p>Zebra Mussel Control Projects.</p> <p>Fishery habitat enhancement structures.</p> <p>Utility line crossings, water intakes and outfalls, and sea lamprey control projects.</p>	<p>Project where an EIS is required by the Corps</p>
<p>(f) MISC. (applies only to NAVIGABLE WATERS other than Lake Champlain, Lake Memphremagog, Wallace Pond<sup>2</sup>)</p>		<p>New and maintenance dredging up to 5,000 CY with upland disposal or beach nourishment. No impacts to SAS<sup>7</sup>.</p> <p>Aerial transmission lines.</p> <p>Floating or post supported docks or decks.</p> <p>Private, non-commercial, single-boat moorings.</p> <p>Utility lines installed by directional bores.</p>	<p>Maintenance dredging of any amount affecting a special aquatic site.</p> <p>New and maintenance dredging greater than 5,000 CY or in or affecting a special aquatic site.</p> <p>Dredging with open water disposal</p>

Navigable Waters of the U.S. <sup>3</sup> : These waters were designated as navigable by Congress (33 CFR 329).			
Projects not meeting Category 1 must apply/report to the Corps as either a Category 2 or Individual Permit project. All Category 1 and 2 projects must comply with all of this GP's applicable terms (Pages 1 – 6) and general conditions (Pages 7 – 15).			
	CATEGORY 1	CATEGORY 2	INDIVIDUAL PERMIT (IP)
<b>II. NAVIGABLE WATERS OF THE U.S.<sup>3</sup> – LAKE CHAMPLAIN, LAKE MEMPHREMAGOG, WALLACE POND</b>  (a) FILL	No provisions for new or previously unauthorized fills in Category 1	<5,000 SF waterway/wetland fill and secondary impacts (e.g. areas drained, flooded, fragmented, mechanically cleared or excavated). Includes boat ramps & bridge fills.  Projects sponsored by a Federal or State agency with proactive restoration <sup>10</sup> as a primary purpose and impacts of any size. Net impacts must not be greater than minimal.	≥5,000 SF waterway/wetland fill and secondary impacts (e.g. areas drained, flooded, fragmented, mechanically cleared or excavated). Fill area includes all temporary and permanent waterway fills.  EIS required by the Corps.
(b) REPAIR, REPLACEMENT IN KIND AND MAINTENANCE WORK	Repair, replacement in kind or maintenance of existing, currently serviceable, authorized structures and fills.  <u>Provided:</u> <ul style="list-style-type: none"> <li>• No expansion or change in use.</li> <li>• Must be rebuilt in same footprint, however minor deviations in structure design allowed.<sup>12</sup></li> </ul>	Repair/replacement in kind/maintenance of currently serviceable authorized fills with expansion or a change in use <5000 SF.  Replacement of non-serviceable authorized fills, including expansion or a change in use, totaling <5000 SF.	Repair/maintenance/replacement in kind of currently serviceable authorized fills with expansion or a change in use >5000 SF.
(c) DREDGING	No provisions for dredging in Category 1	New and maintenance dredging <sup>13</sup> up to 5,000 CY with upland disposal or beach nourishment.  <u>Provided:</u> <ul style="list-style-type: none"> <li>• No impacts to SAS<sup>7</sup></li> <li>• Specific activities with impacts of any area or cubic yardage required to affect the containment, stabilization, or removal of hazardous or toxic waste materials that are performed, ordered, or sponsored by a government agency with established legal or regulatory authority may be reviewed as a Cat. 2 project. Wetlands must be restored in place.</li> </ul>	New or maintenance dredging <sup>13</sup> ≥5,000 CY.  Dredging affecting an SAS <sup>7</sup> .  All dredging with open water disposal.

(d) MOORINGS	<p>Private, non-commercial, non-rental, single-boat moorings.</p> <p><u>Provided:</u></p> <ul style="list-style-type: none"> <li>• Chains or other connections may not rest on the bottom in SAS<sup>7</sup> (eco-friendly mooring technology is required).</li> <li>• Not associated with a boating facility<sup>14</sup>.</li> <li>• No interference with navigation.</li> <li>• Moorings in Federal Anchorage<sup>15</sup> not associated with a boating facility<sup>14</sup>.</li> <li>• Not located within the buffer zone of the horizontal limits of a Federal Channel<sup>15</sup>.</li> </ul>	<p>Moorings that do not meet the terms of Category 1.</p> <p>Moorings located such that they, and/or vessels docked or moored at them, are within the buffer zone of the horizontal limits of a Federal Channel<sup>15</sup>.</p>	<p>Moorings and/or their moored vessels within the horizontal limits of a Federal Channel<sup>15</sup>.</p>
(e) PILE-SUPPORTED STRUCTURES AND FLOATS	<ol style="list-style-type: none"> <li>1. Reconfiguration of existing authorized docks with no additional slips and no expansion.</li> <li>2. Seasonal private, residential pile-supported structures for navigational access extending no further waterward than 50 FT MHW, not &gt;4 FT wide, &amp; a dock deck area &lt;500 SF.</li> <li>3. Private, bottom-anchored floats and seasonal swim floats ≤400 SF.</li> <li>4. Private boat &amp; float lifts to authorized residential docks.</li> </ol> <p>Provided for 1 - 4 above:</p> <ul style="list-style-type: none"> <li>• No structure extends across &gt;25% of the waterway width at MLW.</li> <li>• Not located over SAS<sup>7</sup>.</li> <li>• Not located within the buffer zone of the horizontal limits of an FNP<sup>15</sup>.</li> </ul>	<p>Private structures and floats for navigational access to the waterway that do not meet the terms of Category 1.</p> <p>Piers, docks, decks, floats, and similar structures that provide public recreational uses such as fishing, swimming, access, etc.</p> <p>Non-fill structures to provide recreational access to the waterbody (e.g. stairways, etc.).</p> <p>Minor modifications to existing, permitted boating facilities.</p> <p>Structures or floats and/or vessels docked or moored at them within the buffer zone of the horizontal limits of a FNP<sup>15</sup>.</p>	<p>Structures or floats and/or vessels docked or moored at them within the horizontal limits of a FNP<sup>15</sup>.</p> <p>Structures or floats associated with a new or previously unauthorized boating facility.<sup>14</sup></p>
(f) BANK STABILIZATION PROJECTS		<p>Bank stabilization &lt;500 linear feet and an average of 1 CY per linear ft. of fill below OHW or less provided no wetland fill.</p>	<p>Bank stabilization ≥500 linear ft. and/or involving more than an average of 1 CY per linear FT of fill below OHW.</p>

<p>(g) MISCELLANEOUS</p>	<p>Temporary buoys, markers, floats, etc. for recreational use during specific events, provided they are in place for no more than 30 days and are removed within 15 days after use is discontinued.</p> <p>The placement of aids to navigation and regulatory markers which are approved by and installed in accordance with the requirements of the U.S. Coast Guard. (See 33 CFR 66, Chapter I, subchapter C).</p> <p>Temporary oil spill clean up structures and fill.</p> <p>Scientific measurement devices &amp; survey activities such as exploratory drilling, surveying and sampling, provided that such structures do not restrict movement of aquatic organisms. Does not include oil and gas exploration or seismic testing, or fills for roads or construction pads.</p> <p>Fish and wildlife harvesting devices and activities such as pound nets, duck blinds, and small fish attraction devices such as open-water fish concentrators (sea kites, etc.). Provided: no hazard to navigation; activity is not in wetlands (except Sea Lamprey control projects) or sites that support submerged vegetation (including sites where submerged aquatic vegetation is determined to exist, but may not be present in a given year).</p>	<p>Structures/work in or affecting navigable waters that are not defined under any previous headings. Includes but is not limited to utility lines, aerial transmission lines, pipelines, outfalls, intakes, and horizontal directional drilling.</p> <p>Zebra Mussel control projects.</p> <p>Fishery habitat enhancement structures.</p> <p>Sea Lamprey control projects</p> <p>Nuisance aquatic plant control projects.</p> <p>Utility lines installed by directional bore.</p>	<p>Projects where an EIS is required by the Corps.</p> <p>Activities or activities with docked or moored vessels extending within the horizontal limits of Corps FNP<sup>15</sup> (does not include utility lines, aerial lines and subsurface crossings in Cat 2).</p>
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**End Notes/Definitions**

<sup>1</sup> **Waters of the United States (U.S.):**

- a. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- b. All interstate waters including interstate wetlands;
- c. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
  - i. Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
  - ii. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
  - iii. Which are used or could be used for industrial purpose by industries in interstate commerce;
- d. All impoundments of waters otherwise defined as waters of the U.S. under the definition;
- e. Tributaries of waters identified in paragraphs (a)-(d) above;
- f. The territorial seas;

g. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in (a)-(f) above. Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 123.11(m) which also meet this definition's criteria) are not waters of the U.S. h. Waters of the U.S. do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with the EPA.

<sup>2</sup>**Inland Waters and Wetlands:** These are a subset of waters of the U.S., are regulated under Section 404 of the CWA, and include rivers, streams, lakes, ponds and wetlands, excluding Section 10 Navigable Waters of the U.S. The jurisdictional limits [33 CFR 328.4(c)] are the ordinary high water (OHW) mark in the absence of adjacent wetlands, beyond the OHW mark to the limit of adjacent wetlands when adjacent wetlands are present, and the wetland limit when only wetlands are present.

<sup>3</sup>**Navigable Waters of the U.S.:** These are a subset of waters of the U.S., and are defined at 33 CFR 329. The jurisdictional limits [33 CFR 329.11] extend laterally to the entire water surface and bed of a navigable waterbody, which includes all the land and waters below the ordinary high water mark. Jurisdiction thus extends to the edge (as determined above) of all such waterbodies, even though portions of the waterbody may be extremely shallow, or obstructed by shoals, vegetation or other barriers. Marshlands and similar areas are thus considered navigable in law, but only so far as the area is subject to inundation by the ordinary high waters. In Vermont these waters are: the Connecticut River, Lake Champlain, Lake Memphremagog, Wallace Pond, Ompompanoosuc River (to mile 3.8), Waits River (to mile 0.9), the Black River (mouth to mile 2.5 in Craftsbury), the Battenkill River (to mile 50 in Manchester), the Lamoille River (mouth to mile 79 in Greensboro), the Missisquoi River (including the North Branch, from the mouth to mile 88.5 in Lowell), Otter Creek (mouth to mile 63.8 in Procter), Winooski River (mouth to Marshfield), Moose River (from Passumpsic River to the Victory Town Line), Nulhegan River (mouth to its source including the East Branch, the Black Branch and the Yellow Branch), Paul Stream (mouth to the source), East Branch of the Passumpsic River (from the confluence with the Passumpsic River to East Haven), Passumpsic River (mouth to confluence with the East Branch), White River (mouth to its source), Wells River (mouth to Groton Pond).

<sup>4</sup>**Direct, Secondary (Indirect), and Cumulative Impacts:**

**Direct Impacts:** The immediate loss of aquatic ecosystem within the footprint of the fill.

**Secondary (Indirect) Impacts:** These are effects on an aquatic ecosystem that are associated with a discharge of dredged or fill materials, but do not result from the actual placement of the dredged or fill material. (40 CFR 230.11 (h)). Secondary impacts are those impacts outside the footprint of the fill (e.g., beyond the bounds of the disposal site) that arise from and are associated with the direct discharge of dredged or fill material. Some examples are: I) Habitat Fragmentation. This occurs when a relatively undisturbed habitat block is interrupted or broken apart by roads, ditches, disturbance of vegetation, or development of structures. II) Interruption of Travel Corridors. Travel corridors are routes that many species travel on to find food, mates, shelter, and cover. Many aquatic species follow stream channels and wetlands, and follow established routes season after season. III) Vernal Pools. These are critically important breeding habitats for amphibians. Many amphibians disperse several hundred feet from their breeding ponds into the adjacent upland habitat after the breeding season has ended. IV) Hydrology, hydrological functions and non-point source impacts: A) Interference with the migration or movement of fish and shellfish from one area to another, such as placement of a dam eliminating access to spawning grounds for anadromous fish. B) Greater amounts of sediment, nutrients, and other pollutants such as lead, oil, gas, and salt that could impact wetlands and streams. Sediment causes turbidity, which reduces aquatic life and usually transports pesticides, heavy metals and other toxins into streams. This is especially a concern in watersheds where the streams are already listed as impaired by the VT ANR. C) Submerged aquatic vegetation is very dependent on light transmission and small changes in ambient turbidity can preclude it from growing in certain areas. D) Trout spawning areas are selected in areas that are well flushed and aerated, and new amounts of deposition may result in a spawning area being eliminated due to siltation of fish eggs. E) Physical effects such as erosion, accretion, entrenchment, sedimentation, embankment, channel or shoreline migration and failure to pass bedload material, organic matter and large woody debris.

**Cumulative Impacts:** The extent of past, present, and foreseeable developments in the area may be an important consideration in evaluating the significance of a particular project's impacts. Although the impacts associated with a particular discharge may be minor, the cumulative effect of numerous similar discharges can result in a large impact. Cumulative impacts should be estimated only to the extent that they are reasonable and practical.

<sup>5</sup>**Incidental Fillback:** The term "discharge of dredged or fill material" also includes certain discharges resulting from excavation.

<sup>6</sup>**Water Diversions:** Water diversions are activities such as bypass pumping or water withdrawals. Temporary flume pipes, culverts or cofferdams where normal flows are maintained within the stream boundary's confines aren't water diversions. "Normal flows" are defined as no change in flow from pre-project conditions. See GC 21.

<sup>7</sup>**Special Aquatic Sites:** Include inland wetlands, mudflats, vegetated shallows (permanently inundated areas that support rooted aquatic vegetation), and riffle and pool complexes. (40 CFR 230)

<sup>8</sup> **Special Wetlands:** Jurisdictional vernal pools, bogs, fens, and wetlands which provide habitat for threatened or endangered or species as designated by the State of VT Natural Heritage Program. See GC 27 for website. The following definitions for bogs, fens and vernal pools apply for the purposes of this GP:

**Bog** - A peat accumulating wetland with hydric, organic soils, a complete, or nearly complete, Sphagnum cover and a pH value ranging from 3.5 to 5.6 that receives water primarily from precipitation. Typical species include Sphagnum, leatherleaf and pitcher plant.

**Fen** - A peat accumulating wetland with hydric organic soils and a pH value ranging from 4.0 to 8.0. Sphagnum moss may be present, however, not as a complete cover. It generally receives water and minerals from runoff flowing through it. Typical species include low sedges, Sphagnum, other mosses and heath shrubs.

**Vernal Pools and Habitat:** Vernal pools are confined basin depressions with water for two or more continuous months in the spring and/or summer, for which evidence of one of more of the following obligate vernal pool species: wood frogs (*Rana sylvatica*), mole salamanders (*Ambystoma* spp), and fairy shrimp (*Eubranchipus* spp) has been documented **OR** for which evidence of two or more of the following facultative organisms: caddisfly (*Trichoptera*) larvae casings, fingernail clams (*Sphaeriidae*), or amphibious snails (*Basammatophora*) and evidence that the pool does not contain an established reproducing fish population has been documented. Vernal pool habitat is the seasonal pool depression, seasonal pool envelope (100 FT radius from the pool edge) and seasonal pool terrestrial habitat (750 FT radius from the pool edge).

<sup>9</sup> **Corps Properties & Easements:** Contact the Corps, Real Estate Division (978) 318-8580 to initiate reviews about both Corps holdings and permit requirements.

<sup>10</sup> **Restoration:** The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former wetland or other aquatic resource (called re-establishment) or a degraded wetland or other aquatic resource (called rehabilitation). Restoration means the result of actions which, in the opinion of the Federal and state resource agencies, reinstates, or will reinstate, insofar as possible, the functions and values of a wetland or aquatic resource which has been altered. Restoration is the re-creation or rehabilitation of wetland or other aquatic resource ecosystems whose natural functions have been destroyed or impaired. The Corps will decide if a project qualifies as proactive restoration and must determine along with Federal & state agencies that the net effects would be no more than minimal.

<sup>11</sup> **Rivers of Concern:** The following are rivers of concern due to either endangered species or cumulative impacts. There are no non-reporting bank stabilization activities in these rivers: Batten Kill River (to the headwaters), Black River (from its mouth in Springfield to its headwaters), Connecticut River, Lamoille River (from Hardwick to the confluence with Lake Champlain), Lewis Creek (from the Rte 116 crossing to the confluence with Lake Champlain), Missisquoi River (from the International Boundary in Richford, VT to the confluence with Lake Champlain), Ompompanoosuc River (to the headwaters), Otter Creek (from Rutland to the confluence with Lake Champlain), Pikes Falls (to the headwaters of North Branch of Ball Mountain Brook), Poultney River (to the headwaters), West River (from Jamaica to the confluence with the Connecticut River), White River (to the headwaters), Winooski River (from Montpelier to Lake Champlain).

<sup>12</sup> **Minor deviations.** Changes to the structure's configuration or filled area, including those due to changes in materials, construction techniques, or current construction codes or safety standards, which are necessary to make repair, rehabilitation, or replacement are permitted, provided the adverse environmental effects resulting from such repair, rehabilitation, or replacement are minimal. Currently serviceable means useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.

<sup>13</sup> **Maintenance Dredging.** Includes areas and depths previously authorized by the Corps and dredged. **New Dredging:** Includes dredging proposed in previously undredged areas and/or in areas exceeding previously authorized dimensions (deeper or wider than previously authorized) excluding normal overdrudge.

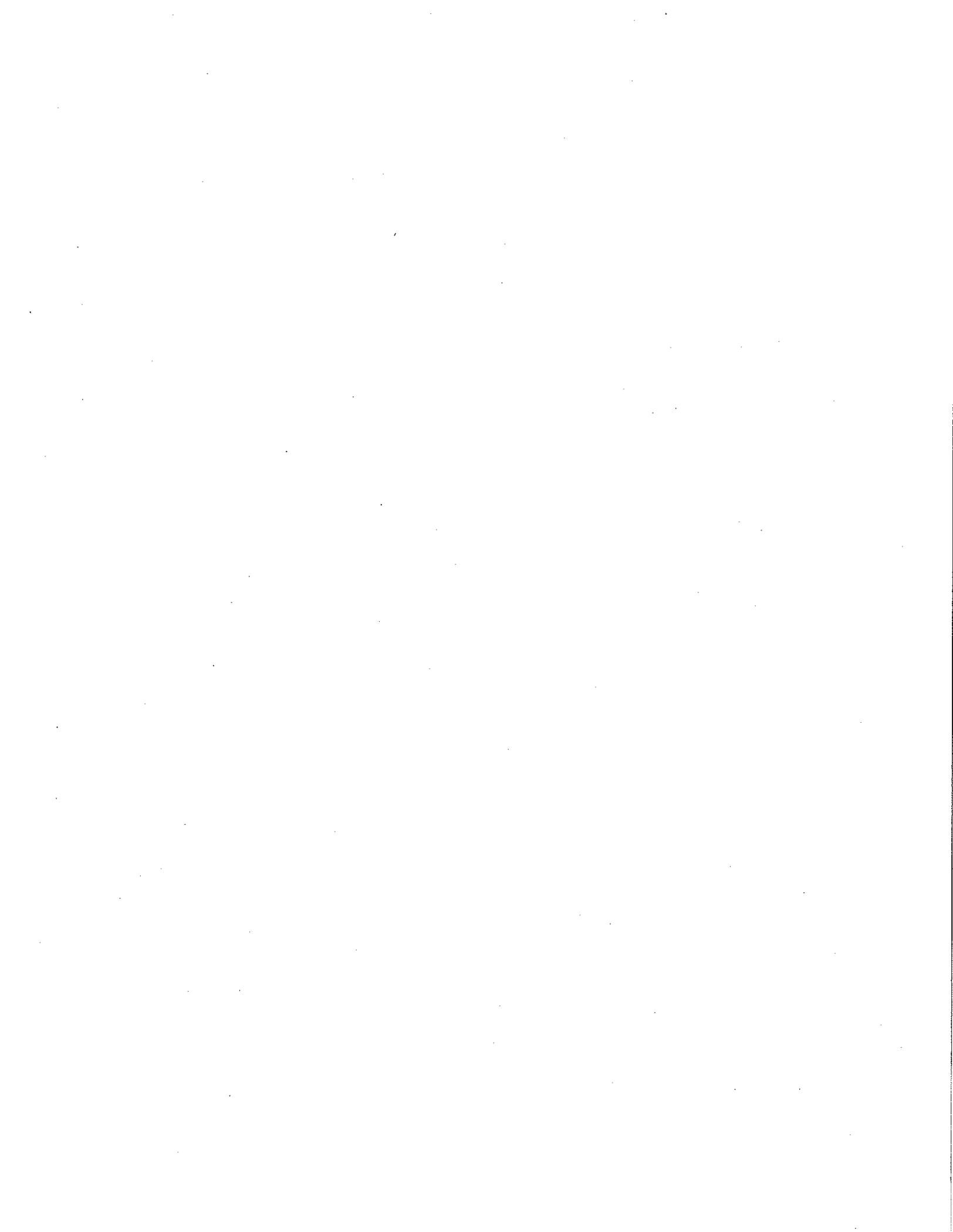
<sup>14</sup> **Boating Facilities:** Facilities that provide, rent or sell mooring space, e.g., marinas, yacht clubs, boat yards, dockminiums.

<sup>15</sup> **Federal Navigation Projects (FNPs):** FNPs are comprised of Federal channels and Federal anchorages. Contact the Corps for their location and information.

<sup>16</sup> **Horizontal Limits:** The outer edge of an FNP. **Buffer zone:** Equal to three times the authorized depth of that channel.

<sup>17</sup> **Swamp Mats:** Swamp mats is a generic term used to describe structures that distribute equipment weight to prevent wetland damage while facilitating passage and providing work platforms for workers and equipment. They are comprised of sheets or mats made from a variety of materials in various sizes. A type of swamp mat is a timber mat, which consists of large timbers bolted or cabled together. Corduroy roads, which are not considered to be swamp mats, are cut trees and/or saplings with the crowns and branches removed, and the trunks lined up next to one another. Corduroy roads are typically installed as permanent structures. Like swamp mats, they are considered as fill whether they're installed temporarily or permanently.

**Headwater and Ephemeral Streams:** Forested upland and wetland clearing can lead to additional direct and indirect impacts to the headwater streams and ephemeral streams on individual sites. Headwater streams and wetlands provide a rich resource base that contributes to the productivity of both local food webs and those farther downstream. Land use changes in the vicinity of small streams and wetlands can impair the natural functions of headwater systems. These systems are vitally important to maintaining the quality and quantity of water and aquatic health of streams lower in the watershed.





REPLY TO  
ATTENTION OF

DEPARTMENT OF THE ARMY  
NEW ENGLAND DISTRICT, CORPS OF ENGINEERS  
696 VIRGINIA ROAD  
CONCORD, MASSACHUSETTS 01742-2751



JUN 05 2012

Regulatory Division  
CENAE-R-PEC-61  
NAE-2012-0603-M1

Mr. Glenn Gingras  
VTrans Environmental Biologist  
Vermont Agency of Transportation  
One National Life Drive  
Montpelier, Vermont 05633-5001

Dear Mr. Gingras:

In accordance with your recent request, your Department of the Army permit, number NAE-2012-0603, is hereby amended. This work is located at the VT Route 125 crossing (Bridge #23) of Robins Branch of the White River in Hancock, Vermont, and is described on the enclosed plan, in one sheet, entitled "HANCOCK ER BRF 0174(16)", and dated "18-MAY-2012". The work is described as follows:

Place fill in about 4800 sq. ft. (0.11 acre) of a disturbed wet meadow adjacent to Robins Branch for a staging area during construction. Total impacts of the project will increase from 1615 sq. ft. (0.037 acre) to 6415 sq. ft. (0.15 acre).

The conditions of the original permit remain in full force and effect.

We continually strive to improve our customer service. In order for us to better serve you, we would appreciate your completing our Customer Service Survey located at <http://per2.nwp.usace.army.mil/survey.html>

Please contact Marty Abair of my staff at (802) 872-2893 if you have any questions.

Sincerely,

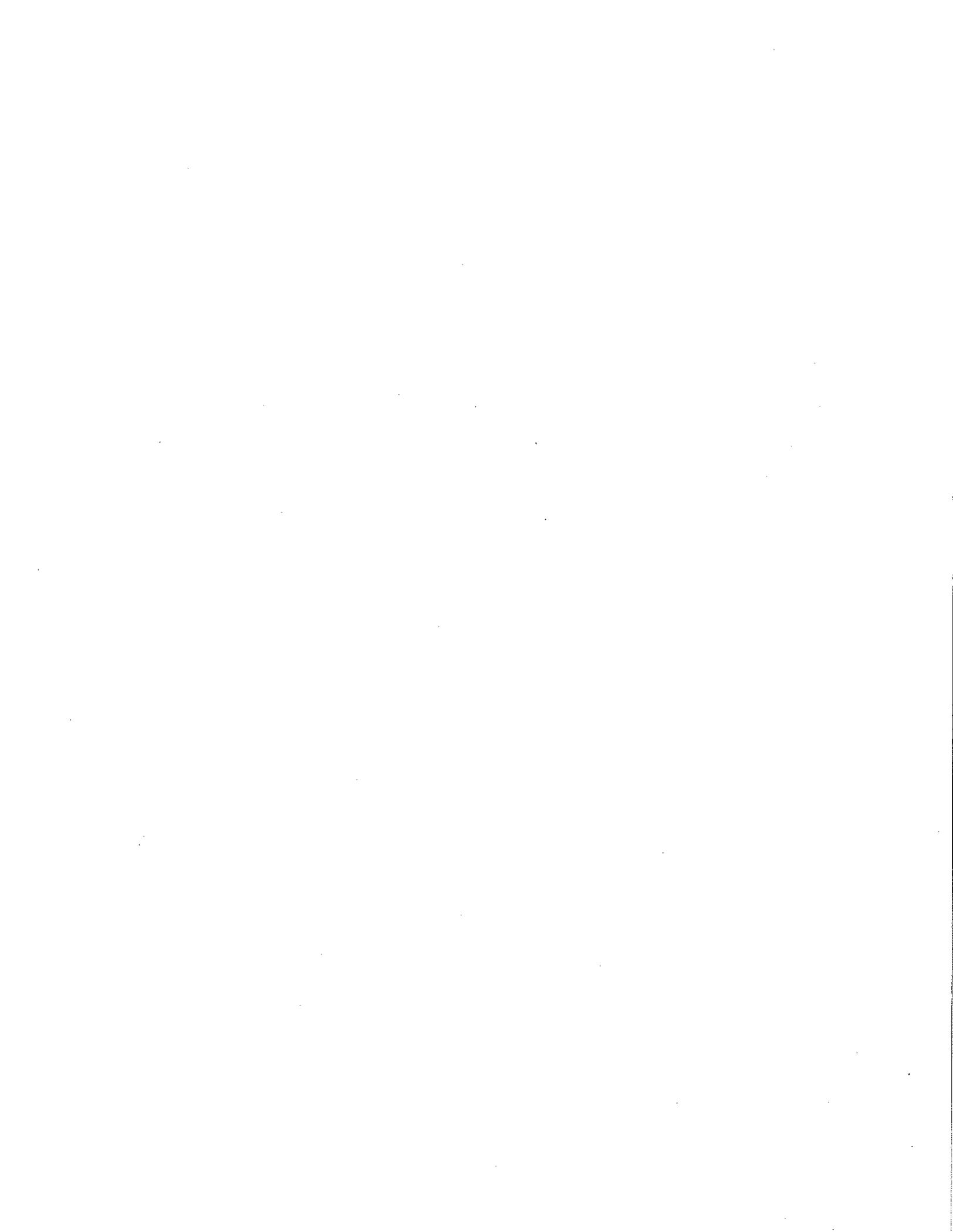
  
Frank J. DelGiudice  
Chief, Permits & Enforcement Branch  
Regulatory Division

Attachments

Copies furnished:  
Mr. Chris Brunelle  
Stream Alteration Engineer  
River Management Program  
111 West Street  
Essex Junction, VT 05452

Mr. Alan Quackenbush  
VT Dept. of Environmental Conservation  
103 South Main Street  
Waterbury, VT 05676





**Ramsey, Jeff**

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**From:** Gingras, Glenn  
**Sent:** Tuesday, July 24, 2012 12:31 PM  
**To:** Brady, James; Goldstein, Lee; Ramsey, Jeff; Lepore, John  
**Subject:** FW: Permit Expiration Dates (UNCLASSIFIED)

Here is the letter for your files regarding expiration dates. As you know some of the permit cover letters indicated work must be completed by 12/5/12 and not 12/5/13. The correct expiration date is 12/5/13 if the project goes to contract prior to 12/5/12.

-----Original Message-----

**From:** Repella, Angela C NAE [<mailto:Angela.C.Repella@usace.army.mil>]  
**Sent:** Tuesday, July 24, 2012 10:52 AM  
**To:** Gingras, Glenn  
**Subject:** Permit Expiration Dates (UNCLASSIFIED)

**Classification:** UNCLASSIFIED  
**Caveats:** NONE

Hi Glenn,

As a general rule, the permit letters issued prior to December 5, 2011 state the work must be completed by December 5, 2012 and don't mention the additional year available if work is under contract or has commenced by that date- though it does apply.

The permit letters issued after December 5, 2011 should start to explain the additional year to complete the work, though some may have been missed.

That's pretty confusing. But to clarify, the additional year applies to all permits that are under contract before the expiration date. Therefore, if you commence the work or have it under contract by December 5, 2012, you'll have until December 5, 2013 to complete the project.

Sorry for any confusion, Mike just clarified this for me. Let me know if you have any other questions.

Angela C. Repella  
U.S. Army Corps of Engineers  
New England District  
8 Carmichael Street  
Essex Junction, VT 05452  
p:(802)872-2893  
f:(802)879-9672

**Classification:** UNCLASSIFIED  
**Caveats:** NONE



Approved

Date

*Christine J. Hill* 8/9/12  
Planning & Programming Engineer  
Federal Highway Administration

Prepared by: Jason P. Tremblay, M.S.

Date: August 17, 2011

Revised: September 6, 2011

Revised: August 9, 2012

STATE OF VERMONT  
AGENCY OF TRANSPORTATION  
MATERIALS AND RESEARCH SECTION

WORK PLAN FOR  
RESEARCH INVESTIGATION  
Assessment of the Sterling Lloyd Eliminator  
Waterproofing Membrane System

Work Plan No. WP-2011-6

OBJECTIVE OF STUDY:

Concrete bridge deck deterioration is one of the most extensive bridge maintenance problems affecting service life. Moisture and chloride intrusion can accelerate concrete bridge deck distress. Waterproofing membranes, when applied properly, extend the life of the bridge decks delaying the need for rehabilitation by preventing the penetration of chloride ions and other corrosives that ultimately lead to deterioration of the reinforcing steel and concrete. However, waterproofing membranes can be difficult to apply and may be punctured or damaged during the construction process. Damaged areas readily allow for the penetration of contaminants, which are not easily expelled as they become trapped below the membrane. Additionally, bridge membranes, like all materials, age and need replacement, a process that requires specialized equipment and skill to remove the bituminous concrete pavement and underlying membrane without causing damage to the underlying concrete bridge deck. Overall, anecdotal evidence suggests varying degrees of success with respect to application, durability, and overall effectiveness.

Bridge membranes may be comprised of various materials, each with unique characteristics including method of application, bond strength, compressibility, and tensile strength. Typically, membranes are applied to the surface of newly cast concrete following an adequate cure period to ensure proper strength gain and reduce the risk of degassing during application. The bridge membrane is then overlaid with bituminous concrete wearing course. In accordance with the 2006 Standard Specification for Construction, torch applied sheet membranes are the only acceptable waterproofing barrier systems.

Drawbacks to these types of membranes include limited placement conditions such as temperature and moisture constraints, some installation difficulties, and possible shoving of the hot mix asphalt overlay in some high-sloped applications.

The purpose of this study is to examine and evaluate the impacts of the constructability, overall performance, and life cycle cost of a spray applied methyl-methacrylate membrane waterproofing system produced by Sterling Lloyd called Eliminator. Reportedly, this product system may alleviate many of the drawbacks described above with respect to ease of application along with increased waterproofing capabilities. Another important aspect of this membrane system is the possible addition of a broadcast aggregate to the surface of the membrane to help prevent the bituminous concrete layer from shoving during application on highly sloped surfaces, as is the case with the subject bridges. The objective of this project is to assess the product's performance in two bridge deck applications. A comparative analysis will be made, with regards to performance, its increased installation cost, and on-site ease of construction of the experimental products versus standard approved torch applied sheet membranes.

Another outcome of this product evaluation project will be the addition of the product to the Agency's Approved Products List for waterproofing bridge membranes, provided satisfactory results.

#### LOCATIONS:

The Eliminator system will be used on three bridge rehabilitation projects, St. Johnsbury IM MEMB(27), Bridge 86, St. Johnsbury BHF MEMB(28), Bridge 1, and Alburgh BHF MEMB(24), Bridge 1. A third bridge, St. Johnsbury IM MEMB(27) Bridge 89, will receive a standard torch applied membrane and be monitored identically to the two experimental bridges. A brief description of the three bridges is as follows:

##### St. Johnsbury IM MEMB(27), Bridge 86

This project consists of membrane replacement on five bridge structures. Bridge number 86 along VT Route 2B over I-91 in the town of St. Johnsbury will be the only bridge in this project to receive the Eliminator membrane; the other four will receive conventional torch applied sheet membranes. Bridge 86 is located at mile marker 130.08 of I-91. The bridge is 588 feet long by 35 wide, with a reported average annual daily traffic (AADT) of 670. The deck was cast in 1975. The maximum grade of the bridge is approximately 6.5%. As of the 2010 bridge inspection summary, "the pavement overlay is in need of full replacement." According to the project description, this project involves removing and replacing the bituminous concrete wearing surface on the bridge and its approaches, removing and replacing the membrane on the bridge deck, and minor associated approach work.

##### St. Johnsbury BHM MEMB(28), Bridge 1

Bridge number 1 along VT Route 973 over the Connecticut River, a railroad, and TH 27 in the town of St. Johnsbury will receive the Eliminator membranes. Bridge 1 is located approximately 0.1 miles west of the junction with US 5. The bridge is 391 feet long by 45 wide, with a reported average annual daily traffic (AADT) of 3,000. The deck was cast in 1986.

##### Alburgh BHF MEMB(24), Bridge 1

~~This project consists of membrane replacement on one bridge, bridge number 1 along US Route 2 over Lake Champlain in the town of Alburgh. Bridge 1 is located beginning at mile marker 0.3 westerly of the NY-VT state line and extends easterly 0.8 miles. The bridge is 4052 feet long by 39.5 wide, with a reported AADT of 4,900. The deck was cast in 1987. The maximum grade of the bridge is approximately 4.5%. As of the 2009 bridge inspection summary, "the overall condition of this bridge is good except for several long longitudinal pavement cracks along the deck surface and slow continued break down of the multi-I bar expansion joints throughout." According to the project description, this project involves removing and replacing the membrane waterproofing and bituminous concrete pavement on the bridge and its VT approach, and removing and replacing the bridge expansion joints along with minor related work.~~

Hancock ER BRF 0174(16), Bridge 23

This project consists of the construction of a new bridge to replace the existing Bridge 23, which was destroyed by Tropical Storm Irene. Bridge 23 carries VT 125 over the Hancock Branch and is located approximately 2.2 miles west of the intersection of VT 125 and VT 100. The reported AADT is 1,200. The proposed structure is 72.66 feet long and 35 wide rail-to-rail with a maximum grade of 2.6%. The superstructure will be comprised of four (4) adjacent precast NEXT 28D Beams with 3 inches of bituminous concrete pavement.

St. Johnsbury IM MEMB(27), Bridge 89

This project consists of membrane replacement on five bridge structures. Bridge number 89 along TH 4 (Pleasant St.) in the town of St. Johnsbury will receive a standard Vermont approved torch applied sheet membrane and will be monitored as part of this research project identically to the two experimental bridges listed above and will act as the control. Bridge 89 is located at mile marker 131.42 of I-91. The bridge is 228 feet long by 29.5 wide, with a reported AADT of 120. The deck was cast in 1975. The maximum grade of the bridge is approximately 4%. As of the most recent bridge inspection summaries, "Both approaches are in need of full shim pavement (2010). Pavement is heaving along the east side (2008)." According to the project description, this project involves removing and replacing the bituminous concrete wearing surface on the bridge and its approaches, removing and replacing the membrane on the bridge deck, and minor associated approach work.

MATERIAL:

Eliminator produced by Stirling Lloyd will be applied to two bridge decks specified above. According to product literature (3), the complete system consists of: the primer, used to penetrate and seal the substrate enhancing the system's bond to the deck; the membrane, a methyl-methacrylate resin membrane that provides 100% effective waterproofing; and the tack coat, which helps enhance the bond between the membrane and the subsequent surfacing.

There are several reported benefits of this cold spray applied system. Of utmost importance to Vermont, for these specific bridges, is the system's ability to add a layer of

broadcast aggregate, called Traprock #8 by Stirling Lloyd, to the top of the membrane in order to help reduce the risk of shoving of the bituminous concrete during application. This will be highly important on the two subject bridges, as their maximum grades are approximately 4-7%.

Another major benefit to Vermont is the product's ability to be applied in a wide range of temperatures and weather conditions; the recommended temperature range for application is between 14°F and 120°F. Due to its formulation, Eliminator cures very rapidly, even in sub freezing temperatures. When applied to dry surfaces, even in the middle of winter, the membrane reportedly can be ready for surfacing after only one hour. Once applied it is unaffected by any form of moisture. In addition to weather conditions, it is claimed that the membrane has unsurpassed cohesive strength as well as its adhesive bond strength to the deck and the surfacing. The system is fully compliant with USA Volatile Organic Compound regulations.

Stirling Lloyd has developed a "Standard Specification for Two Coat Spray Applied Waterproofing for Concrete Bridge Decks with Temporary Vehicular Traffic Before Asphalt Concrete Wearing Surface", referencing specifically the Eliminator system. This complete specification, detailing installation and materials data including specific ASTM testing properties, can be found in the appendix.

**COST:**

According to Stirling Lloyd, the estimated installed cost (material and labor) for the Eliminator system will be no more than \$7.00 per square meter (\$5.85 per square yard). A breakdown of each bridge and the projected total cost is as follows. All costs will be paid for as part of the construction project.

Town	Quantity (yd <sup>3</sup> )	Cost
St. Johnsbury #86	2,308	\$13,502
St. Johnsbury #1	1,955	\$11,437
Alburgh	17,810	\$104,189
	<b>Total:</b>	<b>\$129,128</b>
Hancock #23	255	1,785
	<b>Total:</b>	<b>26,724</b>

**SURVEILLANCE AND TESTING:**

The experimental waterproofing membrane system will be monitored during placement in accordance with the Agency's "Standard Specifications for Construction" as well as the manufacturer's specifications. The evaluation may includes the following::

1. A preconstruction site visit will be conducted to characterize the preconstruction condition of the bridge decks, especially with respect to deteriorated bituminous concrete areas. These areas will be documented and assessed following the

removal of the existing bituminous concrete overlay and membrane. All observations will be recorded along with photo documentation.

2. Physical testing may be performed on a subset of the structures prior to membrane installation, but after bituminous concrete and the previous membrane is milled off and any concrete repair work, including chain drag and chloride content sampling. Chain drag (sound) testing will be performed to map out areas of the concrete deck that are potentially delaminated, utilizing ASTM D4580, "Standard Practice for Measuring Delaminations in Concrete Bridge Decks by Sounding"
  - (4). Random samples of concrete will be extracted in order to test them for chloride content to compare to past and future (possible) potholing and other bituminous concrete overlay deficiencies, in accordance with AASHTO T-260, "Sampling and Testing for Chloride Ion in Concrete and Concrete Raw Materials"
  - (5). Research will coordinate directly with the Resident Engineer and Prime Contractor on this work. As part of the construction contract, Research personnel will require access to the underlying concrete deck prior to membrane placement for a maximum of two days on each bridge structure. Construction may remain active in areas where Research personnel are not conducting tests. For the Hancock bridge, two test cylinders will be required during concrete production to allow for the above described chloride testing.
3. Installation will be monitored onsite for at least a portion of the process. Contact will be made with the product representative(s) and the Resident Engineer to document all observations and/or concerns following application. Written and photographic documentation will be taken. The total quantity of product used for this structure will be documented along with material and labor costs. Details such as ambient conditions during placement, mixing and application procedures, and mapping out areas of concrete that are repaired as part of the projects will be recorded.
4. Site inspections will be completed at least biannually after the installation to monitor the condition of the deck overlays. Observations about the general performance and appearance of this test area will be recorded, along with comments detailing the differences and similarities between these and conventional Vermont membranes including a cost comparison. Distresses in the bituminous concrete such as potholing and cracking will be identified, along with PCC distresses including moisture presence on the underside of the deck. If distresses are identified, follow up testing may be performed, including coring to identify possible deficiencies in the membrane, chloride testing as noted above to determine any increase over preconstruction values, and pull tests to identify adhesion levels of the membrane to the concrete deck, utilizing ASTM D4541 "Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers" (6). Should such testing occur, all layers would be repaired in an appropriate manner.
5. Cost effectiveness will be determined based upon reported increased material and installation costs versus potential long term effectiveness and increased service

life. A complete cost comparison will be performed between the spray applied Eliminator system and typical Agency procedures involving torch applied sheet membranes.

**STUDY DURATION:**

The project will be under evaluation for the length of time required to obtain valid conclusions on the performance and effectiveness of the Eliminator waterproofing system, but not less than three years.

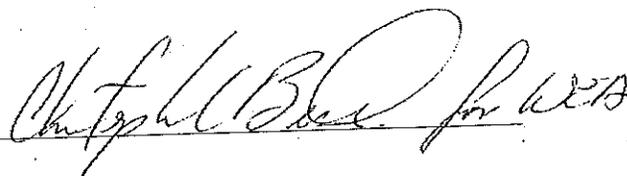
**PROJECT SCHEDULE:**

It is anticipated the St. Johnsbury projects will be advertised for construction in Fall 2011. Construction is anticipated to begin in 2012, while the Hancock project will be constructed in 2013.

**REPORTS:**

An initial report will be prepared after installation is complete. A final report will be published once the evaluation is complete, between three to eight years of service life as deemed appropriate, to adequately evaluate the system's performance.

Reviewed by:

 for WEA

William Ahearn, P.E.

Materials and Research Engineer

Date: 8.9.12

## REFERENCES

1. Lewis, D.A. (1962) Some aspects of the corrosion of steel in concrete. In Proceedings 1<sup>st</sup> International Congress on Metallic Corrosion, London, England, p. 547-555.
2. Clear, K.C. (1974) Time to corrosion of reinforcing steel in concrete slabs. Transportation Research Board, National Research Council, Washington D.C., Transportation Research Record 500, p. 16-24.
3. "Bridge Deck Waterproofing Eliminator, Years Ahead", Stirling Lloyd product advertisement, [www.stirlinglloyd.com](http://www.stirlinglloyd.com).
4. ASTM D4580, "Standard Practice for Measuring Delaminations in Concrete Bridge Decks by Sounding", ASTM International, West Conshohocken, PA. [www.astm.org](http://www.astm.org)
5. AASHTO T-260, "Sampling and Testing for Chloride Ion in Concrete and Concrete Raw Materials." *Standard Specifications for Transportation Materials and Methods of Sampling and Testing*, 27<sup>th</sup> Edition 2007.
6. ASTM D4541 "Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers", ASTM International, West Conshohocken, PA, [www.astm.org](http://www.astm.org).

## APPENDIX

Standard Specification for

### TWO COAT SPRAY APPLIED WATERPROOFING FOR CONCRETE BRIDGE DECKS WITH TEMPORARY VEHICULAR TRAFFIC BEFORE ASPHALT CONCRETE WEARING SURFACE

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#### PART 1: GENERAL

##### 1.01 DESCRIPTION

- A. This section specifies the furnishing and installation of a methyl-methacrylate, cold spray applied seamless, elastomeric waterproofing system.
- B. A 130 mils (3.25 mm) two coat, methyl-methacrylate, cold liquid spray applied, seamless elastomeric waterproofing membrane. The System includes an MMA primer/sealer/healer capable of penetrating and sealing existing cracks and a tack coat. The System shall be Stirling Lloyd, Eliminator Membrane System, Newington CT (860) 666-5008.
- C. The entire system shall be measured, mixed and applied by an Applicator certified by the manufacturer. A certified manufacturer's representative shall be present at all times during the installation of the membrane.

##### 1.02 SUBMITTALS

- A.
  - 1. Latest edition of Manufacturer's literature including Performance data and installation procedures.
  - 2. Manufacturer List of 5 successful bridge projects with temporary vehicular trafficking before paving and completed within the past 10 years in the Northeast.
- B. Samples
  - 1. A 3 inch square sample of the proposed membrane. Color, texture and thickness shall be representative of overall appearance.

##### 1.03 JOB CONDITIONS

- A. Environmental Requirements

1. Application can proceed while air and substrate temperatures are between 14° F (0° C) and 120° F (40° C) providing the substrate is above the dew point. Outside of this range, the manufacturer shall be consulted.
2. The Applicator shall be provided with adequate disposal facilities for non-hazardous waste generated during installation of the System.

B. Safety Requirements

1. All open flames and spark-producing equipment shall be removed from the work area prior to commencement of application.
2. "No Smoking" signs shall be posted at the entrances to the work.
3. Non-product and/or -application-related personnel in the work area shall be kept to a minimum.

1.04 SEQUENCING AND SCHEDULING

- A. The Applicator, General Contractor and the Engineer shall agree upon a Schedule for coordination between trades working in the area to receive the System.

1.05 DELIVERY, STORAGE AND HANDLING

A. Packaging and Shipping

1. All components of the System shall be delivered to the site in the Manufacturer's packaging, clearly identified with the products type and batch number.

B. Storage and Protection

1. The Applicator shall be provided with a storage area for all components. The area shall be cool, dry and out of direct sunlight and in accordance with the Manufacturer's recommendations and relevant health and safety regulations.
2. Copies of Material Safety Data Sheets (MSDS) for all components shall be kept on site for review by the Engineer or other personnel.

**PART 2: PRODUCTS**

2.01 MATERIALS

A. Primer

1. The MMA primer/healer sealer shall be 100% solvent-free reactive methyl-methacrylate based, two-component resin capable of a full cure in 40 minutes at 68° F (20° C).

B. Membrane

1. The membrane shall be 100% solvent-free reactive, methyl-methacrylate, two component, spray-applied material.
2. The membrane shall meet or exceed the following properties as related to laboratory-prepared samples tested at 68° F (20° C) and 24-hour cure where applicable:

PROPERTY	TEST METHOD	UNITS
Gel Time		6-11 minutes
Cure Time		30 minutes
Water Vapor Transmission	ASTM E96-00, Method A	1.048 g/m <sup>2</sup> /day
Adhesion to Concrete	ASTM D4541	100 psi (0.7 MPa) with failure in concrete
Tensile Strength	ASTM D638-91 Die C - Typical - Heat Ageing @ 160°F (4 weeks)	1,700 psi (11.8 MPa) 0% change
Elongation at Break	ASTM D638-91 Die C - Typical - Heat Ageing @ 160°F (4 weeks)	130% at break 0% change
Low Temperature mm) Flexibility 25°C)	CAN CGSB 37.50 M89	Pass 1/4 inch (6.5 Mandrel at -13°F (-
Dynamic Crack Bridging	ASTM C836-00	Pass @ 10 cycles, 1/8 inch (3.2 mm) -15°F (-26°

C. Tack Coat

1. A polymer modified bitumen hot melt adhesive bond tack coat shall be provided by the waterproofing membrane manufacturer and be fully compatible with the MMA liquid membrane.

## PART 3: EXECUTION

### 3.01 INSPECTION

- A. Prior to priming of the surface, the Engineer, General Contractor and Applicator shall inspect and approve the prepared substrate.
1. Random tests for adequate tensile bond strength shall be conducted on the substrate by the Applicator at the job site using an approved adhesion tester suitable with 2" dollies. A minimum of three tests per 5,000 ft<sup>2</sup> (500 m<sup>2</sup>) shall be conducted. Smaller areas shall receive a minimum of three tests.
  2. Adequate surface preparation will be indicated by tensile bond strengths of primer to the substrate greater than or equal to 0.7 MPa (100 psi).
  3. Should the tensile bond strengths be lower than the minimum specified, the Engineer may request additional substrate preparation.
  4. Joints shall be treated in accordance with the Manufacturer's recommendations as approved or directed by the Engineer.

### 3.02 PREPARATION

A. Protection

1. The Applicator shall be responsible for the protection of equipment and adjacent areas from overspray or other contamination.

B. Surface Preparation

1. Surfaces shall be free of any oil, grease, curing compounds, laitance, loose particles and friable matter, moss and algal growth, dirt, bituminous products, and previous waterproofing materials. If required, degreasing shall be performed via detergent washing in accordance with ASTM D4258.
2. There shall be no visible moisture present on the surface at the time of the application of the System. Compressed oil-free air and/or a light passing of a propane torch may be used to dry the substrate.

3. Removal of contaminants and surface preparation shall be performed by means approved by the Engineer to an agreed standard.
5. The surface shall be abrasively cleaned, in accordance with ASTM D4259, to provide a substrate free from laitance.
6. The substrate shall be sounded and all spalls repaired prior to placement of the primer coat. Spalls shall be repaired with rapid-cure concrete patch materials as per the Engineer's and manufacturer's recommendations.
7. Voids and blowholes on vertical surfaces shall be repaired in the same manner.
8. The surface profile of the concrete is not to exceed 1/4 inch (6 mm) peak-to-valley, and areas of minor surface deterioration of 1/2 inch (13 mm) and greater shall also be repaired to prevent excessive product usage. The extent and location of thin surface patches shall require the approval of the Engineer before the System is applied.
9. The Methyl-Methacrylate Primer/Sealer Healer will penetrate into existing cracks in the concrete substrate. Any static cracks over 1/8" should be prepared and treated with an initial gravity fed coat of the Methyl-Methacrylate Primer prior to the Methyl-Methacrylate primer application in accordance with manufacturer guidelines.

C. Related Material

1. The Manufacturer shall be consulted to determine feasibility of application and recommended preparation.

### 3.03 APPLICATION

A. The System shall be applied in four distinct steps as listed below:

1. Substrate preparation
2. Priming
3. Reinforcing Stripe Coat (if necessary)
4. Membrane application with broadcast aggregate
5. Tack coat application

- B. Immediately prior to the application of any components of the System the surface shall be dry and any remaining dust or loose particles shall be removed using clean, dry oil free compressed air or industrial vacuum.

- C. Where the area to be treated is bound by a vertical surface (e.g. curb or wall), the System may be continued up the vertical as necessary.
- D. The handling, mixing and addition of components shall be performed in a safe manner to achieve the desired results in accordance with the Manufacturer's recommendations or as approved or directed by the Engineer.
- E. A neat finish with well-defined boundaries and straight edges shall be provided by the Applicator.
- F. Primer
1. The MMA primer/sealer/healer shall consist of one coat with an overall coverage rate of approximately 125ft<sup>2</sup>/gal (3.0 m<sup>2</sup>/lt).
  2. All components shall be measured and mixed in accordance with the Manufacturer's recommendations.
  3. The primer shall be applied using a roller or by a single component spray system approved for use by the Manufacturer. If required by site conditions, brush application shall be allowed.
  4. Porous concrete may require a second coat of primer should the first coat be absorbed, so that there is a gloss surface.
- G. Reinforcing Stripe Coat (If necessary)
1. A stripe coat of the MMA membrane with polyester reinforcing mesh shall be applied over any potential dynamic cracks with movement exceeding 1/8" or where recommended by the engineer or manufacturer prior to the general application of the spray membrane. Once the MMA primer has cured, apply a 7 inch wide stripe coat of the Membrane at a minimum thickness of 1mm over the specified areas. Before the membrane starts to gel, roll the pre-cut MMA Reinforcing Scrim using a roller into the membrane stripe coat and ensure the scrim is totally coated and any trapped air is removed, then apply a 2<sup>nd</sup> coat of membrane at a thickness minimum of 1mm over the 1<sup>st</sup> coat.
- H. Membrane
1. The waterproofing membrane shall consist of two color-coded coats, the first with a wet film thickness of 80 mils and the second with a contrasting color of the membrane for quality control with a wet film thickness of 50 mils. This will give an overall coverage rate of 12.3 ft<sup>2</sup>/gal.

2. The membrane shall be comprised of two liquid components, A and B, and a hardener powder, which is to be added to Component B in accordance with the Manufacturer's recommendations.
3. The substrate shall be coated in a methodical manner. Checks for wet film thickness shall be carried out typically once every 100 ft<sup>2</sup> (9 m<sup>2</sup>).

I. Aggregate Broadcast

1. Immediately upon application of the second coat of the waterproofing membrane and while it is still wet, the coarse, dust-free and dry basalt aggregate is to be broadcasted into the wet material at a minimum of 90%-100% coverage of approximately 1.00 lb/ft<sup>2</sup> to give an even coverage.
2. Following full cure of the second coat with the aggregate broadcast, the surface shall be vacuumed and/or blown clean so as to remove all loose aggregate before the application of the Tack Coat.

J. Tack Coat

1. The membrane to be coated shall be clean and free from loose debris, moisture or other contaminants. Oil, diesel or grease shall be removed with solvent approved by the Manufacturer.
2. The Tack Coat shall be applied as per the manufacturer's recommendations, and all guidance regarding surfacing must be followed.

K. Repairs

1. If an area is left untreated or the membrane becomes damaged, a patch repair shall be carried out to restore the integrity of the System. The damaged area shall be cut back to sound materials and wiped with solvent (e.g. acetone) up to a width of at least 2 inch (50 mm) on the periphery, removing any contaminants. The substrate shall be primed as necessary, followed by the application of the membrane. A continuous layer shall be obtained over the substrate with a 2 inch (50 mm) overlap onto existing membrane.
2. Where the membrane is to be joined to existing cured material and at day joints, the new application shall overlap the existing one by at least 50 mm (2 inches). No preparation shall be necessary unless the

existing materials are contaminated with tack coat or dirt in which case the repair/overlap shall first be wiped with solvent (e.g. acetone).

### 3.04 FIELD QUALITY CONTROL

- A. The following tests shall be conducted by the Applicator or Manufacturer's representative and recorded on a form to be submitted to the Engineer.
1. Temperature: Air, substrate temperatures and dew point. Dew point shall be calculated from temperature and humidity using standard tables.
  2. Adhesion Tests: Adhesion tests of the cured membrane to the substrate shall be checked as per Clause 3.01 A.
  3. Membrane Thickness: wet film thickness shall be checked consistently using a gauge pin standard comb-type thickness gauge.
  4. Coverage Rates: Rates for all layers shall be monitored by checking quantity of material used against the area covered. All areas shall be clearly marked prior to the application of each material placed to verify quantities used against square footage.
  5. All drums and pails of materials shall be consecutively numbered to help verify usage rates during application.

### 3.05 FINAL REVIEW

- A. The Engineer, General Contractor and Applicator shall jointly review the deck area(s) to which the completed System has been installed. Any irregularities or other items that do not meet the requirements of the Engineer shall be addressed at this time.

## PART 4: MEASUREMENT AND PAYMENT

- A. Membrane waterproofing as specified herein will be measured by the square foot complete-in-place, including all surface preparation and testing, for furnishing and applying the System, and quality control tests as detailed within.
- B. For surface preparation not meeting the requirements of Clause 3.02 B, additional work specified, or remedial repairs to the membrane damaged by other contractors, payment shall be made on a time and material basis.

The information contained in this specification is accurate to the best of the publisher's knowledge. We pursue a progressive research and development policy and reserve the right to alter any of the details herein without notice. Stirling Lloyd Products Inc. will not accept any liability whatsoever arising out of the use of the information contained herein. This specification does not form part of the "Conditions of Sale" of our products.

**Stirling Lloyd Products, Inc.**

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Website: [www.stirlinglloyd.com](http://www.stirlinglloyd.com)

**CERTIFICATION FOR FEDERAL-AID CONTRACTS**

The prospective bidder, by signing and submitting this bid proposal, certifies, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person or 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.
- (2) 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.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered to. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. 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.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such sub-recipients shall certify and disclose accordingly.

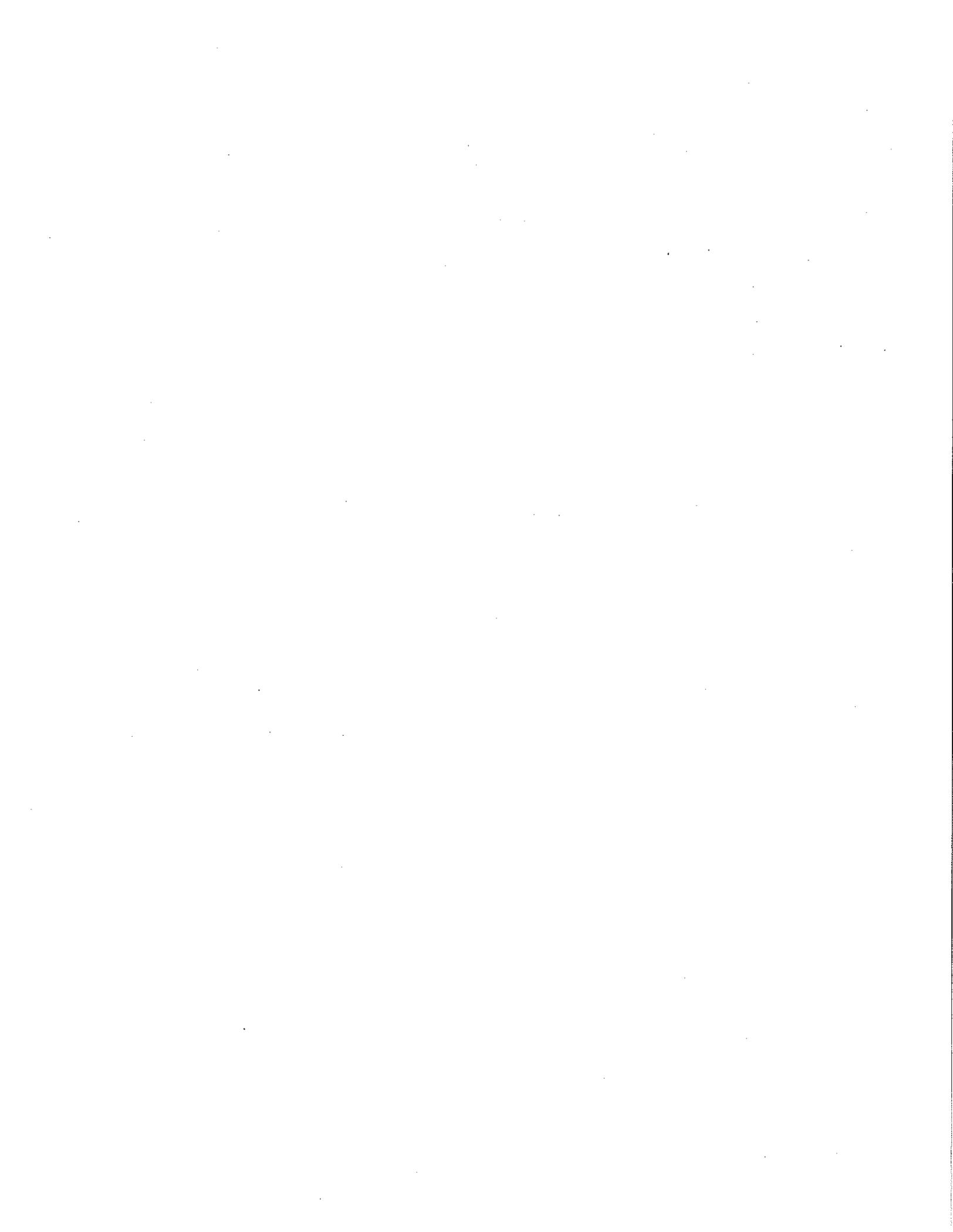


VERMONT AGENCY OF TRANSPORTATION  
SCHEDULE OF ITEMS

LETTING DATE : 09/14/12 11:00 A.M.

CONTRACT ID : 11CZ10  
PROJECT(S) : HANCOCK ER BRF 0174(16)

ITEM NO.	LINE NO.	DESCRIPTION	QUANTITY	UNITS
SECTION NO. 0001				
201.10	0005	CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS	1.000	LUMP
201.16	0010	REMOVING LARGE TREES	4.000	EACH
203.15	0015	COMMON EXCAVATION	2,525.000	CY
203.27	0020	UNCLASSIFIED CHANNEL EXCAVATION	730.000	CY
204.22	0025	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	1.000	CY
204.25	0030	STRUCTURE EXCAVATION	250.000	CY
204.30	0035	GRANULAR BACKFILL FOR STRUCTURES	190.000	CY
210.10	0040	COLD PLANING, BITUMINOUS PAVEMENT	500.000	SY
401.10	0045	AGGREGATE SURFACE COURSE	70.000	CY
402.10	0050	AGGREGATE SHOULDERS, IN PLACE	35.000	CY
404.65	0055	EMULSIFIED ASPHALT	0.250	CWT
406.50	0060	PRICE ADJUSTMENT, ASPHALT CEMENT (N.A.B.I.)	1.000	LU
504.10	0065	FURNISHING EQUIPMENT FOR DRIVING PILING	1.000	LUMP
505.16	0070	STEEL PILING, HP 12 X 74	360.000	LF
505.45	0075	DYNAMIC PILE LOADING TEST	2.000	EACH
507.12	0080	REINFORCING STEEL, LEVEL II	2,100.000	LB
510.24	0085	GROUTING SHEAR KEYS	216.000	LF
514.10	0090	WATER REPELLENT, SILANE	15.000	GAL
516.10	0095	BRIDGE EXPANSION JOINT, ASPHALTIC PLUG	60.000	LF
525.335	0100	BRIDGE RAILING, GALVANIZED 3 RAIL BOX BEAM	153.340	LF
527.10	0105	MAINTENANCE OF STRUCTURES AND APPROACHES	1.000	LUMP
528.11	0110	TWO-WAY TEMPORARY BRIDGE (1870 SF - EST.)	1.000	LUMP
529.15	0115	REMOVAL OF STRUCTURE (1400 SF - EST.)	1.000	EACH
531.16	0120	BEARING DEVICE ASSEMBLY, PLAIN ELASTOMERIC PAD	16.000	EACH
540.10	0125	PRECAST CONCRETE STRUCTURE (ABUTMENT #1)	1.000	LUMP
540.10	0130	PRECAST CONCRETE STRUCTURE (ABUTMENT #2)	1.000	LUMP
540.10	0135	PRECAST CONCRETE STRUCTURE (APPROACH SLAB #1)	1.000	LUMP
540.10	0140	PRECAST CONCRETE STRUCTURE (APPROACH SLAB #2)	1.000	LUMP
601.995	0145	CLEANING CULV. PIPE, IN-PLACE [0 TO 24 IN., INCL.]	60.000	LF
604.418	0150	REHAB. DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS III	1.000	EACH
609.10	0155	DUST CONTROL WITH WATER	1.000	MGAL
613.13	0160	STONE FILL, TYPE IV	520.000	CY
621.30	0165	BOX BEAM GUARDRAIL	97.580	LF
621.51	0170	MANUFACTURED TERMINAL SECTION, TANGENT	3.000	EACH
621.725	0175	GUARDRAIL APPROACH SECTION, GALVANIZED 3 RAIL BOX BEAM	4.000	EACH
630.15	0180	FLAGGERS	500.000	HR
631.10	0185	FIELD OFFICE, ENGINEERS	1.000	LUMP
631.16	0190	TESTING EQUIPMENT, CONCRETE	1.000	LUMP
631.17	0195	TESTING EQUIPMENT, BITUMINOUS	1.000	LUMP
631.26	0200	FIELD OFFICE TELEPHONE (N.A.B.I.)	1.000	DL
635.11	0205	MOBILIZATION/DEMOBILIZATION	3,000.000	LUMP
646.20	0210	4 INCH WHITE LINE	1.000	LF
646.21	0215	4 INCH YELLOW LINE	820.000	LF
649.31	0220	GEOTEXTILE UNDER STONE FILL	770.000	LF
			400.000	SY



VERMONT AGENCY OF TRANSPORTATION  
SCHEDULE OF ITEMS

LETTING DATE : 09/14/12 11:00 A.M.

CONTRACT ID : 11C210  
PROJECT(S) : HANCOCK ER BRF 0174(16)

ITEM NO.	LINE NO.	DESCRIPTION	QUANTITY	UNITS
SECTION NO. 0001				
649.51	0225	GEOTEXTILE FOR SILT FENCE	200.000	SY
649.515	0230	GEOTEXTILE FOR SILT FENCE, WOVEN WIRE REINFORCED	200.000	SY
649.61	0235	GEOTEXTILE FOR FILTER CURTAIN	110.000	SY
651.15	0240	SEED	50.000	LB
651.18	0245	FERTILIZER	300.000	LB
651.20	0250	AGRICULTURAL LIMESTONE	1.000	TON
651.25	0255	HAY MULCH	1.000	TON
651.35	0260	TOPSOIL	390.000	CY
651.40	0265	GRUBBING MATERIAL	140.000	SY
652.10	0270	EPSC PLAN	1.000	LUMP
652.20	0275	MONITORING EPSC PLAN	48.000	HR
652.30	0280	MAINTENANCE OF EPSC PLAN (N.A.B.I.)	1.000	LU
653.20	0285	TEMPORARY EROSION MATTING	150.000	SY
653.35	0290	VEHICLE TRACKING PAD	60.000	CY
653.50	0295	BARRIER FENCE	950.000	LF
675.20	0300	TRAFFIC SIGNS, TYPE A	0.660	SF
675.341	0305	SQUARE TUBE SIGN POST AND ANCHOR	16.000	LF
900.608	0310	SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET)(FPQ)	40.000	CY
900.640	0315	SPECIAL PROVISION (OBSTRUCTION REMOVAL FOR DRIVING PILES)	80.000	LF
900.640	0320	SPECIAL PROVISION (PRESTRESSED CONCRETE NEXT D BEAMS)(NEXT 28 D)	284.000	LF
900.645	0325	SPECIAL PROVISION (REMOVAL OF TEMPORARY BRIDGE AND APPROACHES)	1.000	LUMP
900.645	0330	SPECIAL PROVISION (TRAFFIC CONTROL, ALL-INCLUSIVE)	1.000	LUMP
900.650	0335	SPECIAL PROVISION (MAT DENSITY PAY ADJUSTMENT, SMALL QUANTITY)(N.A.B.I.)	1.000	LU
900.650	0340	SPECIAL PROVISION (MIXTURE PAY ADJUSTMENT)(N.A.B.I.)	1.000	LU
900.675	0345	SPECIAL PROVISION (MEMBRANE WATERPROOFING, SPRAY APPLIED)	255.330	SY
900.680	0350	SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY)	380.000	TON
301.15 AA1	0355	SUBBASE OF GRAVEL	660.000	CY
301.25 AA2	0360	SUBBASE OF CRUSHED GRAVEL, COARSE GRADED	660.000	CY
301.35 AA3	0365	SUBBASE OF DENSE GRADED CRUSHED STONE	660.000	CY



**CONTRACTOR'S EEO CERTIFICATION FORM**

Certification with regard to the Performance of Previous Contracts of Subcontracts subject to the Equal Opportunity Clause and the filing of Required Reports.

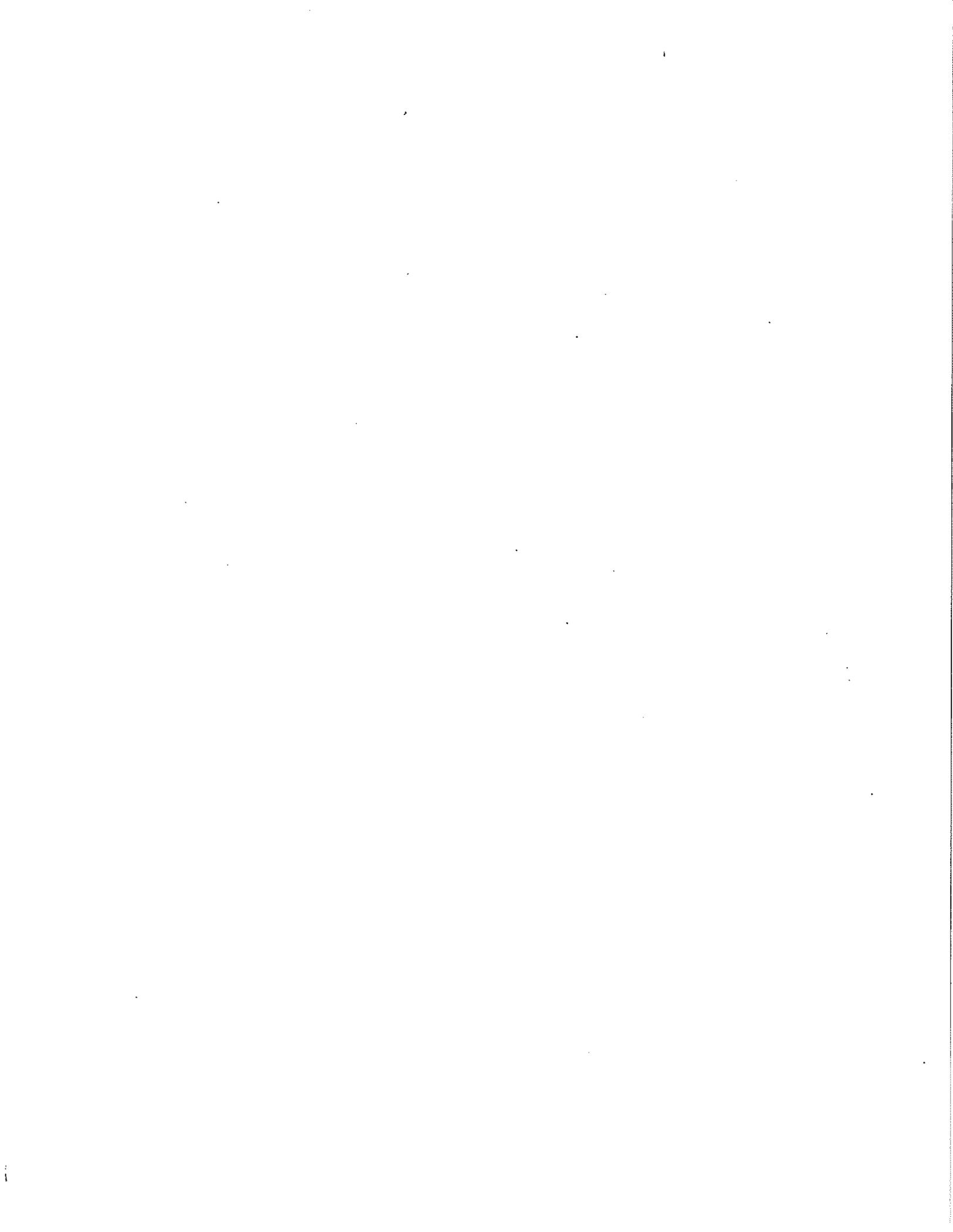
The bidder \_\_\_\_\_, proposed subcontractor \_\_\_\_\_, hereby certifies that he/she has \_\_\_\_\_, has not \_\_\_\_\_, participated in a previous contract or subcontract subject to the equal opportunity clause, as required by Executive Orders 10925, 11114, or 11246 as amended, and that he/she has \_\_\_\_\_, has not \_\_\_\_\_, filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency, or the President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements.

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Company	By	Title
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NOTE: The above certification is required by the Equal Employment Opportunity regulations of the Secretary of Labor (41 CFR 60-1.7(b) (1)), and must be submitted by bidders and proposed subcontractors only in connection with contracts and subcontracts which are subject to the equal opportunity clause. Contracts and subcontracts which are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5 (Generally only contracts or subcontracts of \$10,000 or under are exempt.) Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders or their implementing regulations.

Proposed prime contractors and subcontractors who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports should note that 41 CFR 60-1.7 (b) (1) prevents the award of contracts and subcontracts unless such contractor submits a report covering the delinquent period or such other period specified by the Federal Highway Administration, or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.



STATE OF VERMONT  
AGENCY OF TRANSPORTATION  
DEBARMENT AND NON-COLLUSION AFFIDAVIT

I, \_\_\_\_\_, representing  
(Official Authorized to Sign Contracts)

\_\_\_\_\_ of \_\_\_\_\_  
(Individual, Partnership or Corporation) (City or State)

being duly sworn, depose and certify under the penalties of perjury under the laws of the State of Vermont and the United States that on behalf of the person, firm, association, or corporation submitting the bid certifying that such person, firm, association, or corporation has 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 the submitted bid for the Vermont project:

\_\_\_\_\_ (Project Name)

\_\_\_\_\_ project located on \_\_\_\_\_  
(Project Number) (Route or Highway)

bids opened at \_\_\_\_\_  
(Town or City)

Vermont on \_\_\_\_\_, 20\_\_\_\_.  
(Date)

I further depose and certify under the penalties of perjury under the laws of the State of Vermont and the United States that except as noted below said individual, partnership or corporation or any person associated therewith in any capacity is not currently, and has not been within the past three (3) years, suspended, debarred, voluntarily excluded or determined ineligible by any Federal or State Agency; does not have a proposed suspension, debarment, voluntary exclusion or ineligibility determination pending; and has not been indicted, convicted, or had a civil judgement rendered against (it, him, her, them) by a court having jurisdiction in any matter involving fraud or official misconduct within the past three (3) years.

Exceptions: \_\_\_\_ No \_\_\_\_ Yes. (If yes complete back of this form.)

Sworn to before me this

\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

\_\_\_\_\_  
(Name of Individual, Partnership or Corporation) L.S.

\_\_\_\_\_  
(Signature of Official Authorized to Sign Contracts) L.S.

\_\_\_\_\_  
(Notary Public)

\_\_\_\_\_  
(Name of Individual Signing Affidavit) L.S.

(My commission expires \_\_\_\_\_)

\_\_\_\_\_  
(Title of Individual Signing Affidavit) L.S.

Exceptions will not necessarily result in denial of award, but will be considered in determining bidder responsibility. For any exception noted, indicate below to whom it applies, initiating agency, and dates of action. Providing false information may result in criminal prosecution or administration sanctions.

EXCEPTIONS: